

${}^1_0\text{nn} \xrightarrow[1]{10.24 \text{ m}} {}^1_1\text{H}$	${}^3_1\text{H} \xrightarrow[2]{12.33 \text{ y}} {}^3_2\text{He}$	${}^4_1\text{H} \xrightarrow[3]{13.9 \text{ ys}} {}^3_1\text{H}$	${}^5_1\text{H} \xrightarrow[1]{91 \text{ ys}} {}^3_1\text{H}$	${}^6_1\text{H} \xrightarrow[1]{29 \text{ ys}} 50\% {}^5_1\text{H}$
${}^6_1\text{H} \xrightarrow[1]{29 \text{ ys}} 50\% {}^3_1\text{H}$	${}^7_1\text{H} \xrightarrow[1]{2.3 \text{ ys}} {}^5_1\text{H}$	${}^5_2\text{He} \xrightarrow[4]{70 \text{ ys}} {}^4_2\text{He}$	${}^6_2\text{He} \xrightarrow[3]{808.1 \text{ ms}} {}^6_3\text{Li}$	${}^7_2\text{He} \xrightarrow[2]{2.9 \text{ zs}} {}^6_2\text{He}$
${}^8_2\text{He} \xrightarrow[3]{122 \text{ ms}} 88\% {}^8_3\text{Li}$	${}^8_2\text{He} \xrightarrow[3]{122 \text{ ms}} 12\% {}^7_3\text{Li}$	${}^9_2\text{He} \xrightarrow[2]{7 \text{ zs}} {}^8_2\text{He}$	${}^{10}_2\text{He} \xrightarrow[2]{2.7 \text{ zs}} {}^8_2\text{He}$	${}^4_3\text{Li} \xrightarrow[2]{9.1 \text{ ys}} {}^3_2\text{He}$
${}^5_3\text{Li} \xrightarrow[2]{37 \text{ ys}} {}^4_2\text{He}$	${}^8_3\text{Li} \xrightarrow[4]{838 \text{ ms}} {}^4_2\text{He}$	${}^9_3\text{Li} \xrightarrow[4]{178.3 \text{ ms}} 50.5\% {}^9_4\text{Be}$	${}^9_3\text{Li} \xrightarrow[4]{178.3 \text{ ms}} 49.5\% {}^8_4\text{Be}$	${}^{10}_3\text{Li} \xrightarrow[9]{2 \text{ zs}} {}^9_3\text{Li}$
${}^{11}_3\text{Li} \xrightarrow[4]{8.75 \text{ ms}} 9.1\% {}^{11}_4\text{Be}$	${}^{11}_3\text{Li} \xrightarrow[4]{8.75 \text{ ms}} 84.9\% {}^{10}_4\text{Be}$	${}^{11}_3\text{Li} \xrightarrow[4]{8.75 \text{ ms}} 4.1\% {}^9_4\text{Be}$	${}^{11}_3\text{Li} \xrightarrow[4]{8.75 \text{ ms}} 1.9\% {}^8_4\text{Be}$	${}^{12}_3\text{Li} \xrightarrow[11]{10 \text{ ns}} {}^{11}_3\text{Li}$
${}^5_4\text{Be} \xrightarrow[3]{1 \text{ ns}} {}^4_3\text{Li}$	${}^6_4\text{Be} \xrightarrow[2]{5 \text{ zs}} {}^4_2\text{He}$	${}^7_4\text{Be} \xrightarrow[3]{53.22 \text{ d}} {}^3_2\text{Li}$	${}^8_4\text{Be} \xrightarrow[2]{70 \text{ as}} {}^4_2\text{He}$	${}^{10}_4\text{Be} \xrightarrow[10]{1.6 \text{ My}} {}^{10}_5\text{B}$
${}^{11}_4\text{Be} \xrightarrow[5]{13.81 \text{ s}} 97\% {}^{11}_5\text{B}$	${}^{11}_4\text{Be} \xrightarrow[3]{13.81 \text{ s}} 3\% {}^7_3\text{Li}$	${}^{12}_4\text{Be} \xrightarrow[5]{21.3 \text{ ms}} {}^{12}_5\text{B}$	${}^{13}_4\text{Be} \xrightarrow[4]{500 \text{ ps}} {}^{12}_4\text{Be}$	${}^{14}_4\text{Be} \xrightarrow[5]{4.35 \text{ ms}} < 0.1\% {}^{14}_5\text{B}$
${}^{14}_4\text{Be} \xrightarrow[5]{4.35 \text{ ms}} 98\% {}^{13}_5\text{B}$	${}^{14}_4\text{Be} \xrightarrow[5]{4.35 \text{ ms}} 1.8\% {}^{12}_5\text{B}$	${}^{14}_4\text{Be} \xrightarrow[5]{4.35 \text{ ms}} 0.2\% {}^{11}_5\text{B}$	${}^{15}_4\text{Be} \xrightarrow[4]{200 \text{ ns}} {}^{14}_4\text{Be}$	${}^{16}_4\text{Be} \xrightarrow[14]{200 \text{ ns}} {}^{14}_4\text{Be}$
${}^6_5\text{B} \xrightarrow[4]{1 \text{ ns}} {}^4_3\text{Li}$	${}^7_5\text{B} \xrightarrow[4]{35 \text{ ys}} {}^6_4\text{Be}$	${}^8_5\text{B} \xrightarrow[4]{770 \text{ ms}} {}^4_2\text{He}$	${}^9_5\text{B} \xrightarrow[4]{800 \text{ zs}} {}^8_4\text{Be}$	${}^{12}_5\text{B} \xrightarrow[6]{20.2 \text{ ms}} 98.42\% {}^{12}_6\text{C}$
${}^{12}_5\text{B} \xrightarrow[4]{20.2 \text{ ms}} 1.58\% {}^8_4\text{Be}$	${}^{13}_5\text{B} \xrightarrow[6]{17.33 \text{ ms}} 99.72\% {}^{13}_6\text{C}$	${}^{13}_5\text{B} \xrightarrow[6]{17.33 \text{ ms}} 0.276\% {}^{12}_6\text{C}$	${}^{14}_5\text{B} \xrightarrow[6]{12.5 \text{ ms}} {}^{14}_6\text{C}$	${}^{15}_5\text{B} \xrightarrow[6]{9.87 \text{ ms}} 6\% {}^{15}_6\text{C}$
${}^{15}_5\text{B} \xrightarrow[6]{9.87 \text{ ms}} 93.6\% {}^{14}_6\text{C}$	${}^{15}_5\text{B} \xrightarrow[6]{9.87 \text{ ms}} 0.4\% {}^{13}_6\text{C}$	${}^{16}_5\text{B} \xrightarrow[5]{190 \text{ ps}} {}^{15}_5\text{B}$	${}^{17}_5\text{B} \xrightarrow[6]{5.08 \text{ ms}} 22.5\% {}^{17}_6\text{C}$	${}^{17}_5\text{B} \xrightarrow[6]{5.08 \text{ ms}} 63\% {}^{16}_6\text{C}$
${}^{17}_5\text{B} \xrightarrow[6]{5.08 \text{ ms}} 11\% {}^{15}_6\text{C}$	${}^{17}_5\text{B} \xrightarrow[6]{5.08 \text{ ms}} 3.5\% {}^{14}_6\text{C}$	${}^{18}_5\text{B} \xrightarrow[5]{26 \text{ ns}} {}^{17}_5\text{B}$	${}^{19}_5\text{B} \xrightarrow[6]{2.92 \text{ ms}} 75\% {}^{18}_6\text{C}$	${}^{19}_5\text{B} \xrightarrow[6]{2.92 \text{ ms}} 25\% {}^{17}_6\text{C}$
${}^8_6\text{C} \xrightarrow[4]{2 \text{ zs}} {}^6_4\text{Be}$	${}^9_6\text{C} \xrightarrow[5]{126.5 \text{ ms}} 60\% {}^9_5\text{B}$	${}^9_6\text{C} \xrightarrow[4]{126.5 \text{ ms}} 23\% {}^8_4\text{Be}$	${}^9_6\text{C} \xrightarrow[3]{126.5 \text{ ms}} 17\% {}^5_3\text{Li}$	${}^{10}_6\text{C} \xrightarrow[5]{19.25 \text{ s}} {}^{10}_5\text{B}$
${}^{11}_6\text{C} \xrightarrow[5]{20.37 \text{ m}} {}^{11}_5\text{B}$	${}^{14}_6\text{C} \xrightarrow[7]{5.7 \text{ ky}} {}^{14}_7\text{N}$	${}^{15}_6\text{C} \xrightarrow[7]{2.449 \text{ s}} {}^{15}_7\text{N}$	${}^{16}_6\text{C} \xrightarrow[7]{747 \text{ ms}} 2.1\% {}^{16}_7\text{N}$	${}^{16}_6\text{C} \xrightarrow[7]{747 \text{ ms}} 97.9\% {}^{15}_7\text{N}$
${}^{17}_6\text{C} \xrightarrow[7]{193 \text{ ms}} 71.6\% {}^{17}_7\text{N}$	${}^{17}_6\text{C} \xrightarrow[7]{193 \text{ ms}} 28.4\% {}^{16}_7\text{N}$	${}^{18}_6\text{C} \xrightarrow[7]{92 \text{ ms}} 68.5\% {}^{18}_7\text{N}$	${}^{18}_6\text{C} \xrightarrow[7]{92 \text{ ms}} 31.5\% {}^{17}_7\text{N}$	${}^{19}_6\text{C} \xrightarrow[7]{46.2 \text{ ms}} 46\% {}^{19}_7\text{N}$
${}^{19}_6\text{C} \xrightarrow[7]{46.2 \text{ ms}} 47\% {}^{18}_7\text{N}$	${}^{19}_6\text{C} \xrightarrow[7]{46.2 \text{ ms}} 7\% {}^{17}_7\text{N}$	${}^{20}_6\text{C} \xrightarrow[7]{16 \text{ ms}} 28\% {}^{20}_7\text{N}$	${}^{20}_6\text{C} \xrightarrow[7]{16 \text{ ms}} 72\% {}^{19}_7\text{N}$	${}^{21}_6\text{C} \xrightarrow[6]{30 \text{ ns}} {}^{20}_6\text{C}$
${}^{22}_6\text{C} \xrightarrow[7]{6.2 \text{ ms}} 1\% {}^{22}_7\text{N}$	${}^{22}_6\text{C} \xrightarrow[7]{6.2 \text{ ms}} 99\% {}^{21}_7\text{N}$	${}^{10}_7\text{N} \xrightarrow[6]{20 \text{ ys}} {}^9_6\text{C}$	${}^{11}_7\text{N} \xrightarrow[6]{59 \text{ ys}} {}^{10}_6\text{C}$	${}^{12}_7\text{N} \xrightarrow[6]{11 \text{ ms}} {}^{12}_6\text{C}$
${}^{13}_7\text{N} \xrightarrow[6]{9.967 \text{ m}} {}^{13}_6\text{C}$	${}^{16}_7\text{N} \xrightarrow[8]{7.13 \text{ s}} 100\% {}^{16}_8\text{O}$	${}^{16}_7\text{N} \xrightarrow[6]{7.13 \text{ s}} < 0.1\% {}^{12}_6\text{C}$	${}^{17}_7\text{N} \xrightarrow[8]{4.17 \text{ s}} 5\% {}^{17}_8\text{O}$	${}^{17}_7\text{N} \xrightarrow[8]{4.17 \text{ s}} 95\% {}^{16}_8\text{O}$
${}^{17}_7\text{N} \xrightarrow[6]{4.17 \text{ s}} < 0.1\% {}^{13}_6\text{C}$	${}^{18}_7\text{N} \xrightarrow[8]{622 \text{ ms}} 76.9\% {}^{18}_8\text{O}$	${}^{18}_7\text{N} \xrightarrow[8]{622 \text{ ms}} 10.9\% {}^{17}_8\text{O}$	${}^{18}_7\text{N} \xrightarrow[6]{622 \text{ ms}} 12.2\% {}^{14}_6\text{C}$	${}^{19}_7\text{N} \xrightarrow[8]{271 \text{ ms}} 45.4\% {}^{19}_8\text{O}$
${}^{19}_7\text{N} \xrightarrow[8]{271 \text{ ms}} 54.6\% {}^{18}_8\text{O}$	${}^{20}_7\text{N} \xrightarrow[8]{130 \text{ ms}} 43\% {}^{20}_8\text{O}$	${}^{20}_7\text{N} \xrightarrow[8]{130 \text{ ms}} 57\% {}^{19}_8\text{O}$	${}^{21}_7\text{N} \xrightarrow[8]{87 \text{ ms}} 19\% {}^{21}_8\text{O}$	${}^{21}_7\text{N} \xrightarrow[8]{87 \text{ ms}} 81\% {}^{20}_8\text{O}$
${}^{22}_7\text{N} \xrightarrow[8]{13.9 \text{ ms}} 65\% {}^{22}_8\text{O}$	${}^{22}_7\text{N} \xrightarrow[8]{13.9 \text{ ms}} 35\% {}^{21}_8\text{O}$	${}^{23}_7\text{N} \xrightarrow[8]{14.5 \text{ ms}} 20\% {}^{23}_8\text{O}$	${}^{23}_7\text{N} \xrightarrow[8]{14.5 \text{ ms}} 80\% {}^{22}_8\text{O}$	${}^{24}_7\text{N} \xrightarrow[7]{52 \text{ ns}} {}^{23}_7\text{N}$
${}^{25}_7\text{N} \xrightarrow[7]{260 \text{ ns}} 50\% {}^{24}_7\text{N}$	${}^{25}_7\text{N} \xrightarrow[7]{260 \text{ ns}} 50\% {}^{23}_7\text{N}$	${}^{12}_8\text{O} \xrightarrow[6]{58 \text{ ys}} 60\% {}^{10}_6\text{C}$	${}^{12}_8\text{O} \xrightarrow[7]{58 \text{ ys}} 40\% {}^{12}_7\text{N}$	${}^{13}_8\text{O} \xrightarrow[7]{8.58 \text{ ms}} 89.1\% {}^{13}_7\text{N}$
${}^{13}_8\text{O} \xrightarrow[6]{8.58 \text{ ms}} 10.9\% {}^{12}_6\text{C}$	${}^{14}_8\text{O} \xrightarrow[7]{1.177 \text{ m}} {}^{14}_7\text{N}$	${}^{15}_8\text{O} \xrightarrow[6]{2.041 \text{ m}} {}^{15}_7\text{N}$	${}^{19}_8\text{O} \xrightarrow[9]{26.91 \text{ s}} {}^{19}_9\text{F}$	${}^{20}_8\text{O} \xrightarrow[9]{13.51 \text{ s}} {}^{20}_9\text{F}$
${}^{21}_8\text{O} \xrightarrow[9]{3.42 \text{ s}} {}^{21}_9\text{F}$	${}^{22}_8\text{O} \xrightarrow[9]{2.25 \text{ s}} 78\% {}^{22}_9\text{F}$	${}^{22}_8\text{O} \xrightarrow[9]{2.25 \text{ s}} 22\% {}^{21}_9\text{F}$	${}^{23}_8\text{O} \xrightarrow[9]{90 \text{ ms}} 69\% {}^{23}_9\text{F}$	${}^{23}_8\text{O} \xrightarrow[9]{90 \text{ ms}} 31\% {}^{22}_9\text{F}$
${}^{24}_8\text{O} \xrightarrow[9]{65 \text{ ms}} 82\% {}^{24}_9\text{F}$	${}^{24}_8\text{O} \xrightarrow[9]{65 \text{ ms}} 18\% {}^{23}_9\text{F}$	${}^{25}_8\text{O} \xrightarrow[8]{50 \text{ ns}} {}^{24}_8\text{O}$	${}^{26}_8\text{O} \xrightarrow[8]{40 \text{ ns}} 70\% {}^{24}_8\text{O}$	${}^{26}_8\text{O} \xrightarrow[8]{40 \text{ ns}} 30\% {}^{25}_8\text{O}$
${}^{27}_8\text{O} \xrightarrow[8]{260 \text{ ps}} 50\% {}^{26}_8\text{O}$	${}^{27}_8\text{O} \xrightarrow[8]{260 \text{ ps}} 50\% {}^{25}_8\text{O}$	${}^{28}_8\text{O} \xrightarrow[8]{100 \text{ ns}} 50\% {}^{27}_8\text{O}$	${}^{28}_8\text{O} \xrightarrow[8]{100 \text{ ns}} 50\% {}^{26}_8\text{O}$	${}^{14}_9\text{F} \xrightarrow[8]{1 \text{ ns}} {}^{13}_8\text{O}$
${}^{15}_9\text{F} \xrightarrow[8]{41 \text{ ys}} {}^{14}_8\text{O}$	${}^{16}_9\text{F} \xrightarrow[8]{11 \text{ zs}} {}^{15}_8\text{O}$	${}^{17}_9\text{F} \xrightarrow[8]{1.075 \text{ m}} {}^{17}_8\text{O}$	${}^{18}_9\text{F} \xrightarrow[8]{1.829 \text{ h}} {}^{18}_8\text{O}$	${}^{20}_9\text{F} \xrightarrow[10]{11.03 \text{ s}} {}^{20}_{10}\text{Ne}$
${}^{21}_9\text{F} \xrightarrow[10]{4.158 \text{ s}} {}^{21}_{10}\text{Ne}$	${}^{22}_9\text{F} \xrightarrow[10]{4.23 \text{ s}} {}^{22}_{10}\text{Ne}$	${}^{23}_9\text{F} \xrightarrow[10]{2.23 \text{ s}} 86\% {}^{23}_{10}\text{Ne}$	${}^{23}_9\text{F} \xrightarrow[10]{2.23 \text{ s}} 14\% {}^{22}_{10}\text{Ne}$	${}^{24}_9\text{F} \xrightarrow[10]{400 \text{ ms}} {}^{24}_{10}\text{Ne}$
${}^{25}_9\text{F} \xrightarrow[10]{50 \text{ ms}} 86\% {}^{25}_{10}\text{Ne}$	${}^{25}_9\text{F} \xrightarrow[10]{50 \text{ ms}} 14\% {}^{24}_{10}\text{Ne}$	${}^{26}_9\text{F} \xrightarrow[10]{10.2 \text{ ms}} 89\% {}^{26}_{10}\text{Ne}$	${}^{26}_9\text{F} \xrightarrow[10]{10.2 \text{ ms}} 11\% {}^{25}_{10}\text{Ne}$	${}^{27}_9\text{F} \xrightarrow[10]{4.9 \text{ ms}} 23\% {}^{27}_{10}\text{Ne}$
${}^{27}_9\text{F} \xrightarrow[10]{4.9 \text{ ms}} 77\% {}^{26}_{10}\text{Ne}$	${}^{28}_9\text{F} \xrightarrow[10]{40 \text{ ns}} {}^{27}_9\text{F}$	${}^{29}_9\text{F} \xrightarrow[10]{2.6 \text{ ms}} 40\% {}^{29}_{10}\text{Ne}$	${}^{29}_9\text{F} \xrightarrow[10]{2.6 \text{ ms}} 60\% {}^{28}_{10}\text{Ne}$	${}^{30}_9\text{F} \xrightarrow[10]{260 \text{ ns}} {}^{29}_9\text{F}$
${}^{31}_9\text{F} \xrightarrow[10]{1 \text{ ms}} {}^{31}_{10}\text{Ne}$	${}^{16}_{10}\text{Ne} \xrightarrow[8]{9 \text{ zs}} {}^{14}_8\text{O}$	${}^{17}_{10}\text{Ne} \xrightarrow[9]{109.2 \text{ ms}} 1.3\% {}^{17}_9\text{F}$	${}^{17}_{10}\text{Ne} \xrightarrow[8]{109.2 \text{ ms}} 96\% {}^{16}_8\text{O}$	${}^{17}_{10}\text{Ne} \xrightarrow[7]{109.2 \text{ ms}} 2.7\% {}^{13}_7\text{N}$
${}^{18}_{10}\text{Ne} \xrightarrow[9]{1.672 \text{ s}} {}^{18}_9\text{F}$	${}^{19}_{10}\text{Ne} \xrightarrow[9]{17.22 \text{ s}} {}^{19}_9\text{F}$	${}^{23}_{10}\text{Ne} \xrightarrow[11]{37.2 \text{ s}} 23\% {}^{23}_{11}\text{Na}$	${}^{24}_{10}\text{Ne} \xrightarrow[11]{3.38 \text{ m}} {}^{24}_{11}\text{Na}$	${}^{25}_{10}\text{Ne} \xrightarrow[11]{602 \text{ ms}} {}^{25}_{11}\text{Na}$
${}^{26}_{10}\text{Ne} \xrightarrow[11]{197 \text{ ms}} {}^{26}_{11}\text{Na}$	${}^{27}_{10}\text{Ne} \xrightarrow[11]{32 \text{ ms}} 98\% {}^{27}_{11}\text{Na}$	${}^{27}_{10}\text{Ne} \xrightarrow[11]{32 \text{ ms}} 2\% {}^{26}_{11}\text{Na}$	${}^{28}_{10}\text{Ne} \xrightarrow[11]{18.3 \text{ ms}} 84\% {}^{28}_{11}\text{Na}$	${}^{28}_{10}\text{Ne} \xrightarrow[11]{18.3 \text{ ms}} 16\% {}^{27}_{11}\text{Na}$
${}^{29}_{10}\text{Ne} \xrightarrow[11]{15.6 \text{ ms}} 78.8\% {}^{29}_{11}\text{Na}$	${}^{29}_{10}\text{Ne} \xrightarrow[11]{15.6 \text{ ms}} 19\% {}^{28}_{11}\text{Na}$	${}^{29}_{10}\text{Ne} \xrightarrow[11]{15.6 \text{ ms}} 2.2\% {}^{27}_{11}\text{Na}$	${}^{30}_{10}\text{Ne} \xrightarrow[11]{5.8 \text{ ms}} 87\% {}^{30}_{11}\text{Na}$	${}^{30}_{10}\text{Ne} \xrightarrow[11]{5.8 \text{ ms}} 13\% {}^{29}_{11}\text{Na}$
${}^{31}_{10}\text{Ne} \xrightarrow[11]{3.4 \text{ ms}} {}^{31}_{11}\text{Na}$	${}^{32}_{10}\text{Ne} \xrightarrow[11]{3.5 \text{ ms}} {}^{32}_{11}\text{Na}$	${}^{33}_{10}\text{Ne} \xrightarrow[10]{260 \text{ ps}} {}^{32}_{10}\text{Ne}$	${}^{34}_{10}\text{Ne} \xrightarrow[11]{1 \text{ ms}} {}^{34}_{11}\text{Na}$	${}^{18}_{11}\text{Na} \xrightarrow[10]{1.3 \text{ zs}} 50\% {}^{17}_{10}\text{Ne}$
${}^{18}_{11}\text{Na} \xrightarrow[10]{1.3 \text{ zs}} 50\% {}^{18}_{10}\text{Ne}$	${}^{19}_{11}\text{Na} \xrightarrow[10]{40 \text{ ns}} {}^{18}_{10}\text{Ne}$	${}^{20}_{11}\text{Na} \xrightarrow[10]{447.9 \text{ ms}} 75\% {}^{20}_{10}\text{Ne}$	${}^{20}_{11}\text{Na} \xrightarrow[10]{447.9 \text{ ms}} 25\% {}^{16}_8\text{O}$	${}^{21}_{11}\text{Na} \xrightarrow[10]{22.49 \text{ s}} {}^{21}_{10}\text{Ne}$
${}^{22}_{11}\text{Na} \xrightarrow[10]{2.603 \text{ y}} {}^{22}_{10}\text{Ne}$	${}^{24}_{11}\text{Na} \xrightarrow[12]{14.96 \text{ h}} {}^{24}_{12}\text{Mg}$	${}^{24m}_{11}\text{Na} \xrightarrow[11]{20.2 \text{ ms}} 99.5\% {}^{24}_{11}\text{Na}$	${}^{24m}_{11}\text{Na} \xrightarrow[12]{20.2 \text{ ms}} 0.5\% {}^{24}_{12}\text{Mg}$	${}^{25}_{11}\text{Na} \xrightarrow[12]{59.6 \text{ s}} {}^{25}_{12}\text{Mg}$
${}^{26}_{11}\text{Na} \xrightarrow[12]{1.08 \text{ s}} {}^{26}_{12}\text{Mg}$	${}^{27}_{11}\text{Na} \xrightarrow[12]{301 \text{ ms}} {}^{27}_{12}\text{Mg}$	${}^{28}_{11}\text{Na} \xrightarrow[12]{30.5 \text{ ms}} {}^{28}_{12}\text{Mg}$	${}^{29}_{11}\text{Na} \xrightarrow[12]{44.9 \text{ ms}} 74.1\% {}^{29}_{12}\text{Mg}$	${}^{29}_{11}\text{Na} \xrightarrow[12]{44.9 \text{ ms}} 25.9\% {}^{28}_{12}\text{Mg}$
${}^{30}_{11}\text{Na} \xrightarrow[12]{48.4 \text{ ms}} 83\% {}^{30}_{12}\text{Mg}$	${}^{30}_{11}\text{Na} \xrightarrow[12]{48.4 \text{ ms}} 30\% {}^{29}_{12}\text{Mg}$	${}^{30}_{11}\text{Na} \xrightarrow[12]{48.4 \text{ ms}} 1.17\% {}^{28}_{12}\text{Mg}$	${}^{30}_{11}\text{Na} \xrightarrow[10]{48.4 \text{ ms}} < 0.1\% {}^{26}_{10}\text{Ne}$	${}^{31}_{11}\text{Na} \xrightarrow[12]{17 \text{ ms}} 62.05\% {}^{31}_{12}\text{Mg}$
${}^{31}_{11}\text{Na} \xrightarrow[12]{17 \text{ ms}} 37\% {}^{30}_{12}\text{Mg}$	${}^{31}_{11}\text{Na} \xrightarrow[12]{17 \text{ ms}} 0.9\% {}^{29}_{12}\text{Mg}$	${}^{31}_{11}\text{Na} \xrightarrow[12]{12.9 \text{ ms}} 68\% {}^{32}_{12}\text{Mg}$	${}^{32}_{11}\text{Na} \xrightarrow[12]{12.9 \text{ ms}} 68\% {}^{32}_{12}\text{Mg}$	${}^{32}_{11}\text{Na} \xrightarrow[12]{12.9 \text{ ms}} 24\% {}^{31}_{12}\text{Mg}$
${}^{32}_{11}\text{Na} \xrightarrow[12]{12.9 \text{ ms}} 8\% {}^{30}_{12}\text{Mg}$	${}^{33}_{11}\text{Na} \xrightarrow[12]{8.2 \text{ ms}} 40\% {}^{33}_{12}\text{Mg}$	${}^{33}_{11}\text{Na} \xrightarrow[12]{8.2 \text{ ms}} 47\% {}^{32}_{12}\text{Mg}$	${}^{33}_{11}\text{Na} \xrightarrow[12]{8.2 \text{ ms}} 13\% {}^{31}_{12}\text{Mg}$	${}^{34}_{11}\text{Na} \xrightarrow[12]{5.5 \text{ ms}} 35\% {}^{34}_{12}\text{Mg}$
${}^{34}_{11}\text{Na} \xrightarrow[12]{5.5 \text{ ms}} 50\% {}^{32}_{12}\text{Mg}$	${}^{34}_{11}\text{Na} \xrightarrow[12]{5.5 \text{ ms}} 15\% {}^{33}_{12}\text{Mg}$	${}^{35}_{11}\text{Na} \xrightarrow[12]{1.5 \text{ ms}} {}^{35}_{12}\text{Mg}$	${}^{36}_{11}\text{Na} \xrightarrow[11]{260 \text{ ps}} {}^{35}_{11}\text{Na}$	${}^{37}_{11}\text{Na} \xrightarrow[12]{1 \text{ ms}} {}^{37}_{12}\text{Mg}$
${}^{20}_{12}\text{Mg} \xrightarrow[10]{90 \text{ ms}} 69.6\% {}^{20}_{11}\text{Na}$	${}^{20}_{12}\text{Mg} \xrightarrow[10]{90 \text{ ms}} 30.4\% {}^{19}_{10}\text{Ne}$	${}^{21}_{12}\text{Mg} \xrightarrow[11]{122 \text{ ms}} 66.9\% {}^{21}_{11}\text{Na}$	${}^{21}_{12}\text{Mg} \xrightarrow[10]{122 \text{ ms}} 32.6\% {}^{20}_{10}\text{Ne}$	${}^{21}_{12}\text{Mg} \xrightarrow[9]{122 \text{ ms}} 0.5\% {}^9\text{F}$
${}^{22}_{12}\text{Mg} \xrightarrow[11]{3.857 \text{ s}} {}^{22}_{11}\text{Na}$	${}^{23}_{12}\text{Mg} \xrightarrow[11]{11.32 \text{ s}} {}^{23}_{11}\text{Na}$	${}^{27}_{12}\text{Mg} \xrightarrow[13]{9.458 \text{ m}} {}^{27}_{13}\text{Al}$	${}^{28}_{12}\text{Mg} \xrightarrow[13]{20.9 \text{ h}} {}^{28}_{13}\text{Al}$	${}^{29}_{12}\text{Mg} \xrightarrow[13]{\beta}$

30Mg $\xrightarrow{\beta}$ $\frac{335 \text{ ms}}{\beta}$ 30Al	30Mg $\xrightarrow{\beta}$ $\beta$ $< 0.1\%$ 29Al	31Mg $\xrightarrow{\beta}$ $\frac{230 \text{ ms}}{\beta}$ 31Al	31Mg $\xrightarrow{\beta}$ $\beta$ $6.2\%$ 30Al	32Mg $\xrightarrow{\beta}$ $\frac{95 \text{ ms}}{\beta}$ 32Al
32Mg $\xrightarrow{\beta}$ $\frac{95 \text{ ms}}{\beta}$ 31Al	33Mg $\xrightarrow{\beta}$ $\frac{90.5 \text{ ms}}{\beta}$ 33Al	32Mg $\xrightarrow{\beta}$ $\frac{90.5 \text{ ms}}{\beta}$ 32Al	34Mg $\xrightarrow{\beta}$ $\frac{20 \text{ ms}}{\beta}$ 34Al	35Mg $\xrightarrow{\beta}$ $\frac{70 \text{ ms}}{\beta}$ 35Al
35Mg $\xrightarrow{\beta}$ $\frac{70 \text{ ms}}{\beta}$ 34Al	36Mg $\xrightarrow{\beta}$ $\frac{5 \text{ ms}}{\beta}$ 36Al	37Mg $\xrightarrow{\beta}$ $\frac{40 \text{ ms}}{\beta}$ 37Al	38Mg $\xrightarrow{\beta}$ $\frac{1 \text{ ms}}{\beta}$ 38Al	39Mg $\xrightarrow{\beta}$ $\frac{260 \text{ ns}}{n}$ 38Mg
40Mg $\xrightarrow{\beta}$ $\frac{1 \text{ ms}}{\beta}$ 40Al	21Al $\xrightarrow{\beta}$ $\frac{35 \text{ ms}}{n}$ 20Mg	22Al $\xrightarrow{\beta}$ $\frac{59 \text{ ms}}{n}$ 22Mg	22Al $\xrightarrow{\beta}$ $\frac{59 \text{ ms}}{n}$ 21Na	22Al $\xrightarrow{\beta}$ $\frac{59 \text{ ms}}{n}$ 20Ne
22Al $\xrightarrow{\beta}$ $\frac{59 \text{ ms}}{\epsilon}$ 18Ne	23Al $\xrightarrow{\beta}$ $\frac{470 \text{ ms}}{\epsilon}$ 23Mg	23Al $\xrightarrow{\beta}$ $\frac{470 \text{ ms}}{\epsilon}$ 22Na	24Al $\xrightarrow{\beta}$ $\frac{2.053 \text{ s}}{\epsilon}$ 24Mg	24mAl $\xrightarrow{\beta}$ $\frac{131.3 \text{ ms}}{\gamma}$ 24Al
24mAl $\xrightarrow{\beta}$ $\frac{131.3 \text{ ms}}{\epsilon}$ 24Mg	24mAl $\xrightarrow{\beta}$ $\frac{131.3 \text{ ms}}{\epsilon}$ 20Ne	25Al $\xrightarrow{\beta}$ $\frac{7.183 \text{ s}}{\epsilon}$ 25Mg	26Al $\xrightarrow{\beta}$ $\frac{717 \text{ ky}}{\epsilon}$ 26Mg	26mAl $\xrightarrow{\beta}$ $\frac{6.345 \text{ s}}{\epsilon}$ 26Mg
28Al $\xrightarrow{\beta}$ $\frac{2.241 \text{ m}}{\beta}$ 28Si	29Al $\xrightarrow{\beta}$ $\frac{6.56 \text{ m}}{\beta}$ 29Si	30Al $\xrightarrow{\beta}$ $\frac{3.65 \text{ s}}{\beta}$ 30Si	31Al $\xrightarrow{\beta}$ $\frac{644 \text{ ms}}{\beta}$ 31Si	32Al $\xrightarrow{\beta}$ $\frac{33 \text{ ms}}{\beta}$ 32Si
33Al $\xrightarrow{\beta}$ $\frac{41.7 \text{ ms}}{\beta}$ 33Si	33Al $\xrightarrow{\beta}$ $\frac{41.7 \text{ ms}}{\beta}$ 32Si	34Al $\xrightarrow{\beta}$ $\frac{56.3 \text{ ms}}{\beta}$ 34Si	34Al $\xrightarrow{\beta}$ $\frac{56.3 \text{ ms}}{\beta}$ 33Si	35Al $\xrightarrow{\beta}$ $\frac{38.6 \text{ ms}}{\beta}$ 35Si
35Al $\xrightarrow{\beta}$ $\frac{38.6 \text{ ms}}{\beta}$ 34Si	36Al $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 36Si	36Al $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 35Si	37Al $\xrightarrow{\beta}$ $\frac{20 \text{ ms}}{\beta}$ 37Si	38Al $\xrightarrow{\beta}$ $\frac{40 \text{ ms}}{\beta}$ 38Si
39Al $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{\beta}$ 39Si	40Al $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{\beta}$ 40Si	41Al $\xrightarrow{\beta}$ $\frac{2 \text{ ms}}{\beta}$ 41Si	42Al $\xrightarrow{\beta}$ $\frac{1 \text{ ms}}{\beta}$ 42Si	22Si $\xrightarrow{\beta}$ $\frac{29 \text{ ms}}{\epsilon}$ 22Al
22Si $\xrightarrow{\beta}$ $\frac{29 \text{ ms}}{\epsilon}$ 21Mg	23Si $\xrightarrow{\beta}$ $\frac{42.3 \text{ ns}}{\epsilon}$ 23Al	23Si $\xrightarrow{\beta}$ $\frac{42.3 \text{ ns}}{\epsilon}$ 22Mg	23Si $\xrightarrow{\beta}$ $\frac{42.3 \text{ ns}}{\epsilon}$ 21Na	24Si $\xrightarrow{\beta}$ $\frac{140 \text{ ms}}{\epsilon}$ 24Mg
24Si $\xrightarrow{\beta}$ $\frac{140 \text{ ms}}{\epsilon}$ 23Mg	25Si $\xrightarrow{\beta}$ $\frac{220 \text{ ms}}{\epsilon}$ 25Al	25Si $\xrightarrow{\beta}$ $\frac{220 \text{ ms}}{\epsilon}$ 24Mg	26Si $\xrightarrow{\beta}$ $\frac{2.234 \text{ s}}{\epsilon}$ 26Al	26Si $\xrightarrow{\beta}$ $\frac{2.234 \text{ s}}{\epsilon}$ 26Mg
27Si $\xrightarrow{\beta}$ $\frac{4.16 \text{ s}}{\epsilon}$ 27Al	31Si $\xrightarrow{\beta}$ $\frac{2.62 \text{ h}}{\beta}$ 31P	32Si $\xrightarrow{\beta}$ $\frac{132 \text{ y}}{\beta}$ 32P	33Si $\xrightarrow{\beta}$ $\frac{6.18 \text{ s}}{\beta}$ 33P	34Si $\xrightarrow{\beta}$ $\frac{2.77 \text{ s}}{\beta}$ 34P
35Si $\xrightarrow{\beta}$ $\frac{780 \text{ ms}}{\beta}$ 35P	36Si $\xrightarrow{\beta}$ $\frac{450 \text{ ms}}{\beta}$ 36P	37Si $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 37P	37Si $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 36P	38Si $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 38P
39Si $\xrightarrow{\beta}$ $\frac{90 \text{ ms}}{\beta}$ 39P	40Si $\xrightarrow{\beta}$ $\frac{33 \text{ ms}}{\beta}$ 40P	41Si $\xrightarrow{\beta}$ $\frac{30 \text{ ms}}{\beta}$ 41P	42Si $\xrightarrow{\beta}$ $\frac{5 \text{ ms}}{\beta}$ 42P	43Si $\xrightarrow{\beta}$ $\frac{15 \text{ ms}}{\beta}$ 43P
44Si $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{\beta}$ 44P	24P $\xrightarrow{\beta}$ $\frac{1 \text{ ns}}{n}$ 23Si	24P $\xrightarrow{\beta}$ $\frac{1 \text{ ns}}{\epsilon}$ 24Si	25P $\xrightarrow{\beta}$ $\frac{30 \text{ ns}}{n}$ 24Si	26P $\xrightarrow{\beta}$ $\frac{30 \text{ ns}}{\epsilon}$ 26Si
26P $\xrightarrow{\beta}$ $\frac{30 \text{ ns}}{\epsilon}$ 24Mg	26P $\xrightarrow{\beta}$ $\frac{30 \text{ ns}}{\epsilon}$ 25Al	27P $\xrightarrow{\beta}$ $\frac{260 \text{ ms}}{\epsilon}$ 27Si	27P $\xrightarrow{\beta}$ $\frac{260 \text{ ms}}{\epsilon}$ 26mAl	28P $\xrightarrow{\beta}$ $\frac{270.3 \text{ ms}}{\epsilon}$ 28Si
29P $\xrightarrow{\beta}$ $\frac{4.142 \text{ s}}{\epsilon}$ 29Si	30P $\xrightarrow{\beta}$ $\frac{2.498 \text{ m}}{\epsilon}$ 30Si	32P $\xrightarrow{\beta}$ $\frac{14.27 \text{ d}}{\beta}$ 32S	33P $\xrightarrow{\beta}$ $\frac{25.38 \text{ d}}{\beta}$ 33S	34P $\xrightarrow{\beta}$ $\frac{12.4 \text{ s}}{\beta}$ 34S
35P $\xrightarrow{\beta}$ $\frac{47.3 \text{ s}}{\beta}$ 35S	36P $\xrightarrow{\beta}$ $\frac{5.6 \text{ s}}{\beta}$ 36S	37P $\xrightarrow{\beta}$ $\frac{2.31 \text{ s}}{\beta}$ 37S	38P $\xrightarrow{\beta}$ $\frac{640 \text{ ms}}{\beta}$ 38S	39P $\xrightarrow{\beta}$ $\frac{190 \text{ ms}}{\beta}$ 39S
39P $\xrightarrow{\beta}$ $\frac{190 \text{ ms}}{\beta}$ 38S	40P $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\beta}$ 40S	40P $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\beta}$ 39S	41P $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\beta}$ 41S	41P $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\beta}$ 40S
42P $\xrightarrow{\beta}$ $\frac{120 \text{ ms}}{\beta}$ 42S	42P $\xrightarrow{\beta}$ $\frac{120 \text{ ms}}{\beta}$ 41S	43P $\xrightarrow{\beta}$ $\frac{33 \text{ ms}}{\beta}$ 43S	44P $\xrightarrow{\beta}$ $\frac{30 \text{ ms}}{\beta}$ 44S	45P $\xrightarrow{\beta}$ $\frac{8 \text{ ms}}{\beta}$ 45S
46P $\xrightarrow{\beta}$ $\frac{4 \text{ ms}}{\beta}$ 46S	26S $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{nn}$ 24Si	27S $\xrightarrow{\beta}$ $\frac{21 \text{ ms}}{\epsilon}$ 27P	27S $\xrightarrow{\beta}$ $\frac{21 \text{ ms}}{\epsilon}$ 25Al	28S $\xrightarrow{\beta}$ $\frac{125 \text{ ms}}{\epsilon}$ 28P
28S $\xrightarrow{\beta}$ $\frac{125 \text{ ms}}{\epsilon}$ 27Si	29S $\xrightarrow{\beta}$ $\frac{187 \text{ ms}}{\epsilon}$ 29P	29S $\xrightarrow{\beta}$ $\frac{187 \text{ ms}}{\epsilon}$ 28Si	30S $\xrightarrow{\beta}$ $\frac{1.178 \text{ s}}{\epsilon}$ 30P	31S $\xrightarrow{\beta}$ $\frac{2.572 \text{ s}}{\epsilon}$ 31P
35S $\xrightarrow{\beta}$ $\frac{87.32 \text{ d}}{\beta}$ 35Cl	37S $\xrightarrow{\beta}$ $\frac{4.99 \text{ m}}{\beta}$ 37Cl	38S $\xrightarrow{\beta}$ $\frac{2.838 \text{ h}}{\beta}$ 38Cl	39S $\xrightarrow{\beta}$ $\frac{11.5 \text{ s}}{\beta}$ 39Cl	40S $\xrightarrow{\beta}$ $\frac{8.8 \text{ s}}{\beta}$ 40Cl
41S $\xrightarrow{\beta}$ $\frac{1.99 \text{ s}}{\beta}$ 41Cl	42S $\xrightarrow{\beta}$ $\frac{1.013 \text{ ms}}{\beta}$ 42Cl	42S $\xrightarrow{\beta}$ $\frac{1.013 \text{ ms}}{\beta}$ 41Cl	43S $\xrightarrow{\beta}$ $\frac{260 \text{ ms}}{\beta}$ 43Cl	43S $\xrightarrow{\beta}$ $\frac{260 \text{ ms}}{\beta}$ 42Cl
44S $\xrightarrow{\beta}$ $\frac{123 \text{ ms}}{\beta}$ 44Cl	44S $\xrightarrow{\beta}$ $\frac{123 \text{ ms}}{\beta}$ 43Cl	45S $\xrightarrow{\beta}$ $\frac{82 \text{ ms}}{\beta}$ 45Cl	45S $\xrightarrow{\beta}$ $\frac{82 \text{ ms}}{\beta}$ 44Cl	46S $\xrightarrow{\beta}$ $\frac{30 \text{ ms}}{\beta}$ 46Cl
47S $\xrightarrow{\beta}$ $\frac{20 \text{ ms}}{\beta}$ 47Cl	48S $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{\beta}$ 48Cl	49S $\xrightarrow{\beta}$ $\frac{200 \text{ ns}}{n}$ 48S	28Cl $\xrightarrow{\beta}$ $\frac{1 \text{ ns}}{n}$ 27S	29Cl $\xrightarrow{\beta}$ $\frac{20 \text{ ns}}{n}$ 28S
30Cl $\xrightarrow{\beta}$ $\frac{30 \text{ ns}}{n}$ 29S	31Cl $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\epsilon}$ 31S	31Cl $\xrightarrow{\beta}$ $\frac{150 \text{ ms}}{\epsilon}$ 30P	32Cl $\xrightarrow{\beta}$ $\frac{298 \text{ ms}}{\epsilon}$ 32S	32Cl $\xrightarrow{\beta}$ $\frac{298 \text{ ms}}{\epsilon}$ 28Si
32Cl $\xrightarrow{\beta}$ $\frac{298 \text{ ms}}{\epsilon}$ 31P	33Cl $\xrightarrow{\beta}$ $\frac{2.511 \text{ s}}{\epsilon}$ 33S	34Cl $\xrightarrow{\beta}$ $\frac{1.526 \text{ s}}{\epsilon}$ 34S	34mCl $\xrightarrow{\beta}$ $\frac{32.1 \text{ m}}{\epsilon}$ 34S	34mCl $\xrightarrow{\beta}$ $\frac{32.1 \text{ m}}{\gamma}$ 34Cl
36Cl $\xrightarrow{\beta}$ $\frac{301 \text{ ky}}{\epsilon}$ 36S	36Cl $\xrightarrow{\beta}$ $\frac{301 \text{ ky}}{\beta}$ 36Ar	38Cl $\xrightarrow{\beta}$ $\frac{37.2 \text{ m}}{\beta}$ 38Ar	38mCl $\xrightarrow{\beta}$ $\frac{715 \text{ ms}}{\gamma}$ 38Cl	39Cl $\xrightarrow{\beta}$ $\frac{55.6 \text{ m}}{\beta}$ 39Ar
40Cl $\xrightarrow{\beta}$ $\frac{1.35 \text{ m}}{\beta}$ 40Ar	41Cl $\xrightarrow{\beta}$ $\frac{38.4 \text{ s}}{\beta}$ 41Ar	42Cl $\xrightarrow{\beta}$ $\frac{6.8 \text{ s}}{\beta}$ 42Ar	43Cl $\xrightarrow{\beta}$ $\frac{3.07 \text{ s}}{\beta}$ 43Ar	44Cl $\xrightarrow{\beta}$ $\frac{560 \text{ ms}}{\beta}$ 44Ar
44Cl $\xrightarrow{\beta}$ $\frac{560 \text{ ms}}{\beta}$ 43Ar	45Cl $\xrightarrow{\beta}$ $\frac{400 \text{ ms}}{\beta}$ 45Ar	45Cl $\xrightarrow{\beta}$ $\frac{400 \text{ ms}}{\beta}$ 44Ar	46Cl $\xrightarrow{\beta}$ $\frac{220 \text{ ms}}{\beta}$ 46Ar	46Cl $\xrightarrow{\beta}$ $\frac{220 \text{ ms}}{\beta}$ 45Ar
47Cl $\xrightarrow{\beta}$ $\frac{200 \text{ ms}}{\beta}$ 47Ar	47Cl $\xrightarrow{\beta}$ $\frac{200 \text{ ms}}{\beta}$ 46Ar	48Cl $\xrightarrow{\beta}$ $\frac{100 \text{ ms}}{\beta}$ 48Ar	49Cl $\xrightarrow{\beta}$ $\frac{50 \text{ ms}}{\beta}$ 49Ar	50Cl $\xrightarrow{\beta}$ $\frac{20 \text{ ms}}{\beta}$ 50Ar
51Cl $\xrightarrow{\beta}$ $\frac{2 \text{ ms}}{\beta}$ 51Ar	30Ar $\xrightarrow{\beta}$ $\frac{20 \text{ ns}}{nn}$ 28S	31Ar $\xrightarrow{\beta}$ $\frac{14.4 \text{ ms}}{\epsilon}$ 31Cl	31Ar $\xrightarrow{\beta}$ $\frac{14.4 \text{ ms}}{\epsilon}$ 30S	31Ar $\xrightarrow{\beta}$ $\frac{14.4 \text{ ms}}{\epsilon}$ 29P
31Ar $\xrightarrow{\beta}$ $\frac{14.4 \text{ ms}}{\epsilon}$ 28Si	32Ar $\xrightarrow{\beta}$ $\frac{98 \text{ ms}}{\epsilon}$ 32Cl	32Ar $\xrightarrow{\beta}$ $\frac{98 \text{ ms}}{\epsilon}$ 31S	33Ar $\xrightarrow{\beta}$ $\frac{173 \text{ ms}}{\epsilon}$ 33Cl	33Ar $\xrightarrow{\beta}$ $\frac{173 \text{ ms}}{\epsilon}$ 32S
34Ar $\xrightarrow{\beta}$ $\frac{844.5 \text{ ms}}{\epsilon}$ 34Cl	35Ar $\xrightarrow{\beta}$ $\frac{1.775 \text{ s}}{\epsilon}$ 35Cl	37Ar $\xrightarrow{\beta}$ $\frac{35.04 \text{ d}}{\epsilon}$ 37Cl	39Ar $\xrightarrow{\beta}$ $\frac{269 \text{ y}}{\beta}$ 39K	41Ar $\xrightarrow{\beta}$ $\frac{1.827 \text{ h}}{\beta}$ 41K
42Ar $\xrightarrow{\beta}$ $\frac{33 \text{ y}}{\beta}$ 42K	43Ar $\xrightarrow{\beta}$ $\frac{5.37 \text{ m}}{\beta}$ 43K	44Ar $\xrightarrow{\beta}$ $\frac{11.87 \text{ m}}{\beta}$ 44K	45Ar $\xrightarrow{\beta}$ $\frac{21.48 \text{ s}}{\beta}$ 45K	46Ar $\xrightarrow{\beta}$ $\frac{8.4 \text{ s}}{\beta}$ 46K
47Ar $\xrightarrow{\beta}$ $\frac{580 \text{ ms}}{\beta}$ 47K	47Ar $\xrightarrow{\beta}$ $\frac{580 \text{ ms}}{\beta}$ 46K	48Ar $\xrightarrow{\beta}$ $\frac{500 \text{ ms}}{\beta}$ 48K	49Ar $\xrightarrow{\beta}$ $\frac{170 \text{ ms}}{\beta}$ 49K	49Ar $\xrightarrow{\beta}$ $\frac{170 \text{ ms}}{\beta}$ 48K
50Ar $\xrightarrow{\beta}$ $\frac{85 \text{ ms}}{\beta}$ 50K	50Ar $\xrightarrow{\beta}$ $\frac{85 \text{ ms}}{\beta}$ 49K	51Ar $\xrightarrow{\beta}$ $\frac{60 \text{ ms}}{\beta}$ 51K	52Ar $\xrightarrow{\beta}$ $\frac{10 \text{ ms}}{\beta}$ 52K	53Ar $\xrightarrow{\beta}$ $\frac{3 \text{ ms}}{\beta}$ 53K
32K $\xrightarrow{\beta}$ $\frac{1 \text{ ns}}{n}$ 31Ar	33K $\xrightarrow{\beta}$ $\frac{25 \text{ ns}}{n}$ 32Ar	34K $\xrightarrow{\beta}$ $\frac{40 \text{ ns}}{n}$ 33Ar	35K $\xrightarrow{\beta}$ $\frac{178 \text{ ms}}{\epsilon}$ 35Ar	36K $\xrightarrow{\beta}$ $\frac{342 \text{ ms}}{\epsilon}$ 36Ar
37K $\xrightarrow{\beta}$ $\frac{1.226 \text{ s}}{\epsilon}$ 37Ar	38K $\xrightarrow{\beta}$ $\frac{7.61 \text{ m}}{\epsilon}$ 38Ar	38mK $\xrightarrow{\beta}$ $\frac{924 \text{ ms}}{\epsilon}$ 38Ar	40K $\xrightarrow{\beta}$ $\frac{1.265 \text{ Gy}}{\epsilon}$ 40Ar	40K $\xrightarrow{\beta}$ $\frac{1.265 \text{ Gy}}{\beta}$ 40Ca
42K $\xrightarrow{\beta}$ $\frac{12.36 \text{ h}}{\beta}$ 42Ca	43K $\xrightarrow{\beta}$ $\frac{22.2 \text{ h}}{\beta}$ 43Ca	44K $\xrightarrow{\beta}$ $\frac{22.13 \text{ m}}{\beta}$ 44Ca	45K $\xrightarrow{\beta}$ $\frac{17.3 \text{ m}}{\beta}$ 45Ca	46K $\xrightarrow{\beta}$ $\frac{1.75 \text{ m}}{\beta}$ 46Ca
47K $\xrightarrow{\beta}$ $\frac{17.5 \text{ s}}{\beta}$ 47Ca	48K $\xrightarrow{\beta}$ $\frac{6.8 \text{ s}}{\beta}$ 48Ca	49K $\xrightarrow{\beta}$ $\frac{1.26 \text{ s}}{\beta}$ 49Ca	49K $\xrightarrow{\beta}$ $\frac{1.26 \text{ s}}{\beta}$ 48Ca	50K $\xrightarrow{\beta}$ $\frac{472 \text{ ms}}{\beta}$ 50Ca
50K $\xrightarrow{\beta}$ $\frac{472 \text{ ms}}{\beta}$ 49Ca	51K $\xrightarrow{\beta}$ $\frac{365 \text{ ms}}{\beta}$ 51Ca	51K $\xrightarrow{\beta}$ $\frac{365 \text{ ms}}{\beta}$ 50Ca	52K $\xrightarrow{\beta}$ $\frac{105 \text{ ms}}{\beta}$ 52Ca	52K $\xrightarrow{\beta}$ $\frac{105 \text{ ms}}{\beta}$ 51Ca





65Ge $\xrightarrow[32]{30.9\text{ s}}$ 65Ga	65Ge $\xrightarrow[32]{30.9\text{ s}}$ 64Zn	66Ge $\xrightarrow[32]{2.26\text{ h}}$ 66Ga	67Ge $\xrightarrow[32]{18.9\text{ m}}$ 67Ga	68Ge $\xrightarrow[32]{271\text{ d}}$ 68Ga
69Ge $\xrightarrow[32]{1.627\text{ d}}$ 69Ga	71Ge $\xrightarrow[32]{11.43\text{ d}}$ 71Ga	71mGe $\xrightarrow[32]{20.4\text{ ms}}$ 71Ge	73mGe $\xrightarrow[32]{500\text{ ms}}$ 73Ge	75Ge $\xrightarrow[32]{1.38\text{ h}}$ 75As
75mGe $\xrightarrow[32]{47.7\text{ s}}$ 75Ge	75mGe $\xrightarrow[32]{47.7\text{ s}}$ 75mAs	76Ge $\xrightarrow[32]{\geq 1000\text{ Ey}}$ 76Se	77Ge $\xrightarrow[32]{11.3\text{ h}}$ 77As	77mGe $\xrightarrow[32]{52.9\text{ s}}$ 77As
77mGe $\xrightarrow[32]{52.9\text{ s}}$ 77Ge	78Ge $\xrightarrow[32]{1.467\text{ h}}$ 78As	79Ge $\xrightarrow[32]{18.98\text{ s}}$ 79As	79mGe $\xrightarrow[32]{39\text{ s}}$ 79As	79mGe $\xrightarrow[32]{39\text{ s}}$ 79Ge
80Ge $\xrightarrow[32]{29.5\text{ s}}$ 80As	81Ge $\xrightarrow[32]{8\text{ s}}$ 81As	81mGe $\xrightarrow[32]{7.6\text{ s}}$ 81As	81mGe $\xrightarrow[32]{7.6\text{ s}}$ 81Ge	82Ge $\xrightarrow[32]{4.55\text{ s}}$ 82As
83Ge $\xrightarrow[32]{1.85\text{ s}}$ 83As	84Ge $\xrightarrow[32]{954\text{ ms}}$ 84As	84Ge $\xrightarrow[32]{954\text{ ms}}$ 84mAs	84Ge $\xrightarrow[32]{954\text{ ms}}$ 83As	85Ge $\xrightarrow[32]{540\text{ ms}}$ 85As
85Ge $\xrightarrow[32]{540\text{ ms}}$ 84As	85Ge $\xrightarrow[32]{540\text{ ms}}$ 84mAs	86Ge $\xrightarrow[32]{300\text{ ms}}$ 86As	87Ge $\xrightarrow[32]{150\text{ ms}}$ 87As	88Ge $\xrightarrow[32]{80\text{ ms}}$ 88As
89Ge $\xrightarrow[32]{50\text{ ms}}$ 89As	60As $\xrightarrow[32]{1\text{ ns}}$ 59Ge	60mAs $\xrightarrow[33]{1\text{ ns}}$ 59Ge	61As $\xrightarrow[33]{1\text{ ns}}$ 60Ge	62As $\xrightarrow[33]{1\text{ ns}}$ 61Ge
63As $\xrightarrow[33]{1\text{ ns}}$ 62Ge	64As $\xrightarrow[33]{40\text{ ms}}$ 64Ge	65As $\xrightarrow[33]{170\text{ ms}}$ 65Ge	66As $\xrightarrow[33]{95.77\text{ ms}}$ 66Ge	67As $\xrightarrow[33]{42.5\text{ s}}$ 67Ge
68As $\xrightarrow[33]{2.527\text{ m}}$ 68Ge	69As $\xrightarrow[33]{15.23\text{ m}}$ 69Ge	70As $\xrightarrow[33]{52.6\text{ m}}$ 70Ge	71As $\xrightarrow[33]{2.72\text{ d}}$ 71Ge	72As $\xrightarrow[33]{1.083\text{ d}}$ 72Ge
73As $\xrightarrow[33]{80.3\text{ d}}$ 73mGe	74As $\xrightarrow[33]{17.78\text{ d}}$ 74Se	74As $\xrightarrow[33]{17.78\text{ d}}$ 74Ge	75mAs $\xrightarrow[33]{17.62\text{ ms}}$ 75As	76As $\xrightarrow[33]{1.092\text{ d}}$ 76Se
77As $\xrightarrow[33]{1.618\text{ d}}$ 77Se	78As $\xrightarrow[33]{1.512\text{ h}}$ 78Se	79As $\xrightarrow[33]{9.01\text{ m}}$ 79Se	79As $\xrightarrow[33]{9.01\text{ m}}$ 79mSe	80As $\xrightarrow[33]{15.2\text{ s}}$ 80Se
81As $\xrightarrow[33]{33.3\text{ s}}$ 81Se	81As $\xrightarrow[33]{33.3\text{ s}}$ 81mSe	82As $\xrightarrow[33]{19.1\text{ s}}$ 82Se	82mAs $\xrightarrow[33]{13.6\text{ s}}$ 82Se	83As $\xrightarrow[33]{13.4\text{ s}}$ 83Se
83As $\xrightarrow[33]{13.4\text{ s}}$ 83mSe	84As $\xrightarrow[33]{4.02\text{ s}}$ 84Se	84As $\xrightarrow[33]{4.02\text{ s}}$ 83Se	84As $\xrightarrow[33]{4.02\text{ s}}$ 83mSe	84mAs $\xrightarrow[33]{650\text{ ms}}$ 84Se
85As $\xrightarrow[33]{2.04\text{ s}}$ 85Se	85As $\xrightarrow[33]{2.04\text{ s}}$ 84Se	86As $\xrightarrow[33]{945\text{ ms}}$ 86Se	86As $\xrightarrow[33]{945\text{ ms}}$ 85Se	87As $\xrightarrow[33]{610\text{ ms}}$ 87Se
87As $\xrightarrow[33]{610\text{ ms}}$ 86Se	88As $\xrightarrow[33]{300\text{ ms}}$ 88Se	89As $\xrightarrow[33]{200\text{ ms}}$ 89Se	90As $\xrightarrow[33]{80\text{ ms}}$ 90Se	91As $\xrightarrow[33]{50\text{ ms}}$ 91Se
92As $\xrightarrow[33]{30\text{ ms}}$ 92Se	65Se $\xrightarrow[34]{50\text{ ms}}$ 65As	66Se $\xrightarrow[34]{33\text{ ms}}$ 66As	67Se $\xrightarrow[34]{133\text{ ms}}$ 67As	67Se $\xrightarrow[34]{133\text{ ms}}$ 66Ge
68Se $\xrightarrow[34]{35.5\text{ s}}$ 68As	69Se $\xrightarrow[34]{27.4\text{ s}}$ 69As	70Se $\xrightarrow[34]{41.1\text{ m}}$ 70As	71Se $\xrightarrow[34]{4.74\text{ m}}$ 71As	72Se $\xrightarrow[34]{8.4\text{ d}}$ 72As
73Se $\xrightarrow[34]{7.15\text{ h}}$ 73As	73mSe $\xrightarrow[34]{39.8\text{ m}}$ 73Se	73mSe $\xrightarrow[34]{39.8\text{ m}}$ 73As	75Se $\xrightarrow[34]{119.6\text{ d}}$ 75As	77mSe $\xrightarrow[34]{17.55\text{ s}}$ 77Se
79Se $\xrightarrow[34]{377\text{ ky}}$ 79Br	79mSe $\xrightarrow[34]{3.9\text{ m}}$ 79Se	79mSe $\xrightarrow[34]{3.9\text{ m}}$ 79Br	81Se $\xrightarrow[34]{18.39\text{ m}}$ 81Br	81mSe $\xrightarrow[34]{57.28\text{ m}}$ 81Br
81mSe $\xrightarrow[34]{57.28\text{ m}}$ 81Se	82Se $\xrightarrow[34]{121\text{ Ey}}$ 82Kr	83Se $\xrightarrow[34]{22.3\text{ m}}$ 83Br	83mSe $\xrightarrow[34]{1.168\text{ m}}$ 83Br	84Se $\xrightarrow[34]{3.1\text{ m}}$ 84Br
84Se $\xrightarrow[34]{3.1\text{ m}}$ 84mBr	85Se $\xrightarrow[34]{31.7\text{ s}}$ 85Br	85mSe $\xrightarrow[34]{19\text{ s}}$ 85Se	86Se $\xrightarrow[34]{15.3\text{ s}}$ 86Br	87Se $\xrightarrow[34]{5.5\text{ s}}$ 87Br
88Se $\xrightarrow[34]{1.53\text{ s}}$ 88Br	88Se $\xrightarrow[34]{1.53\text{ s}}$ 87Br	89Se $\xrightarrow[34]{410\text{ ms}}$ 89Br	89Se $\xrightarrow[34]{410\text{ ms}}$ 88Br	90Se $\xrightarrow[34]{300\text{ ms}}$ 90Br
91Se $\xrightarrow[34]{270\text{ ms}}$ 91Br	91Se $\xrightarrow[34]{270\text{ ms}}$ 90Br	92Se $\xrightarrow[34]{100\text{ ms}}$ 92Br	93Se $\xrightarrow[34]{50\text{ ms}}$ 93Br	94Se $\xrightarrow[34]{20\text{ ms}}$ 94Br
67Br $\xrightarrow[35]{1\text{ ns}}$ 66Se	68Br $\xrightarrow[35]{1.5\text{ }\mu\text{s}}$ 67Se	69Br $\xrightarrow[35]{24\text{ ns}}$ 68Se	70Br $\xrightarrow[35]{79.1\text{ ms}}$ 70Se	70mBr $\xrightarrow[35]{2.2\text{ s}}$ 70Se
70mBr $\xrightarrow[35]{2.2\text{ s}}$ 70Br	71Br $\xrightarrow[35]{21.4\text{ s}}$ 71Se	72Br $\xrightarrow[35]{1.31\text{ m}}$ 72Se	72mBr $\xrightarrow[35]{10.6\text{ s}}$ 72Br	73Br $\xrightarrow[35]{3.4\text{ m}}$ 73mSe
74Br $\xrightarrow[35]{25.4\text{ m}}$ 74Se	74mBr $\xrightarrow[35]{46\text{ m}}$ 74Se	75Br $\xrightarrow[35]{1.612\text{ h}}$ 75Se	76Br $\xrightarrow[35]{16.2\text{ h}}$ 76Se	76mBr $\xrightarrow[35]{1.31\text{ s}}$ 76Br
76mBr $\xrightarrow[35]{1.31\text{ s}}$ 76Se	77Br $\xrightarrow[35]{2.377\text{ d}}$ 77Se	77mBr $\xrightarrow[35]{4.28\text{ m}}$ 77Br	78Br $\xrightarrow[35]{6.46\text{ m}}$ 78Se	79mBr $\xrightarrow[35]{4.864\text{ s}}$ 79Br
80Br $\xrightarrow[35]{17.6\text{ m}}$ 80Kr	80Br $\xrightarrow[35]{17.6\text{ m}}$ 80Se	80mBr $\xrightarrow[35]{4.41\text{ h}}$ 80Br	82Br $\xrightarrow[35]{1.472\text{ d}}$ 82Kr	82mBr $\xrightarrow[35]{6.09\text{ m}}$ 82Kr
82mBr $\xrightarrow[35]{6.09\text{ m}}$ 82Br	83Br $\xrightarrow[35]{2.4\text{ h}}$ 83Kr	83Br $\xrightarrow[35]{2.4\text{ h}}$ 83mKr	84Br $\xrightarrow[35]{31.8\text{ m}}$ 84Kr	84mBr $\xrightarrow[35]{6\text{ m}}$ 84Kr
85Br $\xrightarrow[35]{2.9\text{ m}}$ 85Kr	85Br $\xrightarrow[35]{2.9\text{ m}}$ 85mKr	86Br $\xrightarrow[35]{55\text{ s}}$ 86Kr	86mBr $\xrightarrow[35]{4.5\text{ s}}$ 86Br	87Br $\xrightarrow[35]{55.7\text{ s}}$ 87Kr
87Br $\xrightarrow[35]{55.7\text{ s}}$ 86Kr	88Br $\xrightarrow[35]{16.5\text{ s}}$ 88Kr	88Br $\xrightarrow[35]{16.5\text{ s}}$ 87Kr	89Br $\xrightarrow[35]{4.37\text{ s}}$ 89Kr	89Br $\xrightarrow[35]{4.37\text{ s}}$ 88Kr
90Br $\xrightarrow[35]{1.9\text{ s}}$ 90Kr	90Br $\xrightarrow[35]{1.9\text{ s}}$ 89Kr	91Br $\xrightarrow[35]{538\text{ ms}}$ 91Kr	91Br $\xrightarrow[35]{538\text{ ms}}$ 90Kr	92Br $\xrightarrow[35]{343\text{ ms}}$ 92Kr
92Br $\xrightarrow[35]{343\text{ ms}}$ 91Kr	93Br $\xrightarrow[35]{102\text{ ms}}$ 93Kr	93Br $\xrightarrow[35]{102\text{ ms}}$ 92Kr	94Br $\xrightarrow[35]{70\text{ ms}}$ 94Kr	94Br $\xrightarrow[35]{70\text{ ms}}$ 93Kr
95Br $\xrightarrow[35]{50\text{ ms}}$ 95Kr	96Br $\xrightarrow[35]{20\text{ ms}}$ 96Kr	97Br $\xrightarrow[35]{10\text{ ms}}$ 97Kr	69Kr $\xrightarrow[36]{32\text{ ms}}$ 69Br	70Kr $\xrightarrow[36]{52\text{ ms}}$ 70mBr
71Kr $\xrightarrow[36]{64\text{ m}}$ 71Br	72Kr $\xrightarrow[36]{17.16\text{ s}}$ 72mBr	73Kr $\xrightarrow[36]{27.3\text{ s}}$ 73Br	74Kr $\xrightarrow[36]{11.5\text{ m}}$ 74Br	75Kr $\xrightarrow[36]{4.29\text{ m}}$ 75Br
76Kr $\xrightarrow[36]{14.8\text{ h}}$ 76Br	77Kr $\xrightarrow[36]{1.24\text{ h}}$ 77Br	78Kr $\xrightarrow[36]{110\text{ Ey}}$ 78Se	79Kr $\xrightarrow[36]{1.46\text{ d}}$ 79Br	79mKr $\xrightarrow[36]{50\text{ s}}$ 79Kr
81Kr $\xrightarrow[36]{210\text{ ky}}$ 81Br	81mKr $\xrightarrow[36]{13.2\text{ s}}$ 81Br	81mKr $\xrightarrow[36]{13.2\text{ s}}$ 81Kr	83mKr $\xrightarrow[36]{1.83\text{ h}}$ 83Kr	85Kr $\xrightarrow[36]{10.75\text{ y}}$ 85Rb
85mKr $\xrightarrow[36]{4.48\text{ h}}$ 85Rb	85mKr $\xrightarrow[36]{4.48\text{ h}}$ 85Kr	87Kr $\xrightarrow[36]{1.272\text{ h}}$ 87Rb	88Kr $\xrightarrow[36]{2.84\text{ h}}$ 88Rb	89Kr $\xrightarrow[36]{3.15\text{ m}}$ 89Rb
90Kr $\xrightarrow[36]{32.32\text{ s}}$ 90Rb	90Kr $\xrightarrow[36]{32.32\text{ s}}$ 90mRb	91Kr $\xrightarrow[36]{8.57\text{ s}}$ 91Rb	92Kr $\xrightarrow[36]{1.84\text{ s}}$ 92Rb	93Kr $\xrightarrow[36]{1.286\text{ s}}$ 93Rb
94Kr $\xrightarrow[36]{210\text{ ms}}$ 94Rb	94Kr $\xrightarrow[36]{210\text{ ms}}$ 93Rb	95Kr $\xrightarrow[36]{114\text{ ms}}$ 95Rb	95Kr $\xrightarrow[36]{114\text{ ms}}$ 94Rb	96Kr $\xrightarrow[36]{80\text{ ms}}$ 96Rb
96Kr $\xrightarrow[36]{80\text{ ms}}$ 96mRb	96Kr $\xrightarrow[36]{80\text{ ms}}$ 95Rb	97Kr $\xrightarrow[36]{63\text{ ms}}$ 97Rb	97Kr $\xrightarrow[36]{63\text{ ms}}$ 96Rb	97Kr $\xrightarrow[36]{63\text{ ms}}$ 96mRb
98Kr $\xrightarrow[36]{46\text{ ms}}$ 98mRb	98Kr $\xrightarrow[36]{46\text{ ms}}$ 97Rb	99Kr $\xrightarrow[36]{40\text{ ms}}$ 99Rb	99Kr $\xrightarrow[36]{40\text{ ms}}$ 98Rb	99Kr $\xrightarrow[36]{40\text{ ms}}$ 98mRb
100Kr $\xrightarrow[36]{10\text{ ms}}$ 100Rb	71Rb $\xrightarrow[37]{1\text{ ns}}$ 70Kr	72Rb $\xrightarrow[37]{1.5\text{ }\mu\text{s}}$ 71Kr	73Rb $\xrightarrow[37]{30\text{ ns}}$ 72Kr	74Rb $\xrightarrow[37]{64.9\text{ ms}}$ 74Kr

$^{75}\text{Rb} \xrightarrow[37]{19\text{ s}} ^{75}\text{Kr}$	$^{76}\text{Rb} \xrightarrow[37]{36.5\text{ s}} ^{76}\text{Kr}$	$^{77}\text{Rb} \xrightarrow[37]{3.77\text{ m}} ^{77}\text{Kr}$	$^{78}\text{Rb} \xrightarrow[37]{17.66\text{ m}} ^{78}\text{Kr}$	$^{78\text{m}}\text{Rb} \xrightarrow[37]{5.74\text{ m}} ^{78}\text{Kr}$
$^{78\text{m}}\text{Rb} \xrightarrow[37]{4.576\text{ h}} ^{78}\text{Rb}$	$^{79}\text{Rb} \xrightarrow[37]{22.9\text{ m}} ^{79}\text{Kr}$	$^{80}\text{Rb} \xrightarrow[37]{34\text{ s}} ^{80}\text{Kr}$	$^{81}\text{Rb} \xrightarrow[37]{4.576\text{ h}} ^{81}\text{Kr}$	$^{81}\text{Rb} \xrightarrow[37]{4.576\text{ h}} ^{81}\text{Kr}$
$^{81\text{m}}\text{Rb} \xrightarrow[37]{30.25\text{ m}} ^{81}\text{Rb}$	$^{81\text{m}}\text{Rb} \xrightarrow[37]{30.25\text{ m}} ^{81}\text{Kr}$	$^{81\text{m}}\text{Rb} \xrightarrow[37]{30.25\text{ m}} ^{81\text{m}}\text{Kr}$	$^{82}\text{Rb} \xrightarrow[37]{1.273\text{ m}} ^{82}\text{Kr}$	$^{82\text{m}}\text{Rb} \xrightarrow[37]{6.472\text{ h}} ^{82}\text{Kr}$
$^{83}\text{Rb} \xrightarrow[37]{86.2\text{ d}} ^{83}\text{Kr}$	$^{83}\text{Rb} \xrightarrow[37]{86.2\text{ d}} ^{83\text{m}}\text{Kr}$	$^{83\text{m}}\text{Rb} \xrightarrow[37]{7.8\text{ ms}} ^{83}\text{Rb}$	$^{84}\text{Rb} \xrightarrow[37]{33.5\text{ d}} ^{84}\text{Sr}$	$^{84}\text{Rb} \xrightarrow[37]{33.5\text{ d}} ^{84}\text{Kr}$
$^{84\text{m}}\text{Rb} \xrightarrow[37]{20.4\text{ m}} ^{84}\text{Rb}$	$^{86}\text{Rb} \xrightarrow[37]{18.64\text{ d}} ^{86}\text{Kr}$	$^{86}\text{Rb} \xrightarrow[37]{18.64\text{ d}} ^{86}\text{Sr}$	$^{86\text{m}}\text{Rb} \xrightarrow[37]{1.017\text{ m}} ^{86}\text{Rb}$	$^{87}\text{Rb} \xrightarrow[37]{48.1\text{ Gy}} ^{87}\text{Sr}$
$^{88}\text{Rb} \xrightarrow[37]{17.8\text{ m}} ^{88}\text{Sr}$	$^{89}\text{Rb} \xrightarrow[37]{15.4\text{ m}} ^{89}\text{Sr}$	$^{90}\text{Rb} \xrightarrow[37]{2.633\text{ m}} ^{90}\text{Sr}$	$^{90\text{m}}\text{Rb} \xrightarrow[37]{4.3\text{ m}} ^{90}\text{Sr}$	$^{90\text{m}}\text{Rb} \xrightarrow[37]{4.3\text{ m}} ^{90}\text{Rb}$
$^{91}\text{Rb} \xrightarrow[37]{58.4\text{ s}} ^{91}\text{Sr}$	$^{92}\text{Rb} \xrightarrow[37]{4.492\text{ s}} ^{92}\text{Sr}$	$^{93}\text{Rb} \xrightarrow[37]{5.8\text{ s}} ^{93}\text{Sr}$	$^{93}\text{Rb} \xrightarrow[37]{5.8\text{ s}} ^{92}\text{Sr}$	$^{94}\text{Rb} \xrightarrow[37]{2.702\text{ s}} ^{94}\text{Sr}$
$^{94}\text{Rb} \xrightarrow[37]{2.702\text{ s}} ^{93}\text{Sr}$	$^{95}\text{Rb} \xrightarrow[37]{381\text{ ms}} ^{95}\text{Sr}$	$^{95}\text{Rb} \xrightarrow[37]{381\text{ ms}} ^{94}\text{Sr}$	$^{96}\text{Rb} \xrightarrow[37]{199\text{ ms}} ^{96}\text{Sr}$	$^{96}\text{Rb} \xrightarrow[37]{199\text{ ms}} ^{95}\text{Sr}$
$^{96\text{m}}\text{Rb} \xrightarrow[37]{200\text{ ms}} ^{96}\text{Sr}$	$^{96\text{m}}\text{Rb} \xrightarrow[37]{200\text{ ms}} ^{96}\text{Rb}$	$^{97}\text{Rb} \xrightarrow[37]{169.9\text{ ms}} ^{97}\text{Sr}$	$^{97}\text{Rb} \xrightarrow[37]{169.9\text{ ms}} ^{96}\text{Sr}$	$^{98}\text{Rb} \xrightarrow[37]{114\text{ ms}} ^{98}\text{Sr}$
$^{98}\text{Rb} \xrightarrow[37]{114\text{ ms}} ^{97}\text{Sr}$	$^{98}\text{Rb} \xrightarrow[37]{114\text{ ms}} ^{96}\text{Sr}$	$^{98\text{m}}\text{Rb} \xrightarrow[37]{96\text{ ms}} ^{98}\text{Sr}$	$^{99}\text{Rb} \xrightarrow[37]{50.3\text{ ms}} ^{99}\text{Sr}$	$^{99}\text{Rb} \xrightarrow[37]{50.3\text{ ms}} ^{98}\text{Sr}$
$^{100}\text{Rb} \xrightarrow[37]{51\text{ ms}} ^{100}\text{Sr}$	$^{100}\text{Rb} \xrightarrow[37]{51\text{ ms}} ^{99}\text{Sr}$	$^{100}\text{Rb} \xrightarrow[37]{51\text{ ms}} ^{98}\text{Sr}$	$^{101}\text{Rb} \xrightarrow[37]{32\text{ ms}} ^{101}\text{Sr}$	$^{102}\text{Rb} \xrightarrow[37]{37\text{ ms}} ^{102}\text{Sr}$
$^{102}\text{Rb} \xrightarrow[37]{37\text{ ms}} ^{101}\text{Sr}$	$^{73}\text{Sr} \xrightarrow[38]{25\text{ ms}} ^{73}\text{Rb}$	$^{74}\text{Sr} \xrightarrow[38]{50\text{ ms}} ^{74}\text{Rb}$	$^{75}\text{Sr} \xrightarrow[38]{88\text{ ms}} ^{75}\text{Rb}$	$^{75}\text{Sr} \xrightarrow[38]{88\text{ ms}} ^{74}\text{Kr}$
$^{76}\text{Sr} \xrightarrow[38]{8.9\text{ s}} ^{76}\text{Rb}$	$^{77}\text{Sr} \xrightarrow[38]{9\text{ s}} ^{77}\text{Rb}$	$^{78}\text{Sr} \xrightarrow[38]{2.65\text{ m}} ^{78}\text{Rb}$	$^{79}\text{Sr} \xrightarrow[38]{2.25\text{ m}} ^{79}\text{Rb}$	$^{80}\text{Sr} \xrightarrow[38]{1.772\text{ h}} ^{80}\text{Rb}$
$^{81}\text{Sr} \xrightarrow[38]{22.3\text{ m}} ^{81}\text{Rb}$	$^{81}\text{Sr} \xrightarrow[38]{22.3\text{ m}} ^{81\text{m}}\text{Rb}$	$^{82}\text{Sr} \xrightarrow[38]{25.55\text{ d}} ^{82}\text{Rb}$	$^{83}\text{Sr} \xrightarrow[38]{1.35\text{ d}} ^{83}\text{Rb}$	$^{83\text{m}}\text{Sr} \xrightarrow[38]{4.95\text{ s}} ^{83}\text{Sr}$
$^{85}\text{Sr} \xrightarrow[38]{64.85\text{ d}} ^{85}\text{Rb}$	$^{85\text{m}}\text{Sr} \xrightarrow[38]{1.127\text{ h}} ^{85}\text{Rb}$	$^{85\text{m}}\text{Sr} \xrightarrow[38]{1.127\text{ h}} ^{85}\text{Sr}$	$^{87\text{m}}\text{Sr} \xrightarrow[38]{2.816\text{ h}} ^{87}\text{Rb}$	$^{87\text{m}}\text{Sr} \xrightarrow[38]{2.816\text{ h}} ^{87}\text{Sr}$
$^{89}\text{Sr} \xrightarrow[38]{50.57\text{ d}} ^{89}\text{Y}$	$^{89}\text{Sr} \xrightarrow[38]{50.57\text{ d}} ^{89\text{m}}\text{Y}$	$^{90}\text{Sr} \xrightarrow[38]{28.79\text{ y}} ^{90}\text{Y}$	$^{91}\text{Sr} \xrightarrow[38]{9.63\text{ h}} ^{91}\text{Y}$	$^{91}\text{Sr} \xrightarrow[38]{9.63\text{ h}} ^{91\text{m}}\text{Y}$
$^{92}\text{Sr} \xrightarrow[38]{2.71\text{ h}} ^{92}\text{Y}$	$^{93}\text{Sr} \xrightarrow[38]{7.423\text{ m}} ^{93}\text{Y}$	$^{93}\text{Sr} \xrightarrow[38]{7.423\text{ m}} ^{93\text{m}}\text{Y}$	$^{94}\text{Sr} \xrightarrow[38]{1.255\text{ m}} ^{94}\text{Y}$	$^{95}\text{Sr} \xrightarrow[38]{23.9\text{ s}} ^{95}\text{Y}$
$^{96}\text{Sr} \xrightarrow[38]{1.06\text{ s}} ^{96}\text{Y}$	$^{97}\text{Sr} \xrightarrow[38]{429\text{ ms}} ^{97}\text{Y}$	$^{97}\text{Sr} \xrightarrow[38]{429\text{ ms}} ^{97\text{m}}\text{Y}$	$^{97}\text{Sr} \xrightarrow[38]{429\text{ ms}} ^{96}\text{Y}$	$^{97}\text{Sr} \xrightarrow[38]{429\text{ ms}} ^{96\text{m}}\text{Y}$
$^{98}\text{Sr} \xrightarrow[38]{653\text{ ms}} ^{98}\text{Y}$	$^{99}\text{Sr} \xrightarrow[38]{270\text{ ms}} ^{99}\text{Y}$	$^{100}\text{Sr} \xrightarrow[38]{202\text{ ms}} ^{100}\text{Y}$	$^{100}\text{Sr} \xrightarrow[38]{202\text{ ms}} ^{99}\text{Y}$	$^{101}\text{Sr} \xrightarrow[38]{118\text{ ms}} ^{101}\text{Y}$
$^{101}\text{Sr} \xrightarrow[38]{118\text{ ms}} ^{100}\text{Y}$	$^{101}\text{Sr} \xrightarrow[38]{118\text{ ms}} ^{100\text{m}}\text{Y}$	$^{102}\text{Sr} \xrightarrow[38]{69\text{ ms}} ^{102}\text{Y}$	$^{102}\text{Sr} \xrightarrow[38]{69\text{ ms}} ^{102\text{m}}\text{Y}$	$^{102}\text{Sr} \xrightarrow[38]{69\text{ ms}} ^{101}\text{Y}$
$^{103}\text{Sr} \xrightarrow[38]{50\text{ ms}} ^{103}\text{Y}$	$^{104}\text{Sr} \xrightarrow[38]{30\text{ ms}} ^{104}\text{Y}$	$^{105}\text{Sr} \xrightarrow[38]{20\text{ ms}} ^{105}\text{Y}$	$^{76}\text{Y} \xrightarrow[39]{500\text{ ns}} ^{76}\text{Sr}$	$^{76}\text{Y} \xrightarrow[39]{500\text{ ns}} ^{75}\text{Sr}$
$^{77}\text{Y} \xrightarrow[39]{63\text{ ms}} ^{77}\text{Sr}$	$^{77}\text{Y} \xrightarrow[39]{63\text{ ms}} ^{76}\text{Sr}$	$^{78}\text{Y} \xrightarrow[39]{54\text{ ms}} ^{78}\text{Sr}$	$^{78\text{m}}\text{Y} \xrightarrow[39]{5.8\text{ ms}} ^{78}\text{Sr}$	$^{79}\text{Y} \xrightarrow[39]{14.8\text{ s}} ^{79}\text{Sr}$
$^{80}\text{Y} \xrightarrow[39]{35\text{ s}} ^{80}\text{Sr}$	$^{80\text{m}}\text{Y} \xrightarrow[39]{4.8\text{ s}} ^{80}\text{Sr}$	$^{80\text{m}}\text{Y} \xrightarrow[39]{4.8\text{ s}} ^{80}\text{Sr}$	$^{81}\text{Y} \xrightarrow[39]{1.173\text{ m}} ^{81}\text{Sr}$	$^{82}\text{Y} \xrightarrow[39]{8.3\text{ s}} ^{82}\text{Sr}$
$^{83}\text{Y} \xrightarrow[39]{7.08\text{ m}} ^{83}\text{Sr}$	$^{83}\text{Y} \xrightarrow[39]{7.08\text{ m}} ^{83\text{m}}\text{Sr}$	$^{83\text{m}}\text{Y} \xrightarrow[39]{2.85\text{ m}} ^{83\text{m}}\text{Sr}$	$^{83\text{m}}\text{Y} \xrightarrow[39]{2.85\text{ m}} ^{83}\text{Y}$	$^{84}\text{Y} \xrightarrow[39]{4.6\text{ s}} ^{84}\text{Sr}$
$^{84\text{m}}\text{Y} \xrightarrow[39]{40\text{ m}} ^{84}\text{Sr}$	$^{85}\text{Y} \xrightarrow[39]{2.68\text{ h}} ^{85}\text{Sr}$	$^{85\text{m}}\text{Y} \xrightarrow[39]{4.86\text{ h}} ^{85}\text{Sr}$	$^{85\text{m}}\text{Y} \xrightarrow[39]{4.86\text{ h}} ^{85\text{m}}\text{Sr}$	$^{85\text{m}}\text{Y} \xrightarrow[39]{4.86\text{ h}} ^{85}\text{Y}$
$^{86}\text{Y} \xrightarrow[39]{14.74\text{ h}} ^{86}\text{Sr}$	$^{86\text{m}}\text{Y} \xrightarrow[39]{48\text{ m}} ^{86}\text{Sr}$	$^{86\text{m}}\text{Y} \xrightarrow[39]{48\text{ m}} ^{86}\text{Y}$	$^{87}\text{Y} \xrightarrow[39]{3.325\text{ d}} ^{87\text{m}}\text{Sr}$	$^{87\text{m}}\text{Y} \xrightarrow[39]{13.37\text{ h}} ^{87}\text{Sr}$
$^{87\text{m}}\text{Y} \xrightarrow[39]{13.37\text{ h}} ^{87}\text{Y}$	$^{88}\text{Y} \xrightarrow[39]{106.6\text{ d}} ^{88}\text{Sr}$	$^{88\text{m}}\text{Y} \xrightarrow[39]{13.9\text{ ms}} ^{88}\text{Y}$	$^{89\text{m}}\text{Y} \xrightarrow[39]{15.66\text{ s}} ^{89}\text{Y}$	$^{90}\text{Y} \xrightarrow[39]{2.671\text{ d}} ^{90}\text{Zr}$
$^{90\text{m}}\text{Y} \xrightarrow[39]{3.19\text{ h}} ^{90}\text{Y}$	$^{91}\text{Y} \xrightarrow[39]{58.51\text{ d}} ^{91}\text{Zr}$	$^{91\text{m}}\text{Y} \xrightarrow[39]{49.71\text{ m}} ^{91}\text{Y}$	$^{92}\text{Y} \xrightarrow[39]{3.54\text{ h}} ^{92}\text{Zr}$	$^{93}\text{Y} \xrightarrow[39]{10.18\text{ h}} ^{93}\text{Zr}$
$^{93\text{m}}\text{Y} \xrightarrow[39]{820\text{ ms}} ^{93}\text{Y}$	$^{94}\text{Y} \xrightarrow[39]{18.7\text{ m}} ^{94}\text{Zr}$	$^{95}\text{Y} \xrightarrow[39]{10.3\text{ m}} ^{95}\text{Zr}$	$^{96}\text{Y} \xrightarrow[39]{5.34\text{ s}} ^{96}\text{Zr}$	$^{96\text{m}}\text{Y} \xrightarrow[39]{9.62\text{ s}} ^{96}\text{Zr}$
$^{97}\text{Y} \xrightarrow[39]{3.75\text{ s}} ^{97}\text{Zr}$	$^{97}\text{Y} \xrightarrow[39]{3.75\text{ s}} ^{96}\text{Zr}$	$^{97\text{m}}\text{Y} \xrightarrow[39]{1.17\text{ s}} ^{97}\text{Zr}$	$^{97\text{m}}\text{Y} \xrightarrow[39]{1.17\text{ s}} ^{97}\text{Y}$	$^{97\text{m}}\text{Y} \xrightarrow[39]{1.17\text{ s}} ^{96}\text{Zr}$
$^{97\text{m}}\text{Y} \xrightarrow[39]{142\text{ ms}} ^{97}\text{Zr}$	$^{97\text{m}}\text{Y} \xrightarrow[39]{142\text{ ms}} ^{97\text{m}}\text{Zr}$	$^{98}\text{Y} \xrightarrow[39]{590\text{ ms}} ^{98}\text{Zr}$	$^{98}\text{Y} \xrightarrow[39]{590\text{ ms}} ^{97}\text{Zr}$	$^{98\text{m}}\text{Y} \xrightarrow[39]{2\text{ s}} ^{98}\text{Zr}$
$^{98\text{m}}\text{Y} \xrightarrow[39]{2\text{ s}} ^{97}\text{Zr}$	$^{99}\text{Y} \xrightarrow[39]{1.477\text{ s}} ^{99}\text{Zr}$	$^{99}\text{Y} \xrightarrow[39]{1.477\text{ s}} ^{98}\text{Zr}$	$^{100}\text{Y} \xrightarrow[39]{735\text{ ms}} ^{100}\text{Zr}$	$^{100}\text{Y} \xrightarrow[39]{735\text{ ms}} ^{99}\text{Zr}$
$^{100\text{m}}\text{Y} \xrightarrow[39]{940\text{ ms}} ^{100}\text{Zr}$	$^{101}\text{Y} \xrightarrow[39]{450\text{ ms}} ^{101}\text{Zr}$	$^{102}\text{Y} \xrightarrow[39]{300\text{ ms}} ^{102}\text{Zr}$	$^{102}\text{Y} \xrightarrow[39]{300\text{ ms}} ^{101}\text{Zr}$	$^{102\text{m}}\text{Y} \xrightarrow[39]{360\text{ ms}} ^{102}\text{Zr}$
$^{102\text{m}}\text{Y} \xrightarrow[39]{360\text{ ms}} ^{101}\text{Zr}$	$^{103}\text{Y} \xrightarrow[39]{224\text{ ms}} ^{103}\text{Zr}$	$^{103}\text{Y} \xrightarrow[39]{224\text{ ms}} ^{102}\text{Zr}$	$^{104}\text{Y} \xrightarrow[39]{130\text{ ms}} ^{104}\text{Zr}$	$^{104}\text{Y} \xrightarrow[39]{130\text{ ms}} ^{103}\text{Zr}$
$^{105}\text{Y} \xrightarrow[39]{150\text{ ms}} ^{105}\text{Zr}$	$^{105}\text{Y} \xrightarrow[39]{150\text{ ms}} ^{104}\text{Zr}$	$^{106}\text{Y} \xrightarrow[39]{50\text{ ms}} ^{106}\text{Zr}$	$^{107}\text{Y} \xrightarrow[39]{30\text{ ms}} ^{107}\text{Zr}$	$^{108}\text{Y} \xrightarrow[39]{20\text{ ms}} ^{108}\text{Zr}$
$^{78}\text{Zr} \xrightarrow[40]{50\text{ ms}} ^{78}\text{Y}$	$^{79}\text{Zr} \xrightarrow[40]{56\text{ ms}} ^{79}\text{Y}$	$^{80}\text{Zr} \xrightarrow[40]{4.6\text{ s}} ^{80\text{m}}\text{Y}$	$^{81}\text{Zr} \xrightarrow[40]{5.5\text{ s}} ^{81}\text{Y}$	$^{81}\text{Zr} \xrightarrow[40]{5.5\text{ s}} ^{80}\text{Sr}$
$^{82}\text{Zr} \xrightarrow[40]{32\text{ s}} ^{82}\text{Y}$	$^{83}\text{Zr} \xrightarrow[40]{41.6\text{ s}} ^{83}\text{Y}$	$^{83}\text{Zr} \xrightarrow[40]{41.6\text{ s}} ^{83\text{m}}\text{Y}$	$^{84}\text{Zr} \xrightarrow[40]{25.9\text{ m}} ^{84}\text{Y}$	$^{85}\text{Zr} \xrightarrow[40]{7.86\text{ m}} ^{85}\text{Y}$
$^{85\text{m}}\text{Zr} \xrightarrow[40]{10.9\text{ s}} ^{85}\text{Zr}$	$^{85\text{m}}\text{Zr} \xrightarrow[40]{10.9\text{ s}} ^{85}\text{Y}$	$^{86}\text{Zr} \xrightarrow[40]{16.5\text{ h}} ^{86}\text{Y}$	$^{86}\text{Zr} \xrightarrow[40]{16.5\text{ h}} ^{86\text{m}}\text{Y}$	$^{87}\text{Zr} \xrightarrow[40]{1.68\text{ h}} ^{87}\text{Y}$
$^{87}\text{Zr} \xrightarrow[40]{1.68\text{ h}} ^{87\text{m}}\text{Y}$	$^{87\text{m}}\text{Zr} \xrightarrow[40]{14\text{ s}} ^{87}\text{Zr}$	$^{88}\text{Zr} \xrightarrow[40]{83\text{ d}} ^{88}\text{Y}$	$^{89}\text{Zr} \xrightarrow[40]{3.267\text{ d}} ^{89}\text{Y}$	$^{89}\text{Zr} \xrightarrow[40]{3.267\text{ d}} ^{89\text{m}}\text{Y}$
$^{89\text{m}}\text{Zr} \xrightarrow[40]{4.18\text{ m}} ^{89}\text{Y}$	$^{89\text{m}}\text{Zr} \xrightarrow[40]{4.18\text{ m}} ^{89}\text{Zr}$	$^{90\text{m}}\text{Zr} \xrightarrow[40]{809.2\text{ ms}} ^{90}\text{Zr}$	$^{93}\text{Zr} \xrightarrow[40]{1.53\text{ My}} ^{93}\text{Nb}$	$^{93}\text{Zr} \xrightarrow[40]{1.53\text{ My}} ^{93\text{m}}\text{Nb}$
$^{94}\text{Zr} \xrightarrow[40]{6\text{ Py}} ^{94}\text{Mo}$	$^{95}\text{Zr} \xrightarrow[40]{64.03\text{ d}} ^{95}\text{Nb}$	$^{95}\text{Zr} \xrightarrow[40]{64.03\text{ d}} ^{95\text{m}}\text{Nb}$	$^{96}\text{Zr} \xrightarrow[40]{39\text{ Ey}} ^{96}\text{Mo}$	$^{97}\text{Zr} \xrightarrow[40]{16.74\text{ h}} ^{97}\text{Nb}$
$^{97}\text{Zr} \xrightarrow[40]{16.74\text{ h}} ^{97\text{m}}\text{Nb}$	$^{98}\text{Zr} \xrightarrow[40]{30.7\text{ s}} ^{98}\text{Nb}$	$^{99}\text{Zr} \xrightarrow[40]{2.2\text{ s}} ^{99\text{m}}\text{Nb}$	$^{99}\text{Zr} \xrightarrow[40]{2.2\text{ s}} ^{99}\text{Nb}$	$^{100}\text{Zr} \xrightarrow[40]{7.1\text{ s}} ^{100}\text{Nb}$
$^{101}\text{Zr} \xrightarrow[40]{2.3\text{ s}} ^{101}\text{Nb}$	$^{102}\text{Zr} \xrightarrow[40]{2.9\text{ s}} ^{102}\text{Nb}$	$^{103}\text{Zr} \xrightarrow[40]{1.3\text{ s}} ^{103}\text{Nb}$	$^{104}\text{Zr} \xrightarrow[40]{1.2\text{ s}} ^{104}\text{Nb}$	$^{105}\text{Zr} \xrightarrow[40]{600\text{ ms}} ^{105}\text{Nb}$
$^{105}\text{Zr} \xrightarrow[40]{600\text{ ms}} ^{104}\text{Nb}$	$^{106}\text{Zr} \xrightarrow[40]{900\text{ ms}} ^{106}\text{Nb}$	$^{106}\text{Zr} \xrightarrow[40]{900\text{ ms}} ^{105}\text{Nb}$	$^{107}\text{Zr} \xrightarrow[40]{240\text{ ms}} ^{107}\text{Nb}$	$^{107}\text{Zr} \xrightarrow[40]{240\text{ ms}} ^{106}\text{Nb}$

108Zr $\xrightarrow{\beta}$ $\xrightarrow{80\text{ ms}}$ 108Nb	109Zr $\xrightarrow{\beta}$ $\xrightarrow{60\text{ ms}}$ 109Nb	110Zr $\xrightarrow{\beta}$ $\xrightarrow{30\text{ ms}}$ 110Nb	81Nb $\xrightarrow{n}$ $\xrightarrow{44\text{ ns}}$ $\xrightarrow{50\%}$ 80Zr	81Nb $\xrightarrow{n}$ $\xrightarrow{44\text{ ns}}$ $\xrightarrow{50\%}$ 81Zr
82Nb $\xrightarrow{\beta}$ $\xrightarrow{50\text{ ms}}$ 82Zr	83Nb $\xrightarrow{\beta}$ $\xrightarrow{4.1\text{ s}}$ 83Zr	84Nb $\xrightarrow{\beta}$ $\xrightarrow{12\text{ s}}$ 84Zr	85Nb $\xrightarrow{\beta}$ $\xrightarrow{20.9\text{ s}}$ 85Zr	85mNb $\xrightarrow{\beta}$ $\xrightarrow{12\text{ s}}$ 85mZr
86Nb $\xrightarrow{\beta}$ $\xrightarrow{1.467\text{ m}}$ 86Zr	86mNb $\xrightarrow{\beta}$ $\xrightarrow{56\text{ s}}$ 86Zr	87Nb $\xrightarrow{\beta}$ $\xrightarrow{3.75\text{ m}}$ 87Zr	87mNb $\xrightarrow{\beta}$ $\xrightarrow{2.6\text{ m}}$ 87Zr	88Nb $\xrightarrow{\beta}$ $\xrightarrow{14.5\text{ m}}$ 88Zr
88mNb $\xrightarrow{\beta}$ $\xrightarrow{7.8\text{ h}}$ 88Zr	89Nb $\xrightarrow{\beta}$ $\xrightarrow{2.03\text{ h}}$ 89Zr	89Nb $\xrightarrow{\beta}$ $\xrightarrow{2.03\text{ h}}$ 89mZr	89mNb $\xrightarrow{\beta}$ $\xrightarrow{1.1\text{ h}}$ 89mZr	90Nb $\xrightarrow{\beta}$ $\xrightarrow{14.6\text{ h}}$ 90Zr
90Nb $\xrightarrow{\beta}$ $\xrightarrow{14.6\text{ h}}$ 90mZr	90mNb $\xrightarrow{\beta}$ $\xrightarrow{18.81\text{ s}}$ 90Nb	90nNb $\xrightarrow{\beta}$ $\xrightarrow{6.19\text{ ms}}$ 90mNb	91Nb $\xrightarrow{\beta}$ $\xrightarrow{680\text{ y}}$ 91Zr	91mNb $\xrightarrow{\beta}$ $\xrightarrow{60.9\text{ d}}$ 91Nb
91mNb $\xrightarrow{\beta}$ $\xrightarrow{60.9\text{ d}}$ 91Zr	92Nb $\xrightarrow{\beta}$ $\xrightarrow{35\text{ My}}$ 92Zr	92mNb $\xrightarrow{\beta}$ $\xrightarrow{10.15\text{ d}}$ 92Zr	93mNb $\xrightarrow{\beta}$ $\xrightarrow{16.13\text{ y}}$ 93Nb	94Nb $\xrightarrow{\beta}$ $\xrightarrow{19.99\text{ ky}}$ 94Mo
94mNb $\xrightarrow{\beta}$ $\xrightarrow{6.26\text{ m}}$ 94Mo	94mNb $\xrightarrow{\beta}$ $\xrightarrow{6.26\text{ m}}$ 94Nb	95Nb $\xrightarrow{\beta}$ $\xrightarrow{34.99\text{ d}}$ 95Mo	95mNb $\xrightarrow{\beta}$ $\xrightarrow{3.608\text{ d}}$ 95Mo	95mNb $\xrightarrow{\beta}$ $\xrightarrow{3.608\text{ d}}$ 95Nb
96Nb $\xrightarrow{\beta}$ $\xrightarrow{23.35\text{ h}}$ 96Mo	97Nb $\xrightarrow{\beta}$ $\xrightarrow{1.202\text{ h}}$ 97Mo	97mNb $\xrightarrow{\beta}$ $\xrightarrow{52.7\text{ s}}$ 97Nb	98Nb $\xrightarrow{\beta}$ $\xrightarrow{2.86\text{ s}}$ 98Mo	98mNb $\xrightarrow{\beta}$ $\xrightarrow{51.3\text{ m}}$ 98Mo
99Nb $\xrightarrow{\beta}$ $\xrightarrow{15\text{ s}}$ 99Mo	99mNb $\xrightarrow{\beta}$ $\xrightarrow{2.6\text{ m}}$ 99Mo	99mNb $\xrightarrow{\beta}$ $\xrightarrow{2.6\text{ m}}$ 99Nb	100Nb $\xrightarrow{\beta}$ $\xrightarrow{1.5\text{ s}}$ 100Mo	100mNb $\xrightarrow{\beta}$ $\xrightarrow{2.9\text{ s}}$ 100Mo
101Nb $\xrightarrow{\beta}$ $\xrightarrow{7.1\text{ s}}$ 101Mo	102Nb $\xrightarrow{\beta}$ $\xrightarrow{1.3\text{ s}}$ 102Mo	102mNb $\xrightarrow{\beta}$ $\xrightarrow{4.3\text{ s}}$ 102Mo	103Nb $\xrightarrow{\beta}$ $\xrightarrow{1.5\text{ s}}$ 103Mo	104Nb $\xrightarrow{\beta}$ $\xrightarrow{4.9\text{ s}}$ 104Mo
104Nb $\xrightarrow{\beta}$ $\xrightarrow{4.9\text{ s}}$ 103Mo	104mNb $\xrightarrow{\beta}$ $\xrightarrow{940\text{ ms}}$ 104Mo	104mNb $\xrightarrow{\beta}$ $\xrightarrow{940\text{ ms}}$ 103Mo	105Nb $\xrightarrow{\beta}$ $\xrightarrow{2.95\text{ s}}$ 105Mo	105Nb $\xrightarrow{\beta}$ $\xrightarrow{2.95\text{ s}}$ 104Mo
106Nb $\xrightarrow{\beta}$ $\xrightarrow{920\text{ ms}}$ 106Mo	106Nb $\xrightarrow{\beta}$ $\xrightarrow{920\text{ ms}}$ 105Mo	107Nb $\xrightarrow{\beta}$ $\xrightarrow{300\text{ ms}}$ 107Mo	107Nb $\xrightarrow{\beta}$ $\xrightarrow{300\text{ ms}}$ 106Mo	108Nb $\xrightarrow{\beta}$ $\xrightarrow{193\text{ ms}}$ 108Mo
108Nb $\xrightarrow{\beta}$ $\xrightarrow{193\text{ ms}}$ 107Mo	109Nb $\xrightarrow{\beta}$ $\xrightarrow{190\text{ ms}}$ 109Mo	109Nb $\xrightarrow{\beta}$ $\xrightarrow{190\text{ ms}}$ 108Mo	110Nb $\xrightarrow{\beta}$ $\xrightarrow{170\text{ ms}}$ 110Mo	110Nb $\xrightarrow{\beta}$ $\xrightarrow{170\text{ ms}}$ 109Mo
111Nb $\xrightarrow{\beta}$ $\xrightarrow{80\text{ ms}}$ 111Mo	112Nb $\xrightarrow{\beta}$ $\xrightarrow{60\text{ ms}}$ 112Mo	113Nb $\xrightarrow{\beta}$ $\xrightarrow{30\text{ ms}}$ 113Mo	83Mo $\xrightarrow{\beta}$ $\xrightarrow{23\text{ ms}}$ 83Nb	84Mo $\xrightarrow{\beta}$ $\xrightarrow{3.8\text{ ms}}$ 84Nb
85Mo $\xrightarrow{\beta}$ $\xrightarrow{3.2\text{ s}}$ 85mNb	86Mo $\xrightarrow{\beta}$ $\xrightarrow{19.6\text{ s}}$ 86Nb	86Mo $\xrightarrow{\beta}$ $\xrightarrow{19.6\text{ s}}$ 86mNb	87Mo $\xrightarrow{\beta}$ $\xrightarrow{14.02\text{ s}}$ 87Nb	88Mo $\xrightarrow{\beta}$ $\xrightarrow{8\text{ m}}$ 88Nb
88Mo $\xrightarrow{\beta}$ $\xrightarrow{8\text{ m}}$ 88mNb	89Mo $\xrightarrow{\beta}$ $\xrightarrow{2.11\text{ m}}$ 89Nb	89mMo $\xrightarrow{\beta}$ $\xrightarrow{190\text{ ms}}$ 89Mo	90Mo $\xrightarrow{\beta}$ $\xrightarrow{5.56\text{ h}}$ 90Nb	90Mo $\xrightarrow{\beta}$ $\xrightarrow{5.56\text{ h}}$ 90nNb
91Mo $\xrightarrow{\beta}$ $\xrightarrow{15.49\text{ m}}$ 91Nb	91Mo $\xrightarrow{\beta}$ $\xrightarrow{15.49\text{ m}}$ 91mNb	91mMo $\xrightarrow{\beta}$ $\xrightarrow{1.077\text{ m}}$ 91mNb	91mMo $\xrightarrow{\beta}$ $\xrightarrow{1.077\text{ m}}$ 91Mo	92Mo $\xrightarrow{\beta}$ $\xrightarrow{190\text{ Ey}}$ 92Zr
93Mo $\xrightarrow{\beta}$ $\xrightarrow{4\text{ ky}}$ 93Nb	93Mo $\xrightarrow{\beta}$ $\xrightarrow{4\text{ ky}}$ 93mNb	93mMo $\xrightarrow{\beta}$ $\xrightarrow{6.85\text{ h}}$ 93Nb	93mMo $\xrightarrow{\beta}$ $\xrightarrow{6.85\text{ h}}$ 93Mo	98Mo $\xrightarrow{\beta}$ $\xrightarrow{100\text{ Ty}}$ 98Ru
99Mo $\xrightarrow{\beta}$ $\xrightarrow{2.747\text{ d}}$ 99Tc	99Mo $\xrightarrow{\beta}$ $\xrightarrow{2.747\text{ d}}$ 99mTc	100Mo $\xrightarrow{\beta}$ $\xrightarrow{9.9\text{ Ey}}$ 100Ru	102Mo $\xrightarrow{\beta}$ $\xrightarrow{14.61\text{ m}}$ 101Tc	102Mo $\xrightarrow{\beta}$ $\xrightarrow{11.3\text{ m}}$ 102Tc
103Mo $\xrightarrow{\beta}$ $\xrightarrow{1.132\text{ m}}$ 103Tc	104Mo $\xrightarrow{\beta}$ $\xrightarrow{1\text{ m}}$ 104Tc	105Mo $\xrightarrow{\beta}$ $\xrightarrow{35.6\text{ s}}$ 105Tc	106Mo $\xrightarrow{\beta}$ $\xrightarrow{8.73\text{ s}}$ 106Tc	107Mo $\xrightarrow{\beta}$ $\xrightarrow{3.5\text{ s}}$ 107Tc
108Mo $\xrightarrow{\beta}$ $\xrightarrow{1.09\text{ s}}$ 108Tc	109Mo $\xrightarrow{\beta}$ $\xrightarrow{500\text{ ms}}$ 109Tc	109Mo $\xrightarrow{\beta}$ $\xrightarrow{500\text{ ms}}$ 108Tc	110Mo $\xrightarrow{\beta}$ $\xrightarrow{300\text{ ms}}$ 110Tc	111Mo $\xrightarrow{\beta}$ $\xrightarrow{500\text{ ms}}$ 111Tc
111Mo $\xrightarrow{\beta}$ $\xrightarrow{500\text{ ms}}$ 110Tc	112Mo $\xrightarrow{\beta}$ $\xrightarrow{1\text{ s}}$ 112Tc	112Mo $\xrightarrow{\beta}$ $\xrightarrow{1\text{ s}}$ 111Tc	113Mo $\xrightarrow{\beta}$ $\xrightarrow{100\text{ ms}}$ 113Tc	114Mo $\xrightarrow{\beta}$ $\xrightarrow{80\text{ ms}}$ 114Tc
115Mo $\xrightarrow{\beta}$ $\xrightarrow{60\text{ ms}}$ 115Tc	85Tc $\xrightarrow{n}$ $\xrightarrow{110\text{ ms}}$ 84Mo	85Tc $\xrightarrow{n}$ $\xrightarrow{110\text{ ms}}$ 85Mo	86Tc $\xrightarrow{\beta}$ $\xrightarrow{55\text{ ms}}$ 86Mo	87Tc $\xrightarrow{\beta}$ $\xrightarrow{2.2\text{ s}}$ 87Mo
87mTc $\xrightarrow{\beta}$ $\xrightarrow{2\text{ s}}$ 87Mo	87mTc $\xrightarrow{\beta}$ $\xrightarrow{2\text{ s}}$ 87Tc	88Tc $\xrightarrow{\beta}$ $\xrightarrow{5.8\text{ s}}$ 88Mo	88mTc $\xrightarrow{\beta}$ $\xrightarrow{6.4\text{ s}}$ 88Mo	89Tc $\xrightarrow{\beta}$ $\xrightarrow{12.8\text{ s}}$ 89Mo
89Tc $\xrightarrow{\beta}$ $\xrightarrow{12.8\text{ s}}$ 89mMo	89mTc $\xrightarrow{\beta}$ $\xrightarrow{12.9\text{ s}}$ 89Mo	89mTc $\xrightarrow{\beta}$ $\xrightarrow{12.9\text{ s}}$ 89mMo	89mTc $\xrightarrow{\beta}$ $\xrightarrow{12.9\text{ s}}$ 89Tc	90Tc $\xrightarrow{\beta}$ $\xrightarrow{8.7\text{ s}}$ 90Mo
90mTc $\xrightarrow{\beta}$ $\xrightarrow{49.2\text{ s}}$ 90Mo	91Tc $\xrightarrow{\beta}$ $\xrightarrow{3.14\text{ m}}$ 91Mo	91Tc $\xrightarrow{\beta}$ $\xrightarrow{3.14\text{ m}}$ 91mMo	91mTc $\xrightarrow{\beta}$ $\xrightarrow{3.3\text{ m}}$ 91Mo	91mTc $\xrightarrow{\beta}$ $\xrightarrow{3.3\text{ m}}$ 91mMo
91mTc $\xrightarrow{\beta}$ $\xrightarrow{3.3\text{ m}}$ 91Tc	92Tc $\xrightarrow{\beta}$ $\xrightarrow{4.25\text{ m}}$ 92Mo	92Tc $\xrightarrow{\beta}$ $\xrightarrow{2.75\text{ h}}$ 93Mo	93mTc $\xrightarrow{\beta}$ $\xrightarrow{43.5\text{ m}}$ 93Mo	93mTc $\xrightarrow{\beta}$ $\xrightarrow{43.5\text{ m}}$ 93Tc
94Tc $\xrightarrow{\beta}$ $\xrightarrow{4.883\text{ h}}$ 94Mo	94mTc $\xrightarrow{\beta}$ $\xrightarrow{52\text{ m}}$ 94Mo	95Tc $\xrightarrow{\beta}$ $\xrightarrow{20\text{ h}}$ 95Mo	95mTc $\xrightarrow{\beta}$ $\xrightarrow{61\text{ d}}$ 95Mo	95mTc $\xrightarrow{\beta}$ $\xrightarrow{61\text{ d}}$ 95Tc
96Tc $\xrightarrow{\beta}$ $\xrightarrow{4.28\text{ d}}$ 96Mo	96mTc $\xrightarrow{\beta}$ $\xrightarrow{51.5\text{ m}}$ 96Tc	96mTc $\xrightarrow{\beta}$ $\xrightarrow{51.5\text{ m}}$ 96Mo	97Tc $\xrightarrow{\beta}$ $\xrightarrow{2.6\text{ My}}$ 97Mo	97mTc $\xrightarrow{\beta}$ $\xrightarrow{90.2\text{ d}}$ 97Tc
98Tc $\xrightarrow{\beta}$ $\xrightarrow{4.2\text{ My}}$ 98Ru	99Tc $\xrightarrow{\beta}$ $\xrightarrow{214\text{ ky}}$ 99Ru	99mTc $\xrightarrow{\beta}$ $\xrightarrow{6.01\text{ h}}$ 99Tc	99mTc $\xrightarrow{\beta}$ $\xrightarrow{6.01\text{ h}}$ 99Ru	100Tc $\xrightarrow{\beta}$ $\xrightarrow{15.8\text{ s}}$ 100Ru
101Tc $\xrightarrow{\beta}$ $\xrightarrow{14.2\text{ m}}$ 101Ru	102Tc $\xrightarrow{\beta}$ $\xrightarrow{5.28\text{ s}}$ 102Ru	102mTc $\xrightarrow{\beta}$ $\xrightarrow{4.35\text{ m}}$ 102Ru	103Tc $\xrightarrow{\beta}$ $\xrightarrow{54.2\text{ s}}$ 103Ru	104Tc $\xrightarrow{\beta}$ $\xrightarrow{18.3\text{ m}}$ 104Ru
105Tc $\xrightarrow{\beta}$ $\xrightarrow{7.6\text{ m}}$ 105Ru	106Tc $\xrightarrow{\beta}$ $\xrightarrow{36\text{ s}}$ 106Ru	107Tc $\xrightarrow{\beta}$ $\xrightarrow{21.2\text{ s}}$ 107Ru	108Tc $\xrightarrow{\beta}$ $\xrightarrow{5.17\text{ s}}$ 108Ru	109Tc $\xrightarrow{\beta}$ $\xrightarrow{860\text{ ms}}$ 109Ru
109Tc $\xrightarrow{\beta}$ $\xrightarrow{860\text{ ms}}$ 108Ru	110Tc $\xrightarrow{\beta}$ $\xrightarrow{920\text{ ms}}$ 110Ru	110Tc $\xrightarrow{\beta}$ $\xrightarrow{920\text{ ms}}$ 109Ru	111Tc $\xrightarrow{\beta}$ $\xrightarrow{290\text{ ms}}$ 111Ru	112Tc $\xrightarrow{\beta}$ $\xrightarrow{290\text{ ms}}$ 112Ru
112Tc $\xrightarrow{\beta}$ $\xrightarrow{290\text{ ms}}$ 111Ru	113Tc $\xrightarrow{\beta}$ $\xrightarrow{130\text{ ms}}$ 113Ru	113Tc $\xrightarrow{\beta}$ $\xrightarrow{130\text{ ms}}$ 112Ru	114Tc $\xrightarrow{\beta}$ $\xrightarrow{200\text{ ms}}$ 114Ru	114Tc $\xrightarrow{\beta}$ $\xrightarrow{200\text{ ms}}$ 113Ru
115Tc $\xrightarrow{\beta}$ $\xrightarrow{270\text{ ms}}$ 115Ru	115Tc $\xrightarrow{\beta}$ $\xrightarrow{270\text{ ms}}$ 114Ru	116Tc $\xrightarrow{\beta}$ $\xrightarrow{120\text{ ms}}$ 116Ru	116Tc $\xrightarrow{\beta}$ $\xrightarrow{120\text{ ms}}$ 115Ru	117Tc $\xrightarrow{\beta}$ $\xrightarrow{40\text{ ms}}$ 117Ru
118Tc $\xrightarrow{\beta}$ $\xrightarrow{30\text{ ms}}$ 118Ru	87Ru $\xrightarrow{\beta}$ $\xrightarrow{50\text{ ms}}$ 87Tc	88Ru $\xrightarrow{\beta}$ $\xrightarrow{1.3\text{ s}}$ 88Tc	88Ru $\xrightarrow{\beta}$ $\xrightarrow{1.3\text{ s}}$ 88mTc	89Ru $\xrightarrow{\beta}$ $\xrightarrow{1.38\text{ s}}$ 89Tc
89Ru $\xrightarrow{\beta}$ $\xrightarrow{1.38\text{ s}}$ 89mTc	90Ru $\xrightarrow{\beta}$ $\xrightarrow{11\text{ s}}$ 90Tc	90Ru $\xrightarrow{\beta}$ $\xrightarrow{11\text{ s}}$ 90mTc	91Ru $\xrightarrow{\beta}$ $\xrightarrow{9\text{ s}}$ 91Tc	91mRu $\xrightarrow{\beta}$ $\xrightarrow{7.6\text{ s}}$ 91mTc
92Ru $\xrightarrow{\beta}$ $\xrightarrow{3.65\text{ m}}$ 92Tc	93Ru $\xrightarrow{\beta}$ $\xrightarrow{59.7\text{ s}}$ 93Tc	93mRu $\xrightarrow{\beta}$ $\xrightarrow{10.8\text{ s}}$ 93mTc	93mRu $\xrightarrow{\beta}$ $\xrightarrow{10.8\text{ s}}$ 93Ru	93mRu $\xrightarrow{\beta}$ $\xrightarrow{10.8\text{ s}}$ 92Mo
94Ru $\xrightarrow{\beta}$ $\xrightarrow{51.8\text{ m}}$ 94mTc	95Ru $\xrightarrow{\beta}$ $\xrightarrow{1.643\text{ h}}$ 95Tc	95Ru $\xrightarrow{\beta}$ $\xrightarrow{1.643\text{ h}}$ 95mTc	96Ru $\xrightarrow{\beta}$ $\xrightarrow{67\text{ Ey}}$ 96Mo	97Ru $\xrightarrow{\beta}$ $\xrightarrow{2.9\text{ d}}$ 97Tc
97Ru $\xrightarrow{\beta}$ $\xrightarrow{2.9\text{ d}}$ 97mTc	103Ru $\xrightarrow{\beta}$ $\xrightarrow{39.26\text{ d}}$ 103Rh	103Ru $\xrightarrow{\beta}$ $\xrightarrow{39.26\text{ d}}$ 103mRh	103mRu $\xrightarrow{\beta}$ $\xrightarrow{1.69\text{ ms}}$ 103Ru	105Ru $\xrightarrow{\beta}$ $\xrightarrow{4.44\text{ h}}$ 105Rh
105Ru $\xrightarrow{\beta}$ $\xrightarrow{4.44\text{ h}}$ 105mRh	106Ru $\xrightarrow{\beta}$ $\xrightarrow{1.02\text{ y}}$ 106Rh	107Ru $\xrightarrow{\beta}$ $\xrightarrow{3.75\text{ m}}$ 107Rh	108Ru $\xrightarrow{\beta}$ $\xrightarrow{4.55\text{ m}}$ 108Rh	109Ru $\xrightarrow{\beta}$ $\xrightarrow{34.5\text{ s}}$ 109Rh
110Ru $\xrightarrow{\beta}$ $\xrightarrow{11.6\text{ s}}$ 110Rh	111Ru $\xrightarrow{\beta}$ $\xrightarrow{2.12\text{ s}}$ 111Rh	112Ru $\xrightarrow{\beta}$ $\xrightarrow{1.75\text{ s}}$ 112Rh	113Ru $\xrightarrow{\beta}$ $\xrightarrow{800\text{ ms}}$ 113Rh	113mRu $\xrightarrow{\beta}$ $\xrightarrow{510\text{ ms}}$ 113Ru
113mRu $\xrightarrow{\beta}$ $\xrightarrow{510\text{ ms}}$ 113Rh	114Ru $\xrightarrow{\beta}$ $\xrightarrow{530\text{ ms}}$ 114Rh	115Ru $\xrightarrow{\beta}$ $\xrightarrow{700\text{ ms}}$ 115Rh	115Ru $\xrightarrow{\beta}$ $\xrightarrow{700\text{ ms}}$ 114Rh	116Ru $\xrightarrow{\beta}$ $\xrightarrow{1.7\text{ s}}$ 116Rh
116Ru $\xrightarrow{\beta}$ $\xrightarrow{1.7\text{ s}}$ 115Rh	117Ru $\xrightarrow{\beta}$ $\xrightarrow{340\text{ ms}}$ 117Rh	117Ru $\xrightarrow{\beta}$ $\xrightarrow{340\text{ ms}}$ 116Rh	118Ru $\xrightarrow{\beta}$ $\xrightarrow{700\text{ ms}}$ 118Rh	118Ru $\xrightarrow{\beta}$ $\xrightarrow{700\text{ ms}}$ 117Rh

$^{119}\text{Ru}$ $\xrightarrow{190\text{ ms}}$ $^{119}\text{Rh}$ $_{44}\text{Ru}$ $\beta$ 95.64% $_{45}\text{Rh}$	$^{119}\text{Ru}$ $\xrightarrow{190\text{ ms}}$ $^{118}\text{Rh}$ $_{44}\text{Ru}$ $\beta_n$ 4.358% $_{45}\text{Rh}$	$^{120}\text{Ru}$ $\xrightarrow{80\text{ ms}}$ $^{120}\text{Rh}$ $_{44}\text{Ru}$ $\beta$ $_{45}\text{Rh}$	$^{89}\text{Rh}$ $\xrightarrow{10\text{ ms}}$ $^{89}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{90}\text{Rh}$ $\xrightarrow{15\text{ ms}}$ $^{90}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$
$^{90m}\text{Rh}$ $\xrightarrow{1.1\text{ ms}}$ $^{90}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{91}\text{Rh}$ $\xrightarrow{1.74\text{ s}}$ $^{91}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{92}\text{Rh}$ $\xrightarrow{4.3\text{ s}}$ $^{92}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{93}\text{Rh}$ $\xrightarrow{13.9\text{ s}}$ $^{93}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 50% $_{44}\text{Ru}$	$^{93}\text{Rh}$ $\xrightarrow{13.9\text{ s}}$ $^{93m}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 50% $_{44}\text{Ru}$
$^{94}\text{Rh}$ $\xrightarrow{1.177\text{ m}}$ $^{94}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{94m}\text{Rh}$ $\xrightarrow{25.8\text{ s}}$ $^{94}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{95}\text{Rh}$ $\xrightarrow{5.02\text{ m}}$ $^{95}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{95m}\text{Rh}$ $\xrightarrow{1.96\text{ m}}$ $^{95}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 88% $_{45}\text{Rh}$	$^{95m}\text{Rh}$ $\xrightarrow{1.96\text{ m}}$ $^{95}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 12% $_{44}\text{Ru}$
$^{96}\text{Rh}$ $\xrightarrow{9.9\text{ m}}$ $^{96}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{96m}\text{Rh}$ $\xrightarrow{1.51\text{ m}}$ $^{96}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 60% $_{45}\text{Rh}$	$^{96m}\text{Rh}$ $\xrightarrow{1.51\text{ m}}$ $^{96}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 40% $_{44}\text{Ru}$	$^{97}\text{Rh}$ $\xrightarrow{30.7\text{ m}}$ $^{97}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{97m}\text{Rh}$ $\xrightarrow{46.2\text{ m}}$ $^{97}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 94.4% $_{44}\text{Ru}$
$^{97m}\text{Rh}$ $\xrightarrow{46.2\text{ m}}$ $^{97}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 5.6% $_{45}\text{Rh}$	$^{98}\text{Rh}$ $\xrightarrow{8.72\text{ m}}$ $^{98}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{98m}\text{Rh}$ $\xrightarrow{3.6\text{ m}}$ $^{98}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 89% $_{45}\text{Rh}$	$^{98m}\text{Rh}$ $\xrightarrow{3.6\text{ m}}$ $^{98}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 11% $_{44}\text{Ru}$	$^{99}\text{Rh}$ $\xrightarrow{16.1\text{ d}}$ $^{99}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$
$^{99m}\text{Rh}$ $\xrightarrow{4.7\text{ h}}$ $^{99}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 99.84% $_{44}\text{Ru}$	$^{99m}\text{Rh}$ $\xrightarrow{4.7\text{ h}}$ $^{99}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 0.16% $_{45}\text{Rh}$	$^{100}\text{Rh}$ $\xrightarrow{20.8\text{ h}}$ $^{100}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{100m}\text{Rh}$ $\xrightarrow{4.6\text{ m}}$ $^{100}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 98.3% $_{45}\text{Rh}$	$^{100m}\text{Rh}$ $\xrightarrow{4.6\text{ m}}$ $^{100}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 1.7% $_{44}\text{Ru}$
$^{101}\text{Rh}$ $\xrightarrow{3.2\text{ y}}$ $^{101}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{101m}\text{Rh}$ $\xrightarrow{4.34\text{ d}}$ $^{101}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 92.56% $_{44}\text{Ru}$	$^{101m}\text{Rh}$ $\xrightarrow{4.34\text{ d}}$ $^{101}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 7.44% $_{45}\text{Rh}$	$^{102}\text{Rh}$ $\xrightarrow{2.902\text{ y}}$ $^{102}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ $_{44}\text{Ru}$	$^{102m}\text{Rh}$ $\xrightarrow{208\text{ d}}$ $^{102}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 20% $_{46}\text{Pd}$
$^{102m}\text{Rh}$ $\xrightarrow{208\text{ d}}$ $^{102}\text{Ru}$ $_{45}\text{Rh}$ $\gamma$ 5% $_{44}\text{Ru}$	$^{102m}\text{Rh}$ $\xrightarrow{208\text{ d}}$ $^{102}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 5% $_{45}\text{Rh}$	$^{103m}\text{Rh}$ $\xrightarrow{56.11\text{ m}}$ $^{103}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ $_{45}\text{Rh}$	$^{104}\text{Rh}$ $\xrightarrow{42.3\text{ s}}$ $^{104}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 99.55% $_{46}\text{Pd}$	$^{104}\text{Rh}$ $\xrightarrow{42.3\text{ s}}$ $^{104}\text{Ru}$ $_{45}\text{Rh}$ $\epsilon$ 0.45% $_{44}\text{Ru}$
$^{104m}\text{Rh}$ $\xrightarrow{4.34\text{ m}}$ $^{104}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 0.13% $_{46}\text{Pd}$	$^{104m}\text{Rh}$ $\xrightarrow{4.34\text{ m}}$ $^{104}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ 99.87% $_{45}\text{Rh}$	$^{105}\text{Rh}$ $\xrightarrow{1.473\text{ d}}$ $^{105}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{105m}\text{Rh}$ $\xrightarrow{40\text{ s}}$ $^{105}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ $_{45}\text{Rh}$	$^{106}\text{Rh}$ $\xrightarrow{30\text{ s}}$ $^{106}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$
$^{106m}\text{Rh}$ $\xrightarrow{2.2\text{ h}}$ $^{106}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{107}\text{Rh}$ $\xrightarrow{21.7\text{ m}}$ $^{107}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{108}\text{Rh}$ $\xrightarrow{16.8\text{ s}}$ $^{108}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{108m}\text{Rh}$ $\xrightarrow{6\text{ m}}$ $^{108}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{109}\text{Rh}$ $\xrightarrow{1.333\text{ m}}$ $^{109}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 50% $_{46}\text{Pd}$
$^{109}\text{Rh}$ $\xrightarrow{1.333\text{ m}}$ $^{109m}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 50% $_{46}\text{Pd}$	$^{109m}\text{Rh}$ $\xrightarrow{50\text{ s}}$ $^{109}\text{Rh}$ $_{45}\text{Rh}$ $\gamma$ $_{45}\text{Rh}$	$^{110}\text{Rh}$ $\xrightarrow{28.5\text{ s}}$ $^{110}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{110m}\text{Rh}$ $\xrightarrow{3.2\text{ s}}$ $^{110}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{111}\text{Rh}$ $\xrightarrow{12\text{ s}}$ $^{111}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$
$^{112}\text{Rh}$ $\xrightarrow{2.1\text{ s}}$ $^{112}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{112m}\text{Rh}$ $\xrightarrow{6.8\text{ s}}$ $^{112}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{113}\text{Rh}$ $\xrightarrow{2.8\text{ s}}$ $^{113}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{114}\text{Rh}$ $\xrightarrow{1.85\text{ s}}$ $^{114}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{114m}\text{Rh}$ $\xrightarrow{1.85\text{ s}}$ $^{114}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$
$^{115}\text{Rh}$ $\xrightarrow{990\text{ ms}}$ $^{115}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 85.48% $_{46}\text{Pd}$	$^{115}\text{Rh}$ $\xrightarrow{990\text{ ms}}$ $^{115m}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 14.52% $_{46}\text{Pd}$	$^{116}\text{Rh}$ $\xrightarrow{680\text{ ms}}$ $^{116}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{116m}\text{Rh}$ $\xrightarrow{570\text{ ms}}$ $^{116}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{117}\text{Rh}$ $\xrightarrow{440\text{ ms}}$ $^{117}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$
$^{118}\text{Rh}$ $\xrightarrow{320\text{ ms}}$ $^{118}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 97.08% $_{46}\text{Pd}$	$^{118}\text{Rh}$ $\xrightarrow{320\text{ ms}}$ $^{117}\text{Pd}$ $_{45}\text{Rh}$ $\beta_n$ 2.917% $_{46}\text{Pd}$	$^{119}\text{Rh}$ $\xrightarrow{300\text{ ms}}$ $^{119}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{120}\text{Rh}$ $\xrightarrow{170\text{ ms}}$ $^{120}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 94.07% $_{46}\text{Pd}$	$^{120}\text{Rh}$ $\xrightarrow{170\text{ ms}}$ $^{119}\text{Pd}$ $_{45}\text{Rh}$ $\beta_n$ 5.928% $_{46}\text{Pd}$
$^{121}\text{Rh}$ $\xrightarrow{250\text{ ms}}$ $^{121}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ 86.43% $_{46}\text{Pd}$	$^{121}\text{Rh}$ $\xrightarrow{250\text{ ms}}$ $^{120}\text{Pd}$ $_{45}\text{Rh}$ $\beta_n$ 13.57% $_{46}\text{Pd}$	$^{122}\text{Rh}$ $\xrightarrow{50\text{ ms}}$ $^{122}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{123}\text{Rh}$ $\xrightarrow{42\text{ ms}}$ $^{123}\text{Pd}$ $_{45}\text{Rh}$ $\beta$ $_{46}\text{Pd}$	$^{91}\text{Pd}$ $\xrightarrow{10\text{ ms}}$ $^{91}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$
$^{92}\text{Pd}$ $\xrightarrow{1.1\text{ s}}$ $^{92}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$	$^{93}\text{Pd}$ $\xrightarrow{1.07\text{ s}}$ $^{93}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$	$^{94}\text{Pd}$ $\xrightarrow{9\text{ s}}$ $^{94}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$	$^{95}\text{Pd}$ $\xrightarrow{10\text{ s}}$ $^{95}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 50% $_{45}\text{Rh}$	$^{95}\text{Pd}$ $\xrightarrow{10\text{ s}}$ $^{95m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 50% $_{45}\text{Rh}$
$^{95m}\text{Pd}$ $\xrightarrow{13.3\text{ s}}$ $^{95}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 94.1% $_{45}\text{Rh}$	$^{95m}\text{Pd}$ $\xrightarrow{13.3\text{ s}}$ $^{95}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ 5% $_{46}\text{Pd}$	$^{95m}\text{Pd}$ $\xrightarrow{13.3\text{ s}}$ $^{94}\text{Ru}$ $_{46}\text{Pd}$ $\epsilon_n$ 0.9% $_{44}\text{Ru}$	$^{96}\text{Pd}$ $\xrightarrow{2.033\text{ m}}$ $^{96m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$	$^{96}\text{Pd}$ $\xrightarrow{3.1\text{ m}}$ $^{97}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 98.31% $_{45}\text{Rh}$
$^{97}\text{Pd}$ $\xrightarrow{3.1\text{ m}}$ $^{97m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 1.687% $_{45}\text{Rh}$	$^{98}\text{Pd}$ $\xrightarrow{17.7\text{ m}}$ $^{98}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$	$^{99}\text{Pd}$ $\xrightarrow{21.4\text{ m}}$ $^{99}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 2.95% $_{45}\text{Rh}$	$^{99m}\text{Pd}$ $\xrightarrow{21.4\text{ m}}$ $^{99m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 97.05% $_{45}\text{Rh}$	$^{100}\text{Pd}$ $\xrightarrow{3.63\text{ d}}$ $^{100}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ $_{45}\text{Rh}$
$^{101}\text{Pd}$ $\xrightarrow{8.47\text{ h}}$ $^{101}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 0.273% $_{45}\text{Rh}$	$^{101}\text{Pd}$ $\xrightarrow{8.47\text{ h}}$ $^{101m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 99.73% $_{45}\text{Rh}$	$^{103}\text{Pd}$ $\xrightarrow{16.98\text{ d}}$ $^{103}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ < 0.1% $_{45}\text{Rh}$	$^{103}\text{Pd}$ $\xrightarrow{16.98\text{ d}}$ $^{103m}\text{Rh}$ $_{46}\text{Pd}$ $\epsilon$ 99.97% $_{45}\text{Rh}$	$^{107}\text{Pd}$ $\xrightarrow{6.5\text{ My}}$ $^{107}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$
$^{107m}\text{Pd}$ $\xrightarrow{21.3\text{ s}}$ $^{107}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ $_{46}\text{Pd}$	$^{109}\text{Pd}$ $\xrightarrow{13.7\text{ h}}$ $^{109}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ < 0.1% $_{47}\text{Ag}$	$^{109}\text{Pd}$ $\xrightarrow{13.7\text{ h}}$ $^{109m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 99.95% $_{47}\text{Ag}$	$^{109m}\text{Pd}$ $\xrightarrow{4.69\text{ m}}$ $^{109}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ $_{46}\text{Pd}$	$^{110}\text{Pd}$ $\xrightarrow{600\text{ Py}}$ $^{110}\text{Cd}$ $_{46}\text{Pd}$ $\beta\beta$ $_{48}\text{Cd}$
$^{111}\text{Pd}$ $\xrightarrow{23.4\text{ m}}$ $^{111}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 0.704% $_{47}\text{Ag}$	$^{111m}\text{Pd}$ $\xrightarrow{23.4\text{ m}}$ $^{111m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 99.3% $_{47}\text{Ag}$	$^{111m}\text{Pd}$ $\xrightarrow{5.5\text{ h}}$ $^{111}\text{Pd}$ $_{46}\text{Pd}$ $\beta$ 7.73% $_{46}\text{Pd}$	$^{111m}\text{Pd}$ $\xrightarrow{5.5\text{ h}}$ $^{111}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 7.814% $_{47}\text{Ag}$	$^{111m}\text{Pd}$ $\xrightarrow{5.5\text{ h}}$ $^{111m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 19.19% $_{47}\text{Ag}$
$^{112}\text{Pd}$ $\xrightarrow{20.3\text{ h}}$ $^{112}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$	$^{113}\text{Pd}$ $\xrightarrow{1.517\text{ m}}$ $^{113m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 95% $_{47}\text{Ag}$	$^{113}\text{Pd}$ $\xrightarrow{1.517\text{ m}}$ $^{113}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 5% $_{47}\text{Ag}$	$^{113m}\text{Pd}$ $\xrightarrow{300\text{ ms}}$ $^{113}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ $_{46}\text{Pd}$	$^{114}\text{Pd}$ $\xrightarrow{2.42\text{ m}}$ $^{114}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$
$^{115}\text{Pd}$ $\xrightarrow{25\text{ s}}$ $^{115}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 73% $_{47}\text{Ag}$	$^{115m}\text{Pd}$ $\xrightarrow{25\text{ s}}$ $^{115m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 27% $_{47}\text{Ag}$	$^{115m}\text{Pd}$ $\xrightarrow{50\text{ s}}$ $^{115m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 92% $_{47}\text{Ag}$	$^{115m}\text{Pd}$ $\xrightarrow{50\text{ s}}$ $^{115}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ 8% $_{46}\text{Pd}$	$^{116}\text{Pd}$ $\xrightarrow{11.8\text{ s}}$ $^{116}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$
$^{117}\text{Pd}$ $\xrightarrow{4.3\text{ s}}$ $^{117}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{117m}\text{Pd}$ $\xrightarrow{4.3\text{ s}}$ $^{117m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{117m}\text{Pd}$ $\xrightarrow{19.1\text{ ms}}$ $^{117}\text{Pd}$ $_{46}\text{Pd}$ $\gamma$ $_{46}\text{Pd}$	$^{118}\text{Pd}$ $\xrightarrow{1.9\text{ s}}$ $^{118}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 85.7% $_{47}\text{Ag}$	$^{118}\text{Pd}$ $\xrightarrow{1.9\text{ s}}$ $^{118m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 14.3% $_{47}\text{Ag}$
$^{119}\text{Pd}$ $\xrightarrow{920\text{ ms}}$ $^{119}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{119m}\text{Pd}$ $\xrightarrow{920\text{ ms}}$ $^{119m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{120}\text{Pd}$ $\xrightarrow{500\text{ ms}}$ $^{120}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{120}\text{Pd}$ $\xrightarrow{500\text{ ms}}$ $^{120m}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 50% $_{47}\text{Ag}$	$^{121}\text{Pd}$ $\xrightarrow{600\text{ ms}}$ $^{121}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ 99.73% $_{47}\text{Ag}$
$^{121}\text{Pd}$ $\xrightarrow{600\text{ ms}}$ $^{120}\text{Ag}$ $_{46}\text{Pd}$ $\beta_n$ 0.272% $_{47}\text{Ag}$	$^{122}\text{Pd}$ $\xrightarrow{300\text{ ms}}$ $^{122}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$	$^{123}\text{Pd}$ $\xrightarrow{200\text{ ms}}$ $^{123}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$	$^{124}\text{Pd}$ $\xrightarrow{100\text{ ms}}$ $^{124}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$	$^{126}\text{Pd}$ $\xrightarrow{48.6\text{ ms}}$ $^{126}\text{Ag}$ $_{46}\text{Pd}$ $\beta$ $_{47}\text{Ag}$
$^{93}\text{Ag}$ $\xrightarrow{5\text{ ms}}$ $^{92}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ 50% $_{46}\text{Pd}$	$^{93}\text{Ag}$ $\xrightarrow{5\text{ ms}}$ $^{93}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ 50% $_{46}\text{Pd}$	$^{94}\text{Ag}$ $\xrightarrow{37\text{ ms}}$ $^{94}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ $_{46}\text{Pd}$	$^{94m}\text{Ag}$ $\xrightarrow{422\text{ ms}}$ $^{94}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ $_{46}\text{Pd}$	$^{94n}\text{Ag}$ $\xrightarrow{300\text{ ms}}$ $^{94}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ $_{46}\text{Pd}$
$^{95}\text{Ag}$ $\xrightarrow{1.74\text{ s}}$ $^{95}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ $_{46}\text{Pd}$	$^{95m}\text{Ag}$ $\xrightarrow{500\text{ ms}}$ $^{95}\text{Ag}$ $_{47}\text{Ag}$ $\gamma$ $_{47}\text{Ag}$	$^{95n}\text{Ag}$ $\xrightarrow{16\text{ ms}}$ $^{95}\text{Ag}$ $_{47}\text{Ag}$ $\gamma$ $_{47}\text{Ag}$	$^{95o}\text{Ag}$ $\xrightarrow{40\text{ ms}}$ $^{95n}\text{Ag}$ $_{47}\text{Ag}$ $\gamma$ $_{47}\text{Ag}$	$^{96}\text{Ag}$ $\xrightarrow{4.45\text{ s}}$ $^{96}\text{Pd}$ $_{47}\text{Ag}$ $\epsilon$ 90.3% $_{46}\text{Pd}$
$^{96}\text{Ag}$ $\xrightarrow{4.45\text{ s}}$ $^{95}\text{Rh}$ $_{47}\text{Ag}$ $\epsilon_n$ 4.85% $_{45}\text{Rh}$	$^{96}\text{Ag}$ $\xrightarrow{4.45\text{ s}}$ $^{95m}\text{Rh}$ $_{47}\text{Ag}$ $\epsilon_n$ 4.85% $_{45}\text{Rh}$	$^{96m}\text{Ag}$ $\xrightarrow{6.9\text{ s}}$ $^{96}\text{Pd}$ $_{47}\text{Ag}$		



124Ag $\xrightarrow{172\text{ ms}}$ $\beta_n < 0.1\%$ $^{123m}\text{Cd}$	124mAg $\xrightarrow{200\text{ ms}}$ $\beta$ 50% $^{124}\text{Cd}$	124mAg $\xrightarrow{200\text{ ms}}$ $\gamma$ 50% $^{124}\text{Ag}$	125Ag $\xrightarrow{166\text{ ms}}$ $\beta$ 50% $^{125}\text{Cd}$	125Ag $\xrightarrow{166\text{ ms}}$ $\beta$ 50% $^{125m}\text{Cd}$
126Ag $\xrightarrow{107\text{ ms}}$ $\beta$ $^{126}\text{Cd}$	127Ag $\xrightarrow{79\text{ ms}}$ $\beta$ $^{127}\text{Cd}$	128Ag $\xrightarrow{58\text{ ms}}$ $\beta$ $^{128}\text{Cd}$	129Ag $\xrightarrow{44\text{ ms}}$ $\beta$ 50% $^{129}\text{Cd}$	129Ag $\xrightarrow{44\text{ ms}}$ $\beta$ 50% $^{129m}\text{Cd}$
130Ag $\xrightarrow{50\text{ ms}}$ $\beta$ $^{130}\text{Cd}$	95Cd $\xrightarrow{5\text{ ms}}$ $\epsilon$ $^{95}\text{Ag}$	96Cd $\xrightarrow{1\text{ s}}$ $\epsilon$ $^{96m}\text{Ag}$	97Cd $\xrightarrow{2.8\text{ s}}$ $\epsilon$ $^{97}\text{Ag}$	98Cd $\xrightarrow{9.2\text{ s}}$ $\epsilon$ $^{98}\text{Ag}$
99Cd $\xrightarrow{16\text{ s}}$ $\epsilon$ 49.9% $^{99}\text{Ag}$	99Cd $\xrightarrow{16\text{ s}}$ $\epsilon$ 49.9% $^{99m}\text{Ag}$	99Cd $\xrightarrow{16\text{ s}}$ $\epsilon_n$ 0.21% $^{98}\text{Pd}$	99Cd $\xrightarrow{16\text{ s}}$ $\epsilon$ $< 0.1\%$ $^{95}\text{Rh}$	99Cd $\xrightarrow{16\text{ s}}$ $\epsilon$ $< 0.1\%$ $^{95m}\text{Rh}$
100Cd $\xrightarrow{49.1\text{ s}}$ $\epsilon$ $^{100}\text{Ag}$	101Cd $\xrightarrow{1.36\text{ m}}$ $\epsilon$ 88.95% $^{101}\text{Ag}$	101Cd $\xrightarrow{1.36\text{ m}}$ $\epsilon$ 11.05% $^{101m}\text{Ag}$	102Cd $\xrightarrow{5.5\text{ m}}$ $\epsilon$ 5.768% $^{102}\text{Ag}$	102Cd $\xrightarrow{5.5\text{ m}}$ $\epsilon$ 94.23% $^{102m}\text{Ag}$
103Cd $\xrightarrow{7.3\text{ m}}$ $\epsilon$ 81.31% $^{103}\text{Ag}$	103Cd $\xrightarrow{7.3\text{ m}}$ $\epsilon$ 18.69% $^{103m}\text{Ag}$	104Cd $\xrightarrow{57.7\text{ m}}$ $\epsilon$ $^{104m}\text{Ag}$	105Cd $\xrightarrow{55.5\text{ m}}$ $\epsilon$ 17.79% $^{105}\text{Ag}$	105Cd $\xrightarrow{55.5\text{ m}}$ $\epsilon$ 82.21% $^{105m}\text{Ag}$
106Cd $\xrightarrow{6.6\text{ Fy}}$ $\epsilon$ $^{106}\text{Pd}$	107Cd $\xrightarrow{6.52\text{ h}}$ $\epsilon$ $< 0.1\%$ $^{107}\text{Ag}$	107Cd $\xrightarrow{6.52\text{ h}}$ $\epsilon$ 99.94% $^{107m}\text{Ag}$	108Cd $\xrightarrow{410\text{ Fy}}$ $\epsilon$ $^{108}\text{Pd}$	109Cd $\xrightarrow{1.267\text{ y}}$ $\epsilon$ $^{109m}\text{Ag}$
111mCd $\xrightarrow{48.54\text{ m}}$ $\gamma$ $^{111}\text{Cd}$	113Cd $\xrightarrow{7.7\text{ Fy}}$ $\beta$ $^{113}\text{In}$	113mCd $\xrightarrow{14.1\text{ y}}$ $\gamma$ 0.14% $^{113}\text{Cd}$	113mCd $\xrightarrow{14.1\text{ y}}$ $\beta$ 99.86% $^{113}\text{In}$	114Cd $\xrightarrow{600\text{ Fy}}$ $\beta\beta$ $^{114}\text{Sn}$
115Cd $\xrightarrow{2.227\text{ d}}$ $\beta$ $< 0.1\%$ $^{115}\text{In}$	115Cd $\xrightarrow{2.227\text{ d}}$ $\beta$ 100% $^{115m}\text{In}$	115mCd $\xrightarrow{44.6\text{ d}}$ $\beta$ 99.99% $^{115}\text{In}$	115mCd $\xrightarrow{44.6\text{ d}}$ $\beta$ $< 0.1\%$ $^{115m}\text{In}$	116Cd $\xrightarrow{34\text{ Fy}}$ $\beta$ $^{116}\text{Sn}$
117Cd $\xrightarrow{2.49\text{ h}}$ $\beta$ 8.358% $^{117}\text{In}$	117Cd $\xrightarrow{2.49\text{ h}}$ $\beta$ 91.64% $^{117m}\text{In}$	117mCd $\xrightarrow{3.36\text{ h}}$ $\beta$ 98.48% $^{117}\text{In}$	117mCd $\xrightarrow{3.36\text{ h}}$ $\beta$ 1.524% $^{117m}\text{In}$	118Cd $\xrightarrow{50.3\text{ m}}$ $\beta$ $^{118}\text{In}$
119Cd $\xrightarrow{2.69\text{ m}}$ $\beta$ 9.721% $^{119}\text{In}$	119Cd $\xrightarrow{2.69\text{ m}}$ $\beta$ 90.28% $^{119m}\text{In}$	119mCd $\xrightarrow{2.2\text{ m}}$ $\beta$ 99.78% $^{119}\text{In}$	119mCd $\xrightarrow{2.2\text{ m}}$ $\beta$ 0.22% $^{119m}\text{In}$	120Cd $\xrightarrow{50.8\text{ s}}$ $\beta$ $^{120}\text{In}$
121Cd $\xrightarrow{13.5\text{ s}}$ $\beta$ 32.56% $^{121}\text{In}$	121Cd $\xrightarrow{13.5\text{ s}}$ $\beta$ 67.44% $^{121m}\text{In}$	121mCd $\xrightarrow{8.3\text{ s}}$ $\beta$ $^{121}\text{In}$	122Cd $\xrightarrow{5.24\text{ s}}$ $\beta$ $^{122}\text{In}$	123Cd $\xrightarrow{2.1\text{ s}}$ $\beta$ 30.97% $^{123}\text{In}$
123Cd $\xrightarrow{2.1\text{ s}}$ $\beta$ 69.03% $^{123m}\text{In}$	123mCd $\xrightarrow{1.82\text{ s}}$ $\beta$ 98.78% $^{123}\text{In}$	123mCd $\xrightarrow{1.82\text{ s}}$ $\beta$ 1.22% $^{123m}\text{In}$	124Cd $\xrightarrow{1.25\text{ s}}$ $\beta$ $^{124}\text{In}$	125Cd $\xrightarrow{650\text{ ms}}$ $\beta$ 47.86% $^{125}\text{In}$
125Cd $\xrightarrow{650\text{ ms}}$ $\beta$ 52.14% $^{125m}\text{In}$	125mCd $\xrightarrow{480\text{ ms}}$ $\beta$ $^{125}\text{In}$	126Cd $\xrightarrow{515\text{ ms}}$ $\beta$ $^{126}\text{In}$	127Cd $\xrightarrow{370\text{ ms}}$ $\beta$ $^{127m}\text{In}$	128Cd $\xrightarrow{280\text{ ms}}$ $\beta$ $^{128m}\text{In}$
129Cd $\xrightarrow{242\text{ ms}}$ $\beta$ $^{129m}\text{In}$	129mCd $\xrightarrow{104\text{ ms}}$ $\beta$ $^{129}\text{In}$	130Cd $\xrightarrow{162\text{ ms}}$ $\beta$ 96.5% $^{130}\text{In}$	130Cd $\xrightarrow{162\text{ ms}}$ $\beta_n$ 1.75% $^{129}\text{In}$	130Cd $\xrightarrow{162\text{ ms}}$ $\beta_n$ 1.75% $^{129m}\text{In}$
131Cd $\xrightarrow{68\text{ ms}}$ $\beta$ 96.5% $^{131}\text{In}$	131Cd $\xrightarrow{68\text{ ms}}$ $\beta_n$ 3.5% $^{130}\text{In}$	132Cd $\xrightarrow{97\text{ ms}}$ $\beta$ 40% $^{132}\text{In}$	132Cd $\xrightarrow{97\text{ ms}}$ $\beta_n$ 60% $^{131m}\text{In}$	97In $\xrightarrow{5\text{ ms}}$ $n$ 50% $^{96}\text{Cd}$
97In $\xrightarrow{5\text{ ms}}$ $\epsilon$ 50% $^{97}\text{Cd}$	98In $\xrightarrow{45\text{ ms}}$ $\epsilon$ 98% $^{98}\text{Cd}$	98mIn $\xrightarrow{1.7\text{ s}}$ $\epsilon$ 98% $^{98}\text{Cd}$	99In $\xrightarrow{3.1\text{ s}}$ $\epsilon$ 99% $^{99}\text{Cd}$	99mIn $\xrightarrow{1\text{ s}}$ $\epsilon$ 50% $^{99}\text{Cd}$
99mIn $\xrightarrow{1\text{ s}}$ $\gamma$ 50% $^{99}\text{In}$	100In $\xrightarrow{5.9\text{ s}}$ $\epsilon$ 96.1% $^{100}\text{Cd}$	100In $\xrightarrow{5.9\text{ s}}$ $\epsilon_n$ 1.95% $^{99}\text{Ag}$	100In $\xrightarrow{5.9\text{ s}}$ $\epsilon_n$ 1.95% $^{99m}\text{Ag}$	101In $\xrightarrow{15.1\text{ s}}$ $\epsilon$ $^{101}\text{Cd}$
101mIn $\xrightarrow{10\text{ s}}$ $\epsilon$ 95% $^{101}\text{Cd}$	101mIn $\xrightarrow{10\text{ s}}$ $\gamma$ 5% $^{101}\text{In}$	102In $\xrightarrow{22\text{ s}}$ $\epsilon$ $^{102}\text{Cd}$	103In $\xrightarrow{1\text{ m}}$ $\epsilon$ $^{103}\text{Cd}$	103mIn $\xrightarrow{34\text{ s}}$ $\epsilon$ 67% $^{103}\text{Cd}$
103mIn $\xrightarrow{34\text{ s}}$ $\gamma$ 33% $^{103}\text{In}$	104In $\xrightarrow{1.8\text{ m}}$ $\epsilon$ $^{104}\text{Cd}$	104mIn $\xrightarrow{15.7\text{ s}}$ $\gamma$ 80% $^{104}\text{In}$	104mIn $\xrightarrow{15.7\text{ s}}$ $\epsilon$ 20% $^{104}\text{Cd}$	105In $\xrightarrow{5.07\text{ m}}$ $\epsilon$ $^{105}\text{Cd}$
105mIn $\xrightarrow{48\text{ s}}$ $\gamma$ $^{105}\text{In}$	106In $\xrightarrow{6.2\text{ m}}$ $\epsilon$ $^{106}\text{Cd}$	106mIn $\xrightarrow{5.2\text{ m}}$ $\epsilon$ $^{106}\text{Cd}$	107In $\xrightarrow{32.4\text{ m}}$ $\epsilon$ $^{107}\text{Cd}$	107mIn $\xrightarrow{50.4\text{ s}}$ $\gamma$ $^{107}\text{In}$
108In $\xrightarrow{58\text{ m}}$ $\epsilon$ $^{108}\text{Cd}$	108mIn $\xrightarrow{39.6\text{ m}}$ $\epsilon$ $^{108}\text{Cd}$	109In $\xrightarrow{4.2\text{ h}}$ $\epsilon$ $^{109}\text{Cd}$	109mIn $\xrightarrow{1.34\text{ m}}$ $\gamma$ $^{109}\text{In}$	109nIn $\xrightarrow{209\text{ ms}}$ $\gamma$ $^{109}\text{In}$
110In $\xrightarrow{4.9\text{ h}}$ $\epsilon$ $^{110}\text{Cd}$	110mIn $\xrightarrow{1.152\text{ h}}$ $\epsilon$ $^{110}\text{Cd}$	111In $\xrightarrow{2.805\text{ d}}$ $\epsilon$ 100% $^{111}\text{Cd}$	111In $\xrightarrow{2.805\text{ d}}$ $\epsilon$ $< 0.1\%$ $^{111m}\text{Cd}$	111mIn $\xrightarrow{7.9\text{ m}}$ $\gamma$ $^{111}\text{In}$
112In $\xrightarrow{14.7\text{ m}}$ $\beta$ 44% $^{112}\text{Sn}$	112In $\xrightarrow{14.7\text{ m}}$ $\epsilon$ 56% $^{112}\text{Cd}$	112mIn $\xrightarrow{20.7\text{ m}}$ $\gamma$ $^{112}\text{In}$	113mIn $\xrightarrow{1.658\text{ h}}$ $\gamma$ $^{113}\text{In}$	114In $\xrightarrow{1.198\text{ m}}$ $\beta$ 99.5% $^{114}\text{Sn}$
114In $\xrightarrow{1.198\text{ m}}$ $\epsilon$ 0.5% $^{114}\text{Cd}$	114mIn $\xrightarrow{50\text{ d}}$ $\epsilon$ 3.5% $^{114}\text{Cd}$	114mIn $\xrightarrow{50\text{ d}}$ $\gamma$ 96.5% $^{114}\text{In}$	114nIn $\xrightarrow{43\text{ ms}}$ $\gamma$ $^{114m}\text{In}$	115In $\xrightarrow{441\text{ Fy}}$ $\beta$ $^{115}\text{Sn}$
115mIn $\xrightarrow{4.486\text{ h}}$ $\gamma$ 95% $^{115}\text{In}$	115mIn $\xrightarrow{4.486\text{ h}}$ $\beta$ 5% $^{115}\text{Sn}$	116In $\xrightarrow{14.2\text{ s}}$ $\beta$ $^{116}\text{Sn}$	116mIn $\xrightarrow{54.6\text{ m}}$ $\beta$ $^{116}\text{Sn}$	116nIn $\xrightarrow{2.17\text{ s}}$ $\gamma$ $^{116m}\text{In}$
117In $\xrightarrow{43.2\text{ m}}$ $\beta$ 99.66% $^{117}\text{Sn}$	117In $\xrightarrow{43.2\text{ m}}$ $\beta$ 0.341% $^{117m}\text{Sn}$	117mIn $\xrightarrow{1.937\text{ h}}$ $\gamma$ 47.1% $^{117}\text{In}$	117mIn $\xrightarrow{1.937\text{ h}}$ $\beta$ 52.9% $^{117}\text{Sn}$	118In $\xrightarrow{5\text{ s}}$ $\beta$ $^{118}\text{Sn}$
118mIn $\xrightarrow{4.45\text{ m}}$ $\beta$ $^{118}\text{Sn}$	118nIn $\xrightarrow{8.5\text{ s}}$ $\gamma$ 98.6% $^{118m}\text{In}$	118mIn $\xrightarrow{8.5\text{ s}}$ $\beta$ 1.4% $^{118}\text{Sn}$	119In $\xrightarrow{2.4\text{ m}}$ $\beta$ 9.66% $^{119}\text{Sn}$	119In $\xrightarrow{2.4\text{ m}}$ $\beta$ 90.34% $^{119m}\text{Sn}$
119mIn $\xrightarrow{18\text{ m}}$ $\beta$ 94.4% $^{119}\text{Sn}$	119mIn $\xrightarrow{18\text{ m}}$ $\gamma$ 5.6% $^{119}\text{In}$	120In $\xrightarrow{3.08\text{ s}}$ $\beta$ $^{120}\text{Sn}$	120mIn $\xrightarrow{46.2\text{ s}}$ $\beta$ $^{120}\text{Sn}$	120nIn $\xrightarrow{47.3\text{ s}}$ $\beta$ $^{120}\text{Sn}$
121In $\xrightarrow{23.1\text{ s}}$ $\beta$ 88.67% $^{121}\text{Sn}$	121In $\xrightarrow{23.1\text{ s}}$ $\beta$ 11.33% $^{121m}\text{Sn}$	121mIn $\xrightarrow{3.88\text{ m}}$ $\beta$ 98.8% $^{121}\text{Sn}$	121mIn $\xrightarrow{3.88\text{ m}}$ $\gamma$ 1.2% $^{121}\text{In}$	122In $\xrightarrow{1.5\text{ s}}$ $\beta$ $^{122}\text{Sn}$
122mIn $\xrightarrow{10.8\text{ s}}$ $\beta$ $^{122}\text{Sn}$	122nIn $\xrightarrow{10.8\text{ s}}$ $\beta$ $^{122}\text{Sn}$	123In $\xrightarrow{5.98\text{ s}}$ $\beta$ 7.624% $^{123}\text{Sn}$	123In $\xrightarrow{5.98\text{ s}}$ $\beta$ 92.38% $^{123m}\text{Sn}$	123mIn $\xrightarrow{47.8\text{ s}}$ $\beta$ $< 0.1\%$ $^{123}\text{Sn}$
123mIn $\xrightarrow{47.8\text{ s}}$ $\beta$ $^{123m}\text{Sn}$	124In $\xrightarrow{3.11\text{ s}}$ $\beta$ $^{124}\text{Sn}$	124mIn $\xrightarrow{3.7\text{ s}}$ $\beta$ $^{124}\text{Sn}$	125In $\xrightarrow{2.36\text{ s}}$ $\beta$ 16.89% $^{125}\text{Sn}$	125In $\xrightarrow{2.36\text{ s}}$ $\beta$ 83.11% $^{125m}\text{Sn}$
125mIn $\xrightarrow{12.2\text{ s}}$ $\beta$ $^{125m}\text{Sn}$	126In $\xrightarrow{1.53\text{ s}}$ $\beta$ $^{126}\text{Sn}$	126mIn $\xrightarrow{1.64\text{ s}}$ $\beta$ $^{126}\text{Sn}$	127In $\xrightarrow{1.09\text{ s}}$ $\beta$ 38.98% $^{127}\text{Sn}$	127In $\xrightarrow{1.09\text{ s}}$ $\beta$ 61.02% $^{127m}\text{Sn}$
127mIn $\xrightarrow{3.67\text{ s}}$ $\beta$ 99.31% $^{127m}\text{Sn}$	127mIn $\xrightarrow{3.67\text{ s}}$ $\beta_n$ 0.69% $^{126}\text{Sn}$	128In $\xrightarrow{840\text{ ms}}$ $\beta$ $^{128}\text{Sn}$	128mIn $\xrightarrow{10\text{ ms}}$ $\gamma$ $^{128}\text{In}$	128nIn $\xrightarrow{720\text{ ms}}$ $\beta$ $^{128m}\text{Sn}$
129In $\xrightarrow{610\text{ ms}}$ $\beta$ 89.35% $^{129}\text{Sn}$	129In $\xrightarrow{610\text{ ms}}$ $\beta$ 10.65% $^{129m}\text{Sn}$	129mIn $\xrightarrow{1.23\text{ s}}$ $\beta$ 99.7% $^{129}\text{Sn}$	130In $\xrightarrow{290\text{ ms}}$ $\beta$ 71.06% $^{130}\text{Sn}$	130In $\xrightarrow{290\text{ ms}}$ $\beta$ 28.94% $^{130m}\text{Sn}$
130mIn $\xrightarrow{540\text{ ms}}$ $\beta$ $^{130m}\text{Sn}$	130nIn $\xrightarrow{540\text{ ms}}$ $\beta$ $^{130}\text{Sn}$	131In $\xrightarrow{280\text{ ms}}$ $\beta$ 94.69% $^{131}\text{Sn}$	131In $\xrightarrow{280\text{ ms}}$ $\beta$ 5.307% $^{131m}\text{Sn}$	131mIn $\xrightarrow{350\text{ ms}}$ $\beta$ 97.98% $^{131}\text{Sn}$
131mIn $\xrightarrow{350\text{ ms}}$ $\beta_n$ 1% $^{130}\text{Sn}$	131mIn $\xrightarrow{350\text{ ms}}$ $\beta_n$ 1% $^{130m}\text{Sn}$	131mIn $\xrightarrow{350\text{ ms}}$ $\gamma$ $< 0.1\%$ $^{131}\text{In}$	131nIn $\xrightarrow{320\text{ ms}}$ $\beta$ 98.97% $^{131m}\text{Sn}$	131nIn $\xrightarrow{320\text{ ms}}$ $\beta_n$ $< 0.1\%$ $^{130}\text{Sn}$
131nIn $\xrightarrow{320\text{ ms}}$ $\beta_n$ $< 0.1\%$ $^{130m}\text{Sn}$	131nIn $\xrightarrow{320\text{ ms}}$ $\gamma$ 1% $^{131}\text{In}$	132In $\xrightarrow{201\text{ ms}}$ $\beta$ $^{132}\text{Sn}$	133In $\xrightarrow{165\text{ ms}}$ $\beta$ 15% $^{133}\text{Sn}$	133In $\xrightarrow{165\text{ ms}}$ $\beta_n$ 85% $^{132}\text{Sn}$
133mIn $\xrightarrow{180\text{ ms}}$ $\gamma$ $^{133}\text{In}$	134In $\xrightarrow{140\text{ ms}}$ $\beta$ 31% $^{134}\text{Sn}$	134In $\xrightarrow{140\text{ ms}}$ $\beta_n$ 65% $^{133}\text{Sn}$	134In $\xrightarrow{140\text{ ms}}$ $\beta_{nn}$ 4% $^{132}\text{Sn}$	135In $\xrightarrow{92\text{ ms}}$ $\beta$ $^{135}\text{Sn}$
99Sn $\xrightarrow{5\text{ ms}}$ $\epsilon$ $^{99}\text{In}$	100Sn $\xrightarrow{1.1\text{ s}}$ $\epsilon$ 83% $^{100}\text{In}$	100Sn $\xrightarrow{1.1\text{ s}}$ $\epsilon_n$ 17% $^{99}\text{Cd}$	101Sn $\xrightarrow{3\text{ s}}$ $\epsilon$ 50% $^{101}\text{In}$	101Sn $\xrightarrow{3\text{ s}}$ $\epsilon$ 50% $^{101m}\text{In}$
102Sn $\xrightarrow{4.6\text{ s}}$ $\epsilon$ $^{102}\text{In}$	103Sn $\xrightarrow{7\text{ s}}$ $\epsilon$ 50% $^{103}\text{In}$	103mSn $\xrightarrow{7\text{ s}}$ $\epsilon$ 50% $^{103m}\text{In}$	104Sn $\xrightarrow{20.8\text{ s}}$ $\epsilon$ 9.324% $^{104}\text{In}$	104Sn $\xrightarrow{20.8\text{ s}}$ $\epsilon$ 90.68% $^{104m}\text{In}$
105Sn $\xrightarrow{34\text{ s}}$ $\epsilon$ 50% $^{105}\text{In}$	105mSn $\xrightarrow{34\text{ s}}$ $\epsilon$ 50% $^{105m}\text{In}$	106Sn $\xrightarrow{1.917\text{ m}}$ $\epsilon$ $^{106m}\text{In}$	107Sn $\xrightarrow{2.9\text{ m}}$ $\epsilon$ 50% $^{107}\text{In}$	107mSn $\xrightarrow{2.9\text{ m}}$ $\epsilon$ 50% $^{107m}\text{In}$
108Sn $\xrightarrow{10.3\text{ m}}$ $\epsilon$ $^{108m}\text{In}$	109Sn $\xrightarrow{18\text{ m}}$ $\epsilon$ 69.15% $^{109}\text{In}$	109mSn $\xrightarrow{18\text{ m}}$ $\epsilon$ 30.85% $^{109m}\text{In}$	110Sn $\xrightarrow{4.1\text{ h}}$ $\epsilon$ $^{110m}\text{In}$	111Sn $\xrightarrow{35.3\text{ m}}$ $\epsilon$ 99.8% $^{111}\text{In}$
111Sn $\xrightarrow{35.3\text{ m}}$ $\epsilon$ 0.2% $^{111m}\text{In}$	113Sn $\xrightarrow{115.1\text{ d}}$ $\epsilon$ $< 0.1\%$ $^{113}\text{In}$	113mSn $\xrightarrow{115.1\text{ d}}$ $\epsilon$ 99.99% $^{113m}\text{In}$	113mSn $\xrightarrow{20.9\text{ m}}$ $\epsilon$ 8.9% $^{113}\text{In}$	113mSn $\xrightarrow{20.9\text{ m}}$ $\gamma$ 91.1% $^{113}\text{Sn}$

117mSn $\xrightarrow[\gamma]{13.6\text{ d}}$ 117Sn	119mSn $\xrightarrow[\gamma]{293\text{ d}}$ 119Sn	121Sn $\xrightarrow[\beta]{1.126\text{ d}}$ 121Sb	121mSn $\xrightarrow[\beta]{55\text{ y}}$ 121Sb	121mSn $\xrightarrow[\gamma]{55\text{ y}}$ 121Sn
123Sn $\xrightarrow[\beta]{129.2\text{ d}}$ 123Sb	123mSn $\xrightarrow[\beta]{40.06\text{ m}}$ 123Sb	124Sn $\xrightarrow[\beta]{100\text{ Py}}$ 124Te	125Sn $\xrightarrow[\beta]{9.64\text{ d}}$ 125Sb	125mSn $\xrightarrow[\beta]{9.52\text{ m}}$ 125Sb
126Sn $\xrightarrow[\beta]{230\text{ ky}}$ 126mSb	126Sn $\xrightarrow[\beta]{230\text{ ky}}$ 126nSb	127Sn $\xrightarrow[\beta]{2.1\text{ h}}$ 127Sb	127mSn $\xrightarrow[\beta]{4.13\text{ m}}$ 127Sb	128Sn $\xrightarrow[\beta]{59.07\text{ m}}$ 128Sb
128Sn $\xrightarrow[\beta]{59.07\text{ m}}$ 128mSb	128mSn $\xrightarrow[\gamma]{6.5\text{ s}}$ 128Sn	129Sn $\xrightarrow[\beta]{2.23\text{ m}}$ 129Sb	129mSn $\xrightarrow[\beta]{7.2\text{ m}}$ 129mSb	129mSn $\xrightarrow[\beta]{7.2\text{ m}}$ 129Sb
130Sn $\xrightarrow[\beta]{3.73\text{ m}}$ 130mSb	130mSn $\xrightarrow[\beta]{1.7\text{ m}}$ 130mSb	130mSn $\xrightarrow[\beta]{1.7\text{ m}}$ 130Sb	131Sn $\xrightarrow[\beta]{56\text{ s}}$ 131Sb	131mSn $\xrightarrow[\beta]{58.4\text{ s}}$ 131Sb
131mSn $\xrightarrow[\gamma]{58.4\text{ s}}$ 131Sn	132Sn $\xrightarrow[\beta]{39.7\text{ s}}$ 132Sb	132Sn $\xrightarrow[\beta]{39.7\text{ s}}$ 132mSb	133Sn $\xrightarrow[\beta]{1.45\text{ s}}$ 133Sb	134Sn $\xrightarrow[\beta]{1.05\text{ s}}$ 134Sb
134Sn $\xrightarrow[\beta]{1.05\text{ s}}$ 133Sb	135Sn $\xrightarrow[\beta]{530\text{ ms}}$ 135Sb	135Sn $\xrightarrow[\beta]{530\text{ ms}}$ 134Sb	135Sn $\xrightarrow[\beta]{530\text{ ms}}$ 134mSb	136Sn $\xrightarrow[\beta]{250\text{ ms}}$ 136Sb
136Sn $\xrightarrow[\beta]{250\text{ ms}}$ 135Sb	137Sn $\xrightarrow[\beta]{190\text{ ms}}$ 137Sb	137Sn $\xrightarrow[\beta]{190\text{ ms}}$ 136Sb	103Sb $\xrightarrow[\epsilon]{100\text{ ms}}$ 103Sn	104Sb $\xrightarrow[\epsilon]{470\text{ ms}}$ 104Sn
104Sb $\xrightarrow[\epsilon]{470\text{ ms}}$ 103In	104Sb $\xrightarrow[\epsilon]{470\text{ ms}}$ 103mIn	104Sb $\xrightarrow[\epsilon]{470\text{ ms}}$ 103Sn	104Sb $\xrightarrow[\alpha]{46.5\%}$ 100In	105Sb $\xrightarrow[\epsilon]{1.12\text{ s}}$ 105Sn
105Sb $\xrightarrow[\epsilon]{1.12\text{ s}}$ 104Sn	106Sb $\xrightarrow[\epsilon]{600\text{ ms}}$ 106Sn	107Sb $\xrightarrow[\epsilon]{4.6\text{ s}}$ 107Sn	108Sb $\xrightarrow[\epsilon]{7.4\text{ s}}$ 108Sn	109Sb $\xrightarrow[\epsilon]{16.67\text{ s}}$ 109Sn
110Sb $\xrightarrow[\epsilon]{23\text{ s}}$ 110Sn	111Sb $\xrightarrow[\epsilon]{1.25\text{ m}}$ 111Sn	112Sb $\xrightarrow[\epsilon]{51.4\text{ s}}$ 112Sn	113Sb $\xrightarrow[\epsilon]{6.67\text{ m}}$ 113Sn	113Sb $\xrightarrow[\epsilon]{6.67\text{ m}}$ 113mSn
114Sb $\xrightarrow[\epsilon]{3.49\text{ m}}$ 114Sn	115Sb $\xrightarrow[\epsilon]{32.1\text{ m}}$ 115Sn	116Sb $\xrightarrow[\epsilon]{15.8\text{ m}}$ 116Sn	116mSb $\xrightarrow[\epsilon]{1.005\text{ h}}$ 116Sn	117Sb $\xrightarrow[\epsilon]{2.8\text{ h}}$ 117Sn
118Sb $\xrightarrow[\epsilon]{3.6\text{ m}}$ 118Sn	118mSb $\xrightarrow[\epsilon]{5\text{ h}}$ 118Sn	119Sb $\xrightarrow[\epsilon]{1.596\text{ d}}$ 119Sn	119mSb $\xrightarrow[\gamma]{850\text{ ms}}$ 119Sb	120Sb $\xrightarrow[\epsilon]{15.9\text{ m}}$ 120Sn
120mSb $\xrightarrow[\epsilon]{5.76\text{ d}}$ 120Sn	122Sb $\xrightarrow[\epsilon]{2.7\text{ d}}$ 122Sn	122Sb $\xrightarrow[\epsilon]{2.7\text{ d}}$ 122Te	122mSb $\xrightarrow[\gamma]{4.19\text{ m}}$ 122Sb	124Sb $\xrightarrow[\epsilon]{60.2\text{ d}}$ 124Te
124mSb $\xrightarrow[\beta]{1.55\text{ m}}$ 124Te	124mSb $\xrightarrow[\gamma]{1.55\text{ m}}$ 124Sb	124nSb $\xrightarrow[\gamma]{20.2\text{ m}}$ 124mSb	125Sb $\xrightarrow[\beta]{2.759\text{ y}}$ 125Te	125Sb $\xrightarrow[\beta]{2.759\text{ y}}$ 125mTe
126Sb $\xrightarrow[\beta]{12.4\text{ d}}$ 126Te	126mSb $\xrightarrow[\gamma]{19.1\text{ m}}$ 126Sb	126mSb $\xrightarrow[\gamma]{19.1\text{ m}}$ 126Te	126nSb $\xrightarrow[\gamma]{11\text{ s}}$ 126mSb	127Sb $\xrightarrow[\beta]{3.85\text{ d}}$ 127Te
127Sb $\xrightarrow[\beta]{3.85\text{ d}}$ 127mTe	128Sb $\xrightarrow[\beta]{9.01\text{ h}}$ 128Te	128mSb $\xrightarrow[\gamma]{10.4\text{ m}}$ 128Sb	128mSb $\xrightarrow[\beta]{96.4\%}$ 128Te	129Sb $\xrightarrow[\beta]{4.36\text{ h}}$ 129Te
129Sb $\xrightarrow[\beta]{4.36\text{ h}}$ 129mTe	129mSb $\xrightarrow[\beta]{17.7\text{ m}}$ 129Te	129mSb $\xrightarrow[\beta]{17.7\text{ m}}$ 129mTe	129mSb $\xrightarrow[\gamma]{17.7\text{ m}}$ 129Sb	130Sb $\xrightarrow[\beta]{39.5\text{ m}}$ 130Te
130mSb $\xrightarrow[\beta]{6.3\text{ m}}$ 130Te	131Sb $\xrightarrow[\beta]{23.03\text{ m}}$ 131Te	131Sb $\xrightarrow[\beta]{23.03\text{ m}}$ 131mTe	132Sb $\xrightarrow[\beta]{2.79\text{ m}}$ 132Te	132mSb $\xrightarrow[\beta]{4.1\text{ m}}$ 132Te
133Sb $\xrightarrow[\beta]{2.5\text{ m}}$ 133Te	133Sb $\xrightarrow[\beta]{2.5\text{ m}}$ 133mTe	134Sb $\xrightarrow[\beta]{780\text{ ms}}$ 134Te	134mSb $\xrightarrow[\beta]{10.07\text{ s}}$ 134Te	134mSb $\xrightarrow[\beta]{10.07\text{ s}}$ 133Te
134mSb $\xrightarrow[\beta]{10.07\text{ s}}$ 133mTe	135Sb $\xrightarrow[\beta]{1.74\text{ s}}$ 135Te	135Sb $\xrightarrow[\beta]{1.74\text{ s}}$ 134Te	136Sb $\xrightarrow[\beta]{923\text{ ms}}$ 136Te	136Sb $\xrightarrow[\beta]{923\text{ ms}}$ 135Te
136Sb $\xrightarrow[\beta]{923\text{ ms}}$ 134Te	137Sb $\xrightarrow[\beta]{450\text{ ms}}$ 137Te	137Sb $\xrightarrow[\beta]{450\text{ ms}}$ 136Te	138Sb $\xrightarrow[\beta]{500\text{ ms}}$ 138Te	139Sb $\xrightarrow[\beta]{300\text{ ms}}$ 139Te
105Te $\xrightarrow[\alpha]{1\text{ }\mu\text{s}}$ 101Sn	105Te $\xrightarrow[\alpha]{1\text{ }\mu\text{s}}$ 105Sb	106Te $\xrightarrow[\alpha]{60\text{ }\mu\text{s}}$ 102Sn	107Te $\xrightarrow[\alpha]{3.1\text{ ms}}$ 103Sn	107Te $\xrightarrow[\epsilon]{3.1\text{ ms}}$ 107Sb
108Te $\xrightarrow[\epsilon]{2.1\text{ s}}$ 108Sb	108Te $\xrightarrow[\alpha]{2.1\text{ s}}$ 104Sn	108Te $\xrightarrow[\epsilon]{2.1\text{ s}}$ 107Sn	108Te $\xrightarrow[\epsilon]{2.1\text{ s}}$ 104In	108Te $\xrightarrow[\epsilon]{2.1\text{ s}}$ 104mIn
109Te $\xrightarrow[\epsilon]{4.6\text{ s}}$ 109Sb	109Te $\xrightarrow[\alpha]{4.6\text{ s}}$ 105Sn	109Te $\xrightarrow[\epsilon]{4.6\text{ s}}$ 108Sn	109Te $\xrightarrow[\epsilon]{4.6\text{ s}}$ 105In	109Te $\xrightarrow[\epsilon]{4.6\text{ s}}$ 105mIn
110Te $\xrightarrow[\epsilon]{18.6\text{ s}}$ 110Sb	110Te $\xrightarrow[\alpha]{18.6\text{ s}}$ 106Sn	111Te $\xrightarrow[\epsilon]{19.3\text{ s}}$ 111Sb	112Te $\xrightarrow[\epsilon]{2\text{ m}}$ 112Sb	113Te $\xrightarrow[\epsilon]{1.7\text{ m}}$ 113Sb
114Te $\xrightarrow[\epsilon]{15.2\text{ m}}$ 114Sb	115Te $\xrightarrow[\epsilon]{5.8\text{ m}}$ 115Sb	115mTe $\xrightarrow[\epsilon]{6.7\text{ m}}$ 115Sb	116Te $\xrightarrow[\epsilon]{2.49\text{ h}}$ 116Sb	117Te $\xrightarrow[\epsilon]{1.033\text{ h}}$ 117Sb
117mTe $\xrightarrow[\gamma]{103\text{ ms}}$ 117Te	118Te $\xrightarrow[\epsilon]{6\text{ d}}$ 118Sb	119Te $\xrightarrow[\epsilon]{16.05\text{ h}}$ 119Sb	119mTe $\xrightarrow[\epsilon]{4.7\text{ d}}$ 119Sb	121Te $\xrightarrow[\epsilon]{19.16\text{ d}}$ 121Sb
121mTe $\xrightarrow[\gamma]{154\text{ d}}$ 121Sb	121mTe $\xrightarrow[\gamma]{154\text{ d}}$ 121Te	123Te $\xrightarrow[\epsilon]{92\text{ Py}}$ 123Sb	123mTe $\xrightarrow[\epsilon]{119.5\text{ d}}$ 123Te	125mTe $\xrightarrow[\gamma]{57.4\text{ d}}$ 125Te
127Te $\xrightarrow[\beta]{9.35\text{ h}}$ 127I	127mTe $\xrightarrow[\gamma]{109\text{ d}}$ 127Te	127mTe $\xrightarrow[\beta]{109\text{ d}}$ 127I	128Te $\xrightarrow[\beta]{\geq 1000\text{ Ey}}$ 128Xe	129Te $\xrightarrow[\beta]{1.16\text{ h}}$ 129I
129mTe $\xrightarrow[\beta]{33.6\text{ d}}$ 129I	129mTe $\xrightarrow[\gamma]{33.6\text{ d}}$ 129Te	130Te $\xrightarrow[\beta]{\geq 1000\text{ Ey}}$ 130Xe	131Te $\xrightarrow[\beta]{25\text{ m}}$ 131I	131mTe $\xrightarrow[\beta]{1.25\text{ d}}$ 131Te
131mTe $\xrightarrow[\beta]{1.25\text{ d}}$ 131I	132Te $\xrightarrow[\beta]{3.204\text{ d}}$ 132I	133Te $\xrightarrow[\beta]{12.45\text{ m}}$ 133I	133mTe $\xrightarrow[\beta]{55.4\text{ m}}$ 133I	133mTe $\xrightarrow[\gamma]{55.4\text{ m}}$ 133Te
134Te $\xrightarrow[\beta]{41.8\text{ m}}$ 134I	135Te $\xrightarrow[\beta]{19\text{ s}}$ 135I	136Te $\xrightarrow[\beta]{17.5\text{ s}}$ 136I	137Te $\xrightarrow[\beta]{2.49\text{ s}}$ 137I	137Te $\xrightarrow[\beta]{2.49\text{ s}}$ 136I
137Te $\xrightarrow[\beta]{2.49\text{ s}}$ 136mI	138Te $\xrightarrow[\beta]{1.4\text{ s}}$ 138I	138Te $\xrightarrow[\beta]{1.4\text{ s}}$ 137I	139Te $\xrightarrow[\beta]{500\text{ ms}}$ 139I	140Te $\xrightarrow[\beta]{300\text{ ms}}$ 140I
141Te $\xrightarrow[\beta]{100\text{ ms}}$ 141I	142Te $\xrightarrow[\beta]{50\text{ ms}}$ 142I	108I $\xrightarrow[\alpha]{36\text{ ms}}$ 104Sb	108I $\xrightarrow[\epsilon]{36\text{ ms}}$ 108Te	108I $\xrightarrow[\epsilon]{36\text{ ms}}$ 107Te
109I $\xrightarrow[\alpha]{103\text{ }\mu\text{s}}$ 108Te	110I $\xrightarrow[\alpha]{650\text{ ms}}$ 110Te	110I $\xrightarrow[\alpha]{650\text{ ms}}$ 106Sb	110I $\xrightarrow[\epsilon]{650\text{ ms}}$ 109Sb	110I $\xrightarrow[\epsilon]{650\text{ ms}}$ 106Sn
111I $\xrightarrow[\alpha]{2.5\text{ s}}$ 111Te	111I $\xrightarrow[\alpha]{2.5\text{ s}}$ 107Sb	112I $\xrightarrow[\alpha]{3.42\text{ s}}$ 112Te	112I $\xrightarrow[\alpha]{3.42\text{ s}}$ 108Sb	112I $\xrightarrow[\epsilon]{3.42\text{ s}}$ 111Sb
112I $\xrightarrow[\alpha]{3.42\text{ s}}$ 108Sn	113I $\xrightarrow[\alpha]{6.6\text{ s}}$ 113Te	113I $\xrightarrow[\alpha]{6.6\text{ s}}$ 109Sb	114I $\xrightarrow[\epsilon]{2.1\text{ s}}$ 114Te	114mI $\xrightarrow[\epsilon]{6.2\text{ s}}$ 114Te
114mI $\xrightarrow[\gamma]{6.2\text{ s}}$ 114I	115I $\xrightarrow[\epsilon]{1.3\text{ m}}$ 115Te	115I $\xrightarrow[\epsilon]{1.3\text{ m}}$ 115mTe	116I $\xrightarrow[\epsilon]{2.91\text{ s}}$ 116Te	117I $\xrightarrow[\epsilon]{2.22\text{ m}}$ 117Te
117I $\xrightarrow[\epsilon]{2.22\text{ m}}$ 117mTe	118I $\xrightarrow[\epsilon]{13.7\text{ m}}$ 118Te	118mI $\xrightarrow[\epsilon]{8.5\text{ m}}$ 118Te	119I $\xrightarrow[\epsilon]{19.1\text{ m}}$ 119Te	119I $\xrightarrow[\epsilon]{19.1\text{ m}}$ 119mTe
120I $\xrightarrow[\epsilon]{1.36\text{ h}}$ 120Te	120mI $\xrightarrow[\epsilon]{53\text{ m}}$ 120Te	121I $\xrightarrow[\epsilon]{2.12\text{ h}}$ 121Te	121I $\xrightarrow[\epsilon]{2.12\text{ h}}$ 121mTe	122I $\xrightarrow[\epsilon]{3.63\text{ m}}$ 122Te
123I $\xrightarrow[\epsilon]{13.22\text{ h}}$ 123Te	124I $\xrightarrow[\epsilon]{4.176\text{ d}}$ 124Te	125I $\xrightarrow[\epsilon]{59.41\text{ d}}$ 125Te	126I $\xrightarrow[\beta]{12.98\text{ d}}$ 126Xe	126I $\xrightarrow[\epsilon]{12.98\text{ d}}$ 126Te
128I $\xrightarrow[\epsilon]{24.99\text{ m}}$ 128Te	128I $\xrightarrow[\epsilon]{24.99\text{ m}}$ 128Xe	129I $\xrightarrow[\beta]{16.1\text{ My}}$ 129Xe	130I $\xrightarrow[\beta]{12.36\text{ h}}$ 130Xe	130mI $\xrightarrow[\gamma]{8.84\text{ m}}$ 130I
130mI $\xrightarrow[\beta]{8.84\text{ m}}$ 130Xe	131I $\xrightarrow[\beta]{8.023\text{ d}}$ 131Xe	131I $\xrightarrow[\beta]{8.023\text{ d}}$ 131mXe	132I $\xrightarrow[\beta]{2.295\text{ h}}$ 132Xe	132mI $\xrightarrow[\gamma]{1.383\text{ h}}$ 132I

$^{132m}\text{I}$ $\frac{1.383\text{ h}}{\beta 14\%}$ $^{132}\text{Xe}$	$^{133}\text{I}$ $\frac{20.8\text{ h}}{\beta 97.15\%}$ $^{133}\text{Xe}$	$^{133}\text{I}$ $\frac{20.8\text{ h}}{\beta 2.846\%}$ $^{133m}\text{Xe}$	$^{133m}\text{I}$ $\frac{9\text{ s}}{\gamma}$ $^{133}\text{I}$	$^{134}\text{I}$ $\frac{52.5\text{ m}}{\beta}$ $^{134}\text{Xe}$
$^{134m}\text{I}$ $\frac{3.6\text{ m}}{\gamma 97.7\%}$ $^{134}\text{I}$	$^{134m}\text{I}$ $\frac{3.6\text{ m}}{\beta 2.3\%}$ $^{134m}\text{Xe}$	$^{135}\text{I}$ $\frac{6.57\text{ h}}{\beta 83.49\%}$ $^{135}\text{Xe}$	$^{135}\text{I}$ $\frac{6.57\text{ h}}{\beta 16.51\%}$ $^{135m}\text{Xe}$	$^{136}\text{I}$ $\frac{1.39\text{ m}}{\beta}$ $^{136}\text{Xe}$
$^{136m}\text{I}$ $\frac{46.9\text{ s}}{\beta}$ $^{136}\text{Xe}$	$^{137}\text{I}$ $\frac{24.51\text{ s}}{\beta 93.5\%}$ $^{137}\text{Xe}$	$^{137}\text{I}$ $\frac{24.51\text{ s}}{\beta n 6.5\%}$ $^{136}\text{Xe}$	$^{138}\text{I}$ $\frac{6.46\text{ s}}{\beta 94.7\%}$ $^{138}\text{Xe}$	$^{138}\text{I}$ $\frac{6.46\text{ s}}{\beta n 5.3\%}$ $^{137}\text{Xe}$
$^{139}\text{I}$ $\frac{2.3\text{ s}}{\beta 90.2\%}$ $^{139}\text{Xe}$	$^{139}\text{I}$ $\frac{2.3\text{ s}}{\beta n 9.8\%}$ $^{138}\text{Xe}$	$^{140}\text{I}$ $\frac{860\text{ ms}}{\beta 90.7\%}$ $^{140}\text{Xe}$	$^{140}\text{I}$ $\frac{860\text{ ms}}{\beta n 9.3\%}$ $^{139}\text{Xe}$	$^{141}\text{I}$ $\frac{430\text{ ms}}{\beta 79\%}$ $^{141}\text{Xe}$
$^{141}\text{I}$ $\frac{430\text{ ms}}{\beta n 21\%}$ $^{140}\text{Xe}$	$^{142}\text{I}$ $\frac{200\text{ ms}}{\beta 75\%}$ $^{142}\text{Xe}$	$^{142}\text{I}$ $\frac{200\text{ ms}}{\beta n 25\%}$ $^{141}\text{Xe}$	$^{143}\text{I}$ $\frac{100\text{ ms}}{\beta 60\%}$ $^{143}\text{Xe}$	$^{143}\text{I}$ $\frac{100\text{ ms}}{\beta n 40\%}$ $^{142}\text{Xe}$
$^{144}\text{I}$ $\frac{50\text{ ms}}{\beta 60\%}$ $^{144}\text{Xe}$	$^{144}\text{I}$ $\frac{50\text{ ms}}{\beta n 40\%}$ $^{143}\text{Xe}$	$^{110}\text{Xe}$ $\frac{310\text{ ms}}{\alpha 64\%}$ $^{106}\text{Te}$	$^{110}\text{Xe}$ $\frac{310\text{ ms}}{\alpha 36\%}$ $^{110}\text{I}$	$^{111}\text{Xe}$ $\frac{740\text{ ms}}{\epsilon 90\%}$ $^{111}\text{I}$
$^{111}\text{Xe}$ $\frac{740\text{ ms}}{\alpha 10\%}$ $^{107}\text{Te}$	$^{112}\text{Xe}$ $\frac{2.7\text{ s}}{\epsilon 99.1\%}$ $^{112}\text{I}$	$^{112}\text{Xe}$ $\frac{2.7\text{ s}}{\alpha 0.9\%}$ $^{108}\text{Te}$	$^{113}\text{Xe}$ $\frac{2.74\text{ s}}{\epsilon 92.98\%}$ $^{113}\text{I}$	$^{113}\text{Xe}$ $\frac{2.74\text{ s}}{\alpha < 0.1\%}$ $^{109}\text{Te}$
$^{113}\text{Xe}$ $\frac{2.74\text{ s}}{\epsilon n 7\%}$ $^{112}\text{Te}$	$^{113}\text{Xe}$ $\frac{2.74\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{109}\text{Sb}$	$^{114}\text{Xe}$ $\frac{18\text{ s}}{\epsilon}$ $^{114}\text{I}$	$^{115}\text{Xe}$ $\frac{18\text{ s}}{\epsilon 99.66\%}$ $^{115}\text{I}$	$^{115}\text{Xe}$ $\frac{18\text{ s}}{\epsilon n 0.34\%}$ $^{114}\text{Te}$
$^{115}\text{Xe}$ $\frac{18\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{111}\text{Sb}$	$^{116}\text{Xe}$ $\frac{59\text{ s}}{\epsilon}$ $^{116}\text{I}$	$^{117}\text{Xe}$ $\frac{1.017\text{ m}}{\epsilon 100\%}$ $^{117}\text{I}$	$^{117}\text{Xe}$ $\frac{1.017\text{ m}}{\epsilon n < 0.1\%}$ $^{116}\text{Te}$	$^{118}\text{Xe}$ $\frac{3.8\text{ m}}{\epsilon}$ $^{118}\text{I}$
$^{119}\text{Xe}$ $\frac{5.8\text{ m}}{\epsilon}$ $^{119}\text{I}$	$^{120}\text{Xe}$ $\frac{40\text{ m}}{\epsilon}$ $^{120}\text{I}$	$^{121}\text{Xe}$ $\frac{40.1\text{ m}}{\epsilon}$ $^{121}\text{I}$	$^{122}\text{Xe}$ $\frac{20.1\text{ h}}{\epsilon}$ $^{122}\text{I}$	$^{123}\text{Xe}$ $\frac{2.08\text{ h}}{\epsilon}$ $^{123}\text{I}$
$^{124}\text{Xe}$ $\frac{200\text{ T}}{\epsilon}$ $^{124}\text{Te}$	$^{125}\text{Xe}$ $\frac{16.9\text{ h}}{\epsilon}$ $^{125}\text{I}$	$^{125m}\text{Xe}$ $\frac{56\text{ s}}{\gamma}$ $^{125}\text{Xe}$	$^{127}\text{Xe}$ $\frac{36.4\text{ d}}{\gamma}$ $^{127}\text{I}$	$^{127m}\text{Xe}$ $\frac{1.16\text{ m}}{\gamma}$ $^{127}\text{Xe}$
$^{129m}\text{Xe}$ $\frac{8.88\text{ d}}{\gamma}$ $^{129}\text{Xe}$	$^{131m}\text{Xe}$ $\frac{11.93\text{ d}}{\gamma}$ $^{131}\text{Xe}$	$^{132m}\text{Xe}$ $\frac{8.39\text{ ms}}{\gamma}$ $^{132}\text{Xe}$	$^{133}\text{Xe}$ $\frac{5.244\text{ d}}{\beta}$ $^{133}\text{Cs}$	$^{133m}\text{Xe}$ $\frac{2.188\text{ d}}{\gamma}$ $^{133}\text{Xe}$
$^{134}\text{Xe}$ $\frac{11\text{ Py}}{\beta\beta}$ $^{134}\text{Ba}$	$^{134m}\text{Xe}$ $\frac{290\text{ ms}}{\beta}$ $^{134}\text{Xe}$	$^{135}\text{Xe}$ $\frac{9.14\text{ h}}{\beta}$ $^{135}\text{Cs}$	$^{135m}\text{Xe}$ $\frac{15.29\text{ m}}{\gamma 99.4\%}$ $^{135}\text{Xe}$	$^{135m}\text{Xe}$ $\frac{15.29\text{ m}}{\beta 0.6\%}$ $^{135}\text{Cs}$
$^{136}\text{Xe}$ $\frac{210\text{ Ey}}{\beta\beta}$ $^{136}\text{Ba}$	$^{137}\text{Xe}$ $\frac{3.818\text{ m}}{\beta}$ $^{137}\text{Cs}$	$^{138}\text{Xe}$ $\frac{14.08\text{ m}}{\beta}$ $^{138}\text{Cs}$	$^{139}\text{Xe}$ $\frac{39.68\text{ s}}{\beta}$ $^{139}\text{Cs}$	$^{140}\text{Xe}$ $\frac{13.6\text{ s}}{\beta}$ $^{140}\text{Cs}$
$^{141}\text{Xe}$ $\frac{1.73\text{ s}}{\beta 99.96\%}$ $^{141}\text{Cs}$	$^{141}\text{Xe}$ $\frac{1.73\text{ s}}{\beta n < 0.1\%}$ $^{140}\text{Cs}$	$^{142}\text{Xe}$ $\frac{1.22\text{ s}}{\beta 99.64\%}$ $^{142}\text{Cs}$	$^{142}\text{Xe}$ $\frac{1.22\text{ s}}{\beta n 0.36\%}$ $^{141}\text{Cs}$	$^{143}\text{Xe}$ $\frac{511\text{ ms}}{\beta 99\%}$ $^{143}\text{Cs}$
$^{143}\text{Xe}$ $\frac{511\text{ ms}}{\beta n 1\%}$ $^{142}\text{Cs}$	$^{144}\text{Xe}$ $\frac{388\text{ ms}}{\beta 97\%}$ $^{144}\text{Cs}$	$^{144}\text{Xe}$ $\frac{388\text{ ms}}{\beta n 3\%}$ $^{143}\text{Cs}$	$^{145}\text{Xe}$ $\frac{188\text{ ms}}{\beta 95\%}$ $^{145}\text{Cs}$	$^{145}\text{Xe}$ $\frac{188\text{ ms}}{\beta n 2.5\%}$ $^{144}\text{Cs}$
$^{145}\text{Xe}$ $\frac{188\text{ ms}}{\beta n 2.5\%}$ $^{144m}\text{Cs}$	$^{146}\text{Xe}$ $\frac{146\text{ ms}}{\beta 93.1\%}$ $^{146}\text{Cs}$	$^{146}\text{Xe}$ $\frac{146\text{ ms}}{\beta n 6.9\%}$ $^{145}\text{Cs}$	$^{147}\text{Xe}$ $\frac{130\text{ ms}}{\beta 96\%}$ $^{147}\text{Cs}$	$^{147}\text{Xe}$ $\frac{130\text{ ms}}{\beta n 4\%}$ $^{146}\text{Cs}$
$^{112}\text{Cs}$ $\frac{500\text{ }\mu\text{s}}{n}$ $^{111}\text{Xe}$	$^{113}\text{Cs}$ $\frac{16.7\text{ }\mu\text{s}}{n}$ $^{112}\text{Xe}$	$^{114}\text{Cs}$ $\frac{570\text{ ms}}{\epsilon 91.09\%}$ $^{114}\text{Xe}$	$^{114}\text{Cs}$ $\frac{570\text{ ms}}{\epsilon n 8.7\%}$ $^{113}\text{I}$	$^{114}\text{Cs}$ $\frac{570\text{ ms}}{\alpha 0.19\%}$ $^{110}\text{Te}$
$^{114}\text{Cs}$ $\frac{570\text{ ms}}{\alpha < 0.1\%}$ $^{110}\text{I}$	$^{115}\text{Cs}$ $\frac{1.4\text{ s}}{\epsilon 99.93\%}$ $^{115}\text{Xe}$	$^{115}\text{Cs}$ $\frac{1.4\text{ s}}{\epsilon n < 0.1\%}$ $^{114}\text{I}$	$^{115}\text{Cs}$ $\frac{1.4\text{ s}}{\epsilon n < 0.1\%}$ $^{114m}\text{I}$	$^{116}\text{Cs}$ $\frac{700\text{ ms}}{\epsilon 99.67\%}$ $^{116}\text{Xe}$
$^{116}\text{Cs}$ $\frac{700\text{ ms}}{\epsilon \alpha 0.28\%}$ $^{115}\text{I}$	$^{116}\text{Cs}$ $\frac{700\text{ ms}}{\epsilon \alpha < 0.1\%}$ $^{112}\text{Te}$	$^{116m}\text{Cs}$ $\frac{3.85\text{ s}}{\epsilon 99.48\%}$ $^{116}\text{Xe}$	$^{116m}\text{Cs}$ $\frac{3.85\text{ s}}{\epsilon n 0.51\%}$ $^{115}\text{I}$	$^{116m}\text{Cs}$ $\frac{3.85\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{112}\text{Te}$
$^{117}\text{Cs}$ $\frac{8.4\text{ s}}{\epsilon}$ $^{117}\text{Xe}$	$^{117m}\text{Cs}$ $\frac{6.5\text{ s}}{\epsilon}$ $^{117}\text{Xe}$	$^{118}\text{Cs}$ $\frac{14\text{ s}}{\epsilon 99.98\%}$ $^{118}\text{Xe}$	$^{118}\text{Cs}$ $\frac{14\text{ s}}{\epsilon n < 0.1\%}$ $^{117}\text{I}$	$^{118}\text{Cs}$ $\frac{14\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{114}\text{Te}$
$^{118m}\text{Cs}$ $\frac{17\text{ s}}{\epsilon 99.98\%}$ $^{118}\text{Xe}$	$^{118m}\text{Cs}$ $\frac{17\text{ s}}{\epsilon n < 0.1\%}$ $^{117}\text{I}$	$^{118m}\text{Cs}$ $\frac{17\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{114}\text{Te}$	$^{119}\text{Cs}$ $\frac{43\text{ s}}{\epsilon}$ $^{119}\text{Xe}$	$^{119}\text{Cs}$ $\frac{43\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{115}\text{Te}$
$^{119}\text{Cs}$ $\frac{43\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{115m}\text{Te}$	$^{119m}\text{Cs}$ $\frac{30.4\text{ s}}{\epsilon}$ $^{119}\text{Xe}$	$^{120}\text{Cs}$ $\frac{1.02\text{ m}}{\epsilon}$ $^{120}\text{Xe}$	$^{120}\text{Cs}$ $\frac{1.02\text{ m}}{\epsilon \alpha < 0.1\%}$ $^{116}\text{Te}$	$^{120}\text{Cs}$ $\frac{1.02\text{ m}}{\epsilon n < 0.1\%}$ $^{119}\text{I}$
$^{120m}\text{Cs}$ $\frac{57\text{ s}}{\epsilon}$ $^{120}\text{Xe}$	$^{120m}\text{Cs}$ $\frac{57\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{116}\text{Te}$	$^{120m}\text{Cs}$ $\frac{57\text{ s}}{\epsilon n < 0.1\%}$ $^{119}\text{I}$	$^{121}\text{Cs}$ $\frac{2.583\text{ m}}{\epsilon}$ $^{121}\text{Xe}$	$^{121m}\text{Cs}$ $\frac{2.033\text{ m}}{\epsilon 83\%}$ $^{121}\text{Xe}$
$^{121m}\text{Cs}$ $\frac{2.033\text{ m}}{\gamma 17\%}$ $^{121}\text{Cs}$	$^{122}\text{Cs}$ $\frac{21.2\text{ s}}{\epsilon}$ $^{122}\text{Xe}$	$^{122m}\text{Cs}$ $\frac{3.7\text{ m}}{\epsilon}$ $^{122}\text{Xe}$	$^{122n}\text{Cs}$ $\frac{360\text{ ms}}{\gamma 50\%}$ $^{122}\text{Cs}$	$^{122n}\text{Cs}$ $\frac{360\text{ ms}}{\gamma 50\%}$ $^{122m}\text{Cs}$
$^{123}\text{Cs}$ $\frac{5.91\text{ m}}{\epsilon}$ $^{123}\text{Xe}$	$^{123m}\text{Cs}$ $\frac{1.7\text{ s}}{\gamma}$ $^{123}\text{Cs}$	$^{124}\text{Cs}$ $\frac{30.9\text{ s}}{\epsilon}$ $^{124}\text{Xe}$	$^{124m}\text{Cs}$ $\frac{6.3\text{ s}}{\gamma}$ $^{124}\text{Cs}$	$^{125}\text{Cs}$ $\frac{46.7\text{ m}}{\epsilon}$ $^{125}\text{Xe}$
$^{125m}\text{Cs}$ $\frac{900\text{ ms}}{\gamma}$ $^{125}\text{Cs}$	$^{126}\text{Cs}$ $\frac{1.64\text{ m}}{\epsilon}$ $^{126}\text{Xe}$	$^{127}\text{Cs}$ $\frac{6.25\text{ h}}{\epsilon}$ $^{127}\text{Xe}$	$^{128}\text{Cs}$ $\frac{3.62\text{ m}}{\epsilon}$ $^{128}\text{Xe}$	$^{129}\text{Cs}$ $\frac{1.342\text{ d}}{\epsilon}$ $^{129}\text{Xe}$
$^{130}\text{Cs}$ $\frac{29.21\text{ m}}{\epsilon 98.4\%}$ $^{130}\text{Xe}$	$^{130}\text{Cs}$ $\frac{29.21\text{ m}}{\beta 1.6\%}$ $^{130}\text{Ba}$	$^{130m}\text{Cs}$ $\frac{3.46\text{ m}}{\gamma 99.84\%}$ $^{130}\text{Cs}$	$^{130m}\text{Cs}$ $\frac{3.46\text{ m}}{\epsilon 0.16\%}$ $^{130}\text{Xe}$	$^{131}\text{Cs}$ $\frac{9.69\text{ d}}{\epsilon}$ $^{131}\text{Xe}$
$^{132}\text{Cs}$ $\frac{6.53\text{ d}}{\beta 1.8\%}$ $^{132}\text{Ba}$	$^{132}\text{Cs}$ $\frac{6.53\text{ d}}{\epsilon 98.2\%}$ $^{132}\text{Xe}$	$^{134}\text{Cs}$ $\frac{2.065\text{ y}}{\epsilon < 0.1\%}$ $^{134}\text{Xe}$	$^{134}\text{Cs}$ $\frac{2.065\text{ y}}{\beta 100\%}$ $^{134}\text{Ba}$	$^{134m}\text{Cs}$ $\frac{2.908\text{ h}}{\gamma}$ $^{134}\text{Cs}$
$^{135}\text{Cs}$ $\frac{2.3\text{ My}}{\beta}$ $^{135}\text{Ba}$	$^{135m}\text{Cs}$ $\frac{53\text{ m}}{\gamma}$ $^{135}\text{Cs}$	$^{136}\text{Cs}$ $\frac{13.03\text{ d}}{\beta}$ $^{136}\text{Ba}$	$^{136m}\text{Cs}$ $\frac{19\text{ s}}{\beta 50\%}$ $^{136}\text{Ba}$	$^{136m}\text{Cs}$ $\frac{19\text{ s}}{\gamma 50\%}$ $^{136}\text{Cs}$
$^{137}\text{Cs}$ $\frac{30.04\text{ y}}{\beta 5.6011\%}$ $^{137}\text{Ba}$	$^{137}\text{Cs}$ $\frac{30.04\text{ y}}{\beta 94.4\%}$ $^{137m}\text{Ba}$	$^{138}\text{Cs}$ $\frac{33.41\text{ m}}{\beta}$ $^{138}\text{Ba}$	$^{138m}\text{Cs}$ $\frac{2.91\text{ m}}{\gamma 81\%}$ $^{138}\text{Cs}$	$^{138m}\text{Cs}$ $\frac{2.91\text{ m}}{\beta 19\%}$ $^{138}\text{Ba}$
$^{139}\text{Cs}$ $\frac{9.27\text{ m}}{\beta}$ $^{139}\text{Ba}$	$^{140}\text{Cs}$ $\frac{1.062\text{ m}}{\beta}$ $^{140}\text{Ba}$	$^{141}\text{Cs}$ $\frac{24.84\text{ s}}{\beta}$ $^{141}\text{Ba}$	$^{142}\text{Cs}$ $\frac{1.684\text{ s}}{\beta}$ $^{142}\text{Ba}$	$^{143}\text{Cs}$ $\frac{1.791\text{ s}}{\beta 98.36\%}$ $^{143}\text{Ba}$
$^{143}\text{Cs}$ $\frac{1.791\text{ s}}{\beta n 1.64\%}$ $^{142}\text{Ba}$	$^{144}\text{Cs}$ $\frac{994\text{ ms}}{\beta 96.8\%}$ $^{144}\text{Ba}$	$^{144}\text{Cs}$ $\frac{994\text{ ms}}{\beta n 3.2\%}$ $^{143}\text{Ba}$	$^{144m}\text{Cs}$ $\frac{1\text{ s}}{\beta 50\%}$ $^{144}\text{Ba}$	$^{144m}\text{Cs}$ $\frac{1\text{ s}}{\gamma 50\%}$ $^{144}\text{Cs}$
$^{145}\text{Cs}$ $\frac{594\text{ ms}}{\beta 85.7\%}$ $^{145}\text{Ba}$	$^{145}\text{Cs}$ $\frac{594\text{ ms}}{\beta n 14.3\%}$ $^{144}\text{Ba}$	$^{146}\text{Cs}$ $\frac{323\text{ ms}}{\beta 85.8\%}$ $^{146}\text{Ba}$	$^{146}\text{Cs}$ $\frac{323\text{ ms}}{\beta n 14.2\%}$ $^{145}\text{Ba}$	$^{147}\text{Cs}$ $\frac{225\text{ ms}}{\beta 71.5\%}$ $^{147}\text{Ba}$
$^{147}\text{Cs}$ $\frac{225\text{ ms}}{\beta n 28.5\%}$ $^{146}\text{Ba}$	$^{148}\text{Cs}$ $\frac{146\text{ ms}}{\beta 74.9\%}$ $^{148}\text{Ba}$	$^{148m}\text{Cs}$ $\frac{146\text{ ms}}{\beta n 25.1\%}$ $^{147}\text{Ba}$	$^{149}\text{Cs}$ $\frac{150\text{ ms}}{\beta}$ $^{149}\text{Ba}$	$^{150}\text{Cs}$ $\frac{100\text{ ms}}{\beta}$ $^{150}\text{Ba}$
$^{151}\text{Cs}$ $\frac{60\text{ ms}}{\beta}$ $^{151}\text{Ba}$	$^{114}\text{Ba}$ $\frac{530\text{ ms}}{\epsilon 79.1\%}$ $^{114}\text{Cs}$	$^{114}\text{Ba}$ $\frac{530\text{ ms}}{\epsilon n 20\%}$ $^{113}\text{Xe}$	$^{114}\text{Ba}$ $\frac{530\text{ ms}}{\alpha 0.9\%}$ $^{110}\text{Xe}$	$^{115}\text{Ba}$ $\frac{450\text{ ms}}{\epsilon 85\%}$ $^{115}\text{Cs}$
$^{115}\text{Ba}$ $\frac{450\text{ ms}}{\epsilon n 15\%}$ $^{114}\text{Xe}$	$^{116}\text{Ba}$ $\frac{1.3\text{ s}}{\epsilon 97\%}$ $^{116}\text{Cs}$	$^{116}\text{Ba}$ $\frac{1.3\text{ s}}{\epsilon n 3\%}$ $^{115}\text{Xe}$	$^{117}\text{Ba}$ $\frac{1.75\text{ s}}{\epsilon 86.98\%}$ $^{117m}\text{Cs}$	$^{117}\text{Ba}$ $\frac{1.75\text{ s}}{\epsilon n 13\%}$ $^{116}\text{Xe}$
$^{117}\text{Ba}$ $\frac{1.75\text{ s}}{\epsilon \alpha < 0.1\%}$ $^{113}\text{I}$	$^{118}\text{Ba}$ $\frac{5.2\text{ s}}{\epsilon}$ $^{118}\text{Cs}$	$^{119}\text{Ba}$ $\frac{5.4\text{ s}}{\epsilon 37.5\%}$ $^{119}\text{Cs}$	$^{119}\text{Ba}$ $\frac{5.4\text{ s}}{\epsilon 37.5\%}$ $^{119m}\text{Cs}$	$^{119}\text{Ba}$ $\frac{5.4\text{ s}}{\epsilon n 25\%}$ $^{118}\text{Xe}$
$^{120}\text{Ba}$ $\frac{24\text{ s}}{\epsilon}$ $^{120}\text{Cs}$	$^{121}\text{Ba}$ $\frac{29.7\text{ s}}{\epsilon 49.99\%}$ $^{121}\text{Cs}$	$^{121}\text{Ba}$ $\frac{29.7\text{ s}}{\epsilon 49.99\%}$ $^{121m}\text{Cs}$	$^{121}\text{Ba}$ $\frac{29.7\text{ s}}{\epsilon n < 0.1\%}$ $^{120}\text{Xe}$	$^{122}\text{Ba}$ $\frac{1.95\text{ m}}{\epsilon}$ $^{122}\text{Cs}$
$^{123}\text{Ba}$ $\frac{2.7\text{ m}}{\epsilon 50\%}$ $^{123}\text{Cs}$	$^{123}\text{Ba}$ $\frac{2.7\text{ m}}{\epsilon 50\%}$ $^{123m}\text{Cs}$	$^{124}\text{Ba}$ $\frac{11\text{ m}}{\epsilon}$ $^{124}\text{Cs}$	$^{125}\text{Ba}$ $\frac{3.5\text{ m}}{\epsilon}$ $^{125}\text{Cs}$	$^{126}\text{Ba}$ $\frac{1.667\text{ h}}{\epsilon}$ $^{126}\text{Cs}$
$^{127}\text{Ba}$ $\frac{12.7\text{ m}}{\epsilon}$ $^{127}\text{Cs}$	$^{127m}\text{Ba}$ $\frac{1.9\text{ s}}{\gamma}$ $^{127}\text{Ba}$	$^{128}\text{Ba}$ $\frac{2.43\text{ d}}{\epsilon}$ $^{128}\text{Cs}$	$^{129}\text{Ba}$ $\frac{2.38\text{ h}}{\epsilon}$ $^{129}\text{Cs}$	$^{129m}\text{Ba}$ $\frac{2.14\text{ h}}{\epsilon}$ $^{129}\text{Cs}$
$^{130m}\text{Ba}$ $\frac{9.54\text{ ms}}{\beta}$ $^{130}\text{Ba}$	$^{131}\text{Ba}$ $\frac{11.55\text{ d}}{\gamma}$ $^{131}\text{Cs}$	$^{131m}\text{Ba}$ $\frac{14.6\text{ m}}{\gamma}$ $^{131}\text{Ba}$	$^{133}\text{Ba}$ $\frac{10.54\text{ y}}{\beta}$ $^{133}\text{Cs}$	$^{133m}\text{Ba}$ $\frac{1.592\text{ d}}{\epsilon < 0.1\%}$ $^{133}\text{Cs}$
$^{133m}\text{Ba}$ $\frac{1.592\text{ d}}{\gamma 99.99\%}$ $^{133}\text{Ba}$	$^{135m}\text{Ba}$ $\frac{1.196\text{ d}}{\gamma}$ $^{135}\text{Ba}$	$^{136m}\text{Ba}$ $\frac{308.4\text{ ms}}{\gamma}$ $^{136}\text{Ba}$	$^{137m}\text{Ba}$ $\frac{2.552\text{ m}}{\gamma}$ $^{137}\text{Ba}$	$^{139}\text{Ba}$ $\frac{1.384\text{ h}}{\beta}$ $^{139}\text{La}$
$^{140}\text{Ba}$ $\frac{12.77\text{ d}}{\beta}$ $^{140}\text{La}$	$^{141}\text{Ba}$ $\frac{18.27\text{ m}}{\beta}$ $^{141}\text{La}$	$^{142}\text{Ba}$ $\frac{10.6\text{ m}}{\beta}$ $^{142}\text{La$		



159Nd $\frac{500 \text{ ms}}{\beta n 0.236\%}$ $^{158}\text{Pm}$	160Nd $\frac{300 \text{ ms}}{\beta 99.05\%}$ $^{160}\text{Pm}$	160Nd $\frac{300 \text{ ms}}{\beta n 0.947\%}$ $^{159}\text{Pm}$	161Nd $\frac{200 \text{ ms}}{\beta}$ $^{161}\text{Pm}$	126Pm $\frac{500 \text{ ms}}{\epsilon}$ $^{126}\text{Nd}$
127Pm $\frac{1 \text{ s}}{\epsilon 50\%}$ $^{127}\text{Nd}$	127Pm $\frac{1 \text{ s}}{n 50\%}$ $^{126}\text{Nd}$	128Pm $\frac{1 \text{ s}}{\epsilon}$ $^{128}\text{Nd}$	129Pm $\frac{3 \text{ s}}{\epsilon}$ $^{129}\text{Nd}$	130Pm $\frac{2.6 \text{ s}}{\epsilon}$ $^{130}\text{Nd}$
131Pm $\frac{6.3 \text{ s}}{\epsilon}$ $^{131}\text{Nd}$	132Pm $\frac{6.3 \text{ s}}{\epsilon}$ $^{132}\text{Nd}$	133Pm $\frac{15 \text{ s}}{\epsilon 50\%}$ $^{133}\text{Nd}$	133Pm $\frac{15 \text{ s}}{\epsilon 50\%}$ $^{133m}\text{Nd}$	133mPm $\frac{10 \text{ s}}{\epsilon 50\%}$ $^{133}\text{Nd}$
133mPm $\frac{10 \text{ s}}{\gamma 50\%}$ $^{133}\text{Pm}$	134Pm $\frac{5 \text{ s}}{\epsilon}$ $^{134}\text{Nd}$	134mPm $\frac{5 \text{ s}}{\epsilon}$ $^{134}\text{Nd}$	135Pm $\frac{49 \text{ s}}{\epsilon 50\%}$ $^{135}\text{Nd}$	135Pm $\frac{49 \text{ s}}{\epsilon 50\%}$ $^{135m}\text{Nd}$
135mPm $\frac{40 \text{ s}}{\epsilon}$ $^{135}\text{Nd}$	136Pm $\frac{1.783 \text{ m}}{\epsilon}$ $^{136}\text{Nd}$	136mPm $\frac{47 \text{ s}}{\epsilon}$ $^{136}\text{Nd}$	137Pm $\frac{2 \text{ m}}{\epsilon 50\%}$ $^{137}\text{Nd}$	137Pm $\frac{2 \text{ m}}{\epsilon 50\%}$ $^{137m}\text{Nd}$
137mPm $\frac{2.4 \text{ m}}{\epsilon 37.42\%}$ $^{137}\text{Nd}$	137mPm $\frac{2.4 \text{ m}}{\epsilon 62.58\%}$ $^{137m}\text{Nd}$	138Pm $\frac{10 \text{ s}}{\epsilon}$ $^{138}\text{Nd}$	138mPm $\frac{3.24 \text{ m}}{\epsilon}$ $^{138}\text{Nd}$	139Pm $\frac{4.15 \text{ m}}{\epsilon}$ $^{139}\text{Nd}$
139mPm $\frac{180 \text{ ms}}{\gamma 99.94\%}$ $^{139}\text{Pm}$	140Pm $\frac{9.2 \text{ s}}{\epsilon}$ $^{140}\text{Nd}$	140mPm $\frac{5.95 \text{ m}}{\epsilon}$ $^{140}\text{Nd}$	141Pm $\frac{20.9 \text{ m}}{\epsilon 99.84\%}$ $^{141}\text{Nd}$	141Pm $\frac{20.9 \text{ m}}{\epsilon 0.164\%}$ $^{141m}\text{Nd}$
142Pm $\frac{40.5 \text{ s}}{\epsilon}$ $^{142}\text{Nd}$	142mPm $\frac{2 \text{ ms}}{\gamma}$ $^{142}\text{Pm}$	143Pm $\frac{266 \text{ d}}{\epsilon}$ $^{143}\text{Nd}$	144Pm $\frac{363 \text{ d}}{\epsilon}$ $^{144}\text{Nd}$	145Pm $\frac{17.7 \text{ y}}{\epsilon}$ $^{145}\text{Nd}$
145Pm $\frac{17.7 \text{ y}}{\alpha < 0.1\%}$ $^{141}\text{Pr}$	146Pm $\frac{5.531 \text{ y}}{\beta 34\%}$ $^{146}\text{Sm}$	146Pm $\frac{5.531 \text{ y}}{\epsilon 66\%}$ $^{146}\text{Nd}$	147Pm $\frac{2.623 \text{ y}}{\beta}$ $^{147}\text{Sm}$	148Pm $\frac{5.368 \text{ d}}{\epsilon}$ $^{148}\text{Sm}$
148mPm $\frac{41.05 \text{ d}}{\beta 95\%}$ $^{148}\text{Sm}$	148mPm $\frac{41.05 \text{ d}}{\gamma 5\%}$ $^{148}\text{Pm}$	149Pm $\frac{2.212 \text{ d}}{\beta}$ $^{149}\text{Sm}$	150Pm $\frac{2.68 \text{ h}}{\beta}$ $^{150}\text{Sm}$	151Pm $\frac{1.183 \text{ d}}{\beta}$ $^{151}\text{Sm}$
152Pm $\frac{4.12 \text{ m}}{\beta}$ $^{152}\text{Sm}$	152mPm $\frac{7.52 \text{ m}}{\beta}$ $^{152}\text{Sm}$	152nPm $\frac{14.4 \text{ m}}{\beta}$ $^{152}\text{Sm}$	153Pm $\frac{5.25 \text{ m}}{\beta}$ $^{153}\text{Sm}$	154Pm $\frac{1.73 \text{ m}}{\beta}$ $^{154}\text{Sm}$
154mPm $\frac{2.68 \text{ m}}{\beta}$ $^{154}\text{Sm}$	155Pm $\frac{41.5 \text{ s}}{\beta}$ $^{155}\text{Sm}$	156Pm $\frac{26.7 \text{ s}}{\beta}$ $^{156}\text{Sm}$	157Pm $\frac{10.56 \text{ s}}{\beta}$ $^{157}\text{Sm}$	158Pm $\frac{4.8 \text{ s}}{\beta}$ $^{158}\text{Sm}$
159Pm $\frac{3 \text{ s}}{\beta 99.98\%}$ $^{159}\text{Sm}$	159Pm $\frac{3 \text{ s}}{\beta n < 0.1\%}$ $^{158}\text{Sm}$	160Pm $\frac{2 \text{ s}}{\beta 99.73\%}$ $^{160}\text{Sm}$	160Pm $\frac{2 \text{ s}}{\beta n 0.268\%}$ $^{159}\text{Sm}$	161Pm $\frac{700 \text{ ms}}{\beta}$ $^{161}\text{Sm}$
162Pm $\frac{500 \text{ ms}}{\beta}$ $^{162}\text{Sm}$	163Pm $\frac{200 \text{ ms}}{\beta}$ $^{163}\text{Sm}$	128Sm $\frac{500 \text{ ms}}{\epsilon}$ $^{128}\text{Pm}$	129Sm $\frac{550 \text{ ms}}{\epsilon}$ $^{129}\text{Pm}$	130Sm $\frac{1 \text{ s}}{\epsilon}$ $^{130}\text{Pm}$
131Sm $\frac{1.2 \text{ s}}{\epsilon}$ $^{131}\text{Pm}$	132Sm $\frac{4 \text{ s}}{\epsilon}$ $^{132}\text{Pm}$	133Sm $\frac{2.9 \text{ s}}{\epsilon}$ $^{133}\text{Pm}$	134Sm $\frac{10 \text{ s}}{\epsilon}$ $^{134}\text{Pm}$	135Sm $\frac{10.3 \text{ s}}{\epsilon 49.99\%}$ $^{135}\text{Pm}$
135Sm $\frac{10.3 \text{ s}}{\epsilon 49.99\%}$ $^{135m}\text{Pm}$	135Sm $\frac{10.3 \text{ s}}{\epsilon n < 0.1\%}$ $^{134}\text{Nd}$	135mSm $\frac{2.4 \text{ s}}{\epsilon}$ $^{135}\text{Pm}$	136Sm $\frac{47 \text{ s}}{\epsilon}$ $^{136}\text{Pm}$	137Sm $\frac{45 \text{ s}}{\epsilon}$ $^{137m}\text{Pm}$
137mSm $\frac{20 \text{ s}}{\epsilon}$ $^{137}\text{Pm}$	138Sm $\frac{3.1 \text{ m}}{\epsilon}$ $^{138m}\text{Pm}$	139Sm $\frac{2.57 \text{ m}}{\epsilon}$ $^{139}\text{Pm}$	139mSm $\frac{10.7 \text{ s}}{\gamma 93.7\%}$ $^{139}\text{Sm}$	139mSm $\frac{10.7 \text{ s}}{\epsilon 6.3\%}$ $^{139m}\text{Pm}$
140Sm $\frac{14.82 \text{ m}}{\epsilon}$ $^{140}\text{Pm}$	141Sm $\frac{10.2 \text{ m}}{\epsilon}$ $^{141}\text{Pm}$	141mSm $\frac{22.6 \text{ m}}{\epsilon 99.69\%}$ $^{141}\text{Pm}$	141mSm $\frac{22.6 \text{ m}}{\gamma 0.31\%}$ $^{141}\text{Sm}$	142Sm $\frac{1.208 \text{ h}}{\epsilon}$ $^{142}\text{Pm}$
143Sm $\frac{8.75 \text{ m}}{\epsilon}$ $^{143}\text{Pm}$	143mSm $\frac{1.1 \text{ m}}{\gamma 99.76\%}$ $^{143}\text{Sm}$	143mSm $\frac{1.1 \text{ m}}{\epsilon 0.24\%}$ $^{143}\text{Pm}$	143nSm $\frac{30 \text{ ms}}{\gamma}$ $^{143m}\text{Sm}$	145Sm $\frac{340 \text{ d}}{\epsilon}$ $^{145}\text{Pm}$
146Sm $\frac{100 \text{ My}}{\alpha}$ $^{142}\text{Nd}$	147Sm $\frac{106 \text{ Gy}}{\alpha}$ $^{143}\text{Nd}$	148Sm $\frac{7 \text{ Py}}{\alpha}$ $^{144}\text{Nd}$	149Sm $\frac{2 \text{ Py}}{\alpha}$ $^{145}\text{Nd}$	151Sm $\frac{90 \text{ y}}{\beta}$ $^{151}\text{Eu}$
153Sm $\frac{1.928 \text{ d}}{\beta}$ $^{153}\text{Eu}$	153mSm $\frac{10.6 \text{ ms}}{\gamma}$ $^{153}\text{Sm}$	155Sm $\frac{22.3 \text{ m}}{\beta}$ $^{155}\text{Eu}$	156Sm $\frac{9.4 \text{ h}}{\beta}$ $^{156}\text{Eu}$	157Sm $\frac{8.03 \text{ m}}{\beta}$ $^{157}\text{Eu}$
158Sm $\frac{5.3 \text{ m}}{\beta}$ $^{158}\text{Eu}$	159Sm $\frac{11.37 \text{ s}}{\beta}$ $^{159}\text{Eu}$	160Sm $\frac{9.6 \text{ s}}{\beta}$ $^{160}\text{Eu}$	161Sm $\frac{4.8 \text{ s}}{\beta}$ $^{161}\text{Eu}$	162Sm $\frac{2.4 \text{ s}}{\beta}$ $^{162}\text{Eu}$
163Sm $\frac{1 \text{ s}}{\beta}$ $^{163}\text{Eu}$	164Sm $\frac{500 \text{ ms}}{\beta}$ $^{164}\text{Eu}$	165Sm $\frac{200 \text{ ms}}{\beta}$ $^{165}\text{Eu}$	130Eu $\frac{1.1 \text{ ms}}{n 99\%}$ $^{129}\text{Sm}$	130Eu $\frac{1.1 \text{ ms}}{\epsilon 1\%}$ $^{130}\text{Sm}$
131Eu $\frac{17.8 \text{ ms}}{n 88\%}$ $^{130}\text{Sm}$	131Eu $\frac{17.8 \text{ ms}}{\epsilon 12\%}$ $^{131}\text{Sm}$	132Eu $\frac{100 \text{ ms}}{\epsilon}$ $^{132}\text{Sm}$	133Eu $\frac{200 \text{ ms}}{\epsilon}$ $^{133}\text{Sm}$	134Eu $\frac{500 \text{ ms}}{\epsilon}$ $^{134}\text{Sm}$
135Eu $\frac{1.5 \text{ s}}{\epsilon}$ $^{135}\text{Sm}$	136Eu $\frac{3.8 \text{ s}}{\epsilon}$ $^{136}\text{Sm}$	136mEu $\frac{3.8 \text{ s}}{\epsilon 99.91\%}$ $^{136}\text{Sm}$	136mEu $\frac{3.8 \text{ s}}{\epsilon n < 0.1\%}$ $^{135}\text{Pm}$	136mEu $\frac{3.8 \text{ s}}{\epsilon n < 0.1\%}$ $^{135m}\text{Pm}$
137Eu $\frac{8.4 \text{ s}}{\epsilon}$ $^{137}\text{Sm}$	138Eu $\frac{12.1 \text{ s}}{\epsilon}$ $^{138}\text{Sm}$	139Eu $\frac{17.9 \text{ s}}{\epsilon 31.3\%}$ $^{139}\text{Sm}$	139Eu $\frac{17.9 \text{ s}}{\epsilon 68.7\%}$ $^{139m}\text{Sm}$	140Eu $\frac{1.51 \text{ s}}{\epsilon}$ $^{140}\text{Sm}$
140mEu $\frac{125 \text{ ms}}{\gamma 99\%}$ $^{140}\text{Eu}$	140mEu $\frac{125 \text{ ms}}{\epsilon 1\%}$ $^{140}\text{Sm}$	141Eu $\frac{40.7 \text{ s}}{\epsilon 98.23\%}$ $^{141}\text{Sm}$	141Eu $\frac{40.7 \text{ s}}{\epsilon 1.769\%}$ $^{141m}\text{Sm}$	141mEu $\frac{2.7 \text{ s}}{\gamma 86\%}$ $^{141}\text{Eu}$
141mEu $\frac{2.7 \text{ s}}{\epsilon 0.105\%}$ $^{141}\text{Sm}$	141mEu $\frac{2.7 \text{ s}}{\epsilon 13.9\%}$ $^{141m}\text{Sm}$	142Eu $\frac{2.34 \text{ s}}{\epsilon}$ $^{142}\text{Sm}$	142mEu $\frac{1.223 \text{ m}}{\epsilon}$ $^{142}\text{Sm}$	143Eu $\frac{2.59 \text{ m}}{\epsilon 99.88\%}$ $^{143}\text{Sm}$
143Eu $\frac{2.59 \text{ m}}{\epsilon 0.12\%}$ $^{143m}\text{Sm}$	144Eu $\frac{10.2 \text{ s}}{\epsilon}$ $^{144}\text{Sm}$	145Eu $\frac{5.93 \text{ d}}{\epsilon}$ $^{145}\text{Sm}$	146Eu $\frac{4.59 \text{ d}}{\epsilon}$ $^{146}\text{Sm}$	147Eu $\frac{24 \text{ d}}{\alpha < 0.1\%}$ $^{143}\text{Pm}$
147Eu $\frac{24 \text{ d}}{\epsilon 100\%}$ $^{147}\text{Sm}$	148Eu $\frac{54.5 \text{ d}}{\epsilon}$ $^{148}\text{Sm}$	149Eu $\frac{93.1 \text{ d}}{\epsilon}$ $^{149}\text{Sm}$	150Eu $\frac{36.36 \text{ y}}{\epsilon}$ $^{150}\text{Sm}$	150mEu $\frac{12.8 \text{ h}}{\beta 88\%}$ $^{150}\text{Gd}$
150mEu $\frac{12.8 \text{ h}}{\epsilon 12\%}$ $^{150}\text{Sm}$	151Eu $\frac{1.7 \text{ Ey}}{\alpha}$ $^{147}\text{Pm}$	152Eu $\frac{13.52 \text{ y}}{\epsilon 72.1\%}$ $^{152}\text{Sm}$	152Eu $\frac{13.52 \text{ y}}{\beta 27.9\%}$ $^{152}\text{Gd}$	152mEu $\frac{9.275 \text{ h}}{\beta 72\%}$ $^{152}\text{Gd}$
152mEu $\frac{9.275 \text{ h}}{\epsilon 28\%}$ $^{152}\text{Sm}$	152nEu $\frac{1.6 \text{ h}}{\gamma}$ $^{152}\text{Eu}$	154Eu $\frac{8.593 \text{ y}}{\beta 99.98\%}$ $^{154}\text{Gd}$	154Eu $\frac{8.593 \text{ y}}{\epsilon < 0.1\%}$ $^{154}\text{Sm}$	154mEu $\frac{46.4 \text{ m}}{\gamma}$ $^{154}\text{Eu}$
155Eu $\frac{4.753 \text{ y}}{\beta}$ $^{155}\text{Gd}$	156Eu $\frac{15.19 \text{ d}}{\beta}$ $^{156}\text{Gd}$	157Eu $\frac{15.18 \text{ h}}{\beta}$ $^{157}\text{Gd}$	158Eu $\frac{45.9 \text{ m}}{\beta}$ $^{158}\text{Gd}$	159Eu $\frac{18.1 \text{ m}}{\beta}$ $^{159}\text{Gd}$
160Eu $\frac{38 \text{ s}}{\beta}$ $^{160}\text{Gd}$	161Eu $\frac{26 \text{ s}}{\beta}$ $^{161}\text{Gd}$	162Eu $\frac{10.6 \text{ s}}{\beta}$ $^{162}\text{Gd}$	163Eu $\frac{6 \text{ s}}{\beta}$ $^{163}\text{Gd}$	164Eu $\frac{2 \text{ s}}{\beta}$ $^{164}\text{Gd}$
165Eu $\frac{1 \text{ s}}{\beta}$ $^{165}\text{Gd}$	166Eu $\frac{400 \text{ ms}}{\beta}$ $^{166}\text{Gd}$	167Eu $\frac{200 \text{ ms}}{\beta}$ $^{167}\text{Gd}$	134Gd $\frac{400 \text{ ms}}{\epsilon}$ $^{134}\text{Eu}$	135Gd $\frac{1.1 \text{ s}}{\epsilon 98\%}$ $^{135}\text{Eu}$
135Gd $\frac{1.1 \text{ s}}{\epsilon n 2\%}$ $^{134}\text{Sm}$	136Gd $\frac{1 \text{ s}}{\epsilon}$ $^{136m}\text{Eu}$	137Gd $\frac{2.2 \text{ s}}{\epsilon}$ $^{137}\text{Eu}$	138Gd $\frac{4.7 \text{ s}}{\epsilon}$ $^{138}\text{Eu}$	139Gd $\frac{5.7 \text{ s}}{\epsilon}$ $^{139}\text{Eu}$
139mGd $\frac{4.8 \text{ s}}{\gamma}$ $^{139}\text{Eu}$	140Gd $\frac{15.8 \text{ s}}{\epsilon}$ $^{140}\text{Eu}$	141Gd $\frac{14 \text{ s}}{\epsilon}$ $^{141}\text{Eu}$	141mGd $\frac{24.5 \text{ s}}{\epsilon 89\%}$ $^{141m}\text{Eu}$	141mGd $\frac{24.5 \text{ s}}{\gamma 11\%}$ $^{141}\text{Gd}$
142Gd $\frac{1.17 \text{ m}}{\epsilon}$ $^{142}\text{Eu}$	143Gd $\frac{39 \text{ s}}{\epsilon}$ $^{143}\text{Eu}$	143mGd $\frac{1.833 \text{ m}}{\epsilon}$ $^{143}\text{Eu}$	144Gd $\frac{4.47 \text{ m}}{\epsilon}$ $^{144}\text{Eu}$	145Gd $\frac{23 \text{ m}}{\epsilon}$ $^{145}\text{Eu}$
145mGd $\frac{1.417 \text{ m}}{\gamma 94.3\%}$ $^{145}\text{Gd}$	145mGd $\frac{1.417 \text{ m}}{\epsilon 5.7\%}$ $^{145}\text{Eu}$	146Gd $\frac{48.27 \text{ d}}{\epsilon}$ $^{146}\text{Eu}$	147Gd $\frac{1.586 \text{ d}}{\epsilon}$ $^{147}\text{Eu}$	148Gd $\frac{74.6 \text{ y}}{\alpha}$ $^{144}\text{Sm}$
149Gd $\frac{9.28 \text{ d}}{\epsilon}$ $^{149}\text{Eu}$	150Gd $\frac{1.82 \text{ My}}{\alpha}$ $^{146}\text{Sm}$	151Gd $\frac{124 \text{ d}}{\alpha < 0.1\%}$ $^{151}\text{Eu}$	151Gd $\frac{124 \text{ d}}{\alpha < 0.1\%}$ $^{147}\text{Sm}$	152Gd $\frac{108 \text{ Ty}}{\epsilon}$ $^{148}\text{Sm}$
153Gd $\frac{240.4 \text{ d}}{\epsilon}$ $^{153}\text{Eu}$	155mGd $\frac{32 \text{ ms}}{\gamma}$ $^{155}\text{Gd}$	159Gd $\frac{18.48 \text{ h}}{\beta}$ $^{159}\text{Tb}$	160Gd $\frac{130 \text{ Py}}{\beta\beta}$ $^{160}\text{Dy}$	161Gd $\frac{3.66 \text{ m}}{\beta}$ $^{161}\text{Tb}$
162Gd $\frac{8.4 \text{ m}}{\beta}$ $^{162}\text{Tb}$	163Gd $\frac{1.133 \text{ m}}{\beta}$ $^{163}\text{Tb}$	164Gd $\frac{45 \text{ s}}{\beta}$ $^{164}\text{Tb}$	165Gd $\frac{10.3 \text{ s}}{\beta}$ $^{165}\text{Tb}$	166Gd $\frac{4.8 \text{ s}}{\beta}$ $^{166}\text{Tb}$
167Gd $\frac{3 \text{ s}}{\beta}$ $^{167}\text{Tb}$	168Gd $\frac{300 \text{ ms}}{\beta}$ $^{168}\text{Tb}$	169Gd $\frac{1 \text{ s}}{\beta}$ $^{169}\text{Tb}$	136Tb $\frac{200 \text{ ms}}{\epsilon}$ $^{136}\text{Gd}$	137Tb $\frac{600 \text{ ms}}{n 50\%}$ $^{136}\text{Gd}$
137Tb $\frac{600 \text{ ms}}{\epsilon 50\%}$ $^{137}\text{Gd}$	138Tb $\frac{800 \text{ ms}}{\epsilon}$ $^{138}\text{Gd}$	139Tb $\frac{1.6 \text{ s}}{\epsilon}$ $^{139}\text{Gd}$	140Tb $\frac{2.4 \text{ s}}{\epsilon 99.74\%}$ $^{140}\text{Gd}$	140Tb $\frac{2.4 \text{ s}}{\epsilon n 0.26\%}$ $^{139}\text{Eu}$

141Tb $\xrightarrow[50\%]{3.5\text{ s}}$ 141Gd	141Tb $\xrightarrow[50\%]{3.5\text{ s}}$ 141mGd	141mTb $\xrightarrow[64]{7.9\text{ s}}$ 141mGd	142Tb $\xrightarrow[64]{597\text{ ms}}$ 142Gd	142mTb $\xrightarrow[65]{303\text{ ms}}$ 142Tb
142mTb $\xrightarrow[65]{303\text{ ms}}$ 142Gd	143Tb $\xrightarrow[64]{12\text{ s}}$ 143mGd	143mTb $\xrightarrow[64]{21\text{ s}}$ 143Gd	143mTb $\xrightarrow[64]{21\text{ s}}$ 143mGd	144Tb $\xrightarrow[64]{1\text{ s}}$ 144Gd
144mTb $\xrightarrow[65]{4.25\text{ s}}$ 144Tb	144mTb $\xrightarrow[64]{4.25\text{ s}}$ 144Gd	145Tb $\xrightarrow[64]{20\text{ m}}$ 145Gd	145mTb $\xrightarrow[64]{30.9\text{ s}}$ 145Gd	145mTb $\xrightarrow[64]{30.9\text{ s}}$ 145mGd
146Tb $\xrightarrow[64]{8\text{ s}}$ 146Gd	146mTb $\xrightarrow[64]{24\text{ s}}$ 146Gd	146nTb $\xrightarrow[65]{1.18\text{ ms}}$ 146mTb	147Tb $\xrightarrow[64]{1.7\text{ h}}$ 147Gd	147mTb $\xrightarrow[64]{1.83\text{ m}}$ 147Gd
148Tb $\xrightarrow[64]{1\text{ h}}$ 148Gd	148mTb $\xrightarrow[64]{2.2\text{ m}}$ 148Gd	149Tb $\xrightarrow[63]{4.118\text{ h}}$ 149Eu	149Tb $\xrightarrow[64]{4.118\text{ h}}$ 149Gd	149mTb $\xrightarrow[64]{4.16\text{ m}}$ 149Gd
149mTb $\xrightarrow[65]{4.16\text{ m}}$ 149Eu	150Tb $\xrightarrow[64]{3.48\text{ h}}$ 150Gd	150Tb $\xrightarrow[63]{3.48\text{ h}}$ 150Eu	150mTb $\xrightarrow[64]{5.8\text{ m}}$ 150Gd	151Tb $\xrightarrow[63]{17.61\text{ h}}$ 151Eu
151Tb $\xrightarrow[64]{17.61\text{ h}}$ 151Gd	151mTb $\xrightarrow[65]{25\text{ s}}$ 151Tb	151mTb $\xrightarrow[64]{25\text{ s}}$ 151Gd	152Tb $\xrightarrow[64]{17.5\text{ h}}$ 152Gd	152mTb $\xrightarrow[65]{4.2\text{ m}}$ 152Tb
152mTb $\xrightarrow[64]{4.2\text{ m}}$ 152Gd	153Tb $\xrightarrow[64]{2.34\text{ d}}$ 153Gd	154Tb $\xrightarrow[64]{21.5\text{ h}}$ 154Gd	154Tb $\xrightarrow[66]{21.5\text{ h}}$ 154Dy	154mTb $\xrightarrow[64]{9.4\text{ h}}$ 154Gd
154mTb $\xrightarrow[65]{9.4\text{ h}}$ 154Tb	154mTb $\xrightarrow[64]{9.4\text{ h}}$ 154Dy	154nTb $\xrightarrow[65]{22.7\text{ h}}$ 154Gd	154nTb $\xrightarrow[65]{22.7\text{ h}}$ 154mTb	155Tb $\xrightarrow[64]{5.32\text{ d}}$ 155Gd
156Tb $\xrightarrow[64]{5.17\text{ d}}$ 156Gd	156mTb $\xrightarrow[65]{1.017\text{ d}}$ 156Tb	154nTb $\xrightarrow[64]{22.7\text{ h}}$ 154Gd	156nTb $\xrightarrow[65]{5.1\text{ h}}$ 156Tb	157Tb $\xrightarrow[64]{99\text{ s}}$ 157Gd
158Tb $\xrightarrow[66]{180\text{ y}}$ 158Dy	158Tb $\xrightarrow[64]{180\text{ y}}$ 158Gd	156nTb $\xrightarrow[64]{5.82\text{ h}}$ 156Gd	158mTb $\xrightarrow[65]{10.8\text{ s}}$ 158Tb	160Tb $\xrightarrow[66]{72.3\text{ d}}$ 160Dy
162Tb $\xrightarrow[66]{7.6\text{ m}}$ 162Dy	162mTb $\xrightarrow[65]{2.23\text{ h}}$ 162Tb	158mTb $\xrightarrow[65]{10.8\text{ s}}$ 158Tb	163Tb $\xrightarrow[66]{19.5\text{ m}}$ 163Dy	164Tb $\xrightarrow[66]{3\text{ m}}$ 164Dy
166Tb $\xrightarrow[66]{25.6\text{ s}}$ 166Dy	167Tb $\xrightarrow[66]{19\text{ s}}$ 167Dy	163Tb $\xrightarrow[66]{19.5\text{ m}}$ 163Dy	168Tb $\xrightarrow[65]{8.2\text{ s}}$ 168Dy	169Tb $\xrightarrow[65]{2\text{ s}}$ 169Dy
171Tb $\xrightarrow[66]{500\text{ ms}}$ 171Dy	138Dy $\xrightarrow[65]{200\text{ ms}}$ 138Tb	168Tb $\xrightarrow[65]{8.2\text{ s}}$ 168Dy	139Dy $\xrightarrow[65]{600\text{ ms}}$ 139Tb	140Dy $\xrightarrow[65]{700\text{ ms}}$ 140Tb
141Dy $\xrightarrow[65]{900\text{ ms}}$ 141mTb	142Dy $\xrightarrow[65]{2.3\text{ s}}$ 142Tb	139Dy $\xrightarrow[65]{600\text{ ms}}$ 139Tb	142Dy $\xrightarrow[64]{2.3\text{ s}}$ 141mGd	141Dy $\xrightarrow[65]{900\text{ ms}}$ 141Tb
143mDy $\xrightarrow[65]{3\text{ s}}$ 143Tb	144Dy $\xrightarrow[65]{9.1\text{ s}}$ 144Tb	142Dy $\xrightarrow[64]{2.3\text{ s}}$ 141Gd	145Dy $\xrightarrow[64]{14.1\text{ s}}$ 145Tb	143Dy $\xrightarrow[65]{5.6\text{ s}}$ 143mTb
146Dy $\xrightarrow[65]{29\text{ s}}$ 146Tb	146mDy $\xrightarrow[66]{150\text{ ms}}$ 146Dy	145Dy $\xrightarrow[65]{9.5\text{ s}}$ 145Tb	147Dy $\xrightarrow[64]{40\text{ s}}$ 146Gd	145mDy $\xrightarrow[65]{14.1\text{ s}}$ 145mTb
147mDy $\xrightarrow[66]{55\text{ s}}$ 147Dy	148Dy $\xrightarrow[65]{3.3\text{ m}}$ 148Tb	147Dy $\xrightarrow[65]{40\text{ s}}$ 147Tb	149mDy $\xrightarrow[66]{490\text{ ms}}$ 149Dy	147mDy $\xrightarrow[65]{55\text{ s}}$ 147mTb
150Dy $\xrightarrow[65]{7.17\text{ m}}$ 150Tb	150Dy $\xrightarrow[64]{7.17\text{ m}}$ 150Gd	149Dy $\xrightarrow[65]{4.2\text{ m}}$ 149Tb	151Dy $\xrightarrow[65]{17.9\text{ m}}$ 151mTb	149mDy $\xrightarrow[65]{490\text{ ms}}$ 149mTb
152Dy $\xrightarrow[64]{2.38\text{ h}}$ 152Gd	152Dy $\xrightarrow[65]{2.38\text{ h}}$ 152Tb	151Dy $\xrightarrow[65]{17.9\text{ m}}$ 151Tb	153Dy $\xrightarrow[64]{6.4\text{ h}}$ 153Gd	151Dy $\xrightarrow[64]{17.9\text{ m}}$ 151Gd
155Dy $\xrightarrow[65]{9.9\text{ h}}$ 155Tb	156Dy $\xrightarrow[64]{1\text{ Ey}}$ 156Gd	153Dy $\xrightarrow[64]{6.4\text{ h}}$ 153Tb	156Dy $\xrightarrow[64]{1\text{ Ey}}$ 156Gd	154Dy $\xrightarrow[64]{3\text{ My}}$ 150Gd
159Dy $\xrightarrow[65]{144.4\text{ d}}$ 159Tb	165Dy $\xrightarrow[67]{2.334\text{ h}}$ 165Ho	156Dy $\xrightarrow[64]{1\text{ Ey}}$ 156Gd	165mDy $\xrightarrow[66]{1.257\text{ m}}$ 165Dy	157mDy $\xrightarrow[66]{21.6\text{ m}}$ 157Dy
167Dy $\xrightarrow[67]{6.2\text{ m}}$ 167Ho	168Dy $\xrightarrow[67]{8.7\text{ m}}$ 168Ho	165mDy $\xrightarrow[66]{1.257\text{ m}}$ 165Ho	169Dy $\xrightarrow[67]{39\text{ s}}$ 169Ho	166Dy $\xrightarrow[67]{3.401\text{ d}}$ 166Ho
172Dy $\xrightarrow[66]{3\text{ s}}$ 172Ho	173Dy $\xrightarrow[66]{2\text{ s}}$ 173Ho	169Dy $\xrightarrow[67]{39\text{ s}}$ 169Ho	140Ho $\xrightarrow[67]{6\text{ ms}}$ 139Dy	171Dy $\xrightarrow[67]{6\text{ s}}$ 171Ho
142Ho $\xrightarrow[66]{400\text{ ms}}$ 142Dy	143Ho $\xrightarrow[66]{300\text{ ms}}$ 143mDy	140Ho $\xrightarrow[66]{6\text{ ms}}$ 139Dy	144Ho $\xrightarrow[66]{700\text{ ms}}$ 144Dy	141Ho $\xrightarrow[66]{4.1\text{ ms}}$ 140Dy
145mHo $\xrightarrow[67]{100\text{ ms}}$ 145Ho	146Ho $\xrightarrow[66]{3.6\text{ s}}$ 146mDy	144Ho $\xrightarrow[66]{700\text{ ms}}$ 144Dy	147Ho $\xrightarrow[66]{5.8\text{ s}}$ 147mDy	145mHo $\xrightarrow[66]{100\text{ ms}}$ 145Dy
148nHo $\xrightarrow[67]{2.35\text{ ms}}$ 148mHo	149Ho $\xrightarrow[66]{21.1\text{ s}}$ 149Dy	147Ho $\xrightarrow[66]{5.8\text{ s}}$ 147mDy	149mHo $\xrightarrow[66]{56\text{ s}}$ 149Dy	148mHo $\xrightarrow[67]{2.35\text{ ms}}$ 148Ho
151Ho $\xrightarrow[66]{35.2\text{ s}}$ 151Dy	151Ho $\xrightarrow[65]{35.2\text{ s}}$ 147mTb	149mHo $\xrightarrow[66]{56\text{ s}}$ 149Dy	151mHo $\xrightarrow[65]{47.2\text{ s}}$ 147Tb	150mHo $\xrightarrow[66]{1.28\text{ m}}$ 150Dy
152Ho $\xrightarrow[65]{2.697\text{ m}}$ 148Tb	152mHo $\xrightarrow[66]{50\text{ s}}$ 152Dy	151mHo $\xrightarrow[65]{47.2\text{ s}}$ 147Tb	152mHo $\xrightarrow[65]{50\text{ s}}$ 148mTb	151mHo $\xrightarrow[66]{47.2\text{ s}}$ 151Dy
153mHo $\xrightarrow[66]{9.3\text{ m}}$ 153Dy	153mHo $\xrightarrow[65]{9.3\text{ m}}$ 149Tb	152mHo $\xrightarrow[65]{50\text{ s}}$ 148mTb	154Ho $\xrightarrow[66]{11.76\text{ m}}$ 154Dy	153Ho $\xrightarrow[66]{2.01\text{ m}}$ 149Tb
154mHo $\xrightarrow[65]{3.1\text{ m}}$ 150mTb	155Ho $\xrightarrow[66]{48\text{ m}}$ 155Dy	154Ho $\xrightarrow[66]{11.76\text{ m}}$ 154Dy	156Ho $\xrightarrow[66]{56\text{ m}}$ 156Dy	154Ho $\xrightarrow[65]{11.76\text{ m}}$ 150Tb
156nHo $\xrightarrow[66]{7.8\text{ m}}$ 156Dy	156nHo $\xrightarrow[67]{7.8\text{ m}}$ 156Ho	156Ho $\xrightarrow[66]{56\text{ m}}$ 156Dy	157Ho $\xrightarrow[66]{12.6\text{ m}}$ 157Dy	156mHo $\xrightarrow[66]{9.5\text{ s}}$ 156Ho
158mHo $\xrightarrow[67]{28\text{ m}}$ 158Ho	158mHo $\xrightarrow[66]{28\text{ m}}$ 158Dy	157Ho $\xrightarrow[66]{12.6\text{ m}}$ 157Dy	158nHo $\xrightarrow[66]{21.3\text{ m}}$ 158Dy	157Ho $\xrightarrow[66]{12.6\text{ m}}$ 157mDy
159mHo $\xrightarrow[67]{8.3\text{ s}}$ 159Ho	160Ho $\xrightarrow[66]{25.3\text{ m}}$ 160Dy	158nHo $\xrightarrow[66]{21.3\text{ m}}$ 158Dy	160mHo $\xrightarrow[67]{5\text{ h}}$ 160Ho	158mHo $\xrightarrow[66]{21.3\text{ m}}$ 158Ho
161Ho $\xrightarrow[66]{2.48\text{ h}}$ 161Dy	161mHo $\xrightarrow[67]{6.77\text{ s}}$ 161Ho	160mHo $\xrightarrow[67]{5\text{ h}}$ 160Ho	162Ho $\xrightarrow[66]{15\text{ m}}$ 162Dy	160mHo $\xrightarrow[66]{5\text{ h}}$ 160Dy
163Ho $\xrightarrow[66]{4.57\text{ ky}}$ 163Dy	163mHo $\xrightarrow[67]{1.1\text{ s}}$ 163Ho	162Ho $\xrightarrow[66]{15\text{ m}}$ 162Dy	164Ho $\xrightarrow[68]{28.6\text{ m}}$ 164Er	162mHo $\xrightarrow[67]{1.117\text{ h}}$ 162Ho
166Ho $\xrightarrow[68]{1.117\text{ d}}$ 166Er	166mHo $\xrightarrow[67]{1.2\text{ ky}}$ 166Er	164Ho $\xrightarrow[68]{28.6\text{ m}}$ 164Er	167Ho $\xrightarrow[68]{3.1\text{ h}}$ 167Er	162mHo $\xrightarrow[66]{1.117\text{ h}}$ 162Dy
168mHo $\xrightarrow[67]{2.2\text{ m}}$ 168Ho	168mHo $\xrightarrow[68]{2.2\text{ m}}$ 168Er	167Ho $\xrightarrow[68]{3.1\text{ h}}$ 167Er	169Ho $\xrightarrow[68]{4.7\text{ m}}$ 169Er	164mHo $\xrightarrow[67]{37.6\text{ m}}$ 164Ho
171Ho $\xrightarrow[67]{53\text{ s}}$ 171Er	172Ho $\xrightarrow[68]{25\text{ s}}$ 172Er	169Ho $\xrightarrow[68]{4.7\text{ m}}$ 169Er	173Ho $\xrightarrow[68]{10\text{ s}}$ 173Er	168Ho $\xrightarrow[68]{2.99\text{ m}}$ 168Er
143Er $\xrightarrow[67]{200\text{ ms}}$ 143Ho	144Er $\xrightarrow[67]{400\text{ ms}}$ 144Ho	173Ho $\xrightarrow[68]{10\text{ s}}$ 173Er	145Er $\xrightarrow[67]{900\text{ ms}}$ 145mHo	167Ho $\xrightarrow[68]{3.1\text{ h}}$ 167Er
147mEr $\xrightarrow[67]{2.5\text{ s}}$ 147Ho	148Er $\xrightarrow[67]{4.6\text{ s}}$ 148Ho	145Er $\xrightarrow[67]{900\text{ ms}}$ 145mHo	148Er $\xrightarrow[66]{4.6\text{ s}}$ 147Dy	166Ho $\xrightarrow[68]{2.99\text{ m}}$ 166Er
149Er $\xrightarrow[67]{4\text{ s}}$ 148Dy	149mEr $\xrightarrow[67]{8.9\text{ s}}$ 149Ho	148Er $\xrightarrow[66]{4.6\text{ s}}$ 147Dy	149mEr $\xrightarrow[66]{8.9\text{ s}}$ 148Dy	170mHo $\xrightarrow[68]{43\text{ s}}$ 170Er
151Er $\xrightarrow[67]{23.5\text{ s}}$ 151Ho	151mEr $\xrightarrow[68]{580\text{ ms}}$ 151Er	149mEr $\xrightarrow[67]{8.9\text{ s}}$ 149Ho	149mEr $\xrightarrow[66]{8.9\text{ s}}$ 148Dy	175Ho $\xrightarrow[68]{5\text{ s}}$ 175Er
153Er $\xrightarrow[66]{37.1\text{ s}}$ 149Dy	153Er $\xrightarrow[67]{37.1\text{ s}}$ 153Ho	151mEr $\xrightarrow[67]{580\text{ ms}}$ 151Er	152Er $\xrightarrow[66]{10.3\text{ s}}$ 148Dy	147Er $\xrightarrow[67]{2.5\text{ s}}$ 147Ho
		154Er $\xrightarrow[66]{3.73\text{ m}}$ 150Dy	154Er $\xrightarrow[66]{3.73\text{ m}}$ 154Ho	148Er $\xrightarrow[67]{4\text{ s}}$ 149mHo
				150Er $\xrightarrow[67]{18.5\text{ s}}$ 150Ho
				152Er $\xrightarrow[67]{10.3\text{ s}}$ 152Ho
				155Er $\xrightarrow[67]{5.3\text{ m}}$ 155Ho

155Er $\xrightarrow{5.3 \text{ m}}$ $\alpha < 0.1\%$ 151Dy	156Er $\xrightarrow{19.5 \text{ m}}$ $\epsilon 4.588\%$ 156Ho	156Er $\xrightarrow{19.5 \text{ m}}$ $\epsilon 95.41\%$ 156Ho	157Er $\xrightarrow{18.65 \text{ m}}$ $\epsilon 67$ 157Ho	157mEr $\xrightarrow{76 \text{ ms}}$ $\gamma$ 157Er
158Er $\xrightarrow{2.29 \text{ h}}$ 158mHo	159Er $\xrightarrow{36 \text{ m}}$ $\epsilon 76.43\%$ 159Ho	159Er $\xrightarrow{36 \text{ m}}$ $\epsilon 23.57\%$ 159Ho	160Er $\xrightarrow{1.191 \text{ d}}$ 160mHo	161Er $\xrightarrow{3.21 \text{ h}}$ 161Ho
161Er $\xrightarrow{3.21 \text{ h}}$ $\epsilon 26.6\%$ 161mHo	162Er $\xrightarrow{140 \text{ Ty}}$ $\alpha 50\%$ 158Dy	162Er $\xrightarrow{140 \text{ Ty}}$ $\epsilon 50\%$ 162Dy	163Er $\xrightarrow{1.25 \text{ h}}$ 163Ho	163Er $\xrightarrow{1.25 \text{ h}}$ 163mHo
165Er $\xrightarrow{10.36 \text{ h}}$ $\epsilon 68$ 165Ho	167mEr $\xrightarrow{2.27 \text{ s}}$ $\gamma$ 167Er	169Er $\xrightarrow{9.4 \text{ d}}$ $\beta$ 169Tm	171Er $\xrightarrow{7.516 \text{ h}}$ 171Tm	172Er $\xrightarrow{2.054 \text{ d}}$ $\beta$ 172Tm
173Er $\xrightarrow{1.4 \text{ m}}$ $\beta$ 173Tm	174Er $\xrightarrow{3.2 \text{ m}}$ $\beta$ 174Tm	175Er $\xrightarrow{1.2 \text{ m}}$ $\beta$ 175Tm	176Er $\xrightarrow{20 \text{ s}}$ $\beta$ 176Tm	177Er $\xrightarrow{3 \text{ s}}$ $\beta$ 177Tm
145Tm $\xrightarrow{3.1 \text{ ms}}$ $n$ 144Er	146Tm $\xrightarrow{240 \text{ ms}}$ $n$ 145Er	146mTm $\xrightarrow{72 \text{ ms}}$ $n 84\%$ 145Er	146mTm $\xrightarrow{72 \text{ ms}}$ $\epsilon 16\%$ 146Er	147Tm $\xrightarrow{580 \text{ ms}}$ $\epsilon 85\%$ 147mEr
147Tm $\xrightarrow{580 \text{ ms}}$ $n 15\%$ 146Er	148Tm $\xrightarrow{700 \text{ ms}}$ $\epsilon$ 148Er	149Tm $\xrightarrow{900 \text{ ms}}$ $\epsilon 99.74\%$ 149mEr	149Tm $\xrightarrow{900 \text{ ms}}$ $\epsilon n < 0.1\%$ 148Ho	149Tm $\xrightarrow{900 \text{ ms}}$ $\epsilon n < 0.1\%$ 148mHo
149Tm $\xrightarrow{900 \text{ ms}}$ $\epsilon n < 0.1\%$ 148mHo	150Tm $\xrightarrow{3 \text{ s}}$ $\epsilon$ 150Er	150mTm $\xrightarrow{2.2 \text{ s}}$ $\epsilon 98.8\%$ 150Er	150mTm $\xrightarrow{2.2 \text{ s}}$ $\epsilon n 0.6\%$ 149Ho	150mTm $\xrightarrow{2.2 \text{ s}}$ $\epsilon n 0.6\%$ 149mHo
150nTm $\xrightarrow{5.2 \text{ ms}}$ $\gamma$ 150mTm	151Tm $\xrightarrow{4.17 \text{ s}}$ $\epsilon$ 151Er	151mTm $\xrightarrow{6.6 \text{ s}}$ $\epsilon$ 151Er	152Tm $\xrightarrow{8 \text{ s}}$ $\epsilon$ 152Er	152mTm $\xrightarrow{5.2 \text{ s}}$ $\epsilon$ 152Er
153Tm $\xrightarrow{1.48 \text{ s}}$ $\alpha 91\%$ 149Ho	153Tm $\xrightarrow{1.48 \text{ s}}$ $\epsilon 9\%$ 153Er	153mTm $\xrightarrow{2.5 \text{ s}}$ $\alpha 92\%$ 149mHo	153mTm $\xrightarrow{2.5 \text{ s}}$ $\epsilon 8\%$ 153Er	154Tm $\xrightarrow{8.1 \text{ s}}$ $\alpha 54\%$ 150Ho
154Tm $\xrightarrow{8.1 \text{ s}}$ $\epsilon 46\%$ 154Er	154mTm $\xrightarrow{3.3 \text{ s}}$ $\alpha 58\%$ 150mHo	154mTm $\xrightarrow{3.3 \text{ s}}$ $\epsilon 42\%$ 154Er	155Tm $\xrightarrow{21.6 \text{ s}}$ $\epsilon 99.1\%$ 155Er	155Tm $\xrightarrow{21.6 \text{ s}}$ $\alpha 0.9\%$ 151Ho
155mTm $\xrightarrow{45 \text{ s}}$ $\epsilon 98\%$ 155Er	155mTm $\xrightarrow{45 \text{ s}}$ $\alpha 2\%$ 151mHo	156Tm $\xrightarrow{1.397 \text{ m}}$ $\epsilon 99.94\%$ 156Er	156Tm $\xrightarrow{1.397 \text{ m}}$ $\alpha < 0.1\%$ 152Ho	157Tm $\xrightarrow{3.63 \text{ m}}$ $\epsilon$ 157Er
158Tm $\xrightarrow{3.98 \text{ m}}$ $\epsilon$ 158Er	159Tm $\xrightarrow{9.13 \text{ m}}$ $\epsilon$ 159Er	160Tm $\xrightarrow{9.4 \text{ m}}$ $\epsilon$ 160Er	160mTm $\xrightarrow{1.242 \text{ m}}$ $\gamma 85\%$ 160Tm	160mTm $\xrightarrow{1.242 \text{ m}}$ $\epsilon 15\%$ 160Er
161Tm $\xrightarrow{30.2 \text{ m}}$ $\epsilon$ 161Er	161mTm $\xrightarrow{5 \text{ m}}$ $\epsilon 50\%$ 161Er	161mTm $\xrightarrow{5 \text{ m}}$ $\gamma 50\%$ 161Tm	162Tm $\xrightarrow{21.7 \text{ m}}$ $\epsilon$ 162Er	162mTm $\xrightarrow{24.3 \text{ s}}$ $\gamma 82\%$ 162Tm
162mTm $\xrightarrow{24.3 \text{ s}}$ $\epsilon 18\%$ 162Er	163Tm $\xrightarrow{1.81 \text{ h}}$ $\epsilon$ 163Er	164Tm $\xrightarrow{2 \text{ m}}$ $\epsilon$ 164Er	164mTm $\xrightarrow{5.1 \text{ m}}$ $\gamma 80\%$ 164Tm	164mTm $\xrightarrow{5.1 \text{ m}}$ $\epsilon 20\%$ 164Er
165Tm $\xrightarrow{1.252 \text{ d}}$ 165Er	166Tm $\xrightarrow{7.7 \text{ h}}$ $\epsilon$ 166Er	166mTm $\xrightarrow{340 \text{ ms}}$ $\gamma$ 166Tm	167Tm $\xrightarrow{9.246 \text{ d}}$ 167Er	167Tm $\xrightarrow{9.246 \text{ d}}$ $\epsilon 98.29\%$ 167mEr
168Tm $\xrightarrow{90 \text{ d}}$ $\beta < 0.1\%$ 168Yb	168Tm $\xrightarrow{90 \text{ d}}$ $\epsilon 99.99\%$ 168Er	170Tm $\xrightarrow{128.6 \text{ d}}$ $\epsilon 0.131\%$ 170Er	170Tm $\xrightarrow{128.6 \text{ d}}$ $\beta 99.87\%$ 170Yb	170mTm $\xrightarrow{4.1 \text{ ms}}$ $\gamma$ 170Tm
171Tm $\xrightarrow{1.917 \text{ y}}$ 171Yb	172Tm $\xrightarrow{2.65 \text{ d}}$ $\beta$ 172Yb	173Tm $\xrightarrow{8.24 \text{ h}}$ 173Yb	174Tm $\xrightarrow{5.4 \text{ m}}$ $\beta$ 174Yb	175Tm $\xrightarrow{15.2 \text{ m}}$ $\beta 23\%$ 175Yb
175Tm $\xrightarrow{15.2 \text{ m}}$ $\beta 77\%$ 175mYb	176Tm $\xrightarrow{1.85 \text{ m}}$ $\beta 50\%$ 176Yb	176Tm $\xrightarrow{1.85 \text{ m}}$ $\beta 50\%$ 176mYb	177Tm $\xrightarrow{1.5 \text{ m}}$ $\beta$ 177mYb	178Tm $\xrightarrow{30 \text{ s}}$ $\beta$ 178Yb
179Tm $\xrightarrow{20 \text{ s}}$ $\beta$ 179Yb	148Yb $\xrightarrow{250 \text{ ms}}$ $\epsilon$ 148Tm	149Yb $\xrightarrow{700 \text{ ms}}$ $\epsilon$ 149Tm	150Yb $\xrightarrow{700 \text{ ms}}$ $\epsilon$ 150Tm	151Yb $\xrightarrow{1.6 \text{ s}}$ $\epsilon$ 151mTm
151mYb $\xrightarrow{1.6 \text{ s}}$ $\epsilon 99.6\%$ 151Tm	151mYb $\xrightarrow{1.6 \text{ s}}$ $\gamma 0.4\%$ 151Yb	152Yb $\xrightarrow{3.04 \text{ s}}$ $\epsilon$ 152Tm	153Yb $\xrightarrow{4.2 \text{ s}}$ $\epsilon 25\%$ 153Tm	153Yb $\xrightarrow{4.2 \text{ s}}$ $\epsilon 25\%$ 153mTm
153Yb $\xrightarrow{4.2 \text{ s}}$ $\alpha 25\%$ 149Er	153Yb $\xrightarrow{4.2 \text{ s}}$ $\alpha 25\%$ 149mEr	153Yb $\xrightarrow{4.2 \text{ s}}$ $\epsilon n < 0.1\%$ 152Er	154Yb $\xrightarrow{409 \text{ ms}}$ $\alpha 92.6\%$ 150Er	154Yb $\xrightarrow{409 \text{ ms}}$ $\epsilon 7.4\%$ 154Tm
155Yb $\xrightarrow{1.793 \text{ s}}$ $\alpha 89\%$ 151Er	155Yb $\xrightarrow{1.793 \text{ s}}$ $\epsilon 5.5\%$ 155Tm	155Yb $\xrightarrow{1.793 \text{ s}}$ $\epsilon 5.5\%$ 155mTm	156Yb $\xrightarrow{26.1 \text{ s}}$ $\epsilon 90\%$ 156Tm	156Yb $\xrightarrow{26.1 \text{ s}}$ $\alpha 10\%$ 152Er
157Yb $\xrightarrow{38.6 \text{ s}}$ $\epsilon 99.5\%$ 157Tm	157Yb $\xrightarrow{38.6 \text{ s}}$ $\alpha 0.5\%$ 153Er	158Yb $\xrightarrow{1.49 \text{ m}}$ $\epsilon 100\%$ 158Tm	158Yb $\xrightarrow{1.49 \text{ m}}$ $\alpha < 0.1\%$ 154Er	159Yb $\xrightarrow{1.72 \text{ m}}$ $\epsilon$ 159Tm
160Yb $\xrightarrow{4.8 \text{ m}}$ 160Tm	161Yb $\xrightarrow{4.2 \text{ m}}$ $\epsilon$ 161Tm	162Yb $\xrightarrow{18.87 \text{ m}}$ $\epsilon$ 162Tm	163Yb $\xrightarrow{11.05 \text{ m}}$ $\epsilon$ 163Tm	164Yb $\xrightarrow{1.263 \text{ h}}$ $\epsilon 164$ 164Tm
165Yb $\xrightarrow{9.9 \text{ m}}$ 165Tm	166Yb $\xrightarrow{2.362 \text{ d}}$ $\epsilon$ 166mTm	167Yb $\xrightarrow{17.5 \text{ m}}$ $\epsilon$ 167Tm	168Yb $\xrightarrow{130 \text{ Ty}}$ $\alpha 50\%$ 164Er	168Yb $\xrightarrow{130 \text{ Ty}}$ $\epsilon \epsilon 50\%$ 168Er
169Yb $\xrightarrow{32.02 \text{ d}}$ $\epsilon$ 169Tm	169mYb $\xrightarrow{46 \text{ s}}$ $\gamma$ 169Yb	171mYb $\xrightarrow{5.25 \text{ ms}}$ $\gamma$ 171Yb	175Yb $\xrightarrow{4.185 \text{ d}}$ $\beta$ 175Lu	175mYb $\xrightarrow{68.2 \text{ ms}}$ $\gamma$ 175Yb
176mYb $\xrightarrow{11.4 \text{ s}}$ $\gamma 90\%$ 176Yb	176mYb $\xrightarrow{11.4 \text{ s}}$ $\beta 10\%$ 176Lu	177Yb $\xrightarrow{1.911 \text{ h}}$ $\beta$ 177Lu	177mYb $\xrightarrow{6.41 \text{ s}}$ $\gamma$ 177Yb	178Yb $\xrightarrow{1.233 \text{ h}}$ $\beta$ 178Lu
179Yb $\xrightarrow{8 \text{ m}}$ $\beta$ 179Lu	180Yb $\xrightarrow{2.4 \text{ m}}$ $\beta$ 180Lu	181Yb $\xrightarrow{1 \text{ m}}$ $\beta$ 181Lu	150Lu $\xrightarrow{46 \text{ ms}}$ $n 70\%$ 149Yb	150Lu $\xrightarrow{46 \text{ ms}}$ $\epsilon 30\%$ 150Yb
151Lu $\xrightarrow{80.6 \text{ ms}}$ $n 63\%$ 150Yb	151Lu $\xrightarrow{80.6 \text{ ms}}$ $\epsilon 37\%$ 151mYb	152Lu $\xrightarrow{650 \text{ ms}}$ $\epsilon 85\%$ 152Yb	152Lu $\xrightarrow{650 \text{ ms}}$ $\epsilon n 7.5\%$ 151Tm	152Lu $\xrightarrow{650 \text{ ms}}$ $\epsilon n 7.5\%$ 151mTm
153Lu $\xrightarrow{900 \text{ ms}}$ $\alpha 70\%$ 149Tm	153Lu $\xrightarrow{900 \text{ ms}}$ $\epsilon 30\%$ 153Yb	153mLu $\xrightarrow{1 \text{ s}}$ $\epsilon 50\%$ 153Yb	153mLu $\xrightarrow{1 \text{ s}}$ $\alpha 50\%$ 149Tm	154Lu $\xrightarrow{1 \text{ s}}$ 154Yb
154mLu $\xrightarrow{1.12 \text{ s}}$ $\epsilon 100\%$ 154Yb	154mLu $\xrightarrow{1.12 \text{ s}}$ $\alpha < 0.1\%$ 150nTm	155Lu $\xrightarrow{68.6 \text{ ms}}$ $\alpha 90\%$ 151Tm	155Lu $\xrightarrow{68.6 \text{ ms}}$ $\epsilon 10\%$ 155Yb	155mLu $\xrightarrow{138 \text{ ms}}$ $\epsilon 76\%$ 151mTm
155mLu $\xrightarrow{138 \text{ ms}}$ $\epsilon 24\%$ 155Yb	155nLu $\xrightarrow{2.7 \text{ ms}}$ $\alpha 50\%$ 151Tm	155nLu $\xrightarrow{2.7 \text{ ms}}$ $\alpha 50\%$ 151mTm	156Lu $\xrightarrow{494 \text{ ms}}$ $\alpha 95\%$ 152Tm	156Lu $\xrightarrow{494 \text{ ms}}$ $\epsilon 5\%$ 156Yb
156mLu $\xrightarrow{198 \text{ ms}}$ $\alpha 94\%$ 152mTm	156mLu $\xrightarrow{198 \text{ ms}}$ $\epsilon 6\%$ 156Yb	157Lu $\xrightarrow{6.8 \text{ s}}$ $\epsilon 50\%$ 157Yb	157Lu $\xrightarrow{6.8 \text{ s}}$ $\alpha 50\%$ 153mTm	157mLu $\xrightarrow{4.79 \text{ s}}$ $\epsilon 94\%$ 157Yb
157mLu $\xrightarrow{4.79 \text{ s}}$ $\alpha 6\%$ 153Tm	158Lu $\xrightarrow{10.6 \text{ s}}$ $\epsilon 99.09\%$ 158Yb	158Lu $\xrightarrow{10.6 \text{ s}}$ $\alpha 0.91\%$ 154Tm	159Lu $\xrightarrow{12.1 \text{ s}}$ $\epsilon 99.9\%$ 159Yb	159Lu $\xrightarrow{12.1 \text{ s}}$ $\alpha < 0.1\%$ 155mTm
159mLu $\xrightarrow{10 \text{ s}}$ $\epsilon 33.33\%$ 159Yb	159mLu $\xrightarrow{10 \text{ s}}$ $\gamma 33.33\%$ 159Lu	159mLu $\xrightarrow{10 \text{ s}}$ $\alpha 33.33\%$ 155Tm	160Lu $\xrightarrow{36.1 \text{ s}}$ $\epsilon 100\%$ 160Yb	160Lu $\xrightarrow{36.1 \text{ s}}$ $\alpha < 0.1\%$ 156Tm
160mLu $\xrightarrow{40 \text{ s}}$ $\epsilon$ 160Yb	161Lu $\xrightarrow{1.283 \text{ m}}$ $\epsilon$ 161Yb	161mLu $\xrightarrow{7.3 \text{ ms}}$ $\gamma$ 161Lu	162Lu $\xrightarrow{1.37 \text{ m}}$ $\epsilon$ 162Yb	162mLu $\xrightarrow{1.5 \text{ m}}$ $\epsilon$ 162Yb
162mLu $\xrightarrow{1.9 \text{ m}}$ $\epsilon$ 162Yb	163Lu $\xrightarrow{3.97 \text{ m}}$ $\epsilon$ 163Yb	164Lu $\xrightarrow{3.14 \text{ m}}$ $\epsilon$ 164Yb	165Lu $\xrightarrow{10.74 \text{ m}}$ $\epsilon$ 165Yb	166Lu $\xrightarrow{2.65 \text{ m}}$ $\epsilon$ 166Yb
166mLu $\xrightarrow{1.41 \text{ m}}$ $\epsilon 58\%$ 166Yb	166mLu $\xrightarrow{1.41 \text{ m}}$ $\gamma 42\%$ 166Lu	166nLu $\xrightarrow{2.12 \text{ m}}$ $\epsilon 80\%$ 166Yb	166nLu $\xrightarrow{2.12 \text{ m}}$ $\gamma 20\%$ 166mLu	167Lu $\xrightarrow{51.5 \text{ m}}$ $\epsilon$ 167Yb
167mLu $\xrightarrow{1 \text{ m}}$ $\gamma 50\%$ 167Lu	167mLu $\xrightarrow{1 \text{ m}}$ $\epsilon 50\%$ 167Yb	168Lu $\xrightarrow{5.5 \text{ m}}$ $\epsilon$ 168Yb	168mLu $\xrightarrow{6.7 \text{ m}}$ $\epsilon 95\%$ 168Yb	168mLu $\xrightarrow{6.7 \text{ m}}$ $\gamma 5\%$ 168Lu
169Lu $\xrightarrow{1.419 \text{ d}}$ $\epsilon 86.4\%$ 169Yb	169Lu $\xrightarrow{1.419 \text{ d}}$ $\epsilon 13.6\%$ 169Yb	169mLu $\xrightarrow{2.667 \text{ m}}$ $\gamma$ 169Lu	170Lu $\xrightarrow{2.012 \text{ d}}$ 170Yb	170mLu $\xrightarrow{670 \text{ ms}}$ $\gamma$ 170Lu
171Lu $\xrightarrow{8.25 \text{ d}}$ 171Yb	171mLu $\xrightarrow{1.3 \text{ m}}$ $\gamma$ 171Lu	172Lu $\xrightarrow{6.7 \text{ d}}$ 172Yb	172mLu $\xrightarrow{3.7 \text{ m}}$ $\gamma$ 172Lu	173Lu $\xrightarrow{1.336 \text{ y}}$ 173Yb
174Lu $\xrightarrow{3.559 \text{ y}}$ 174Yb	174mLu $\xrightarrow{142 \text{ d}}$ $\epsilon 0.58\%$ 174Yb	174mLu $\xrightarrow{142 \text{ d}}$ $\gamma 99.42\%$ 174Lu	176Lu $\xrightarrow{40 \text{ Gy}}$ 176Hf	176mLu $\xrightarrow{3.635 \text{ h}}$ $\epsilon < 0.1\%$ 176Yb
176mLu $\xrightarrow{3.635 \text{ h}}$ $\beta 99.9\%$ 176Hf	177Lu $\xrightarrow{6.647 \text{ d}}$ $\beta$ 177Hf	177mLu $\xrightarrow{160.3 \text{ d}}$ $\beta 77.4\%$ 177mHf	177mLu $\xrightarrow{160.3 \text{ d}}$ $\gamma 22.6\%$ 177Lu	177nLu $\xrightarrow{7 \text{ m}}$ $\beta 50\%$ 177nHf
177nLu $\xrightarrow{7 \text{ m}}$ $\gamma 50\%$ 177Lu	178Lu $\xrightarrow{28.4 \text{ m}}$ $\beta$ 178Hf	178mLu $\xrightarrow{23.1 \text{ m}}$ $\beta$ 178mHf	179Lu $\xrightarrow{4.59 \text{ h}}$ 179Hf	179mLu $\xrightarrow{3.1 \text{ ms}}$ $\gamma$ 179Lu

$^{180}_{71}\text{Lu} \xrightarrow[5.7\text{ m}]{\beta^-} ^{180}_{72}\text{Hf}$	$^{180}_{71}\text{Lu} \xrightarrow[1\text{ s}]{\beta^- 50\%} ^{180}_{72}\text{Hf}$	$^{180}_{71}\text{Lu} \xrightarrow[1\text{ s}]{\gamma 50\%} ^{180}_{71}\text{Lu}$	$^{180n}_{71}\text{Lu} \xrightarrow[1\text{ ms}]{\beta^- 50\%} ^{180m}_{72}\text{Hf}$	$^{180n}_{71}\text{Lu} \xrightarrow[1\text{ ms}]{\gamma 50\%} ^{180}_{71}\text{Lu}$
$^{181}_{71}\text{Lu} \xrightarrow[3.5\text{ m}]{\beta^-} ^{181}_{72}\text{Hf}$	$^{182}_{71}\text{Lu} \xrightarrow[2\text{ m}]{\beta^-} ^{182}_{72}\text{Hf}$	$^{183}_{71}\text{Lu} \xrightarrow[58\text{ s}]{\beta^-} ^{183}_{72}\text{Hf}$	$^{184}_{71}\text{Lu} \xrightarrow[20\text{ s}]{\beta^- 50\%} ^{184m}_{72}\text{Hf}$	$^{184}_{71}\text{Lu} \xrightarrow[20\text{ s}]{\beta^- 50\%} ^{184m}_{72}\text{Hf}$
$^{153}_{72}\text{Hf} \xrightarrow[400\text{ ms}]{\epsilon} ^{153m}_{71}\text{Lu}$	$^{153m}_{72}\text{Hf} \xrightarrow[500\text{ ms}]{\epsilon 50\%} ^{153}_{71}\text{Lu}$	$^{153m}_{72}\text{Hf} \xrightarrow[500\text{ ms}]{\gamma 50\%} ^{153}_{72}\text{Hf}$	$^{154}_{72}\text{Hf} \xrightarrow[2\text{ s}]{\epsilon} ^{154}_{71}\text{Lu}$	$^{155}_{72}\text{Hf} \xrightarrow[890\text{ ms}]{\epsilon 50\%} ^{155}_{71}\text{Lu}$
$^{155}_{72}\text{Hf} \xrightarrow[890\text{ ms}]{\epsilon 50\%} ^{155m}_{71}\text{Lu}$	$^{156}_{72}\text{Hf} \xrightarrow[23\text{ ms}]{\alpha 97\%} ^{152}_{70}\text{Yb}$	$^{156}_{72}\text{Hf} \xrightarrow[23\text{ ms}]{\alpha 3\%} ^{156}_{71}\text{Lu}$	$^{157}_{72}\text{Hf} \xrightarrow[115\text{ ms}]{\alpha 86\%} ^{153}_{70}\text{Yb}$	$^{157}_{72}\text{Hf} \xrightarrow[115\text{ ms}]{\alpha 7\%} ^{157}_{71}\text{Lu}$
$^{157}_{72}\text{Hf} \xrightarrow[115\text{ ms}]{\epsilon 7\%} ^{157m}_{71}\text{Lu}$	$^{158}_{72}\text{Hf} \xrightarrow[2.85\text{ s}]{\epsilon 55.7\%} ^{158}_{71}\text{Lu}$	$^{158}_{72}\text{Hf} \xrightarrow[2.85\text{ s}]{\alpha 44.3\%} ^{154}_{70}\text{Yb}$	$^{159}_{72}\text{Hf} \xrightarrow[5.2\text{ s}]{\epsilon 65\%} ^{159}_{71}\text{Lu}$	$^{159}_{72}\text{Hf} \xrightarrow[5.2\text{ s}]{\alpha 35\%} ^{155}_{70}\text{Yb}$
$^{160}_{72}\text{Hf} \xrightarrow[13.6\text{ s}]{\epsilon 99.3\%} ^{160}_{71}\text{Lu}$	$^{160}_{72}\text{Hf} \xrightarrow[13.6\text{ s}]{\alpha 0.7\%} ^{156}_{70}\text{Yb}$	$^{161}_{72}\text{Hf} \xrightarrow[18.2\text{ s}]{\epsilon 99.87\%} ^{161}_{71}\text{Lu}$	$^{161}_{72}\text{Hf} \xrightarrow[18.2\text{ s}]{\alpha 0.13\%} ^{157}_{70}\text{Yb}$	$^{162}_{72}\text{Hf} \xrightarrow[39.4\text{ s}]{\epsilon 99.99\%} ^{162}_{71}\text{Lu}$
$^{162}_{72}\text{Hf} \xrightarrow[39.4\text{ s}]{\alpha < 0.1\%} ^{158}_{70}\text{Yb}$	$^{163}_{72}\text{Hf} \xrightarrow[40\text{ s}]{\epsilon 100\%} ^{163}_{71}\text{Lu}$	$^{163}_{72}\text{Hf} \xrightarrow[40\text{ s}]{\alpha < 0.1\%} ^{159}_{70}\text{Yb}$	$^{164}_{72}\text{Hf} \xrightarrow[1.85\text{ m}]{\epsilon} ^{164}_{71}\text{Lu}$	$^{165}_{72}\text{Hf} \xrightarrow[1.267\text{ m}]{\epsilon} ^{165}_{71}\text{Lu}$
$^{166}_{72}\text{Hf} \xrightarrow[6.77\text{ m}]{\epsilon 64.56\%} ^{166m}_{71}\text{Lu}$	$^{166}_{72}\text{Hf} \xrightarrow[6.77\text{ m}]{\epsilon 35.44\%} ^{166n}_{71}\text{Lu}$	$^{167}_{72}\text{Hf} \xrightarrow[2.05\text{ m}]{\epsilon 50\%} ^{167}_{71}\text{Lu}$	$^{167}_{72}\text{Hf} \xrightarrow[2.05\text{ m}]{\epsilon 50\%} ^{167m}_{71}\text{Lu}$	$^{168}_{72}\text{Hf} \xrightarrow[25.95\text{ m}]{\epsilon} ^{168m}_{71}\text{Lu}$
$^{169}_{72}\text{Hf} \xrightarrow[3.24\text{ m}]{\epsilon 96.5\%} ^{169}_{71}\text{Lu}$	$^{169}_{72}\text{Hf} \xrightarrow[3.24\text{ m}]{\epsilon 3.5\%} ^{169m}_{71}\text{Lu}$	$^{170}_{72}\text{Hf} \xrightarrow[16.01\text{ h}]{\epsilon 99.93\%} ^{170}_{71}\text{Lu}$	$^{170}_{72}\text{Hf} \xrightarrow[16.01\text{ h}]{\epsilon < 0.1\%} ^{170m}_{71}\text{Lu}$	$^{171}_{72}\text{Hf} \xrightarrow[12.1\text{ h}]{\epsilon} ^{171}_{71}\text{Lu}$
$^{171m}_{72}\text{Hf} \xrightarrow[29.5\text{ s}]{\gamma} ^{171}_{72}\text{Hf}$	$^{172}_{72}\text{Hf} \xrightarrow[1.87\text{ y}]{\gamma} ^{172m}_{71}\text{Lu}$	$^{173}_{72}\text{Hf} \xrightarrow[23.9\text{ h}]{\epsilon} ^{173}_{71}\text{Lu}$	$^{174}_{72}\text{Hf} \xrightarrow[2\text{ Py}]{\alpha} ^{170}_{70}\text{Yb}$	$^{175}_{72}\text{Hf} \xrightarrow[70\text{ d}]{\epsilon} ^{175}_{71}\text{Lu}$
$^{177m}_{72}\text{Hf} \xrightarrow[1.08\text{ s}]{\gamma} ^{177}_{72}\text{Hf}$	$^{177n}_{72}\text{Hf} \xrightarrow[51.4\text{ m}]{\gamma} ^{177m}_{72}\text{Hf}$	$^{178m}_{72}\text{Hf} \xrightarrow[4\text{ s}]{\gamma} ^{178}_{72}\text{Hf}$	$^{178n}_{72}\text{Hf} \xrightarrow[31\text{ y}]{\gamma} ^{178m}_{72}\text{Hf}$	$^{179m}_{72}\text{Hf} \xrightarrow[18.67\text{ s}]{\gamma} ^{179}_{72}\text{Hf}$
$^{179n}_{72}\text{Hf} \xrightarrow[25.1\text{ d}]{\gamma} ^{179}_{72}\text{Hf}$	$^{180m}_{72}\text{Hf} \xrightarrow[5.5\text{ h}]{\beta 0.31\%} ^{180m}_{73}\text{Ta}$	$^{180m}_{72}\text{Hf} \xrightarrow[5.5\text{ h}]{\gamma 99.69\%} ^{180}_{72}\text{Hf}$	$^{181}_{72}\text{Hf} \xrightarrow[42.38\text{ d}]{\beta} ^{181}_{73}\text{Ta}$	$^{182}_{72}\text{Hf} \xrightarrow[9\text{ My}]{\beta} ^{182}_{73}\text{Ta}$
$^{182m}_{72}\text{Hf} \xrightarrow[1.025\text{ h}]{\beta 58\%} ^{182n}_{73}\text{Ta}$	$^{182m}_{72}\text{Hf} \xrightarrow[1.025\text{ h}]{\gamma 42\%} ^{182}_{72}\text{Hf}$	$^{183}_{72}\text{Hf} \xrightarrow[1.067\text{ h}]{\beta} ^{183}_{73}\text{Ta}$	$^{184}_{72}\text{Hf} \xrightarrow[4.12\text{ h}]{\beta} ^{184}_{73}\text{Ta}$	$^{184m}_{72}\text{Hf} \xrightarrow[48\text{ s}]{\beta} ^{184}_{73}\text{Ta}$
$^{185}_{72}\text{Hf} \xrightarrow[3.5\text{ m}]{\beta} ^{185}_{73}\text{Ta}$	$^{186}_{72}\text{Hf} \xrightarrow[2.6\text{ m}]{\beta} ^{186}_{73}\text{Ta}$	$^{187}_{72}\text{Hf} \xrightarrow[30\text{ s}]{\beta} ^{187}_{73}\text{Ta}$	$^{188}_{72}\text{Hf} \xrightarrow[20\text{ s}]{\beta} ^{188}_{73}\text{Ta}$	$^{155}_{73}\text{Ta} \xrightarrow[13\text{ }\mu\text{s}]{n} ^{154}_{72}\text{Hf}$
$^{156}_{73}\text{Ta} \xrightarrow[144\text{ ms}]{n} ^{155}_{72}\text{Hf}$	$^{156m}_{73}\text{Ta} \xrightarrow[360\text{ ms}]{\epsilon 95.8\%} ^{156}_{72}\text{Hf}$	$^{156m}_{73}\text{Ta} \xrightarrow[360\text{ ms}]{n 4.2\%} ^{155}_{72}\text{Hf}$	$^{157}_{73}\text{Ta} \xrightarrow[10.1\text{ ms}]{\alpha 95.6\%} ^{153}_{71}\text{Lu}$	$^{157}_{73}\text{Ta} \xrightarrow[10.1\text{ ms}]{n 3.4\%} ^{156}_{72}\text{Hf}$
$^{157}_{73}\text{Ta} \xrightarrow[10.1\text{ ms}]{\alpha 1\%} ^{157}_{72}\text{Hf}$	$^{157m}_{73}\text{Ta} \xrightarrow[4.3\text{ ms}]{\alpha 99\%} ^{153m}_{71}\text{Lu}$	$^{157m}_{73}\text{Ta} \xrightarrow[4.3\text{ ms}]{\alpha 1\%} ^{157}_{72}\text{Hf}$	$^{157n}_{73}\text{Ta} \xrightarrow[1.7\text{ ms}]{\alpha} ^{153m}_{71}\text{Lu}$	$^{158}_{73}\text{Ta} \xrightarrow[49\text{ ms}]{\alpha 96\%} ^{154}_{71}\text{Lu}$
$^{158}_{73}\text{Ta} \xrightarrow[49\text{ ms}]{\epsilon 4\%} ^{158}_{72}\text{Hf}$	$^{158m}_{73}\text{Ta} \xrightarrow[36\text{ ms}]{\alpha 93\%} ^{154m}_{71}\text{Lu}$	$^{158m}_{73}\text{Ta} \xrightarrow[36\text{ ms}]{\epsilon 3.5\%} ^{158}_{72}\text{Hf}$	$^{158m}_{73}\text{Ta} \xrightarrow[36\text{ ms}]{\gamma 3.5\%} ^{158}_{73}\text{Ta}$	$^{159}_{73}\text{Ta} \xrightarrow[1.04\text{ s}]{\epsilon 66\%} ^{159}_{72}\text{Hf}$
$^{159}_{73}\text{Ta} \xrightarrow[1.04\text{ s}]{\alpha 34\%} ^{155}_{71}\text{Lu}$	$^{159m}_{73}\text{Ta} \xrightarrow[514\text{ ms}]{\alpha 55\%} ^{155m}_{71}\text{Lu}$	$^{159m}_{73}\text{Ta} \xrightarrow[514\text{ ms}]{\epsilon 45\%} ^{159}_{72}\text{Hf}$	$^{160}_{73}\text{Ta} \xrightarrow[1.7\text{ s}]{\epsilon 50\%} ^{160}_{72}\text{Hf}$	$^{160}_{73}\text{Ta} \xrightarrow[1.7\text{ s}]{\alpha 50\%} ^{156}_{71}\text{Lu}$
$^{160m}_{73}\text{Ta} \xrightarrow[1.55\text{ s}]{\epsilon 66\%} ^{160}_{72}\text{Hf}$	$^{160m}_{73}\text{Ta} \xrightarrow[1.55\text{ s}]{\alpha 34\%} ^{156m}_{71}\text{Lu}$	$^{161}_{73}\text{Ta} \xrightarrow[3\text{ s}]{\epsilon 50\%} ^{161}_{72}\text{Hf}$	$^{161}_{73}\text{Ta} \xrightarrow[3\text{ s}]{\alpha 50\%} ^{157}_{71}\text{Lu}$	$^{161m}_{73}\text{Ta} \xrightarrow[2.89\text{ s}]{\epsilon 95\%} ^{161}_{72}\text{Hf}$
$^{161m}_{73}\text{Ta} \xrightarrow[2.89\text{ s}]{\alpha 5\%} ^{157m}_{71}\text{Lu}$	$^{162}_{73}\text{Ta} \xrightarrow[3.57\text{ s}]{\epsilon 99.93\%} ^{162}_{72}\text{Hf}$	$^{162}_{73}\text{Ta} \xrightarrow[3.57\text{ s}]{\alpha < 0.1\%} ^{158}_{71}\text{Lu}$	$^{163}_{73}\text{Ta} \xrightarrow[10.6\text{ s}]{\epsilon 99.8\%} ^{163}_{72}\text{Hf}$	$^{163}_{73}\text{Ta} \xrightarrow[10.6\text{ s}]{\alpha < 0.1\%} ^{159}_{71}\text{Lu}$
$^{163}_{73}\text{Ta} \xrightarrow[10.6\text{ s}]{\alpha < 0.1\%} ^{159m}_{71}\text{Lu}$	$^{164}_{73}\text{Ta} \xrightarrow[14.2\text{ s}]{\epsilon} ^{164}_{72}\text{Hf}$	$^{165}_{73}\text{Ta} \xrightarrow[31\text{ s}]{\epsilon} ^{165}_{72}\text{Hf}$	$^{166}_{73}\text{Ta} \xrightarrow[34.4\text{ s}]{\epsilon} ^{166}_{72}\text{Hf}$	$^{167}_{73}\text{Ta} \xrightarrow[1.33\text{ m}]{\beta} ^{167}_{72}\text{Hf}$
$^{168}_{73}\text{Ta} \xrightarrow[2\text{ m}]{\epsilon} ^{168}_{72}\text{Hf}$	$^{169}_{73}\text{Ta} \xrightarrow[4.9\text{ m}]{\epsilon} ^{169}_{72}\text{Hf}$	$^{170}_{73}\text{Ta} \xrightarrow[6.76\text{ m}]{\epsilon} ^{170}_{72}\text{Hf}$	$^{171}_{73}\text{Ta} \xrightarrow[23.3\text{ m}]{\epsilon 50\%} ^{171}_{72}\text{Hf}$	$^{171}_{73}\text{Ta} \xrightarrow[23.3\text{ m}]{\epsilon 50\%} ^{171m}_{72}\text{Hf}$
$^{172}_{73}\text{Ta} \xrightarrow[36.8\text{ m}]{\epsilon} ^{172}_{72}\text{Hf}$	$^{173}_{73}\text{Ta} \xrightarrow[3.14\text{ h}]{\epsilon} ^{173}_{72}\text{Hf}$	$^{174}_{73}\text{Ta} \xrightarrow[1.14\text{ h}]{\epsilon} ^{174}_{72}\text{Hf}$	$^{175}_{73}\text{Ta} \xrightarrow[10.5\text{ h}]{\epsilon} ^{175}_{72}\text{Hf}$	$^{176}_{73}\text{Ta} \xrightarrow[8.09\text{ h}]{\epsilon} ^{176}_{72}\text{Hf}$
$^{176m}_{73}\text{Ta} \xrightarrow[1.1\text{ ms}]{\gamma} ^{176}_{73}\text{Ta}$	$^{176n}_{73}\text{Ta} \xrightarrow[970\text{ }\mu\text{s}]{\gamma} ^{176m}_{73}\text{Ta}$	$^{177}_{73}\text{Ta} \xrightarrow[2.35\text{ d}]{\epsilon} ^{177}_{72}\text{Hf}$	$^{178}_{73}\text{Ta} \xrightarrow[9.29\text{ m}]{\epsilon} ^{178}_{72}\text{Hf}$	$^{178m}_{73}\text{Ta} \xrightarrow[2.36\text{ h}]{\epsilon} ^{178m}_{72}\text{Hf}$
$^{178n}_{73}\text{Ta} \xrightarrow[59\text{ ms}]{\gamma} ^{178m}_{73}\text{Ta}$	$^{179}_{73}\text{Ta} \xrightarrow[1.61\text{ y}]{\epsilon} ^{179}_{72}\text{Hf}$	$^{179m}_{73}\text{Ta} \xrightarrow[9\text{ ms}]{\gamma} ^{179}_{73}\text{Ta}$	$^{179n}_{73}\text{Ta} \xrightarrow[54.1\text{ ms}]{\gamma} ^{179m}_{73}\text{Ta}$	$^{180}_{73}\text{Ta} \xrightarrow[8.08\text{ h}]{\beta 18.1\%} ^{180}_{74}\text{W}$
$^{180}_{73}\text{Ta} \xrightarrow[8.08\text{ h}]{\epsilon 81.9\%} ^{180}_{72}\text{Hf}$	$^{180m}_{73}\text{Ta} \xrightarrow[1.8\text{ Py}]{\beta 20\%} ^{180}_{74}\text{W}$	$^{180m}_{73}\text{Ta} \xrightarrow[1.8\text{ Py}]{\epsilon 80\%} ^{180}_{72}\text{Hf}$	$^{182}_{73}\text{Ta} \xrightarrow[114.7\text{ d}]{\beta} ^{182}_{74}\text{W}$	$^{182m}_{73}\text{Ta} \xrightarrow[283\text{ ms}]{\gamma} ^{182}_{73}\text{Ta}$
$^{182n}_{73}\text{Ta} \xrightarrow[15.84\text{ m}]{\gamma} ^{182m}_{73}\text{Ta}$	$^{183}_{73}\text{Ta} \xrightarrow[5.09\text{ d}]{\beta 96.6\%} ^{183}_{74}\text{W}$	$^{183}_{73}\text{Ta} \xrightarrow[5.09\text{ d}]{\beta 3.4\%} ^{183m}_{74}\text{W}$	$^{184}_{73}\text{Ta} \xrightarrow[8.7\text{ h}]{\beta} ^{184}_{74}\text{W}$	$^{185}_{73}\text{Ta} \xrightarrow[49\text{ m}]{\beta} ^{185}_{74}\text{W}$
$^{185m}_{73}\text{Ta} \xrightarrow[1\text{ ms}]{\gamma} ^{185}_{73}\text{Ta}$	$^{186}_{73}\text{Ta} \xrightarrow[10.5\text{ m}]{\beta} ^{186}_{74}\text{W}$	$^{187}_{73}\text{Ta} \xrightarrow[2\text{ m}]{\beta} ^{187}_{74}\text{W}$	$^{188}_{73}\text{Ta} \xrightarrow[20\text{ s}]{\beta} ^{188}_{74}\text{W}$	$^{189}_{73}\text{Ta} \xrightarrow[3\text{ s}]{\beta} ^{189}_{74}\text{W}$
$^{190}_{73}\text{Ta} \xrightarrow[300\text{ ms}]{\beta} ^{190}_{74}\text{W}$	$^{158}_{74}\text{W} \xrightarrow[1.37\text{ ms}]{\alpha} ^{154}_{72}\text{Hf}$	$^{159}_{74}\text{W} \xrightarrow[8.2\text{ ms}]{\alpha 82\%} ^{155}_{72}\text{Hf}$	$^{159}_{74}\text{W} \xrightarrow[8.2\text{ ms}]{\epsilon 9\%} ^{159}_{73}\text{Ta}$	$^{159}_{74}\text{W} \xrightarrow[8.2\text{ ms}]{\epsilon 9\%} ^{159m}_{73}\text{Ta}$
$^{160}_{74}\text{W} \xrightarrow[90\text{ ms}]{\alpha 87\%} ^{156}_{72}\text{Hf}$	$^{160}_{74}\text{W} \xrightarrow[90\text{ ms}]{\epsilon 13\%} ^{160}_{73}\text{Ta}$	$^{161}_{74}\text{W} \xrightarrow[409\text{ ms}]{\alpha 73\%} ^{157}_{72}\text{Hf}$	$^{161}_{74}\text{W} \xrightarrow[409\text{ ms}]{\epsilon 13.5\%} ^{161}_{73}\text{Ta}$	$^{161}_{74}\text{W} \xrightarrow[409\text{ ms}]{\epsilon 13.5\%} ^{161m}_{73}\text{Ta}$
$^{162}_{74}\text{W} \xrightarrow[1.36\text{ s}]{\epsilon 54.8\%} ^{162}_{73}\text{Ta}$	$^{162}_{74}\text{W} \xrightarrow[1.36\text{ s}]{\alpha 45.2\%} ^{158}_{72}\text{Hf}$	$^{163}_{74}\text{W} \xrightarrow[2.8\text{ s}]{\epsilon 87\%} ^{163}_{73}\text{Ta}$	$^{163}_{74}\text{W} \xrightarrow[2.8\text{ s}]{\alpha 13\%} ^{159}_{72}\text{Hf}$	$^{164}_{74}\text{W} \xrightarrow[6.3\text{ s}]{\epsilon 96.2\%} ^{164}_{73}\text{Ta}$
$^{164}_{74}\text{W} \xrightarrow[6.3\text{ s}]{\alpha 3.8\%} ^{160}_{72}\text{Hf}$	$^{165}_{74}\text{W} \xrightarrow[5.1\text{ s}]{\epsilon 99.8\%} ^{165}_{73}\text{Ta}$	$^{165}_{74}\text{W} \xrightarrow[5.1\text{ s}]{\alpha 0.2\%} ^{161}_{72}\text{Hf}$	$^{166}_{74}\text{W} \xrightarrow[19.2\text{ s}]{\epsilon 99.96\%} ^{166}_{73}\text{Ta}$	$^{166}_{74}\text{W} \xrightarrow[19.2\text{ s}]{\alpha < 0.1\%} ^{162}_{72}\text{Hf}$
$^{167}_{74}\text{W} \xrightarrow[19.9\text{ s}]{\epsilon 99.96\%} ^{167}_{73}\text{Ta}$	$^{167}_{74}\text{W} \xrightarrow[19.9\text{ s}]{\alpha < 0.1\%} ^{163}_{72}\text{Hf}$	$^{168}_{74}\text{W} \xrightarrow[51\text{ s}]{\epsilon 100\%} ^{168}_{73}\text{Ta}$	$^{168}_{74}\text{W} \xrightarrow[51\text{ s}]{\alpha < 0.1\%} ^{164}_{72}\text{Hf}$	$^{169}_{74}\text{W} \xrightarrow[1.267\text{ m}]{\epsilon} ^{169}_{73}\text{Ta}$
$^{170}_{74}\text{W} \xrightarrow[2.42\text{ m}]{\epsilon 99\%} ^{170}_{73}\text{Ta}$	$^{170}_{74}\text{W} \xrightarrow[2.42\text{ m}]{\alpha 1\%} ^{166}_{72}\text{Hf}$	$^{171}_{74}\text{W} \xrightarrow[2.38\text{ m}]{\epsilon} ^{171}_{73}\text{Ta}$	$^{172}_{74}\text{W} \xrightarrow[6.6\text{ m}]{\epsilon} ^{172}_{73}\text{Ta}$	$^{173}_{74}\text{W} \xrightarrow[7.6\text{ m}]{\epsilon} ^{173}_{73}\text{Ta}$
$^{174}_{74}\text{W} \xrightarrow[33.2\text{ m}]{\epsilon} ^{174}_{73}\text{Ta}$	$^{175}_{74}\text{W} \xrightarrow[35.2\text{ m}]{\epsilon} ^{175}_{73}\text{Ta}$	$^{176}_{74}\text{W} \xrightarrow[2.5\text{ h}]{\epsilon} ^{176}_{73}\text{Ta}$	$^{177}_{74}\text{W} \xrightarrow[2.2\text{ h}]{\epsilon} ^{177}_{73}\text{Ta}$	$^{178}_{74}\text{W} \xrightarrow[21.6\text{ d}]{\epsilon} ^{178}_{73}\text{Ta}$
$^{179}_{74}\text{W} \xrightarrow[37.05\text{ m}]{\epsilon} ^{179}_{73}\text{Ta}$	$^{179m}_{74}\text{W} \xrightarrow[6.4\text{ m}]{\gamma 99.72\%} ^{179}_{74}\text{W}$	$^{179m}_{74}\text{W} \xrightarrow[6.4\text{ m}]{\epsilon 0.28\%} ^{179}_{73}\text{Ta}$	$^{180m}_{74}\text{W} \xrightarrow[5.47\text{ ms}]{\gamma} ^{180}_{74}\text{W}$	$^{181}_{74}\text{W} \xrightarrow[121\text{ d}]{\epsilon} ^{181}_{73}\text{Ta}$
$^{183}_{74}\text{W} \xrightarrow[110\text{ Py}]{\alpha 33.4\%} ^{179}_{72}\text{Hf}$	$^{183}_{74}\text{W} \xrightarrow[110\text{ Py}]{\alpha 33.3\%} ^{179m}_{72}\text{Hf}$	$^{183}_{74}\text{W} \xrightarrow[110\text{ Py}]{\alpha 33.3\%} ^{179n}_{72}\text{Hf}$	$^{183m}_{74}\text{W} \xrightarrow[5.25\text{ s}]{\gamma} ^{183}_{74}\text{W}$	$^{184}_{74}\text{W} \xrightarrow[400\text{ Py}]{\alpha} ^{180}_{72}\text{Hf}$
$^{185}_{74}\text{W} \xrightarrow[75.1\text{ d}]{\beta} ^{185}_{75}\text{Re}$	$^{185m}_{74}\text{W} \xrightarrow[1.667\text{ m}]{\gamma} ^{185}_{74}\text{W}$	$^{186}_{74}\text{W} \xrightarrow[590\text{ Py}]{\beta\beta 50\%} ^{186}_{76}\text{Os}$	$^{186}_{74}\text{W} \xrightarrow[590\text{ Py}]{\alpha 50\%} ^{182}_{72}\text{Hf}$	$^{186m}_{74}\text{W} \xrightarrow[3\text{ ms}]{\gamma} ^{186}_{74}\text{W}$
$^{187}_{74}\text{W} \xrightarrow[23.85\text{ h}]{\beta} ^{187}_{75}\text{Re}$	$^{188}_{74}\text{W} \xrightarrow[69.78\text{ d}]{\beta} ^{188}_{75}\text{Re}$	$^{189}_{74}\text{W} \xrightarrow[10.7\text{ m}]{\beta} ^{189}_{75}\text{Re}$	$^{190}_{74}\text{W} \xrightarrow[30\text{ m}]{\beta} ^{190}_{75}\text{Re}$	$^{190m}_{74}\text{W} \xrightarrow[3.1\text{ ms}]{\gamma} ^{190}_{74}\text{W}$
$^{191}_{74}\text{W} \xrightarrow[20\text{ s}]{\beta} ^{191}_{75}\text{Re}$	$^{192}_{74}\text{W} \xrightarrow[10\text{ s}]{\beta} ^{192}_{75}\text{Re}$	$^{160}_{75}\text{Re} \xrightarrow[860\text{ }\mu\text{s}]{n 91\%} ^{159}_{74}\text{W}$	$^{160}_{75}\text{Re} \xrightarrow[860\text{ }\mu\text{s}]{\alpha 9\%} ^{156}_{73}\text{Ta}$	$^{161}_{75}\text{Re} \xrightarrow[15\text{ ms}]{\alpha} ^{157}_{73}\text{Ta}$
$^{161m}_{75}\text{Re} \xrightarrow[15.6\text{ ms}]{\alpha 95.2\%} ^{157m}_{73}\text{Ta}$	$^{161m}_{75}\text{Re} \xrightarrow[15.6\text{ ms}]{n 4.8\%} ^{160}_{74}\text{W}$	$^{162}_{75}\text{Re} \xrightarrow[107\text{ ms}]{\alpha 94\%} ^{158}_{73}\text{Ta}$	$^{162}_{75}\text{Re} \xrightarrow[107\text{ ms}]{\epsilon 6\%} ^{162}_{74}\text{W}$	$^{162m}_{75}\text{Re} \xrightarrow[77\text{ ms}]{\alpha 91\%} ^{158m}_{73}\text{Ta}$
$^{162m}_{75}\text{Re} \xrightarrow[77\text{ ms}]{\epsilon 9\%} ^{162}_{74}\text{W}$	$^{163}_{75}\text{Re} \xrightarrow[390\text{ ms}]{\epsilon 68\%} ^{163}_{74}\text{W}$	$^{163}_{75}\text{Re} \xrightarrow[390\text{ ms}]{\alpha 32\%} ^{159}_{73}\text{Ta}$	$^{163m}_{75}\text{Re} \xrightarrow[214\text{ ms}]{\alpha 66\%} ^{159m}_{73}\text{Ta}$	$^{163m}_{75}\text{Re} \xrightarrow[214\text{ ms}]{\epsilon 34\%} ^{163}_{74}\text{W}$
$^{164}_{75}\text{Re} \xrightarrow[1\text{ ns}]{\alpha} ^{160}_{73}\text{Ta}$	$^{164m}_{75}\text{Re} \xrightarrow[530\text{ ms}]{\alpha 58\%} ^{160}_{73}\text{Ta}$	$^{164m}_{75}\text{Re} \xrightarrow[530\text{ ms}]{\epsilon 42\%} ^{164}_{74}\text{W}$	$^{165}_{75}\text{Re} \xrightarrow[1\text{ s}]{\epsilon 50\%} ^{165}_{74}\text{W}$	$^{165}_{75}\text{Re} \xrightarrow[1\text{ s}]{\alpha 50\%} ^{161}_{73}\text{Ta}$
$^{165m}_{75}\text{Re} \xrightarrow[2.1\text{ s}]{\epsilon 87\%} ^{165}_{74}\text{W}$	$^{165m}_{75}\text{Re} \xrightarrow[2.1\text{ s}]{\alpha 13\%} ^{161m}_{73}\text{Ta}$	$^{166}_{75}\text{Re} \xrightarrow[2\text{ s}]{\epsilon 50\%} ^{166}_{74}\text{W}$	$^{166}_{75}\text{Re} \xrightarrow[2\text{ s}]{\alpha 50\%} ^{162}_{73}\text{Ta}$	$^{166m}_{75}\text{Re} \xrightarrow[2.5\text{ s}]{\epsilon 95\%} ^{166}_{74}\text{W}$



$^{168}\text{Re}$ $\xrightarrow{4.4\text{ s}}$ $^{164}\text{Ta}$ $\alpha < 0.1\%$ $^{73}\text{Ta}$	$^{169}\text{Re}$ $\xrightarrow{8.1\text{ s}}$ $^{169}\text{W}$ $\epsilon 100\%$ $^{74}\text{W}$	$^{169}\text{Re}$ $\xrightarrow{8.1\text{ s}}$ $^{165}\text{Ta}$ $\alpha < 0.1\%$ $^{73}\text{Ta}$	$^{169}\text{Re}$ $\xrightarrow{15.1\text{ s}}$ $^{169}\text{W}$ $\epsilon 99.8\%$ $^{74}\text{W}$	$^{169}\text{Re}$ $\xrightarrow{15.1\text{ s}}$ $^{165}\text{Ta}$ $\alpha 0.2\%$ $^{73}\text{Ta}$
$^{170}\text{Re}$ $\xrightarrow{9.2\text{ s}}$ $^{170}\text{W}$ $\alpha < 99.99\%$ $^{74}\text{W}$	$^{170}\text{Re}$ $\xrightarrow{9.2\text{ s}}$ $^{166}\text{Ta}$ $\alpha < 0.1\%$ $^{73}\text{Ta}$	$^{171}\text{Re}$ $\xrightarrow{15.2\text{ s}}$ $^{171}\text{W}$ $\epsilon 74\%$	$^{172}\text{Re}$ $\xrightarrow{15\text{ s}}$ $^{172}\text{W}$ $\epsilon 74\%$	$^{172}\text{mRe}$ $\xrightarrow{55\text{ s}}$ $^{172}\text{W}$
$^{173}\text{Re}$ $\xrightarrow{2\text{ m}}$ $^{173}\text{W}$ $\epsilon 74\%$	$^{174}\text{Re}$ $\xrightarrow{2.4\text{ m}}$ $^{174}\text{W}$ $\epsilon 74\%$	$^{175}\text{Re}$ $\xrightarrow{5.89\text{ m}}$ $^{175}\text{W}$ $\epsilon 74\%$	$^{176}\text{Re}$ $\xrightarrow{5.3\text{ m}}$ $^{176}\text{W}$ $\epsilon 74\%$	$^{177}\text{Re}$ $\xrightarrow{14\text{ m}}$ $^{177}\text{W}$ $\epsilon 74\%$
$^{178}\text{Re}$ $\xrightarrow{13.2\text{ m}}$ $^{178}\text{W}$ $\epsilon 74\%$	$^{179}\text{Re}$ $\xrightarrow{19.5\text{ m}}$ $^{179}\text{W}$ $\epsilon 76\%$ $^{74}\text{W}$	$^{179}\text{Re}$ $\xrightarrow{19.5\text{ m}}$ $^{179\text{m}}\text{W}$ $\epsilon 24\%$ $^{74}\text{W}$	$^{180}\text{Re}$ $\xrightarrow{2.44\text{ m}}$ $^{180}\text{W}$ $\epsilon 74\%$	$^{181}\text{Re}$ $\xrightarrow{19.9\text{ h}}$ $^{181}\text{W}$ $\epsilon 74\%$
$^{182}\text{Re}$ $\xrightarrow{2.667\text{ d}}$ $^{182}\text{W}$ $\epsilon 74\%$	$^{182\text{m}}\text{Re}$ $\xrightarrow{12.7\text{ h}}$ $^{182}\text{W}$ $\epsilon 74\%$	$^{183}\text{Re}$ $\xrightarrow{70\text{ d}}$ $^{183}\text{W}$ $\epsilon 74\%$	$^{183\text{m}}\text{Re}$ $\xrightarrow{1.03\text{ ms}}$ $^{183}\text{Re}$ $\gamma 74\%$	$^{184}\text{Re}$ $\xrightarrow{37.9\text{ d}}$ $^{184}\text{W}$ $\epsilon 74\%$
$^{184\text{m}}\text{Re}$ $\xrightarrow{168\text{ d}}$ $^{184}\text{W}$ $\epsilon 25.2\%$ $^{74}\text{W}$	$^{184\text{m}}\text{Re}$ $\xrightarrow{168\text{ d}}$ $^{184}\text{Re}$ $\gamma 74.8\%$ $^{75}\text{Re}$	$^{186}\text{Re}$ $\xrightarrow{3.75\text{ d}}$ $^{186}\text{Os}$ $\beta 93.13\%$ $^{76}\text{Os}$	$^{186}\text{Re}$ $\xrightarrow{3.75\text{ d}}$ $^{186}\text{W}$ $\epsilon 6.87\%$ $^{74}\text{W}$	$^{186\text{m}}\text{Re}$ $\xrightarrow{190\text{ ky}}$ $^{186}\text{Re}$ $\epsilon 75\text{Re}$
$^{187}\text{Re}$ $\xrightarrow{43.5\text{ Gy}}$ $^{187}\text{Os}$ $\beta 76\%$	$^{188}\text{Re}$ $\xrightarrow{16.98\text{ h}}$ $^{188}\text{Os}$ $\beta 76\%$	$^{188\text{m}}\text{Re}$ $\xrightarrow{18.59\text{ m}}$ $^{188}\text{Re}$ $\gamma 75\text{Re}$	$^{189}\text{Re}$ $\xrightarrow{1.013\text{ d}}$ $^{189}\text{Os}$ $\beta 89.72\%$ $^{76}\text{Os}$	$^{189}\text{mRe}$ $\xrightarrow{1.013\text{ d}}$ $^{189\text{m}}\text{Os}$ $\beta 10.28\%$ $^{76}\text{Os}$
$^{190}\text{Re}$ $\xrightarrow{3.1\text{ m}}$ $^{190}\text{Os}$ $\beta 76\%$	$^{190\text{m}}\text{Re}$ $\xrightarrow{3.2\text{ h}}$ $^{190\text{m}}\text{Os}$ $\beta 54.4\%$ $^{76}\text{Os}$	$^{190\text{m}}\text{Re}$ $\xrightarrow{3.2\text{ h}}$ $^{190}\text{Re}$ $\gamma 45.6\%$ $^{75}\text{Re}$	$^{191}\text{Re}$ $\xrightarrow{9.7\text{ m}}$ $^{191}\text{Os}$ $\beta 76\%$	$^{192}\text{Re}$ $\xrightarrow{6.2\text{ s}}$ $^{192}\text{Os}$ $\beta 76\%$
$^{193}\text{Re}$ $\xrightarrow{30\text{ s}}$ $^{193}\text{Os}$ $\beta 76\%$	$^{194}\text{Re}$ $\xrightarrow{2\text{ s}}$ $^{194}\text{Os}$ $\beta 76\%$	$^{162}\text{Os}$ $\xrightarrow{1.9\text{ ms}}$ $^{158}\text{W}$ $\beta 74\%$	$^{163}\text{Os}$ $\xrightarrow{5.5\text{ ms}}$ $^{159}\text{W}$ $\alpha 74\%$	$^{164}\text{Os}$ $\xrightarrow{21\text{ ms}}$ $^{160}\text{W}$ $\alpha 98\%$ $^{74}\text{W}$
$^{164}\text{Os}$ $\xrightarrow{21\text{ ms}}$ $^{164\text{m}}\text{Re}$ $\epsilon 2\%$ $^{75}\text{Re}$	$^{165}\text{Os}$ $\xrightarrow{71\text{ ms}}$ $^{161}\text{W}$ $\alpha 60\%$ $^{74}\text{W}$	$^{165}\text{Os}$ $\xrightarrow{71\text{ ms}}$ $^{165}\text{Re}$ $\epsilon 20\%$ $^{75}\text{Re}$	$^{165}\text{Os}$ $\xrightarrow{71\text{ ms}}$ $^{165\text{m}}\text{Re}$ $\epsilon 20\%$ $^{75}\text{Re}$	$^{166}\text{Os}$ $\xrightarrow{216\text{ ms}}$ $^{162}\text{W}$ $\alpha 72\%$ $^{74}\text{W}$
$^{166}\text{Os}$ $\xrightarrow{216\text{ ms}}$ $^{166}\text{Re}$ $\epsilon 28\%$ $^{75}\text{Re}$	$^{167}\text{Os}$ $\xrightarrow{810\text{ ms}}$ $^{163}\text{W}$ $\alpha 57\%$ $^{74}\text{W}$	$^{167}\text{Os}$ $\xrightarrow{810\text{ ms}}$ $^{167\text{m}}\text{Re}$ $\epsilon 43\%$ $^{75}\text{Re}$	$^{168}\text{Os}$ $\xrightarrow{2.06\text{ s}}$ $^{168}\text{Re}$ $\epsilon 51\%$ $^{75}\text{Re}$	$^{168}\text{Os}$ $\xrightarrow{2.06\text{ s}}$ $^{164}\text{W}$ $\alpha 49\%$ $^{74}\text{W}$
$^{169}\text{Os}$ $\xrightarrow{3.46\text{ s}}$ $^{169}\text{Re}$ $\epsilon 44.5\%$ $^{75}\text{Re}$	$^{169}\text{Os}$ $\xrightarrow{3.46\text{ s}}$ $^{169\text{m}}\text{Re}$ $\epsilon 44.5\%$ $^{75}\text{Re}$	$^{169}\text{Os}$ $\xrightarrow{3.46\text{ s}}$ $^{165}\text{W}$ $\alpha 11\%$ $^{74}\text{W}$	$^{170}\text{Os}$ $\xrightarrow{7.46\text{ s}}$ $^{170}\text{Re}$ $\epsilon 91.4\%$ $^{75}\text{Re}$	$^{170}\text{Os}$ $\xrightarrow{7.46\text{ s}}$ $^{166}\text{W}$ $\alpha 8.6\%$ $^{74}\text{W}$
$^{171}\text{Os}$ $\xrightarrow{8.3\text{ s}}$ $^{167}\text{W}$ $\alpha 1.8\%$ $^{74}\text{W}$	$^{171}\text{Os}$ $\xrightarrow{8.3\text{ s}}$ $^{171}\text{Re}$ $\epsilon 98.2\%$ $^{75}\text{Re}$	$^{172}\text{Os}$ $\xrightarrow{19.2\text{ s}}$ $^{172\text{m}}\text{Re}$ $\epsilon 98.9\%$ $^{75}\text{Re}$	$^{172}\text{Os}$ $\xrightarrow{19.2\text{ s}}$ $^{168}\text{W}$ $\alpha 1.1\%$ $^{74}\text{W}$	$^{173}\text{Os}$ $\xrightarrow{22.4\text{ s}}$ $^{173}\text{Re}$ $\epsilon 99.6\%$ $^{75}\text{Re}$
$^{173}\text{Os}$ $\xrightarrow{22.4\text{ s}}$ $^{169}\text{W}$ $\alpha 0.4\%$ $^{74}\text{W}$	$^{174}\text{Os}$ $\xrightarrow{44\text{ s}}$ $^{174}\text{Re}$ $\epsilon 99.98\%$ $^{75}\text{Re}$	$^{174}\text{Os}$ $\xrightarrow{44\text{ s}}$ $^{170}\text{W}$ $\alpha < 0.1\%$ $^{74}\text{W}$	$^{175}\text{Os}$ $\xrightarrow{1.4\text{ m}}$ $^{175}\text{Re}$ $\epsilon 75\text{Re}$	$^{176}\text{Os}$ $\xrightarrow{3.6\text{ m}}$ $^{176}\text{Re}$ $\epsilon 75\text{Re}$
$^{177}\text{Os}$ $\xrightarrow{3\text{ m}}$ $^{177}\text{Re}$ $\epsilon 75\text{Re}$	$^{178}\text{Os}$ $\xrightarrow{5\text{ m}}$ $^{178}\text{Re}$ $\epsilon 75\text{Re}$	$^{179}\text{Os}$ $\xrightarrow{6.5\text{ m}}$ $^{179}\text{Re}$ $\epsilon 75\text{Re}$	$^{180}\text{Os}$ $\xrightarrow{21.5\text{ m}}$ $^{180}\text{Re}$ $\epsilon 75\text{Re}$	$^{181}\text{Os}$ $\xrightarrow{1.75\text{ h}}$ $^{181}\text{Re}$ $\epsilon 75\text{Re}$
$^{181\text{m}}\text{Os}$ $\xrightarrow{2.7\text{ m}}$ $^{181}\text{Re}$ $\epsilon 75\text{Re}$	$^{182}\text{Os}$ $\xrightarrow{22.1\text{ h}}$ $^{182}\text{Re}$ $\epsilon 75\text{Re}$	$^{183}\text{Os}$ $\xrightarrow{13\text{ h}}$ $^{183}\text{Re}$ $\epsilon 75\text{Re}$	$^{183\text{m}}\text{Os}$ $\xrightarrow{9.9\text{ h}}$ $^{183}\text{Re}$ $\epsilon 85\%$ $^{75}\text{Re}$	$^{183\text{m}}\text{Os}$ $\xrightarrow{9.9\text{ h}}$ $^{183}\text{Os}$ $\gamma 15\%$ $^{76}\text{Os}$
$^{184}\text{Os}$ $\xrightarrow{56\text{ Ty}}$ $^{180}\text{W}$ $\alpha 50\%$ $^{74}\text{W}$	$^{184}\text{Os}$ $\xrightarrow{56\text{ Ty}}$ $^{184}\text{W}$ $\epsilon 50\%$ $^{74}\text{W}$	$^{185}\text{Os}$ $\xrightarrow{93.8\text{ d}}$ $^{185}\text{Re}$ $\epsilon 75\text{Re}$	$^{186}\text{Os}$ $\xrightarrow{2\text{ Py}}$ $^{182}\text{W}$ $\alpha 74\%$	$^{189\text{m}}\text{Os}$ $\xrightarrow{5.81\text{ h}}$ $^{189}\text{Os}$ $\gamma 76\text{Os}$
$^{190\text{m}}\text{Os}$ $\xrightarrow{9.9\text{ m}}$ $^{190}\text{Os}$ $\gamma 76\text{Os}$	$^{191}\text{Os}$ $\xrightarrow{15.3\text{ d}}$ $^{191\text{m}}\text{Ir}$ $\beta 77\text{Ir}$	$^{191\text{m}}\text{Os}$ $\xrightarrow{13.1\text{ h}}$ $^{191}\text{Os}$ $\gamma 76\text{Os}$	$^{192\text{m}}\text{Os}$ $\xrightarrow{5.9\text{ s}}$ $^{192}\text{Os}$ $\gamma 87\%$ $^{76}\text{Os}$	$^{192\text{m}}\text{Os}$ $\xrightarrow{5.9\text{ s}}$ $^{192\text{n}}\text{Ir}$ $\beta 13\%$ $^{76}\text{Os}$
$^{193}\text{Os}$ $\xrightarrow{1.255\text{ d}}$ $^{193}\text{Ir}$ $\beta 99.65\%$ $^{77}\text{Ir}$	$^{193}\text{Os}$ $\xrightarrow{1.255\text{ d}}$ $^{193\text{m}}\text{Ir}$ $\beta 0.347\%$ $^{77}\text{Ir}$	$^{194}\text{Os}$ $\xrightarrow{6\text{ y}}$ $^{194}\text{Ir}$ $\beta 77\text{Ir}$	$^{195}\text{Os}$ $\xrightarrow{6.5\text{ m}}$ $^{195}\text{Ir}$ $\beta 77\text{Ir}$	$^{196}\text{Os}$ $\xrightarrow{34.9\text{ m}}$ $^{196}\text{Ir}$ $\beta 77\text{Ir}$
$^{164}\text{Ir}$ $\xrightarrow{1\text{ ms}}$ $^{163}\text{Os}$ $n 33.33\%$ $^{76}\text{Os}$	$^{164}\text{Ir}$ $\xrightarrow{1\text{ ms}}$ $^{160}\text{Re}$ $\alpha 33.33\%$ $^{75}\text{Re}$	$^{164}\text{Ir}$ $\xrightarrow{1\text{ ms}}$ $^{164}\text{Os}$ $\epsilon 33.33\%$ $^{76}\text{Os}$	$^{164\text{m}}\text{Ir}$ $\xrightarrow{94\text{ }\mu\text{s}}$ $^{163}\text{Os}$ $n 33.33\%$ $^{76}\text{Os}$	$^{164\text{m}}\text{Ir}$ $\xrightarrow{94\text{ }\mu\text{s}}$ $^{160}\text{Re}$ $\alpha 33.33\%$ $^{75}\text{Re}$
$^{164\text{m}}\text{Ir}$ $\xrightarrow{94\text{ }\mu\text{s}}$ $^{164}\text{Os}$ $\alpha 33.33\%$ $^{76}\text{Os}$	$^{165}\text{Ir}$ $\xrightarrow{1\text{ }\mu\text{s}}$ $^{164}\text{Os}$ $n 50\%$ $^{76}\text{Os}$	$^{165}\text{Ir}$ $\xrightarrow{1\text{ }\mu\text{s}}$ $^{161}\text{Re}$ $\alpha 50\%$ $^{75}\text{Re}$	$^{166}\text{Ir}$ $\xrightarrow{10.5\text{ ms}}$ $^{162}\text{Re}$ $\alpha 93.1\%$ $^{75}\text{Re}$	$^{166}\text{Ir}$ $\xrightarrow{10.5\text{ ms}}$ $^{165}\text{Os}$ $n 6.9\%$ $^{76}\text{Os}$
$^{166\text{m}}\text{Ir}$ $\xrightarrow{15.1\text{ ms}}$ $^{162\text{m}}\text{Re}$ $\alpha 98.2\%$ $^{75}\text{Re}$	$^{166\text{m}}\text{Ir}$ $\xrightarrow{15.1\text{ ms}}$ $^{165}\text{Os}$ $n 1.8\%$ $^{76}\text{Os}$	$^{167}\text{Ir}$ $\xrightarrow{35.2\text{ ms}}$ $^{163}\text{Re}$ $\alpha 48\%$ $^{75}\text{Re}$	$^{167}\text{Ir}$ $\xrightarrow{35.2\text{ ms}}$ $^{166}\text{Os}$ $n 32\%$ $^{76}\text{Os}$	$^{167}\text{Ir}$ $\xrightarrow{35.2\text{ ms}}$ $^{167}\text{Os}$ $\epsilon 20\%$ $^{76}\text{Os}$
$^{167\text{m}}\text{Ir}$ $\xrightarrow{30\text{ ms}}$ $^{163\text{m}}\text{Re}$ $\alpha 80\%$ $^{75}\text{Re}$	$^{167\text{m}}\text{Ir}$ $\xrightarrow{30\text{ ms}}$ $^{167}\text{Os}$ $\alpha 19.6\%$ $^{76}\text{Os}$	$^{167\text{m}}\text{Ir}$ $\xrightarrow{30\text{ ms}}$ $^{166}\text{Os}$ $n 0.4\%$ $^{76}\text{Os}$	$^{168}\text{Ir}$ $\xrightarrow{161\text{ ms}}$ $^{164}\text{Re}$ $\alpha 50\%$ $^{75}\text{Re}$	$^{168\text{m}}\text{Ir}$ $\xrightarrow{125\text{ ms}}$ $^{164\text{m}}\text{Re}$ $\alpha 50\%$ $^{75}\text{Re}$
$^{168\text{m}}\text{Ir}$ $\xrightarrow{125\text{ ms}}$ $^{168}\text{Os}$ $\epsilon 50\%$ $^{76}\text{Os}$	$^{169}\text{Ir}$ $\xrightarrow{400\text{ ms}}$ $^{165}\text{Re}$ $\alpha 75\text{Re}$	$^{169\text{m}}\text{Ir}$ $\xrightarrow{308\text{ ms}}$ $^{165\text{m}}\text{Re}$ $\alpha 72\%$ $^{75}\text{Re}$	$^{169\text{m}}\text{Ir}$ $\xrightarrow{308\text{ ms}}$ $^{169}\text{Os}$ $\epsilon 28\%$ $^{76}\text{Os}$	$^{170}\text{Ir}$ $\xrightarrow{910\text{ ms}}$ $^{170}\text{Os}$ $\epsilon 94.8\%$ $^{76}\text{Os}$
$^{170}\text{Ir}$ $\xrightarrow{910\text{ ms}}$ $^{166}\text{Re}$ $\alpha 2.6\%$ $^{75}\text{Re}$	$^{170}\text{Ir}$ $\xrightarrow{910\text{ ms}}$ $^{166\text{m}}\text{Re}$ $\alpha 2.6\%$ $^{75}\text{Re}$	$^{170\text{m}}\text{Ir}$ $\xrightarrow{440\text{ ms}}$ $^{166}\text{Re}$ $\alpha 18\%$ $^{75}\text{Re}$	$^{170\text{m}}\text{Ir}$ $\xrightarrow{440\text{ ms}}$ $^{166\text{m}}\text{Re}$ $\alpha 18\%$ $^{75}\text{Re}$	$^{170\text{m}}\text{Ir}$ $\xrightarrow{440\text{ ms}}$ $^{170}\text{Os}$ $\epsilon 32\%$ $^{76}\text{Os}$
$^{170\text{m}}\text{Ir}$ $\xrightarrow{440\text{ ms}}$ $^{170}\text{Ir}$ $\gamma 32\%$ $^{77}\text{Ir}$	$^{171}\text{Ir}$ $\xrightarrow{3.6\text{ s}}$ $^{167\text{m}}\text{Re}$ $\alpha 75\text{Re}$	$^{171\text{m}}\text{Ir}$ $\xrightarrow{1.4\text{ s}}$ $^{167}\text{Re}$ $\alpha 58\%$ $^{75}\text{Re}$	$^{171\text{m}}\text{Ir}$ $\xrightarrow{1.4\text{ s}}$ $^{171}\text{Os}$ $\epsilon 21\%$ $^{76}\text{Os}$	$^{171\text{m}}\text{Ir}$ $\xrightarrow{1.4\text{ s}}$ $^{170}\text{Os}$ $n 21\%$ $^{76}\text{Os}$
$^{172}\text{Ir}$ $\xrightarrow{4.4\text{ s}}$ $^{172}\text{Os}$ $\epsilon 98\%$ $^{76}\text{Os}$	$^{172}\text{Ir}$ $\xrightarrow{4.4\text{ s}}$ $^{168}\text{Re}$ $\alpha 2\%$ $^{75}\text{Re}$	$^{172\text{m}}\text{Ir}$ $\xrightarrow{2\text{ s}}$ $^{172}\text{Os}$ $\epsilon 77\%$ $^{76}\text{Os}$	$^{172\text{m}}\text{Ir}$ $\xrightarrow{2\text{ s}}$ $^{168}\text{Re}$ $\alpha 23\%$ $^{75}\text{Re}$	$^{173}\text{Ir}$ $\xrightarrow{9\text{ s}}$ $^{173}\text{Os}$ $\epsilon 93\%$ $^{76}\text{Os}$
$^{173}\text{Ir}$ $\xrightarrow{9\text{ s}}$ $^{169}\text{Re}$ $\alpha 3.5\%$ $^{75}\text{Re}$	$^{173}\text{Ir}$ $\xrightarrow{9\text{ s}}$ $^{169\text{m}}\text{Re}$ $\alpha 3.5\%$ $^{75}\text{Re}$	$^{173\text{m}}\text{Ir}$ $\xrightarrow{2.2\text{ s}}$ $^{173}\text{Os}$ $\epsilon 88\%$ $^{76}\text{Os}$	$^{173\text{m}}\text{Ir}$ $\xrightarrow{2.2\text{ s}}$ $^{169}\text{Re}$ $\alpha 12\%$ $^{75}\text{Re}$	$^{174}\text{Ir}$ $\xrightarrow{7.9\text{ s}}$ $^{174}\text{Os}$ $\epsilon 99.5\%$ $^{76}\text{Os}$
$^{174}\text{Ir}$ $\xrightarrow{7.9\text{ s}}$ $^{170}\text{Re}$ $\alpha 0.5\%$ $^{75}\text{Re}$	$^{174\text{m}}\text{Ir}$ $\xrightarrow{4.9\text{ s}}$ $^{174}\text{Os}$ $\epsilon 97.5\%$ $^{76}\text{Os}$	$^{174\text{m}}\text{Ir}$ $\xrightarrow{4.9\text{ s}}$ $^{170}\text{Re}$ $\alpha 2.5\%$ $^{75}\text{Re}$	$^{175}\text{Ir}$ $\xrightarrow{9\text{ s}}$ $^{175}\text{Os}$ $\epsilon 99.15\%$ $^{76}\text{Os}$	$^{175}\text{Ir}$ $\xrightarrow{9\text{ s}}$ $^{171}\text{Re}$ $\alpha 0.85\%$ $^{75}\text{Re}$
$^{176}\text{Ir}$ $\xrightarrow{8.3\text{ s}}$ $^{176}\text{Os}$ $\epsilon 96.9\%$ $^{76}\text{Os}$	$^{176}\text{Ir}$ $\xrightarrow{8.3\text{ s}}$ $^{172}\text{Re}$ $\alpha 1.55\%$ $^{75}\text{Re}$	$^{176}\text{Ir}$ $\xrightarrow{8.3\text{ s}}$ $^{172\text{m}}\text{Re}$ $\alpha 1.55\%$ $^{75}\text{Re}$	$^{177}\text{Ir}$ $\xrightarrow{30\text{ s}}$ $^{177}\text{Os}$ $\epsilon 99.94\%$ $^{76}\text{Os}$	$^{177}\text{Ir}$ $\xrightarrow{30\text{ s}}$ $^{173}\text{Re}$ $\alpha < 0.1\%$ $^{75}\text{Re}$
$^{178}\text{Ir}$ $\xrightarrow{12\text{ s}}$ $^{178}\text{Os}$ $\epsilon 76\text{Os}$	$^{179}\text{Ir}$ $\xrightarrow{1.317\text{ m}}$ $^{179}\text{Os}$ $\epsilon 76\text{Os}$	$^{180}\text{Ir}$ $\xrightarrow{1.5\text{ m}}$ $^{180}\text{Os}$ $\epsilon 76\text{Os}$	$^{181}\text{Ir}$ $\xrightarrow{4.9\text{ m}}$ $^{181}\text{Os}$ $\epsilon 50\%$ $^{76}\text{Os}$	$^{181}\text{Ir}$ $\xrightarrow{4.9\text{ m}}$ $^{181\text{m}}\text{Os}$ $\epsilon 50\%$ $^{76}\text{Os}$
$^{182}\text{Ir}$ $\xrightarrow{15\text{ m}}$ $^{182}\text{Os}$ $\epsilon 76\text{Os}$	$^{183}\text{Ir}$ $\xrightarrow{58\text{ m}}$ $^{183}\text{Os}$ $\epsilon 32.98\%$ $^{76}\text{Os}$	$^{183}\text{Ir}$ $\xrightarrow{58\text{ m}}$ $^{183\text{m}}\text{Os}$ $\epsilon 66.97\%$ $^{76}\text{Os}$	$^{183\text{m}}\text{Ir}$ $\xrightarrow{1.92\text{ h}}$ $^{186}\text{Os}$ $\gamma 75\%$ $^{76}\text{Os}$	$^{184}\text{Ir}$ $\xrightarrow{3.09\text{ h}}$ $^{184}\text{Os}$ $\epsilon 76\text{Os}$
$^{185}\text{Ir}$ $\xrightarrow{14.4\text{ h}}$ $^{185}\text{Os}$ $\epsilon 76\text{Os}$	$^{186}\text{Ir}$ $\xrightarrow{16.64\text{ h}}$ $^{186}\text{Os}$ $\epsilon 76\text{Os}$	$^{186\text{m}}\text{Ir}$ $\xrightarrow{1.92\text{ h}}$ $^{186}\text{Os}$ $\gamma 75\%$ $^{76}\text{Os}$	$^{186\text{m}}\text{Ir}$ $\xrightarrow{1.92\text{ h}}$ $^{186}\text{Ir}$ $\gamma 25\%$ $^{77}\text{Ir}$	$^{187}\text{Ir}$ $\xrightarrow{10.5\text{ h}}$ $^{187}\text{Os}$ $\epsilon 76\text{Os}$
$^{187\text{m}}\text{Ir}$ $\xrightarrow{30.3\text{ ms}}$ $^{187}\text{Ir}$ $\gamma 77\text{Ir}$	$^{188}\text{Ir}$ $\xrightarrow{1.729\text{ d}}$ $^{188}\text{Os}$ $\epsilon 76\text{Os}$	$^{188\text{m}}\text{Ir}$ $\xrightarrow{4.2\text{ ms}}$ $^{188}\text{Ir}$ $\gamma 77\text{Ir}$	$^{189}\text{Ir}$ $\xrightarrow{13.2\text{ d}}$ $^{189$	

$^{180}\text{Pt}$ $\xrightarrow[99.7\%]{56\text{ s}}$ $^{180}\text{Ir}$	$^{180}\text{Pt}$ $\xrightarrow[0.3\%]{56\text{ s}}$ $^{176}\text{Os}$	$^{181}\text{Pt}$ $\xrightarrow[99.93\%]{52\text{ s}}$ $^{181}\text{Ir}$	$^{181}\text{Pt}$ $\xrightarrow[0.1\%]{52\text{ s}}$ $^{177}\text{Os}$	$^{182}\text{Pt}$ $\xrightarrow[99.96\%]{2.2\text{ m}}$ $^{182}\text{Ir}$
$^{182}\text{Pt}$ $\xrightarrow[0.1\%]{2.2\text{ m}}$ $^{176}\text{Os}$	$^{183}\text{Pt}$ $\xrightarrow[99.99\%]{6.5\text{ m}}$ $^{183}\text{Ir}$	$^{183}\text{Pt}$ $\xrightarrow[0.1\%]{6.5\text{ m}}$ $^{179}\text{Os}$	$^{183\text{m}}\text{Pt}$ $\xrightarrow[100\%]{43\text{ s}}$ $^{183}\text{Ir}$	$^{183\text{m}}\text{Pt}$ $\xrightarrow[0.1\%]{43\text{ s}}$ $^{179}\text{Os}$
$^{184}\text{Pt}$ $\xrightarrow[100\%]{17.3\text{ m}}$ $^{184}\text{Ir}$	$^{184}\text{Pt}$ $\xrightarrow[0.1\%]{17.3\text{ m}}$ $^{180}\text{Os}$	$^{184\text{m}}\text{Pt}$ $\xrightarrow[\gamma]{1.01\text{ ms}}$ $^{184}\text{Pt}$	$^{185}\text{Pt}$ $\xrightarrow[100\%]{1.182\text{ h}}$ $^{185}\text{Ir}$	$^{185}\text{Pt}$ $\xrightarrow[0.1\%]{1.182\text{ h}}$ $^{181\text{m}}\text{Os}$
$^{185\text{m}}\text{Pt}$ $\xrightarrow[98\%]{33\text{ m}}$ $^{185}\text{Ir}$	$^{185\text{m}}\text{Pt}$ $\xrightarrow[2\%]{33\text{ m}}$ $^{185}\text{Pt}$	$^{186}\text{Pt}$ $\xrightarrow[100\%]{2.08\text{ h}}$ $^{186\text{m}}\text{Ir}$	$^{186}\text{Pt}$ $\xrightarrow[0.1\%]{2.08\text{ h}}$ $^{182}\text{Os}$	$^{187}\text{Pt}$ $\xrightarrow[\epsilon]{2.35\text{ h}}$ $^{187}\text{Ir}$
$^{188}\text{Pt}$ $\xrightarrow[77]{10.2\text{ d}}$ $^{188}\text{Ir}$	$^{189}\text{Pt}$ $\xrightarrow[\epsilon]{10.87\text{ h}}$ $^{189}\text{Ir}$	$^{190}\text{Pt}$ $\xrightarrow[78]{650\text{ Gy}}$ $^{186}\text{Os}$	$^{191}\text{Pt}$ $\xrightarrow[78]{2.802\text{ d}}$ $^{191}\text{Ir}$	$^{191}\text{Pt}$ $\xrightarrow[78]{2.802\text{ d}}$ $^{191\text{m}}\text{Ir}$
$^{193}\text{Pt}$ $\xrightarrow[77]{50\text{ y}}$ $^{193}\text{Ir}$	$^{193\text{m}}\text{Pt}$ $\xrightarrow[\gamma]{4.34\text{ d}}$ $^{193}\text{Pt}$	$^{195\text{m}}\text{Pt}$ $\xrightarrow[\gamma]{4.1\text{ d}}$ $^{195}\text{Pt}$	$^{197}\text{Pt}$ $\xrightarrow[78]{19.89\text{ h}}$ $^{197}\text{Au}$	$^{197\text{m}}\text{Pt}$ $\xrightarrow[\beta]{1.588\text{ h}}$ $^{197\text{m}}\text{Au}$
$^{197\text{m}}\text{Pt}$ $\xrightarrow[78]{1.588\text{ h}}$ $^{197}\text{Pt}$	$^{199}\text{Pt}$ $\xrightarrow[78]{30.8\text{ m}}$ $^{199}\text{Au}$	$^{199\text{m}}\text{Pt}$ $\xrightarrow[78]{13.6\text{ s}}$ $^{199}\text{Pt}$	$^{200}\text{Pt}$ $\xrightarrow[78]{12.5\text{ h}}$ $^{200}\text{Au}$	$^{201}\text{Pt}$ $\xrightarrow[78]{2.5\text{ m}}$ $^{201}\text{Au}$
$^{202}\text{Pt}$ $\xrightarrow[78]{1.833\text{ d}}$ $^{202}\text{Au}$	$^{169}\text{Au}$ $\xrightarrow[77]{150\text{ ms}}$ $^{165}\text{Ir}$	$^{169}\text{Au}$ $\xrightarrow[50\%]{150\text{ ms}}$ $^{169}\text{Pt}$	$^{170}\text{Au}$ $\xrightarrow[85\%]{310\text{ }\mu\text{s}}$ $^{169}\text{Pt}$	$^{170}\text{Au}$ $\xrightarrow[15\%]{310\text{ }\mu\text{s}}$ $^{166}\text{Ir}$
$^{170\text{m}}\text{Au}$ $\xrightarrow[79]{630\text{ }\mu\text{s}}$ $^{169}\text{Pt}$	$^{170\text{m}}\text{Au}$ $\xrightarrow[77]{630\text{ }\mu\text{s}}$ $^{166\text{m}}\text{Ir}$	$^{170\text{m}}\text{Au}$ $\xrightarrow[79]{630\text{ }\mu\text{s}}$ $^{170}\text{Pt}$	$^{171}\text{Au}$ $\xrightarrow[78]{17\text{ }\mu\text{s}}$ $^{170}\text{Pt}$	$^{171\text{m}}\text{Au}$ $\xrightarrow[77]{1.014\text{ ms}}$ $^{167\text{m}}\text{Ir}$
$^{171\text{m}}\text{Au}$ $\xrightarrow[79]{1.014\text{ ms}}$ $^{170}\text{Pt}$	$^{172}\text{Au}$ $\xrightarrow[77]{4.7\text{ ms}}$ $^{168}\text{Ir}$	$^{172}\text{Au}$ $\xrightarrow[49\%]{4.7\text{ ms}}$ $^{168\text{m}}\text{Ir}$	$^{172}\text{Au}$ $\xrightarrow[2\%]{4.7\text{ ms}}$ $^{171}\text{Pt}$	$^{173}\text{Au}$ $\xrightarrow[77]{59\text{ }\mu\text{s}}$ $^{169}\text{Ir}$
$^{173\text{m}}\text{Au}$ $\xrightarrow[79]{14.2\text{ ms}}$ $^{169\text{m}}\text{Ir}$	$^{173\text{m}}\text{Au}$ $\xrightarrow[77]{14.2\text{ ms}}$ $^{173}\text{Pt}$	$^{174}\text{Au}$ $\xrightarrow[79]{139\text{ ms}}$ $^{170}\text{Ir}$	$^{174}\text{Au}$ $\xrightarrow[45\%]{139\text{ ms}}$ $^{170\text{m}}\text{Ir}$	$^{174}\text{Au}$ $\xrightarrow[10\%]{139\text{ ms}}$ $^{174}\text{Pt}$
$^{174\text{m}}\text{Au}$ $\xrightarrow[79]{171\text{ ms}}$ $^{170}\text{Ir}$	$^{174\text{m}}\text{Au}$ $\xrightarrow[77]{171\text{ ms}}$ $^{170\text{m}}\text{Ir}$	$^{174\text{m}}\text{Au}$ $\xrightarrow[79]{171\text{ ms}}$ $^{174}\text{Pt}$	$^{175}\text{Au}$ $\xrightarrow[77]{100\text{ ms}}$ $^{171}\text{Ir}$	$^{175}\text{Au}$ $\xrightarrow[50\%]{100\text{ ms}}$ $^{175}\text{Pt}$
$^{175\text{m}}\text{Au}$ $\xrightarrow[79]{156\text{ ms}}$ $^{171\text{m}}\text{Ir}$	$^{175\text{m}}\text{Au}$ $\xrightarrow[78]{156\text{ ms}}$ $^{175}\text{Pt}$	$^{176}\text{Au}$ $\xrightarrow[79]{1.08\text{ s}}$ $^{172}\text{Ir}$	$^{176}\text{Au}$ $\xrightarrow[30\%]{1.08\text{ s}}$ $^{172\text{m}}\text{Ir}$	$^{176}\text{Au}$ $\xrightarrow[40\%]{1.08\text{ s}}$ $^{176}\text{Pt}$
$^{176\text{m}}\text{Au}$ $\xrightarrow[79]{860\text{ ms}}$ $^{172\text{m}}\text{Ir}$	$^{176\text{m}}\text{Au}$ $\xrightarrow[78]{860\text{ ms}}$ $^{176}\text{Pt}$	$^{177}\text{Au}$ $\xrightarrow[79]{1.46\text{ s}}$ $^{173}\text{Ir}$	$^{177\text{m}}\text{Au}$ $\xrightarrow[79]{1.18\text{ s}}$ $^{173\text{m}}\text{Ir}$	$^{178}\text{Au}$ $\xrightarrow[79]{2.6\text{ s}}$ $^{178}\text{Pt}$
$^{178}\text{Au}$ $\xrightarrow[79]{2.6\text{ s}}$ $^{174}\text{Ir}$	$^{178}\text{Au}$ $\xrightarrow[77]{2.6\text{ s}}$ $^{174\text{m}}\text{Ir}$	$^{179}\text{Au}$ $\xrightarrow[78]{7.1\text{ s}}$ $^{179}\text{Pt}$	$^{179}\text{Au}$ $\xrightarrow[22\%]{7.1\text{ s}}$ $^{175}\text{Ir}$	$^{180}\text{Au}$ $\xrightarrow[79]{8.1\text{ s}}$ $^{180}\text{Pt}$
$^{180}\text{Au}$ $\xrightarrow[79]{8.1\text{ s}}$ $^{176}\text{Ir}$	$^{181}\text{Au}$ $\xrightarrow[79]{13.7\text{ s}}$ $^{181}\text{Pt}$	$^{181}\text{Au}$ $\xrightarrow[77]{13.7\text{ s}}$ $^{177}\text{Ir}$	$^{182}\text{Au}$ $\xrightarrow[79]{15.5\text{ s}}$ $^{182}\text{Pt}$	$^{182}\text{Au}$ $\xrightarrow[77]{15.5\text{ s}}$ $^{178}\text{Ir}$
$^{183}\text{Au}$ $\xrightarrow[79]{42\text{ s}}$ $^{179}\text{Ir}$	$^{183}\text{Au}$ $\xrightarrow[78]{42\text{ s}}$ $^{183}\text{Pt}$	$^{184}\text{Au}$ $\xrightarrow[79]{20.6\text{ s}}$ $^{184}\text{Pt}$	$^{184}\text{Au}$ $\xrightarrow[78]{20.6\text{ s}}$ $^{184\text{m}}\text{Pt}$	$^{184}\text{Au}$ $\xrightarrow[77]{20.6\text{ s}}$ $^{180}\text{Ir}$
$^{184\text{m}}\text{Au}$ $\xrightarrow[79]{47.6\text{ s}}$ $^{184}\text{Pt}$	$^{184\text{m}}\text{Au}$ $\xrightarrow[79]{47.6\text{ s}}$ $^{184}\text{Au}$	$^{184\text{m}}\text{Au}$ $\xrightarrow[79]{47.6\text{ s}}$ $^{180}\text{Ir}$	$^{185}\text{Au}$ $\xrightarrow[79]{4.25\text{ m}}$ $^{185}\text{Pt}$	$^{185}\text{Au}$ $\xrightarrow[78]{4.25\text{ m}}$ $^{185\text{m}}\text{Pt}$
$^{185}\text{Au}$ $\xrightarrow[79]{4.25\text{ m}}$ $^{181}\text{Ir}$	$^{186}\text{Au}$ $\xrightarrow[79]{10.7\text{ m}}$ $^{186}\text{Pt}$	$^{187}\text{Au}$ $\xrightarrow[79]{8.4\text{ m}}$ $^{187}\text{Pt}$	$^{187}\text{Au}$ $\xrightarrow[77]{8.4\text{ m}}$ $^{183}\text{Ir}$	$^{187\text{m}}\text{Au}$ $\xrightarrow[79]{2.3\text{ s}}$ $^{187}\text{Au}$
$^{188}\text{Au}$ $\xrightarrow[79]{8.84\text{ m}}$ $^{188}\text{Pt}$	$^{189}\text{Au}$ $\xrightarrow[78]{28.7\text{ m}}$ $^{189}\text{Pt}$	$^{189}\text{Au}$ $\xrightarrow[77]{28.7\text{ m}}$ $^{185}\text{Ir}$	$^{189\text{m}}\text{Au}$ $\xrightarrow[79]{4.59\text{ m}}$ $^{189}\text{Pt}$	$^{190}\text{Au}$ $\xrightarrow[78]{42.8\text{ m}}$ $^{190}\text{Pt}$
$^{190\text{m}}\text{Au}$ $\xrightarrow[79]{125\text{ ms}}$ $^{190}\text{Au}$	$^{191}\text{Au}$ $\xrightarrow[79]{3.18\text{ h}}$ $^{191}\text{Pt}$	$^{191\text{m}}\text{Au}$ $\xrightarrow[79]{920\text{ ms}}$ $^{191}\text{Au}$	$^{192}\text{Au}$ $\xrightarrow[78]{4.94\text{ h}}$ $^{192}\text{Pt}$	$^{192\text{m}}\text{Au}$ $\xrightarrow[79]{29\text{ ms}}$ $^{192}\text{Au}$
$^{192\text{n}}\text{Au}$ $\xrightarrow[79]{160\text{ ms}}$ $^{192\text{m}}\text{Au}$	$^{193}\text{Au}$ $\xrightarrow[78]{17.63\text{ h}}$ $^{193}\text{Pt}$	$^{193\text{m}}\text{Au}$ $\xrightarrow[79]{3.9\text{ s}}$ $^{193}\text{Pt}$	$^{193\text{m}}\text{Au}$ $\xrightarrow[78]{3.9\text{ s}}$ $^{193}\text{Pt}$	$^{193\text{m}}\text{Au}$ $\xrightarrow[78]{3.9\text{ s}}$ $^{193\text{m}}\text{Pt}$
$^{194}\text{Au}$ $\xrightarrow[79]{1.584\text{ d}}$ $^{194}\text{Pt}$	$^{194\text{m}}\text{Au}$ $\xrightarrow[79]{600\text{ ms}}$ $^{194}\text{Au}$	$^{194\text{n}}\text{Au}$ $\xrightarrow[79]{420\text{ ms}}$ $^{194\text{m}}\text{Au}$	$^{195}\text{Au}$ $\xrightarrow[78]{186.1\text{ d}}$ $^{195}\text{Pt}$	$^{195\text{m}}\text{Au}$ $\xrightarrow[79]{30.5\text{ s}}$ $^{195}\text{Au}$
$^{196}\text{Au}$ $\xrightarrow[79]{6.183\text{ d}}$ $^{196}\text{Pt}$	$^{196}\text{Au}$ $\xrightarrow[80]{6.183\text{ d}}$ $^{196}\text{Hg}$	$^{196\text{m}}\text{Au}$ $\xrightarrow[79]{8.1\text{ s}}$ $^{196}\text{Au}$	$^{196\text{n}}\text{Au}$ $\xrightarrow[79]{9.6\text{ h}}$ $^{196\text{m}}\text{Au}$	$^{197\text{m}}\text{Au}$ $\xrightarrow[79]{7.74\text{ s}}$ $^{197}\text{Au}$
$^{198}\text{Au}$ $\xrightarrow[79]{2.694\text{ d}}$ $^{198}\text{Hg}$	$^{198\text{m}}\text{Au}$ $\xrightarrow[79]{2.3\text{ d}}$ $^{198}\text{Au}$	$^{199}\text{Au}$ $\xrightarrow[80]{3.139\text{ d}}$ $^{199}\text{Hg}$	$^{200}\text{Au}$ $\xrightarrow[80]{48.4\text{ m}}$ $^{200}\text{Hg}$	$^{200\text{m}}\text{Au}$ $\xrightarrow[79]{18.7\text{ h}}$ $^{200}\text{Hg}$
$^{200\text{m}}\text{Au}$ $\xrightarrow[79]{18.7\text{ h}}$ $^{200}\text{Au}$	$^{201}\text{Au}$ $\xrightarrow[80]{26\text{ m}}$ $^{201}\text{Hg}$	$^{202}\text{Au}$ $\xrightarrow[80]{28.8\text{ s}}$ $^{202}\text{Hg}$	$^{203}\text{Au}$ $\xrightarrow[80]{53\text{ s}}$ $^{203}\text{Hg}$	$^{204}\text{Au}$ $\xrightarrow[80]{39.8\text{ s}}$ $^{204}\text{Hg}$
$^{205}\text{Au}$ $\xrightarrow[79]{31\text{ s}}$ $^{205}\text{Hg}$	$^{171}\text{Hg}$ $\xrightarrow[80]{80\text{ }\mu\text{s}}$ $^{167}\text{Pt}$	$^{171}\text{Hg}$ $\xrightarrow[80]{80\text{ }\mu\text{s}}$ $^{171}\text{Au}$	$^{172}\text{Hg}$ $\xrightarrow[80]{420\text{ }\mu\text{s}}$ $^{168}\text{Pt}$	$^{173}\text{Hg}$ $\xrightarrow[80]{1.1\text{ ms}}$ $^{169}\text{Pt}$
$^{174}\text{Hg}$ $\xrightarrow[80]{1.9\text{ ms}}$ $^{170}\text{Pt}$	$^{175}\text{Hg}$ $\xrightarrow[80]{10.8\text{ ms}}$ $^{171}\text{Pt}$	$^{176}\text{Hg}$ $\xrightarrow[80]{20.4\text{ ms}}$ $^{172}\text{Pt}$	$^{176}\text{Hg}$ $\xrightarrow[80]{20.4\text{ ms}}$ $^{176}\text{Au}$	$^{177}\text{Hg}$ $\xrightarrow[80]{127.3\text{ ms}}$ $^{173}\text{Pt}$
$^{177}\text{Hg}$ $\xrightarrow[80]{127.3\text{ ms}}$ $^{177}\text{Au}$	$^{178}\text{Hg}$ $\xrightarrow[80]{269\text{ ms}}$ $^{174}\text{Pt}$	$^{178}\text{Hg}$ $\xrightarrow[80]{269\text{ ms}}$ $^{178}\text{Au}$	$^{179}\text{Hg}$ $\xrightarrow[80]{1.09\text{ s}}$ $^{175}\text{Pt}$	$^{179}\text{Hg}$ $\xrightarrow[80]{1.09\text{ s}}$ $^{179}\text{Au}$
$^{179}\text{Hg}$ $\xrightarrow[80]{1.09\text{ s}}$ $^{178}\text{Pt}$	$^{180}\text{Hg}$ $\xrightarrow[80]{2.58\text{ s}}$ $^{180}\text{Au}$	$^{180}\text{Hg}$ $\xrightarrow[80]{2.58\text{ s}}$ $^{176}\text{Pt}$	$^{181}\text{Hg}$ $\xrightarrow[80]{3.6\text{ s}}$ $^{181}\text{Au}$	$^{181}\text{Hg}$ $\xrightarrow[80]{3.6\text{ s}}$ $^{177}\text{Pt}$
$^{181}\text{Hg}$ $\xrightarrow[80]{3.6\text{ s}}$ $^{180}\text{Pt}$	$^{181}\text{Hg}$ $\xrightarrow[77]{3.6\text{ s}}$ $^{177}\text{Ir}$	$^{182}\text{Hg}$ $\xrightarrow[80]{10.83\text{ s}}$ $^{182}\text{Au}$	$^{182}\text{Hg}$ $\xrightarrow[80]{10.83\text{ s}}$ $^{178}\text{Pt}$	$^{182}\text{Hg}$ $\xrightarrow[80]{10.83\text{ s}}$ $^{181}\text{Pt}$
$^{183}\text{Hg}$ $\xrightarrow[80]{9.4\text{ s}}$ $^{183}\text{Au}$	$^{183}\text{Hg}$ $\xrightarrow[80]{9.4\text{ s}}$ $^{179}\text{Pt}$	$^{183}\text{Hg}$ $\xrightarrow[80]{9.4\text{ s}}$ $^{182}\text{Pt}$	$^{183\text{m}}\text{Hg}$ $\xrightarrow[80]{5\text{ s}}$ $^{183}\text{Au}$	$^{184}\text{Hg}$ $\xrightarrow[80]{30.6\text{ s}}$ $^{184\text{m}}\text{Au}$
$^{184}\text{Hg}$ $\xrightarrow[80]{30.6\text{ s}}$ $^{180}\text{Pt}$	$^{185}\text{Hg}$ $\xrightarrow[80]{49.1\text{ s}}$ $^{185}\text{Au}$	$^{185}\text{Hg}$ $\xrightarrow[80]{49.1\text{ s}}$ $^{181}\text{Pt}$	$^{185\text{m}}\text{Hg}$ $\xrightarrow[80]{21.6\text{ s}}$ $^{185}\text{Hg}$	$^{185\text{m}}\text{Hg}$ $\xrightarrow[80]{21.6\text{ s}}$ $^{185}\text{Au}$
$^{185\text{m}}\text{Hg}$ $\xrightarrow[80]{21.6\text{ s}}$ $^{181}\text{Pt}$	$^{186}\text{Hg}$ $\xrightarrow[80]{1.38\text{ m}}$ $^{182}\text{Pt}$	$^{186}\text{Hg}$ $\xrightarrow[80]{1.38\text{ m}}$ $^{186}\text{Au}$	$^{187}\text{Hg}$ $\xrightarrow[80]{1.9\text{ m}}$ $^{187}\text{Au}$	$^{187}\text{Hg}$ $\xrightarrow[80]{1.9\text{ m}}$ $^{183}\text{Pt}$
$^{187\text{m}}\text{Hg}$ $\xrightarrow[80]{2.4\text{ m}}$ $^{187\text{m}}\text{Au}$	$^{187\text{m}}\text{Hg}$ $\xrightarrow[80]{2.4\text{ m}}$ $^{183\text{m}}\text{Pt}$	$^{188}\text{Hg}$ $\xrightarrow[80]{3.25\text{ m}}$ $^{188}\text{Au}$	$^{189}\text{Hg}$ $\xrightarrow[80]{7.6\text{ m}}$ $^{189}\text{Au}$	$^{189}\text{Hg}$ $\xrightarrow[80]{7.6\text{ m}}$ $^{185\text{m}}\text{Pt}$
$^{189\text{m}}\text{Hg}$ $\xrightarrow[80]{8.6\text{ m}}$ $^{189\text{m}}\text{Au}$	$^{189\text{m}}\text{Hg}$ $\xrightarrow[80]{8.6\text{ m}}$ $^{185}\text{Pt}$	$^{190}\text{Hg}$ $\xrightarrow[80]{20\text{ m}}$ $^{190}\text{Au}$	$^{191}\text{Hg}$ $\xrightarrow[80]{49\text{ m}}$ $^{191}\text{Au}$	$^{191}\text{Hg}$ $\xrightarrow[80]{49\text{ m}}$ $^{187}\text{Pt}$
$^{191\text{m}}\text{Hg}$ $\xrightarrow[80]{50.8\text{ m}}$ $^{191}\text{Au}$	$^{191\text{m}}\text{Hg}$ $\xrightarrow[80]{50.8\text{ m}}$ $^{191\text{m}}\text{Au}$	$^{191\text{m}}\text{Hg}$ $\xrightarrow[80]{50.8\text{ m}}$ $^{187}\text{Pt}$	$^{192}\text{Hg}$ $\xrightarrow[80]{4.85\text{ h}}$ $^{192}\text{Au}$	$^{193}\text{Hg}$ $\xrightarrow[80]{3.8\text{ h}}$ $^{193}\text{Au}$
$^{193}\text{Hg}$ $\xrightarrow[80]{3.8\text{ h}}$ $^{193\text{m}}\text{Au}$	$^{193\text{m}}\text{Hg}$ $\xrightarrow[80]{11.8\text{ h}}$ $^{193}\text{Au}$	$^{193\text{m}}\text{Hg}$ $\xrightarrow[80]{11.8\text{ h}}$ $^{193\text{m}}\text{Au}$	$^{193\text{m}}\text{Hg}$ $\xrightarrow[80]{11.8\text{ h}}$ $^{193}\text{Hg}$	$^{194}\text{Hg}$ $\xrightarrow[80]{444\text{ y}}$ $^{194}\text{Au}$
$^{195}\text{Hg}$ $\xrightarrow[80]{9.9\text{ h}}$ $^{195}\text{Au}$	$^{195}\text{Hg}$ $\xrightarrow[80]{9.9\text{ h}}$ $^{195\text{m}}\text{Au}$	$^{195\text{m}}\text{Hg}$ $\xrightarrow[80]{1.733\text{ d}}$ $^{195}\text{Hg}$	$^{195\text{m}}\text{Hg}$ $\xrightarrow[80]{1.733\text{ d}}$ $^{195}\text{Au}$	$^{195\text{m}}\text{Hg}$ $\xrightarrow[80]{1.733\text{ d}}$ $^{195\text{m}}\text{Au}$
$^{196}\text{Hg}$ $\xrightarrow[80]{2.5\text{ Ey}}$ $^{196}\text{Pt}$	$^{197}\text{Hg}$ $\xrightarrow[80]{2.692\text{ d}}$ $^{197}\text{Au}$	$^{197\text{m}}\text{Hg}$ $\xrightarrow[80]{23.9\text{ h}}$ $^{197\text{m}}\text{Au}$	$^{197\text{m}}\text{Hg}$ $\xrightarrow[80]{23.9\text{ h}}$ $^{197}\text{Hg}$	$^{199\text{m}}\text{Hg}$ $\xrightarrow[80]{42.1\text{ m}}$ $^{199}\text{Hg}$
$^{203}\text{Hg}$ $\xrightarrow[80]{46.6\text{ d}}$ $^{203}\text{Tl}$	$^{205}\text{Hg}$ $\xrightarrow[80]{5.2\text{ m}}$ $^{205}\text{Tl}$	$^{205\text{m}}\text{Hg}$ $\xrightarrow[80]{1.09\text{ ms}}$ $^{205}\text{Hg}$	$^{206}\text{Hg}$ $\xrightarrow[80]{8.15\text{ m}}$ $^{206}\text{Tl}$	$^{207}\text{Hg}$ $\xrightarrow[80]{2.9\text{ m}}$ $^{207}\text{Tl}$
$^{207}\text{Hg}$ $\xrightarrow[80]{2.9\text{ m}}$ $^{207\text{m}}\text{Tl}$	$^{208}\text{Hg}$ $\xrightarrow[80]{42\text{ m}}$ $^{208}\text{Tl}$	$^{209}\text{Hg}$ $\xrightarrow[80]{37\text{ s}}$ $^{209}\text{Tl}$	$^{210}\text{Hg}$ $\xrightarrow[80]{10\text{ m}}$ $^{210}\text{Tl}$	$^{176}\text{Tl}$ $\xrightarrow[81]{10\text{ ms}}$ $^{172}\text{Au}$
$^{177}\text{Tl}$ $\xrightarrow[81]{18\text{ ms}}$ $^{173}\text{Au}$	$^{177}\text{Tl}$ $\xrightarrow[81]{18\text{ ms}}$ $^{176}\text{Hg}$	$^{178}\text{Tl}$ $\xrightarrow[81]{255\text{ ms}}$ $^{174}\text{Au}$	$^{178}\text{Tl}$ $\xrightarrow[81]{255\text{ ms}}$ $^{174\text{m}}\text{Au}$	$^{178}\text{Tl}$ $\xrightarrow[81]{255\text{ ms}}$ $^{178}\text{Hg}$
$^{179}\text{Tl}$ $\xrightarrow[81]{270\text{ ms}}$ $^{179\text{m}}\text{Au}$	$^{179}\text{Tl}$ $\xrightarrow[81]{270\text{ ms}}$ $^{179}\text{Hg}$	$^{179\text{m}}\text{Tl}$ $\xrightarrow[81]{1.6\text{ ms}}$ $^{175}\text{Au}$	$^{180}\text{Tl}$ $\xrightarrow[81]{1.5\text{ s}}$ $^{180}\text{Hg}$	$^{180}\text{Tl}$ $\xrightarrow[81]{1.5\text{ s}}$ $^{176}\text{Au}$
$^{180}\text{Tl}$ $\xrightarrow[81]{1.5\text{ s}}$ $^{176\text{m}}\text{Au}$	$^{181}\text{Tl}$ $\xrightarrow[81]{3.2\text{ s$			

$^{181m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.7\text{ ms}}{33.33\%}$ $^{181}\text{Tl}$	$^{182}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{2\text{ s}}{96\%}$ $^{182}\text{Hg}$	$^{182}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{2\text{ s}}{4\%}$ $^{178}\text{Au}$	$^{182m}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{2.9\text{ s}}{79\%}$ $^{178}\text{Au}$	$^{183}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{6.9\text{ s}}{98\%}$ $^{183}\text{Hg}$
$^{183}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{6.9\text{ s}}{2\%}$ $^{179}\text{Au}$	$^{183m}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{60\text{ ms}}{1.5\%}$ $^{179}\text{Au}$	$^{183m}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{60\text{ ms}}{49.25\%}$ $^{183m}\text{Hg}$	$^{183m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{60\text{ ms}}{80\%}$ $^{183}\text{Tl}$	$^{184}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{9.7\text{ s}}{97.9\%}$ $^{184}\text{Hg}$
$^{184}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{9.7\text{ s}}{2.1\%}$ $^{180}\text{Au}$	$^{184m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{10\text{ s}}{50\%}$ $^{184}\text{Hg}$	$^{184m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{10\text{ s}}{50\%}$ $^{184}\text{Tl}$	$^{185}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{19.5\text{ s}}{50\%}$ $^{185}\text{Hg}$	$^{185}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{19.5\text{ s}}{50\%}$ $^{181}\text{Au}$
$^{185m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.83\text{ s}}{99.9\%}$ $^{185}\text{Tl}$	$^{185m}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{1.83\text{ s}}{0.1\%}$ $^{181}\text{Au}$	$^{186}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{40\text{ s}}{80\%}$ $^{186}\text{Hg}$	$^{186m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{2.9\text{ s}}{81\%}$ $^{186}\text{Tl}$	$^{186n}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{2.9\text{ s}}{81\%}$ $^{186m}\text{Tl}$
$^{187}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{51\text{ s}}{80\%}$ $^{187}\text{Hg}$	$^{187m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{15.6\text{ s}}{49.92\%}$ $^{187}\text{Tl}$	$^{187m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{15.6\text{ s}}{49.92\%}$ $^{187m}\text{Hg}$	$^{187m}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{15.6\text{ s}}{0.15\%}$ $^{183}\text{Au}$	$^{188}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.183\text{ m}}{80\%}$ $^{188}\text{Hg}$
$^{188m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.183\text{ m}}{80\%}$ $^{188m}\text{Hg}$	$^{188n}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{41\text{ ms}}{81\%}$ $^{188m}\text{Tl}$	$^{189}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{2.3\text{ m}}{89\%}$ $^{189}\text{Hg}$	$^{189m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.4\text{ m}}{96\%}$ $^{189m}\text{Hg}$	$^{189m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.4\text{ m}}{4\%}$ $^{189}\text{Tl}$
$^{190}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{2.6\text{ m}}{80\%}$ $^{190}\text{Hg}$	$^{190m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{3.7\text{ m}}{80\%}$ $^{190}\text{Hg}$	$^{191}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{20\text{ m}}{80\%}$ $^{191}\text{Hg}$	$^{191m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{5.22\text{ m}}{80\%}$ $^{191m}\text{Hg}$	$^{192}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{9.6\text{ m}}{80\%}$ $^{192}\text{Hg}$
$^{192m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{10.8\text{ m}}{80\%}$ $^{192m}\text{Hg}$	$^{193}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{21.8\text{ m}}{80\%}$ $^{193}\text{Hg}$	$^{193m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{2.11\text{ m}}{25\%}$ $^{193m}\text{Hg}$	$^{193m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{2.11\text{ m}}{75\%}$ $^{193}\text{Tl}$	$^{194}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{33\text{ m}}{80\%}$ $^{194}\text{Hg}$
$^{194}\text{Tl}$ $\xrightarrow{\alpha}$ $\frac{33\text{ m}}{0.1\%}$ $^{190}\text{Au}$	$^{194m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{32.8\text{ m}}{80\%}$ $^{194m}\text{Hg}$	$^{195}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.16\text{ h}}{95\%}$ $^{195}\text{Hg}$	$^{195m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{3.6\text{ s}}{81\%}$ $^{195}\text{Tl}$	$^{196}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.84\text{ h}}{80\%}$ $^{196}\text{Hg}$
$^{196m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.41\text{ h}}{95.5\%}$ $^{196m}\text{Hg}$	$^{196m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.41\text{ h}}{4.5\%}$ $^{196}\text{Tl}$	$^{197}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{2.84\text{ h}}{80\%}$ $^{197}\text{Hg}$	$^{197m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{540\text{ ms}}{81\%}$ $^{197}\text{Tl}$	$^{198}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{5.3\text{ h}}{80\%}$ $^{198}\text{Hg}$
$^{198m}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.87\text{ h}}{54\%}$ $^{198m}\text{Hg}$	$^{198m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.87\text{ h}}{46\%}$ $^{198}\text{Tl}$	$^{198n}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{32.1\text{ ms}}{81\%}$ $^{198m}\text{Tl}$	$^{199}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{7.42\text{ h}}{80\%}$ $^{199}\text{Hg}$	$^{199m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{28.4\text{ ms}}{81\%}$ $^{199}\text{Tl}$
$^{200}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{1.087\text{ d}}{80\%}$ $^{200}\text{Hg}$	$^{200m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{34.3\text{ ms}}{81\%}$ $^{200}\text{Tl}$	$^{201}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{3.041\text{ d}}{80\%}$ $^{201}\text{Hg}$	$^{201m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{2.035\text{ ms}}{81\%}$ $^{201}\text{Tl}$	$^{202}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{12.24\text{ d}}{80\%}$ $^{202}\text{Hg}$
$^{204}\text{Tl}$ $\xrightarrow{\epsilon}$ $\frac{3.788\text{ y}}{2.92\%}$ $^{204}\text{Hg}$	$^{204}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{3.788\text{ y}}{97.08\%}$ $^{204}\text{Pb}$	$^{206}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{4.202\text{ m}}{82\%}$ $^{206}\text{Pb}$	$^{206m}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{3.76\text{ m}}{81\%}$ $^{206}\text{Tl}$	$^{207}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{4.77\text{ m}}{82\%}$ $^{207}\text{Pb}$
$^{207m}\text{Tl}$ $\xrightarrow{\gamma}$ $\frac{1.33\text{ s}}{81\%}$ $^{207}\text{Tl}$	$^{208}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{3.053\text{ m}}{82\%}$ $^{208}\text{Pb}$	$^{209}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{2.2\text{ m}}{82\%}$ $^{209}\text{Pb}$	$^{210}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{1.3\text{ m}}{99.99\%}$ $^{210}\text{Pb}$	$^{210}\text{Tl}$ $\xrightarrow{\beta n}$ $\frac{1.3\text{ m}}{0.1\%}$ $^{209}\text{Pb}$
$^{211}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{1\text{ m}}{82\%}$ $^{211}\text{Pb}$	$^{212}\text{Tl}$ $\xrightarrow{\beta}$ $\frac{30\text{ s}}{82\%}$ $^{212}\text{Pb}$	$^{178}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{230\text{ }\mu\text{s}}{80\%}$ $^{174}\text{Hg}$	$^{179}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{3\text{ ms}}{80\%}$ $^{175}\text{Hg}$	$^{180}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{5\text{ ms}}{80\%}$ $^{176}\text{Hg}$
$^{181}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{45\text{ ms}}{98\%}$ $^{177}\text{Hg}$	$^{181}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{45\text{ ms}}{1\%}$ $^{181}\text{Tl}$	$^{181}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{45\text{ ms}}{1\%}$ $^{181m}\text{Tl}$	$^{182}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{60\text{ ms}}{98\%}$ $^{178}\text{Hg}$	$^{182}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{60\text{ ms}}{2\%}$ $^{182}\text{Tl}$
$^{183}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{535\text{ ms}}{90\%}$ $^{179}\text{Hg}$	$^{183}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{535\text{ ms}}{10\%}$ $^{183}\text{Tl}$	$^{183m}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{415\text{ ms}}{80\%}$ $^{179}\text{Hg}$	$^{184}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{490\text{ ms}}{80\%}$ $^{180}\text{Hg}$	$^{184}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{490\text{ ms}}{20\%}$ $^{184}\text{Tl}$
$^{185}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{6.3\text{ s}}{50\%}$ $^{181}\text{Hg}$	$^{185}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{6.3\text{ s}}{50\%}$ $^{185}\text{Tl}$	$^{185m}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{4.07\text{ s}}{50\%}$ $^{181}\text{Hg}$	$^{185m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{4.07\text{ s}}{50\%}$ $^{185m}\text{Tl}$	$^{186}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{4.82\text{ s}}{60\%}$ $^{186}\text{Tl}$
$^{186}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{4.82\text{ s}}{40\%}$ $^{182}\text{Hg}$	$^{187}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{15.2\text{ s}}{93\%}$ $^{187}\text{Tl}$	$^{187}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{15.2\text{ s}}{7\%}$ $^{183}\text{Hg}$	$^{187m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{18.3\text{ s}}{88\%}$ $^{187m}\text{Tl}$	$^{187m}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{18.3\text{ s}}{12\%}$ $^{183m}\text{Hg}$
$^{188}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{25.5\text{ s}}{90.7\%}$ $^{188}\text{Tl}$	$^{188}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{25.5\text{ s}}{9.3\%}$ $^{184}\text{Hg}$	$^{189}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{51\text{ s}}{99.6\%}$ $^{189}\text{Tl}$	$^{189}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{51\text{ s}}{0.402\%}$ $^{185}\text{Hg}$	$^{189m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{1\text{ m}}{50\%}$ $^{189m}\text{Tl}$
$^{189m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{1\text{ m}}{50\%}$ $^{189}\text{Pb}$	$^{190}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{1.183\text{ m}}{99.6\%}$ $^{180}\text{Tl}$	$^{190}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{1.183\text{ m}}{0.4\%}$ $^{186}\text{Hg}$	$^{191}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{1.33\text{ m}}{98.97\%}$ $^{191}\text{Tl}$	$^{191}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{1.33\text{ m}}{1.02\%}$ $^{191m}\text{Tl}$
$^{191}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{1.33\text{ m}}{0.1\%}$ $^{187}\text{Hg}$	$^{191m}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{2.18\text{ m}}{99.98\%}$ $^{191m}\text{Tl}$	$^{191m}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{2.18\text{ m}}{0.1\%}$ $^{187m}\text{Hg}$	$^{192}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{3.5\text{ m}}{99.99\%}$ $^{192}\text{Tl}$	$^{192}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{3.5\text{ m}}{0.1\%}$ $^{188}\text{Hg}$
$^{193}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{5\text{ m}}{81\%}$ $^{193}\text{Tl}$	$^{193m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{5.8\text{ m}}{95.3\%}$ $^{193}\text{Tl}$	$^{193m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{5.8\text{ m}}{4.7\%}$ $^{193m}\text{Tl}$	$^{194}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{12\text{ m}}{0.1\%}$ $^{190}\text{Hg}$	$^{194}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{12\text{ m}}{81\%}$ $^{194}\text{Tl}$
$^{195}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{15\text{ m}}{56\%}$ $^{195}\text{Tl}$	$^{195m}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{15\text{ m}}{56\%}$ $^{195}\text{Tl}$	$^{195m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{15\text{ m}}{44\%}$ $^{195m}\text{Tl}$	$^{196}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{37\text{ m}}{81\%}$ $^{196}\text{Tl}$	$^{196}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{37\text{ m}}{0.1\%}$ $^{192}\text{Hg}$
$^{197}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{8\text{ m}}{81\%}$ $^{197}\text{Tl}$	$^{197m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{43\text{ m}}{40.5\%}$ $^{197}\text{Tl}$	$^{197m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{43\text{ m}}{40.5\%}$ $^{197m}\text{Tl}$	$^{197m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{43\text{ m}}{19\%}$ $^{197}\text{Pb}$	$^{197m}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{43\text{ m}}{0.1\%}$ $^{193m}\text{Hg}$
$^{198}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{2.4\text{ h}}{81\%}$ $^{198}\text{Tl}$	$^{199}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{1.5\text{ h}}{81\%}$ $^{199}\text{Tl}$	$^{199m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{12.2\text{ m}}{93\%}$ $^{199}\text{Pb}$	$^{199m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{12.2\text{ m}}{7\%}$ $^{199m}\text{Tl}$	$^{200}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{21.5\text{ h}}{81\%}$ $^{200}\text{Tl}$
$^{201}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{9.4\text{ h}}{81\%}$ $^{201}\text{Tl}$	$^{201m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{1.017\text{ m}}{82\%}$ $^{201}\text{Pb}$	$^{202}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{53\text{ ky}}{81\%}$ $^{202}\text{Tl}$	$^{202m}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{3.57\text{ h}}{9.1\%}$ $^{202}\text{Tl}$	$^{202m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{3.57\text{ h}}{90.9\%}$ $^{202}\text{Pb}$
$^{203}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{2.162\text{ d}}{81\%}$ $^{203}\text{Tl}$	$^{203m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{6.29\text{ s}}{82\%}$ $^{203}\text{Pb}$	$^{203n}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{480\text{ ms}}{80\%}$ $^{203m}\text{Pb}$	$^{204}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{140\text{ Py}}{80\%}$ $^{200}\text{Hg}$	$^{204m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{1.125\text{ h}}{80\%}$ $^{204}\text{Pb}$
$^{205}\text{Pb}$ $\xrightarrow{\epsilon}$ $\frac{15.3\text{ My}}{81\%}$ $^{205}\text{Tl}$	$^{205m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{5.55\text{ ms}}{82\%}$ $^{205}\text{Pb}$	$^{207m}\text{Pb}$ $\xrightarrow{\gamma}$ $\frac{806\text{ ms}}{82\%}$ $^{207}\text{Pb}$	$^{209}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{3.253\text{ h}}{83\%}$ $^{209}\text{Bi}$	$^{210}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{22.16\text{ y}}{83\%}$ $^{210}\text{Bi}$
$^{210}\text{Pb}$ $\xrightarrow{\alpha}$ $\frac{22.16\text{ y}}{0.1\%}$ $^{206}\text{Hg}$	$^{211}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{36.1\text{ m}}{83\%}$ $^{211}\text{Bi}$	$^{212}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{10.64\text{ h}}{83\%}$ $^{212}\text{Bi}$	$^{213}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{10.2\text{ m}}{83\%}$ $^{213}\text{Bi}$	$^{214}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{26.8\text{ m}}{83\%}$ $^{214}\text{Bi}$
$^{215}\text{Pb}$ $\xrightarrow{\beta}$ $\frac{36\text{ s}}{82\%}$ $^{215}\text{Bi}$	$^{184}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{6.6\text{ ms}}{81\%}$ $^{180}\text{Tl}$	$^{184m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{13\text{ ms}}{81\%}$ $^{180}\text{Tl}$	$^{185}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{2\text{ ms}}{85\%}$ $^{184}\text{Pb}$	$^{185}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{2\text{ ms}}{15\%}$ $^{181m}\text{Tl}$
$^{186}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{14.8\text{ ms}}{81\%}$ $^{182}\text{Tl}$	$^{186m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{9.8\text{ ms}}{81\%}$ $^{182m}\text{Tl}$	$^{187}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{32\text{ ms}}{50\%}$ $^{183m}\text{Tl}$	$^{187}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{32\text{ ms}}{50\%}$ $^{187m}\text{Pb}$	$^{187m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{320\text{ }\mu\text{s}}{50\%}$ $^{183}\text{Tl}$
$^{187m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{320\text{ }\mu\text{s}}{50\%}$ $^{187}\text{Pb}$	$^{188}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{44\text{ ms}}{50\%}$ $^{184}\text{Tl}$	$^{188}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{44\text{ ms}}{50\%}$ $^{188}\text{Pb}$	$^{188m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{220\text{ ms}}{50\%}$ $^{184m}\text{Tl}$	$^{188m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{220\text{ ms}}{50\%}$ $^{188}\text{Pb}$
$^{189}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{674\text{ ms}}{2.5\%}$ $^{185}\text{Tl}$	$^{189}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{674\text{ ms}}{47.5\%}$ $^{185m}\text{Tl}$	$^{189}\text{Bi}$ $\xrightarrow{\epsilon}$ $\frac{674\text{ ms}}{50\%}$ $^{189m}\text{Pb}$	$^{189m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{5\text{ ms}}{50\%}$ $^{185}\text{Tl}$	$^{189m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{5\text{ ms}}{50\%}$ $^{189}\text{Pb}$
$^{190}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{6.3\text{ s}}{77\%}$ $^{186}\text{Tl}$	$^{190}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{6.3\text{ s}}{23\%}$ $^{190}\text{Pb}$	$^{190m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{6.2\text{ s}}{70\%}$ $^{186m}\text{Tl}$	$^{190m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{6.2\text{ s}}{30\%}$ $^{190}\text{Pb}$	$^{191}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{12.3\text{ s}}{60\%}$ $^{187m}\text{Tl}$
$^{191}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{12.3\text{ s}}{40\%}$ $^{191m}\text{Pb}$	$^{191m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{124\text{ ms}}{75\%}$ $^{187}\text{Tl}$	$^{191m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{124\text{ ms}}{25\%}$ $^{191}\text{Pb}$	$^{192}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{34.6\text{ s}}{88\%}$ $^{192}\text{Pb}$	$^{192}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{34.6\text{ s}}{81\%}$ $^{188}\text{Tl}$
$^{192m}\text{Bi}$ $\xrightarrow{\epsilon}$ $\frac{39.6\text{ s}}{90\%}$ $^{192}\text{Pb}$	$^{192m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{39.6\text{ s}}{9.712\%}$ $^{188m}\text{Tl}$	$^{192m}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{39.6\text{ s}}{0.288\%}$ $^{188n}\text{Tl}$	$^{193}\text{Bi}$ $\xrightarrow{\epsilon}$ $\frac{1.117\text{ m}}{96.5\%}$ $^{193m}\text{Pb}$	$^{193}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{1.117\text{ m}}{0.147\%}$ $^{189}\text{Tl}$
$^{193}\text{Bi}$ $\xrightarrow{\alpha}$ $\frac{1.117\text{ m}}{3.353\%}$ $^{189m}\text{Tl}$				



$^{204}_{86}\text{Rn}$ $\xrightarrow[73\%]{1.24\text{ m}}$ $^{200}_{84}\text{Po}$	$^{204}_{86}\text{Rn}$ $\xrightarrow[13.5\%]{1.24\text{ m}}$ $^{204}_{85}\text{At}$	$^{204}_{86}\text{Rn}$ $\xrightarrow[13.5\%]{1.24\text{ m}}$ $^{204m}_{85}\text{At}$	$^{205}_{86}\text{Rn}$ $\xrightarrow[75.4\%]{2.8\text{ m}}$ $^{205}_{85}\text{At}$	$^{205}_{86}\text{Rn}$ $\xrightarrow[24.6\%]{2.8\text{ m}}$ $^{201}_{84}\text{Po}$
$^{206}_{86}\text{Rn}$ $\xrightarrow[62\%]{5.67\text{ m}}$ $^{202}_{84}\text{Po}$	$^{206}_{86}\text{Rn}$ $\xrightarrow[38\%]{5.67\text{ m}}$ $^{206}_{85}\text{At}$	$^{207}_{86}\text{Rn}$ $\xrightarrow[79\%]{9.25\text{ m}}$ $^{207}_{85}\text{At}$	$^{207}_{86}\text{Rn}$ $\xrightarrow[21\%]{9.25\text{ m}}$ $^{203}_{84}\text{Po}$	$^{208}_{86}\text{Rn}$ $\xrightarrow[62\%]{24.35\text{ m}}$ $^{204}_{84}\text{Po}$
$^{208}_{86}\text{Rn}$ $\xrightarrow[38\%]{24.35\text{ m}}$ $^{208}_{85}\text{At}$	$^{209}_{86}\text{Rn}$ $\xrightarrow[17\%]{28.5\text{ m}}$ $^{205}_{84}\text{Po}$	$^{209}_{86}\text{Rn}$ $\xrightarrow[83\%]{28.5\text{ m}}$ $^{209}_{85}\text{At}$	$^{210}_{86}\text{Rn}$ $\xrightarrow[96\%]{2.4\text{ h}}$ $^{206}_{84}\text{Po}$	$^{210}_{86}\text{Rn}$ $\xrightarrow[4\%]{2.4\text{ h}}$ $^{210}_{85}\text{At}$
$^{211}_{86}\text{Rn}$ $\xrightarrow[72.6\%]{14.6\text{ h}}$ $^{211}_{85}\text{At}$	$^{211}_{86}\text{Rn}$ $\xrightarrow[27.4\%]{14.6\text{ h}}$ $^{207}_{84}\text{Po}$	$^{212}_{86}\text{Rn}$ $\xrightarrow[\alpha]{23.9\text{ m}}$ $^{208}_{84}\text{Po}$	$^{213}_{86}\text{Rn}$ $\xrightarrow[\alpha]{25\text{ ms}}$ $^{209}_{84}\text{Po}$	$^{214}_{86}\text{Rn}$ $\xrightarrow[\alpha]{270\text{ ns}}$ $^{210}_{84}\text{Po}$
$^{215}_{86}\text{Rn}$ $\xrightarrow[\alpha]{2.3\text{ }\mu\text{s}}$ $^{211}_{84}\text{Po}$	$^{216}_{86}\text{Rn}$ $\xrightarrow[\alpha]{45\text{ }\mu\text{s}}$ $^{212}_{84}\text{Po}$	$^{217}_{86}\text{Rn}$ $\xrightarrow[\alpha]{540\text{ }\mu\text{s}}$ $^{213}_{84}\text{Po}$	$^{218}_{86}\text{Rn}$ $\xrightarrow[\alpha]{35\text{ ms}}$ $^{214}_{84}\text{Po}$	$^{219}_{86}\text{Rn}$ $\xrightarrow[\alpha]{3.96\text{ s}}$ $^{215}_{84}\text{Po}$
$^{220}_{86}\text{Rn}$ $\xrightarrow[\alpha]{55.8\text{ s}}$ $^{216}_{84}\text{Po}$	$^{221}_{86}\text{Rn}$ $\xrightarrow[\alpha]{25\text{ m}}$ $^{217}_{84}\text{Po}$	$^{221}_{86}\text{Rn}$ $\xrightarrow[\beta]{78\%}{25\text{ m}}$ $^{221}_{87}\text{Fr}$	$^{222}_{86}\text{Rn}$ $\xrightarrow[\alpha]{3.823\text{ d}}$ $^{218}_{84}\text{Po}$	$^{223}_{86}\text{Rn}$ $\xrightarrow[\beta]{24.2\text{ m}}$ $^{223}_{87}\text{Fr}$
$^{224}_{86}\text{Rn}$ $\xrightarrow[\beta]{1.783\text{ h}}$ $^{224}_{87}\text{Fr}$	$^{225}_{86}\text{Rn}$ $\xrightarrow[\beta]{4.66\text{ m}}$ $^{225}_{87}\text{Fr}$	$^{226}_{86}\text{Rn}$ $\xrightarrow[\beta]{7.4\text{ m}}$ $^{226}_{87}\text{Fr}$	$^{227}_{86}\text{Rn}$ $\xrightarrow[\beta]{20.8\text{ s}}$ $^{227}_{87}\text{Fr}$	$^{228}_{86}\text{Rn}$ $\xrightarrow[\beta]{1.083\text{ m}}$ $^{228}_{87}\text{Fr}$
$^{199}_{87}\text{Fr}$ $\xrightarrow[\alpha]{16\text{ ms}}$ $^{195}_{85}\text{At}$	$^{200}_{87}\text{Fr}$ $\xrightarrow[\alpha]{24\text{ ms}}$ $^{196}_{85}\text{At}$	$^{200m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{650\text{ ms}}$ $^{196m}_{85}\text{At}$	$^{201}_{87}\text{Fr}$ $\xrightarrow[\alpha]{48\text{ ms}}$ $^{197}_{85}\text{At}$	$^{202}_{87}\text{Fr}$ $\xrightarrow[\alpha]{290\text{ ms}}$ $^{198}_{85}\text{At}$
$^{202}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{3\%}{290\text{ ms}}$ $^{202}_{86}\text{Rn}$	$^{202m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{340\text{ ms}}$ $^{198m}_{85}\text{At}$	$^{202m}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{3\%}{340\text{ ms}}$ $^{202}_{86}\text{Rn}$	$^{203}_{87}\text{Fr}$ $\xrightarrow[\alpha]{550\text{ ms}}$ $^{199}_{85}\text{At}$	$^{203}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{2.5\%}{550\text{ ms}}$ $^{203}_{86}\text{Rn}$
$^{203}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{2.5\%}{550\text{ ms}}$ $^{203m}_{86}\text{Rn}$	$^{204}_{87}\text{Fr}$ $\xrightarrow[\alpha]{1.7\text{ s}}$ $^{200}_{85}\text{At}$	$^{204}_{87}\text{Fr}$ $\xrightarrow[\alpha]{1.7\text{ s}}$ $^{204}_{86}\text{Rn}$	$^{204m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{2.6\text{ s}}$ $^{200m}_{85}\text{At}$	$^{204m}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{10\%}{2.6\text{ s}}$ $^{204}_{86}\text{Rn}$
$^{204n}_{87}\text{Fr}$ $\xrightarrow[\alpha]{1.7\text{ s}}$ $^{200n}_{85}\text{At}$	$^{204n}_{87}\text{Fr}$ $\xrightarrow[\gamma]{26\%}{1.7\text{ s}}$ $^{204m}_{87}\text{Fr}$	$^{205}_{87}\text{Fr}$ $\xrightarrow[\alpha]{3.92\text{ s}}$ $^{201}_{85}\text{At}$	$^{205}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{1\%}{3.92\text{ s}}$ $^{205}_{86}\text{Rn}$	$^{206}_{87}\text{Fr}$ $\xrightarrow[\gamma]{700\text{ ms}}$ $^{206m}_{87}\text{Fr}$
$^{206}_{87}\text{Fr}$ $\xrightarrow[\alpha]{16\text{ s}}$ $^{202}_{85}\text{At}$	$^{206m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{15.9\text{ s}}$ $^{202m}_{85}\text{At}$	$^{206m}_{87}\text{Fr}$ $\xrightarrow[\gamma]{29\%}{15.9\text{ s}}$ $^{206}_{86}\text{Rn}$	$^{206m}_{87}\text{Fr}$ $\xrightarrow[\gamma]{29\%}{15.9\text{ s}}$ $^{206}_{87}\text{Fr}$	$^{206n}_{87}\text{Fr}$ $\xrightarrow[\gamma]{700\text{ ms}}$ $^{206m}_{87}\text{Fr}$
$^{206n}_{87}\text{Fr}$ $\xrightarrow[\alpha]{42\%}{16\text{ s}}$ $^{202n}_{85}\text{At}$	$^{207}_{87}\text{Fr}$ $\xrightarrow[\alpha]{14.8\text{ s}}$ $^{203}_{85}\text{At}$	$^{207}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{5\%}{14.8\text{ s}}$ $^{207}_{86}\text{Rn}$	$^{208}_{87}\text{Fr}$ $\xrightarrow[\alpha]{59.1\text{ s}}$ $^{204}_{85}\text{At}$	$^{208}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{10\%}{59.1\text{ s}}$ $^{208}_{86}\text{Rn}$
$^{209}_{87}\text{Fr}$ $\xrightarrow[\alpha]{50\text{ s}}$ $^{205}_{85}\text{At}$	$^{209}_{87}\text{Fr}$ $\xrightarrow[\alpha]{50\text{ s}}$ $^{209}_{86}\text{Rn}$	$^{210}_{87}\text{Fr}$ $\xrightarrow[\alpha]{3.18\text{ m}}$ $^{206}_{85}\text{At}$	$^{210}_{87}\text{Fr}$ $\xrightarrow[\alpha]{40\%}{3.18\text{ m}}$ $^{210}_{86}\text{Rn}$	$^{211}_{87}\text{Fr}$ $\xrightarrow[\alpha]{3.1\text{ m}}$ $^{207}_{85}\text{At}$
$^{211}_{87}\text{Fr}$ $\xrightarrow[\alpha]{20\%}{3.1\text{ m}}$ $^{211}_{86}\text{Rn}$	$^{212}_{87}\text{Fr}$ $\xrightarrow[\alpha]{20\text{ m}}$ $^{212}_{86}\text{Rn}$	$^{212}_{87}\text{Fr}$ $\xrightarrow[\alpha]{20\text{ m}}$ $^{208}_{85}\text{At}$	$^{213}_{87}\text{Fr}$ $\xrightarrow[\alpha]{34.6\text{ s}}$ $^{209}_{85}\text{At}$	$^{213}_{87}\text{Fr}$ $\xrightarrow[\epsilon]{0.55\%}{34.6\text{ s}}$ $^{213}_{86}\text{Rn}$
$^{214}_{87}\text{Fr}$ $\xrightarrow[\alpha]{5\text{ ms}}$ $^{210}_{85}\text{At}$	$^{214m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{3.35\text{ ms}}$ $^{210}_{85}\text{At}$	$^{215}_{87}\text{Fr}$ $\xrightarrow[\alpha]{86\text{ ns}}$ $^{211}_{85}\text{At}$	$^{216}_{87}\text{Fr}$ $\xrightarrow[\alpha]{700\text{ ns}}$ $^{212}_{85}\text{At}$	$^{217}_{87}\text{Fr}$ $\xrightarrow[\alpha]{22\text{ }\mu\text{s}}$ $^{213}_{85}\text{At}$
$^{218}_{87}\text{Fr}$ $\xrightarrow[\alpha]{1\text{ ms}}$ $^{214}_{85}\text{At}$	$^{218m}_{87}\text{Fr}$ $\xrightarrow[\alpha]{22\text{ ms}}$ $^{214}_{85}\text{At}$	$^{219}_{87}\text{Fr}$ $\xrightarrow[\alpha]{20\text{ ms}}$ $^{215}_{85}\text{At}$	$^{220}_{87}\text{Fr}$ $\xrightarrow[\alpha]{27.4\text{ s}}$ $^{216}_{85}\text{At}$	$^{220}_{87}\text{Fr}$ $\xrightarrow[\beta]{0.35\%}{27.4\text{ s}}$ $^{220}_{88}\text{Ra}$
$^{221}_{87}\text{Fr}$ $\xrightarrow[\alpha]{4.9\text{ m}}$ $^{217}_{85}\text{At}$	$^{222}_{87}\text{Fr}$ $\xrightarrow[\beta]{14.2\text{ m}}$ $^{222}_{88}\text{Ra}$	$^{223}_{87}\text{Fr}$ $\xrightarrow[\beta]{21.8\text{ m}}$ $^{223}_{88}\text{Ra}$	$^{223}_{87}\text{Fr}$ $\xrightarrow[\alpha]{<0.1\%}{21.8\text{ m}}$ $^{219}_{85}\text{At}$	$^{224}_{87}\text{Fr}$ $\xrightarrow[\beta]{3.33\text{ m}}$ $^{224}_{88}\text{Ra}$
$^{225}_{87}\text{Fr}$ $\xrightarrow[\beta]{4\text{ m}}$ $^{225}_{88}\text{Ra}$	$^{226}_{87}\text{Fr}$ $\xrightarrow[\beta]{49\text{ s}}$ $^{226}_{88}\text{Ra}$	$^{227}_{87}\text{Fr}$ $\xrightarrow[\beta]{2.47\text{ m}}$ $^{227}_{88}\text{Ra}$	$^{228}_{87}\text{Fr}$ $\xrightarrow[\beta]{38\text{ s}}$ $^{228}_{88}\text{Ra}$	$^{229}_{87}\text{Fr}$ $\xrightarrow[\beta]{50.2\text{ s}}$ $^{229}_{88}\text{Ra}$
$^{230}_{87}\text{Fr}$ $\xrightarrow[\beta]{19.1\text{ s}}$ $^{230}_{88}\text{Ra}$	$^{231}_{87}\text{Fr}$ $\xrightarrow[\beta]{17.6\text{ s}}$ $^{231}_{88}\text{Ra}$	$^{232}_{87}\text{Fr}$ $\xrightarrow[\beta]{5\text{ s}}$ $^{232}_{88}\text{Ra}$	$^{202}_{88}\text{Ra}$ $\xrightarrow[\alpha]{2.6\text{ ms}}$ $^{198}_{86}\text{Rn}$	$^{203}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1\text{ ms}}$ $^{199}_{86}\text{Rn}$
$^{203m}_{88}\text{Ra}$ $\xrightarrow[\alpha]{33\text{ ms}}$ $^{199}_{86}\text{Rn}$	$^{204}_{88}\text{Ra}$ $\xrightarrow[\alpha]{60\text{ ms}}$ $^{200}_{86}\text{Rn}$	$^{204}_{88}\text{Ra}$ $\xrightarrow[\alpha]{60\text{ ms}}$ $^{204}_{87}\text{Fr}$	$^{205}_{88}\text{Ra}$ $\xrightarrow[\alpha]{220\text{ ms}}$ $^{201}_{86}\text{Rn}$	$^{205}_{88}\text{Ra}$ $\xrightarrow[\alpha]{220\text{ ms}}$ $^{205}_{87}\text{Fr}$
$^{205m}_{88}\text{Ra}$ $\xrightarrow[\alpha]{180\text{ ms}}$ $^{201m}_{86}\text{Rn}$	$^{205m}_{88}\text{Ra}$ $\xrightarrow[\gamma]{50\%}{180\text{ ms}}$ $^{205}_{88}\text{Ra}$	$^{206}_{88}\text{Ra}$ $\xrightarrow[\alpha]{240\text{ ms}}$ $^{202}_{86}\text{Rn}$	$^{207}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.3\text{ s}}$ $^{203}_{86}\text{Rn}$	$^{207}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.3\text{ s}}$ $^{207}_{87}\text{Fr}$
$^{207m}_{88}\text{Ra}$ $\xrightarrow[\gamma]{85\%}{57\text{ ms}}$ $^{207}_{88}\text{Ra}$	$^{207m}_{88}\text{Ra}$ $\xrightarrow[\alpha]{14.45\%}{57\text{ ms}}$ $^{203m}_{86}\text{Rn}$	$^{207m}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{0.55\%}{57\text{ ms}}$ $^{207}_{87}\text{Fr}$	$^{208}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.3\text{ s}}$ $^{204}_{86}\text{Rn}$	$^{208}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{5\%}{1.3\text{ s}}$ $^{208}_{87}\text{Fr}$
$^{209}_{88}\text{Ra}$ $\xrightarrow[\alpha]{4.6\text{ s}}$ $^{205}_{86}\text{Rn}$	$^{209}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{10\%}{4.6\text{ s}}$ $^{209}_{87}\text{Fr}$	$^{210}_{88}\text{Ra}$ $\xrightarrow[\alpha]{3.7\text{ s}}$ $^{206}_{86}\text{Rn}$	$^{210}_{88}\text{Ra}$ $\xrightarrow[\alpha]{4\%}{3.7\text{ s}}$ $^{210}_{87}\text{Fr}$	$^{211}_{88}\text{Ra}$ $\xrightarrow[\alpha]{13\text{ s}}$ $^{207}_{86}\text{Rn}$
$^{211}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{7\%}{13\text{ s}}$ $^{211}_{87}\text{Fr}$	$^{212}_{88}\text{Ra}$ $\xrightarrow[\alpha]{85\%}{13\text{ s}}$ $^{208}_{86}\text{Rn}$	$^{212}_{88}\text{Ra}$ $\xrightarrow[\alpha]{15\%}{13\text{ s}}$ $^{212}_{87}\text{Fr}$	$^{213}_{88}\text{Ra}$ $\xrightarrow[\alpha]{2.74\text{ m}}$ $^{209}_{86}\text{Rn}$	$^{213}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{20\%}{2.74\text{ m}}$ $^{213}_{87}\text{Fr}$
$^{213m}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1\%}{2.1\text{ ms}}$ $^{209}_{86}\text{Rn}$	$^{213m}_{88}\text{Ra}$ $\xrightarrow[\gamma]{99\%}{2.1\text{ ms}}$ $^{213}_{88}\text{Ra}$	$^{214}_{88}\text{Ra}$ $\xrightarrow[\alpha]{2.46\text{ s}}$ $^{210}_{86}\text{Rn}$	$^{214}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{<0.1\%}{2.46\text{ s}}$ $^{214m}_{87}\text{Fr}$	$^{215}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.59\text{ ms}}$ $^{211}_{86}\text{Rn}$
$^{216}_{88}\text{Ra}$ $\xrightarrow[\alpha]{182\text{ ns}}$ $^{212}_{86}\text{Rn}$	$^{216}_{88}\text{Ra}$ $\xrightarrow[\epsilon]{<0.1\%}{182\text{ ns}}$ $^{216}_{87}\text{Fr}$	$^{217}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.6\text{ }\mu\text{s}}$ $^{213}_{86}\text{Rn}$	$^{218}_{88}\text{Ra}$ $\xrightarrow[\alpha]{25.6\text{ }\mu\text{s}}$ $^{214}_{86}\text{Rn}$	$^{219}_{88}\text{Ra}$ $\xrightarrow[\alpha]{10\text{ ms}}$ $^{215}_{86}\text{Rn}$
$^{220}_{88}\text{Ra}$ $\xrightarrow[\alpha]{18\text{ ms}}$ $^{216}_{86}\text{Rn}$	$^{221}_{88}\text{Ra}$ $\xrightarrow[\alpha]{28\text{ s}}$ $^{217}_{86}\text{Rn}$	$^{222}_{88}\text{Ra}$ $\xrightarrow[\alpha]{38\text{ s}}$ $^{218}_{86}\text{Rn}$	$^{223}_{88}\text{Ra}$ $\xrightarrow[\alpha]{11.43\text{ d}}$ $^{219}_{86}\text{Rn}$	$^{224}_{88}\text{Ra}$ $\xrightarrow[\alpha]{3.64\text{ d}}$ $^{220}_{86}\text{Rn}$
$^{225}_{88}\text{Ra}$ $\xrightarrow[\beta]{14.8\text{ d}}$ $^{225}_{89}\text{Ac}$	$^{226}_{88}\text{Ra}$ $\xrightarrow[\alpha]{1.6\text{ ky}}$ $^{222}_{86}\text{Rn}$	$^{227}_{88}\text{Ra}$ $\xrightarrow[\beta]{42.2\text{ m}}$ $^{227}_{89}\text{Ac}$	$^{228}_{88}\text{Ra}$ $\xrightarrow[\beta]{5.75\text{ y}}$ $^{228}_{89}\text{Ac}$	$^{229}_{88}\text{Ra}$ $\xrightarrow[\beta]{4\text{ m}}$ $^{229}_{89}\text{Ac}$
$^{230}_{88}\text{Ra}$ $\xrightarrow[\beta]{1.55\text{ h}}$ $^{230}_{89}\text{Ac}$	$^{231}_{88}\text{Ra}$ $\xrightarrow[\beta]{1.717\text{ m}}$ $^{231}_{89}\text{Ac}$	$^{232}_{88}\text{Ra}$ $\xrightarrow[\beta]{4.167\text{ m}}$ $^{232}_{89}\text{Ac}$	$^{233}_{88}\text{Ra}$ $\xrightarrow[\beta]{30\text{ s}}$ $^{233}_{89}\text{Ac}$	$^{234}_{88}\text{Ra}$ $\xrightarrow[\beta]{30\text{ s}}$ $^{234}_{89}\text{Ac}$
$^{206}_{89}\text{Ac}$ $\xrightarrow[\alpha]{99.8\%}{25\text{ ms}}$ $^{202}_{87}\text{Fr}$	$^{206}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{0.2\%}{25\text{ ms}}$ $^{206}_{88}\text{Ra}$	$^{206m}_{89}\text{Ac}$ $\xrightarrow[\alpha]{15\text{ ms}}$ $^{202}_{87}\text{Fr}$	$^{206n}_{89}\text{Ac}$ $\xrightarrow[\alpha]{41\text{ ms}}$ $^{202m}_{87}\text{Fr}$	$^{207}_{89}\text{Ac}$ $\xrightarrow[\alpha]{22\text{ ms}}$ $^{203}_{87}\text{Fr}$
$^{208}_{89}\text{Ac}$ $\xrightarrow[\alpha]{99\%}{95\text{ ms}}$ $^{204}_{87}\text{Fr}$	$^{208m}_{89}\text{Ac}$ $\xrightarrow[\alpha]{89\%}{28\text{ ms}}$ $^{204n}_{87}\text{Fr}$	$^{208m}_{89}\text{Ac}$ $\xrightarrow[\gamma]{10\%}{28\text{ ms}}$ $^{208}_{89}\text{Ac}$	$^{208m}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{1\%}{28\text{ ms}}$ $^{208}_{88}\text{Ra}$	$^{209}_{89}\text{Ac}$ $\xrightarrow[\alpha]{100\text{ ms}}$ $^{205}_{87}\text{Fr}$
$^{210}_{89}\text{Ac}$ $\xrightarrow[\alpha]{91\%}{350\text{ ms}}$ $^{206m}_{87}\text{Fr}$	$^{210}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{9\%}{350\text{ ms}}$ $^{210}_{88}\text{Ra}$	$^{211}_{89}\text{Ac}$ $\xrightarrow[\alpha]{250\text{ ms}}$ $^{207}_{87}\text{Fr}$	$^{212}_{89}\text{Ac}$ $\xrightarrow[\alpha]{97\%}{920\text{ ms}}$ $^{208}_{87}\text{Fr}$	$^{212}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{3\%}{920\text{ ms}}$ $^{212}_{88}\text{Ra}$
$^{213}_{89}\text{Ac}$ $\xrightarrow[\alpha]{800\text{ ms}}$ $^{209}_{87}\text{Fr}$	$^{214}_{89}\text{Ac}$ $\xrightarrow[\alpha]{8.2\text{ s}}$ $^{210}_{87}\text{Fr}$	$^{214}_{89}\text{Ac}$ $\xrightarrow[\alpha]{11\%}{8.2\text{ s}}$ $^{214}_{88}\text{Ra}$	$^{215}_{89}\text{Ac}$ $\xrightarrow[\alpha]{99.91\%}{170\text{ ms}}$ $^{211}_{87}\text{Fr}$	$^{216}_{89}\text{Ac}$ $\xrightarrow[\alpha]{330\text{ }\mu\text{s}}$ $^{212}_{87}\text{Fr}$
$^{216m}_{89}\text{Ac}$ $\xrightarrow[\alpha]{330\text{ }\mu\text{s}}$ $^{212}_{87}\text{Fr}$	$^{217}_{89}\text{Ac}$ $\xrightarrow[\alpha]{69\text{ ms}}$ $^{213}_{87}\text{Fr}$	$^{218}_{89}\text{Ac}$ $\xrightarrow[\alpha]{1.08\text{ }\mu\text{s}}$ $^{214}_{87}\text{Fr}$	$^{219}_{89}\text{Ac}$ $\xrightarrow[\alpha]{11.8\text{ }\mu\text{s}}$ $^{215}_{87}\text{Fr}$	$^{220}_{89}\text{Ac}$ $\xrightarrow[\alpha]{26.4\text{ ms}}$ $^{216}_{87}\text{Fr}$
$^{221}_{89}\text{Ac}$ $\xrightarrow[\alpha]{52\text{ ms}}$ $^{217}_{87}\text{Fr}$	$^{222}_{89}\text{Ac}$ $\xrightarrow[\alpha]{5\text{ s}}$ $^{218}_{87}\text{Fr}$	$^{222}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{1.1\%}{5\text{ s}}$ $^{222}_{88}\text{Ra}$	$^{222m}_{89}\text{Ac}$ $\xrightarrow[\alpha]{1.05\text{ m}}$ $^{218}_{87}\text{Fr}$	$^{222m}_{89}\text{Ac}$ $\xrightarrow[\alpha]{44.3\%}{1.05\text{ m}}$ $^{218m}_{87}\text{Fr}$
$^{222m}_{89}\text{Ac}$ $\xrightarrow[\gamma]{10\%}{1.05\text{ m}}$ $^{222}_{89}\text{Ac}$	$^{222m}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{1.4\%}{1.05\text{ m}}$ $^{222}_{88}\text{Ra}$	$^{223}_{89}\text{Ac}$ $\xrightarrow[\alpha]{2.1\text{ m}}$ $^{223}_{88}\text{Ra}$	$^{223}_{89}\text{Ac}$ $\xrightarrow[\alpha]{1\%}{2.1\text{ m}}$ $^{223}_{88}\text{Ra}$	$^{224}_{89}\text{Ac}$ $\xrightarrow[\alpha]{2.78\text{ h}}$ $^{220}_{87}\text{Fr}$
$^{224}_{89}\text{Ac}$ $\xrightarrow[\alpha]{90.9\%}{2.78\text{ h}}$ $^{224}_{88}\text{Ra}$	$^{225}_{89}\text{Ac}$ $\xrightarrow[\alpha]{10\text{ d}}$ $^{221}_{87}\text{Fr}$	$^{226}_{89}\text{Ac}$ $\xrightarrow[\beta]{82.99\%}{1.224\text{ d}}$ $^{226}_{90}\text{Th}$	$^{226}_{89}\text{Ac}$ $\xrightarrow[\epsilon]{17\%}{1.224\text{ d}}$ $^{226}_{88}\text{Ra}$	$^{226}_{89}\text{Ac}$ $\xrightarrow[\alpha]{<0.1\%}{1.224\text{ d}}$ $^{222}_{87}\text{Fr}$
$^{227}_{89}\text{Ac}$ $\xrightarrow[\beta]{98.62\%}{21.77\text{ y}}$ $^{227}_{90}\text{Th}$	$^{227}_{89}\text{Ac}$ $\xrightarrow[\alpha]{1.38\%}{21.77\text{ y}}$ $^{223}_{87}\text{Fr}$	$^{228}_{89}\text{Ac}$ $\xrightarrow[\beta]{6.15\text{ h}}$ $^{228}_{90}\text{Th}$	$^{229}_{89}\text{Ac}$ $\xrightarrow[\beta]{50\%}{1.045\text{ h}}$ $^{229}_{90}\text{Th}$	$^{229}_{89}\text{Ac}$ $\xrightarrow[\beta]{50\%}{1.045\text{ h}}$ $^{229m}_{90}\text{Th}$
$^{230}_{89}\text{Ac}$ $\xrightarrow[\beta]{2.033\text{ m}}$ $^{230}_{90}\text{Th}$	$^{231}_{89}\text{Ac}$ $\xrightarrow[\beta]{7.5\text{ m}}$ $^{231}_{90}\text{Th}$	$^{232}_{89}\text{Ac}$ $\xrightarrow[\beta]{1.983\text{ m}}$ $^{232}_{90}\text{Th}$	$^{233}_{89}\text{Ac}$ $\xrightarrow[\beta]{2.417\text{ m}}$ $^{233}_{90}\text{Th}$	$^{234}_{89}\text{Ac}$ $\xrightarrow[\beta]{44\text{ s}}$ $^{234}_{90}\text{Th}$
$^{235}_{89}\text{Ac}$ $\xrightarrow[\beta]{40\text{ s}}$ $^{235}_{90}\text{Th}$	$^{236}_{89}\text{Ac}$ $\xrightarrow[\beta]{2\text{ m}}$ $^{236}_{90}\text{Th}$	$^{209}_{90}\text{Th}$ $\xrightarrow[\alpha]{50\%}{7\text{ ms}}$ $^{205}_{88}\text{Ra}$	$^{209}_{90}\text{Th}$ $\xrightarrow[\epsilon]{50\%}{7\text{ ms}}$ $^{209}_{89}\text{Ac}$	$^{210}_{90}\text{Th}$ $\xrightarrow[\alpha]{9\text{ ms}}$ $^{206}_{88}\text{$

225Th $\xrightarrow[10\%]{8.72 \text{ m}}$ 225Ac	226Th $\xrightarrow[\alpha]{30.57 \text{ m}}$ 222Ra	227Th $\xrightarrow[\alpha]{18.72 \text{ d}}$ 223Ra	228Th $\xrightarrow[\alpha]{1.913 \text{ y}}$ 224Ra	229Th $\xrightarrow[\alpha]{7.34 \text{ ky}}$ 225Ra
229mTh $\xrightarrow[\gamma]{2.917 \text{ d}}$ 229Th	230Th $\xrightarrow[\alpha]{75.4 \text{ ky}}$ 226Ra	231Th $\xrightarrow[\beta]{1.063 \text{ d}}$ 231Pa	232Th $\xrightarrow[\alpha]{14.05 \text{ Gy}}$ 228Ra	233Th $\xrightarrow[\beta]{22.3 \text{ m}}$ 233Pa
234Th $\xrightarrow[\beta]{24.09 \text{ d}}$ 234mPa	235Th $\xrightarrow[\beta]{6.9 \text{ m}}$ 235Pa	236Th $\xrightarrow[\beta]{37.5 \text{ m}}$ 236Pa	237Th $\xrightarrow[\beta]{4.8 \text{ m}}$ 237Pa	238Th $\xrightarrow[\beta]{9.4 \text{ m}}$ 238Pa
212Pa $\xrightarrow[\alpha]{50\%}{8 \text{ ms}}$ 208Ac	212Pa $\xrightarrow[\alpha]{50\%}{8 \text{ ms}}$ 208mAc	213Pa $\xrightarrow[\alpha]{7 \text{ ms}}$ 209Ac	214Pa $\xrightarrow[\alpha]{17 \text{ ms}}$ 210Ac	215Pa $\xrightarrow[\alpha]{14 \text{ ms}}$ 211Ac
216Pa $\xrightarrow[\alpha]{98\%}{105 \text{ ms}}$ 212Ac	216Pa $\xrightarrow[\alpha]{2\%}{105 \text{ ms}}$ 216Th	217Pa $\xrightarrow[\alpha]{4.9 \text{ ms}}$ 213Ac	217mPa $\xrightarrow[\alpha]{1.6 \text{ ms}}$ 213Ac	218Pa $\xrightarrow[\alpha]{120 \mu\text{s}}$ 214Ac
219Pa $\xrightarrow[\alpha]{53 \text{ ns}}$ 215Ac	220Pa $\xrightarrow[\alpha]{780 \text{ ps}}$ 216Ac	220Pa $\xrightarrow[\epsilon]{< 0.1\%}{780 \text{ ps}}$ 220Th	221Pa $\xrightarrow[\alpha]{5.9 \mu\text{s}}$ 217Ac	222Pa $\xrightarrow[\alpha]{3.2 \text{ ns}}$ 218Ac
223Pa $\xrightarrow[\alpha]{5.1 \text{ ms}}$ 219Ac	224Pa $\xrightarrow[\alpha]{844 \text{ ms}}$ 220Ac	224Pa $\xrightarrow[\epsilon]{< 0.1\%}{844 \text{ ms}}$ 224Th	225Pa $\xrightarrow[\alpha]{1.7 \text{ s}}$ 221Ac	226Pa $\xrightarrow[\alpha]{1.8 \text{ m}}$ 222Ac
226Pa $\xrightarrow[\alpha]{37\%}{1.8 \text{ m}}$ 222Ac	226Pa $\xrightarrow[\epsilon]{26\%}{1.8 \text{ m}}$ 226Th	227Pa $\xrightarrow[\alpha]{38.3 \text{ m}}$ 223Ac	227Pa $\xrightarrow[\epsilon]{15\%}{38.3 \text{ m}}$ 227Th	228Pa $\xrightarrow[\alpha]{2\%}{22 \text{ h}}$ 224Ac
228Pa $\xrightarrow[\alpha]{98.15\%}{22 \text{ h}}$ 228Th	229Pa $\xrightarrow[\alpha]{0.48\%}{1.5 \text{ d}}$ 229Ac	229Pa $\xrightarrow[\alpha]{99.52\%}{1.5 \text{ d}}$ 229Th	230Pa $\xrightarrow[\alpha]{91.6\%}{17.4 \text{ d}}$ 230Th	230Pa $\xrightarrow[\beta]{8.4\%}{17.4 \text{ d}}$ 230U
230Pa $\xrightarrow[\alpha]{< 0.1\%}{17.4 \text{ d}}$ 226Ac	231Pa $\xrightarrow[\alpha]{32.76 \text{ ky}}$ 227Ac	232Pa $\xrightarrow[\beta]{1.31 \text{ d}}$ 232U	232Pa $\xrightarrow[\epsilon]{< 0.1\%}{1.31 \text{ d}}$ 232Th	233Pa $\xrightarrow[\beta]{27 \text{ d}}$ 233U
234Pa $\xrightarrow[\beta]{6.78 \text{ h}}$ 234U	234mPa $\xrightarrow[\beta]{99.85\%}{1.17 \text{ m}}$ 234U	234mPa $\xrightarrow[\gamma]{0.15\%}{1.17 \text{ m}}$ 234Pa	235Pa $\xrightarrow[\beta]{24.2 \text{ m}}$ 235mU	236Pa $\xrightarrow[\beta]{9.1 \text{ m}}$ 236U
237Pa $\xrightarrow[\beta]{8.7 \text{ m}}$ 237U	238Pa $\xrightarrow[\beta]{2.27 \text{ m}}$ 238U	239Pa $\xrightarrow[\beta]{1.8 \text{ h}}$ 239U	240Pa $\xrightarrow[\beta]{2 \text{ m}}$ 240U	241Pa $\xrightarrow[\beta]{26 \text{ ms}}$ 213Th
218U $\xrightarrow[\alpha]{6 \text{ ms}}$ 214Th	219U $\xrightarrow[\alpha]{42 \mu\text{s}}$ 215Th	220U $\xrightarrow[\alpha]{50\%}{60 \text{ ns}}$ 216Th	220U $\xrightarrow[\epsilon]{50\%}{60 \text{ ns}}$ 220Pa	221U $\xrightarrow[\alpha]{50\%}{700 \text{ ns}}$ 217Th
221U $\xrightarrow[\epsilon]{50\%}{700 \text{ ns}}$ 221Pa	222U $\xrightarrow[\alpha]{1.4 \mu\text{s}}$ 218Th	222U $\xrightarrow[\epsilon]{< 0.1\%}{1.4 \mu\text{s}}$ 222Pa	223U $\xrightarrow[\alpha]{18 \mu\text{s}}$ 219Th	224U $\xrightarrow[\alpha]{940 \mu\text{s}}$ 220Th
224U $\xrightarrow[\epsilon]{< 0.1\%}{940 \mu\text{s}}$ 224Pa	225U $\xrightarrow[\alpha]{61 \text{ ms}}$ 221Th	226U $\xrightarrow[\alpha]{350 \text{ ms}}$ 222Th	227U $\xrightarrow[\alpha]{1.1 \text{ m}}$ 223Th	228U $\xrightarrow[\alpha]{9.1 \text{ m}}$ 224Th
228U $\xrightarrow[\epsilon]{5\%}{9.1 \text{ m}}$ 228Pa	229U $\xrightarrow[\epsilon]{80\%}{58 \text{ m}}$ 229Pa	229U $\xrightarrow[\epsilon]{20\%}{58 \text{ m}}$ 225Th	230U $\xrightarrow[\alpha]{20.8 \text{ d}}$ 226Th	231U $\xrightarrow[\alpha]{4.2 \text{ d}}$ 231Pa
231U $\xrightarrow[\alpha]{< 0.1\%}{4.2 \text{ d}}$ 227Th	232U $\xrightarrow[\alpha]{69.8 \text{ y}}$ 228Th	233U $\xrightarrow[\alpha]{159.3 \text{ ky}}$ 229Th	234U $\xrightarrow[\alpha]{245.7 \text{ ky}}$ 230Th	235U $\xrightarrow[\alpha]{703.8 \text{ My}}$ 231Th
235mU $\xrightarrow[\gamma]{26 \text{ m}}$ 235U	236U $\xrightarrow[\alpha]{23.7 \text{ My}}$ 232Th	237U $\xrightarrow[\alpha]{6.75 \text{ d}}$ 237Np	238U $\xrightarrow[\alpha]{4.468 \text{ Gy}}$ 234Th	239U $\xrightarrow[\alpha]{23.47 \text{ m}}$ 239Np
240U $\xrightarrow[\beta]{14.1 \text{ h}}$ 240Np	241U $\xrightarrow[\beta]{5 \text{ m}}$ 241Np	242U $\xrightarrow[\beta]{16.8 \text{ m}}$ 242Np	225Np $\xrightarrow[\alpha]{3 \text{ ms}}$ 221Pa	226Np $\xrightarrow[\alpha]{35 \text{ ms}}$ 222Pa
227Np $\xrightarrow[\alpha]{99.95\%}{510 \text{ ms}}$ 223Pa	227Np $\xrightarrow[\epsilon]{< 0.1\%}{510 \text{ ms}}$ 227U	228Np $\xrightarrow[\epsilon]{59.99\%}{1.023 \text{ m}}$ 228U	228Np $\xrightarrow[\alpha]{40\%}{1.023 \text{ m}}$ 224Pa	229Np $\xrightarrow[\alpha]{50\%}{4 \text{ m}}$ 225Pa
229Np $\xrightarrow[\epsilon]{50\%}{4 \text{ m}}$ 229U	230Np $\xrightarrow[\epsilon]{97\%}{4.6 \text{ m}}$ 230U	230Np $\xrightarrow[\alpha]{3\%}{4.6 \text{ m}}$ 226Pa	231Np $\xrightarrow[\epsilon]{98\%}{48.8 \text{ m}}$ 231U	231Np $\xrightarrow[\alpha]{2\%}{48.8 \text{ m}}$ 227Pa
232Np $\xrightarrow[\epsilon]{14.7 \text{ m}}$ 232U	233Np $\xrightarrow[\alpha]{< 0.1\%}{36.2 \text{ m}}$ 229Pa	233Np $\xrightarrow[\epsilon]{36.2 \text{ m}}$ 233U	234Np $\xrightarrow[\alpha]{4.4 \text{ d}}$ 234U	235Np $\xrightarrow[\epsilon]{100\%}{1.084 \text{ y}}$ 235U
235Np $\xrightarrow[\alpha]{< 0.1\%}{1.084 \text{ y}}$ 231Pa	236Np $\xrightarrow[\beta]{11.8\%}{152 \text{ ky}}$ 236Pu	236Np $\xrightarrow[\epsilon]{88.04\%}{152 \text{ ky}}$ 236U	236Np $\xrightarrow[\alpha]{0.16\%}{152 \text{ ky}}$ 232Pa	236mNp $\xrightarrow[\beta]{50\%}{22.5 \text{ h}}$ 236Pu
236mNp $\xrightarrow[\epsilon]{50\%}{22.5 \text{ h}}$ 236U	237Np $\xrightarrow[\alpha]{2.14 \text{ My}}$ 233Pa	238Np $\xrightarrow[\beta]{2.117 \text{ d}}$ 238Pu	239Np $\xrightarrow[\beta]{2.355 \text{ d}}$ 239Pu	240Np $\xrightarrow[\beta]{1.083 \text{ h}}$ 240Pu
240mNp $\xrightarrow[\beta]{99.89\%}{7.4 \text{ m}}$ 240Pu	240mNp $\xrightarrow[\gamma]{0.11\%}{7.4 \text{ m}}$ 240Np	241Np $\xrightarrow[\beta]{13.9 \text{ m}}$ 241Pu	242Np $\xrightarrow[\beta]{2.2 \text{ m}}$ 242Pu	242mNp $\xrightarrow[\beta]{5.5 \text{ m}}$ 242Pu
243Np $\xrightarrow[\beta]{1.85 \text{ m}}$ 243Pu	244Np $\xrightarrow[\beta]{2.29 \text{ m}}$ 244Pu	228Pu $\xrightarrow[\alpha]{99.9\%}{10 \text{ ms}}$ 224U	228Pu $\xrightarrow[\epsilon]{< 0.1\%}{10 \text{ ms}}$ 228Np	229Pu $\xrightarrow[\alpha]{2 \text{ m}}$ 225U
230Pu $\xrightarrow[\alpha]{50\%}{1.7 \text{ m}}$ 226U	230Pu $\xrightarrow[\epsilon]{50\%}{1.7 \text{ m}}$ 230Np	231Pu $\xrightarrow[\epsilon]{87\%}{8.6 \text{ m}}$ 231Np	231Pu $\xrightarrow[\epsilon]{13\%}{8.6 \text{ m}}$ 227U	232Pu $\xrightarrow[\epsilon]{89\%}{33.7 \text{ m}}$ 232Np
232Pu $\xrightarrow[\alpha]{11\%}{33.7 \text{ m}}$ 228U	233Pu $\xrightarrow[\epsilon]{99.88\%}{20.9 \text{ m}}$ 233Np	233Pu $\xrightarrow[\alpha]{0.12\%}{20.9 \text{ m}}$ 229U	234Pu $\xrightarrow[\epsilon]{94\%}{8.8 \text{ h}}$ 234Np	234Pu $\xrightarrow[\alpha]{6\%}{8.8 \text{ h}}$ 230U
235Pu $\xrightarrow[\alpha]{100\%}{25.3 \text{ m}}$ 235Np	235Pu $\xrightarrow[\alpha]{< 0.1\%}{25.3 \text{ m}}$ 231U	236Pu $\xrightarrow[\alpha]{2.858 \text{ y}}$ 232U	237Pu $\xrightarrow[\alpha]{45.3 \text{ d}}$ 237Np	237Pu $\xrightarrow[\alpha]{< 0.1\%}{45.3 \text{ d}}$ 233U
237mPu $\xrightarrow[\gamma]{180 \text{ ms}}$ 237Pu	238Pu $\xrightarrow[\alpha]{87.7 \text{ y}}$ 234U	239Pu $\xrightarrow[\alpha]{24.11 \text{ ky}}$ 235U	239Pu $\xrightarrow[\alpha]{99.94\%}{24.11 \text{ ky}}$ 235mU	240Pu $\xrightarrow[\alpha]{6.563 \text{ ky}}$ 236U
241Pu $\xrightarrow[\beta]{100\%}{14.33 \text{ y}}$ 241Am	241Pu $\xrightarrow[\alpha]{< 0.1\%}{14.33 \text{ y}}$ 237U	242Pu $\xrightarrow[\alpha]{373.5 \text{ ky}}$ 238U	243Pu $\xrightarrow[\beta]{4.956 \text{ h}}$ 243Am	244Pu $\xrightarrow[\alpha]{99.88\%}{80 \text{ My}}$ 240U
245Pu $\xrightarrow[\beta]{10.5 \text{ h}}$ 245Am	246Pu $\xrightarrow[\beta]{10.85 \text{ d}}$ 246mAm	247Pu $\xrightarrow[\beta]{2.27 \text{ d}}$ 247Am	231Am $\xrightarrow[\epsilon]{50\%}{30 \text{ s}}$ 231Pu	231Am $\xrightarrow[\alpha]{50\%}{30 \text{ s}}$ 227Np
232Am $\xrightarrow[\epsilon]{97.93\%}{1.31 \text{ m}}$ 232Pu	232Am $\xrightarrow[\alpha]{2\%}{1.31 \text{ m}}$ 228Np	233Am $\xrightarrow[\epsilon]{97\%}{3.2 \text{ m}}$ 233Pu	233Am $\xrightarrow[\alpha]{3\%}{3.2 \text{ m}}$ 229Np	234Am $\xrightarrow[\epsilon]{99.95\%}{2.32 \text{ m}}$ 234Pu
234Am $\xrightarrow[\alpha]{< 0.1\%}{2.32 \text{ m}}$ 230Np	235Am $\xrightarrow[\epsilon]{99.6\%}{9.9 \text{ m}}$ 235Pu	235Am $\xrightarrow[\alpha]{0.4\%}{9.9 \text{ m}}$ 231Np	236Am $\xrightarrow[\epsilon]{50\%}{30 \text{ m}}$ 236Pu	236Am $\xrightarrow[\alpha]{50\%}{30 \text{ m}}$ 232Np
237Am $\xrightarrow[\epsilon]{49.99\%}{1.217 \text{ h}}$ 237Pu	237Am $\xrightarrow[\epsilon]{49.99\%}{1.217 \text{ h}}$ 237mPu	237Am $\xrightarrow[\alpha]{< 0.1\%}{1.217 \text{ h}}$ 233Np	238Am $\xrightarrow[\epsilon]{1.633 \text{ h}}$ 238Pu	239Am $\xrightarrow[\epsilon]{99.99\%}{11.9 \text{ h}}$ 239Pu
239Am $\xrightarrow[\alpha]{< 0.1\%}{11.9 \text{ h}}$ 235Np	240Am $\xrightarrow[\epsilon]{2.117 \text{ d}}$ 240Pu	240Am $\xrightarrow[\alpha]{< 0.1\%}{2.117 \text{ d}}$ 236Np	241Am $\xrightarrow[\alpha]{432.8 \text{ y}}$ 237Np	242Am $\xrightarrow[\beta]{83.2\%}{16.04 \text{ h}}$ 242Cm
242Am $\xrightarrow[\epsilon]{16.8\%}{16.04 \text{ h}}$ 242Pu	242mAm $\xrightarrow[\gamma]{99.54\%}{141 \text{ y}}$ 242Am	242mAm $\xrightarrow[\alpha]{0.463\%}{141 \text{ y}}$ 238Np	243Am $\xrightarrow[\alpha]{7.365 \text{ ky}}$ 239Np	244Am $\xrightarrow[\beta]{10.1 \text{ h}}$ 244Cm
244mAm $\xrightarrow[\beta]{99.96\%}{26 \text{ m}}$ 244Cm	244mAm $\xrightarrow[\epsilon]{< 0.1\%}{26 \text{ m}}$ 244Pu	245Am $\xrightarrow[\beta]{2.05 \text{ h}}$ 245Cm	246Am $\xrightarrow[\beta]{39 \text{ m}}$ 246Cm	246mAm $\xrightarrow[\beta]{25 \text{ m}}$ 246Cm
247Am $\xrightarrow[\beta]{23 \text{ m}}$ 247Cm	248Am $\xrightarrow[\beta]{3 \text{ m}}$ 248Cm	249Am $\xrightarrow[\beta]{1 \text{ m}}$ 249Cm	233Cm $\xrightarrow[\alpha]{50\%}{1 \text{ m}}$ 229Pu	233Cm $\xrightarrow[\epsilon]{50\%}{1 \text{ m}}$ 233Am
234Cm $\xrightarrow[\alpha]{50\%}{51 \text{ s}}$ 230Pu	234Cm $\xrightarrow[\epsilon]{47\%}{51 \text{ s}}$ 234Am	235Cm $\xrightarrow[\epsilon]{50\%}{5 \text{ m}}$ 235Am	235Cm $\xrightarrow[\alpha]{50\%}{5 \text{ m}}$ 231Pu	236Cm $\xrightarrow[\epsilon]{50\%}{10 \text{ m}}$ 236Am
236Cm $\xrightarrow[\alpha]{50\%}{10 \text{ m}}$ 232Pu	237Cm $\xrightarrow[\epsilon]{50\%}{20 \text{ m}}$ 237Am	237Cm $\xrightarrow[\alpha]{50\%}{20 \text{ m}}$ 233Pu	238Cm $\xrightarrow[\epsilon]{90\%}{2.4 \text{ h}}$ 238Am	238Cm $\xrightarrow[\alpha]{10\%}{2.4 \text{ h}}$ 234Pu
239Cm $\xrightarrow[\epsilon]{99.9\%}{2.9 \text{ h}}$ 239Am	239Cm $\xrightarrow[\alpha]{< 0.1\%}{2.9 \text{ h}}$ 235Pu	240Cm $\xrightarrow[\alpha]{99.7\%}{27 \text{ d}}$ 236Pu	241Cm $\xrightarrow[\epsilon]{99\%}{32.8 \text{ d}}$ 241Am	241Cm $\xrightarrow[\alpha]{1\%}{32.8 \text{ d}}$ 237Pu
242Cm $\xrightarrow[\alpha]{162.9 \text{ d}}$ 238Pu	243Cm $\xrightarrow[\epsilon]{0.24\%}{30 \text{ y}}$ 243Am	243Cm $\xrightarrow[\alpha]{99.76\%}{30 \text{ y}}$ 239Pu	244Cm $\xrightarrow[\alpha]{100\%}{18 \text{ y}}$ 240Pu	244mCm $\xrightarrow[\gamma]{34 \text{ ms}}$ 244Cm
245Cm $\xrightarrow[\alpha]{8.5 \text{ ky}}$ 241Pu	246Cm $\xrightarrow[\alpha]{99.97\%}{4.73 \text{ ky}}$ 242Pu	247Cm $\xrightarrow[\alpha]{16 \text{ My}}$ 243Pu	248Cm $\xrightarrow[\alpha]{91.74\%}{340 \text{ ky}}$ 244Pu	249Cm $\xrightarrow[\beta]{1.069 \text{ h}}$ 249Bk

250Cm $\frac{8 \text{ ky}}{\alpha 30\%}$ $\frac{246 \text{ Pu}}{94}$	251Cm $\frac{16.8 \text{ m}}{\beta}$ $\frac{251 \text{ Bk}}{97}$	252Cm $\frac{1 \text{ d}}{\beta}$ $\frac{252 \text{ Bk}}{97}$	235Bk $\frac{20 \text{ s}}{\epsilon 50\%}$ $\frac{235 \text{ Cm}}{96}$	235Bk $\frac{20 \text{ s}}{\alpha 50\%}$ $\frac{231 \text{ Am}}{95}$
236Bk $\frac{1 \text{ m}}{\epsilon 50\%}$ $\frac{236 \text{ Cm}}{96}$	236Bk $\frac{1 \text{ m}}{\alpha 50\%}$ $\frac{232 \text{ Am}}{95}$	237Bk $\frac{1 \text{ m}}{\epsilon 50\%}$ $\frac{237 \text{ Cm}}{96}$	237Bk $\frac{1 \text{ m}}{\alpha 50\%}$ $\frac{233 \text{ Am}}{95}$	238Bk $\frac{2.4 \text{ m}}{\epsilon 99.75\%}$ $\frac{238 \text{ Cm}}{96}$
238Bk $\frac{2.4 \text{ m}}{\alpha 0.2\%}$ $\frac{234 \text{ Am}}{95}$	239Bk $\frac{3 \text{ m}}{\epsilon 50\%}$ $\frac{239 \text{ Cm}}{96}$	239Bk $\frac{3 \text{ m}}{\alpha 50\%}$ $\frac{235 \text{ Am}}{95}$	240Bk $\frac{4.8 \text{ m}}{\epsilon 90\%}$ $\frac{240 \text{ Cm}}{96}$	240Bk $\frac{4.8 \text{ m}}{\alpha 10\%}$ $\frac{236 \text{ Am}}{95}$
241Bk $\frac{4.6 \text{ m}}{\alpha 50\%}$ $\frac{237 \text{ Am}}{95}$	241Bk $\frac{4.6 \text{ m}}{\epsilon 50\%}$ $\frac{241 \text{ Cm}}{96}$	242Bk $\frac{7 \text{ m}}{\epsilon}$ $\frac{242 \text{ Cm}}{96}$	243Bk $\frac{4.5 \text{ h}}{\epsilon 99.85\%}$ $\frac{243 \text{ Cm}}{96}$	243Bk $\frac{4.5 \text{ h}}{\alpha 0.15\%}$ $\frac{239 \text{ Am}}{95}$
244Bk $\frac{4.35 \text{ h}}{\epsilon 99.99\%}$ $\frac{244 \text{ Cm}}{96}$	244Bk $\frac{4.35 \text{ h}}{\alpha < 0.1\%}$ $\frac{240 \text{ Am}}{95}$	245Bk $\frac{4.94 \text{ d}}{\alpha 0.12\%}$ $\frac{241 \text{ Am}}{95}$	245Bk $\frac{4.94 \text{ d}}{\epsilon 99.88\%}$ $\frac{245 \text{ Cm}}{96}$	246Bk $\frac{1.8 \text{ d}}{\epsilon 99.9\%}$ $\frac{246 \text{ Cm}}{96}$
246Bk $\frac{1.8 \text{ d}}{\alpha < 0.1\%}$ $\frac{242 \text{ Am}}{95}$	246Bk $\frac{1.8 \text{ d}}{\alpha < 0.1\%}$ $\frac{242 \text{ n Am}}{95}$	247Bk $\frac{1.38 \text{ ky}}{\alpha}$ $\frac{243 \text{ Am}}{95}$	248Bk $\frac{9 \text{ y}}{\alpha}$ $\frac{244 \text{ Am}}{95}$	248mBk $\frac{23.7 \text{ h}}{\epsilon 30\%}$ $\frac{248 \text{ Cm}}{96}$
248mBk $\frac{23.7 \text{ h}}{\beta 70\%}$ $\frac{248 \text{ Cf}}{98}$	249Bk $\frac{320 \text{ d}}{\beta 100\%}$ $\frac{249 \text{ Cf}}{98}$	249Bk $\frac{320 \text{ d}}{\alpha < 0.1\%}$ $\frac{245 \text{ Am}}{95}$	250Bk $\frac{3.217 \text{ h}}{\beta}$ $\frac{250 \text{ Cf}}{98}$	251Bk $\frac{55.6 \text{ m}}{\beta}$ $\frac{251 \text{ Cf}}{98}$
252Bk $\frac{1.8 \text{ m}}{\beta 50\%}$ $\frac{252 \text{ Cf}}{98}$	252Bk $\frac{1.8 \text{ m}}{\alpha 50\%}$ $\frac{248 \text{ Am}}{95}$	253Bk $\frac{10 \text{ m}}{\beta}$ $\frac{253 \text{ Cf}}{98}$	254Bk $\frac{1 \text{ m}}{\beta}$ $\frac{254 \text{ Cf}}{98}$	237Cf $\frac{2.1 \text{ s}}{\alpha 45\%}$ $\frac{233 \text{ Cm}}{96}$
237Cf $\frac{2.1 \text{ s}}{\epsilon 45\%}$ $\frac{237 \text{ Bk}}{96}$	238Cf $\frac{21.1 \text{ ms}}{\alpha 0.2\%}$ $\frac{234 \text{ Cm}}{96}$	239Cf $\frac{1 \text{ m}}{\alpha 50\%}$ $\frac{235 \text{ Cm}}{96}$	239Cf $\frac{1 \text{ m}}{\epsilon 50\%}$ $\frac{239 \text{ Bk}}{98}$	240Cf $\frac{57.6 \text{ s}}{\alpha 98\%}$ $\frac{236 \text{ Cm}}{96}$
241Cf $\frac{3.8 \text{ m}}{\epsilon 75\%}$ $\frac{241 \text{ Bk}}{97}$	241Cf $\frac{3.8 \text{ m}}{\alpha 25\%}$ $\frac{237 \text{ Cm}}{96}$	242Cf $\frac{3.49 \text{ m}}{\alpha 80\%}$ $\frac{238 \text{ Cm}}{96}$	242Cf $\frac{3.49 \text{ m}}{\epsilon 19.99\%}$ $\frac{242 \text{ Bk}}{97}$	243Cf $\frac{10.7 \text{ m}}{\epsilon 86\%}$ $\frac{243 \text{ Bk}}{97}$
243Cf $\frac{10.7 \text{ m}}{\alpha 14\%}$ $\frac{239 \text{ Cm}}{96}$	244Cf $\frac{19.4 \text{ m}}{\alpha}$ $\frac{240 \text{ Cm}}{96}$	245Cf $\frac{45 \text{ m}}{\epsilon 64\%}$ $\frac{245 \text{ Bk}}{97}$	245Cf $\frac{45 \text{ m}}{\alpha 36\%}$ $\frac{241 \text{ Cm}}{96}$	246Cf $\frac{1.487 \text{ d}}{\alpha}$ $\frac{242 \text{ Cm}}{96}$
247Cf $\frac{3.11 \text{ h}}{\epsilon 99.96\%}$ $\frac{247 \text{ Bk}}{97}$	247Cf $\frac{3.11 \text{ h}}{\alpha < 0.1\%}$ $\frac{243 \text{ Cm}}{96}$	248Cf $\frac{333.5 \text{ d}}{\alpha 100\%}$ $\frac{244 \text{ Cm}}{96}$	249Cf $\frac{351 \text{ y}}{\alpha}$ $\frac{245 \text{ Cm}}{96}$	250Cf $\frac{13.08 \text{ y}}{\alpha 99.92\%}$ $\frac{246 \text{ Cm}}{96}$
251Cf $\frac{898 \text{ y}}{\alpha}$ $\frac{247 \text{ Cm}}{96}$	252Cf $\frac{2.645 \text{ y}}{\alpha 96.91\%}$ $\frac{248 \text{ Cm}}{96}$	253Cf $\frac{17.81 \text{ d}}{\alpha 0.31\%}$ $\frac{249 \text{ Cm}}{96}$	253Cf $\frac{17.81 \text{ d}}{\alpha 0.31\%}$ $\frac{249 \text{ Cm}}{96}$	254Cf $\frac{60.5 \text{ d}}{\alpha 0.309\%}$ $\frac{250 \text{ Cm}}{96}$
255Cf $\frac{1.417 \text{ h}}{\beta 100\%}$ $\frac{255 \text{ Es}}{98}$	255Cf $\frac{1.417 \text{ h}}{\alpha < 0.1\%}$ $\frac{251 \text{ Cm}}{96}$	256Cf $\frac{12.3 \text{ m}}{\alpha < 0.1\%}$ $\frac{252 \text{ Cm}}{96}$	240Es $\frac{1 \text{ s}}{\alpha 50\%}$ $\frac{236 \text{ Bk}}{97}$	240Es $\frac{1 \text{ s}}{\epsilon 50\%}$ $\frac{240 \text{ Cf}}{98}$
241Es $\frac{10 \text{ s}}{\alpha 50\%}$ $\frac{237 \text{ Bk}}{97}$	241Es $\frac{10 \text{ s}}{\epsilon 50\%}$ $\frac{241 \text{ Cf}}{98}$	242Es $\frac{13.5 \text{ s}}{\alpha 50\%}$ $\frac{238 \text{ Bk}}{97}$	242Es $\frac{13.5 \text{ s}}{\epsilon 49.4\%}$ $\frac{242 \text{ Cf}}{98}$	243Es $\frac{21 \text{ s}}{\alpha 70\%}$ $\frac{243 \text{ Cf}}{98}$
243Es $\frac{21 \text{ s}}{\alpha 30\%}$ $\frac{239 \text{ Bk}}{97}$	244Es $\frac{37 \text{ s}}{\epsilon 94.99\%}$ $\frac{244 \text{ Cf}}{98}$	244Es $\frac{37 \text{ s}}{\alpha 5\%}$ $\frac{240 \text{ Bk}}{97}$	245Es $\frac{1.1 \text{ m}}{\epsilon 60\%}$ $\frac{245 \text{ Cf}}{98}$	245Es $\frac{1.1 \text{ m}}{\alpha 40\%}$ $\frac{241 \text{ Bk}}{97}$
246Es $\frac{7.7 \text{ m}}{\epsilon 90.1\%}$ $\frac{246 \text{ Cf}}{98}$	246Es $\frac{7.7 \text{ m}}{\alpha 9.9\%}$ $\frac{242 \text{ Bk}}{97}$	247Es $\frac{4.6 \text{ m}}{\epsilon 93\%}$ $\frac{247 \text{ Cf}}{98}$	247Es $\frac{4.6 \text{ m}}{\alpha 7\%}$ $\frac{243 \text{ Bk}}{97}$	248Es $\frac{27 \text{ m}}{\epsilon 99.75\%}$ $\frac{248 \text{ Cf}}{98}$
248Es $\frac{27 \text{ m}}{\alpha 0.25\%}$ $\frac{244 \text{ Bk}}{97}$	249Es $\frac{1.703 \text{ h}}{\alpha 0.57\%}$ $\frac{245 \text{ Bk}}{97}$	249Es $\frac{1.703 \text{ h}}{\epsilon 99.43\%}$ $\frac{249 \text{ Cf}}{98}$	250Es $\frac{8.6 \text{ h}}{\epsilon 97\%}$ $\frac{250 \text{ Cf}}{98}$	250Es $\frac{8.6 \text{ h}}{\alpha 3\%}$ $\frac{246 \text{ Bk}}{97}$
250mEs $\frac{2.22 \text{ h}}{\epsilon}$ $\frac{250 \text{ Cf}}{98}$	251Es $\frac{1.375 \text{ d}}{\epsilon 99.5\%}$ $\frac{251 \text{ Cf}}{98}$	251Es $\frac{1.375 \text{ d}}{\alpha 0.5\%}$ $\frac{247 \text{ Bk}}{97}$	252Es $\frac{1.291 \text{ y}}{\alpha 78\%}$ $\frac{248 \text{ Bk}}{97}$	252Es $\frac{1.291 \text{ y}}{\epsilon 22\%}$ $\frac{252 \text{ Cf}}{98}$
253Es $\frac{20.47 \text{ d}}{\alpha}$ $\frac{249 \text{ Bk}}{97}$	254Es $\frac{275.7 \text{ d}}{\alpha}$ $\frac{250 \text{ Bk}}{97}$	254mEs $\frac{1.638 \text{ d}}{\beta 96.65\%}$ $\frac{254 \text{ Fm}}{100}$	254mEs $\frac{1.638 \text{ d}}{\gamma 2.959\%}$ $\frac{254 \text{ Es}}{99}$	254mEs $\frac{1.638 \text{ d}}{\alpha 0.316\%}$ $\frac{250 \text{ Bk}}{97}$
254mEs $\frac{1.638 \text{ d}}{\epsilon < 0.1\%}$ $\frac{254 \text{ Cf}}{98}$	255Es $\frac{39.8 \text{ d}}{\beta 92\%}$ $\frac{255 \text{ Fm}}{100}$	255Es $\frac{39.8 \text{ d}}{\alpha 8\%}$ $\frac{251 \text{ Bk}}{97}$	256Es $\frac{25.4 \text{ m}}{\beta}$ $\frac{256 \text{ Fm}}{100}$	256mEs $\frac{7.6 \text{ h}}{\beta 100\%}$ $\frac{256 \text{ Fm}}{100}$
257Es $\frac{7.7 \text{ d}}{\beta 100\%}$ $\frac{257 \text{ Fm}}{100}$	257Es $\frac{7.7 \text{ d}}{\alpha < 0.1\%}$ $\frac{253 \text{ Bk}}{97}$	258Es $\frac{3 \text{ m}}{\beta 50\%}$ $\frac{258 \text{ Fm}}{100}$	258Es $\frac{3 \text{ m}}{\alpha 50\%}$ $\frac{254 \text{ Bk}}{97}$	242Fm $\frac{800 \text{ } \mu\text{s}}{\alpha 50\%}$ $\frac{238 \text{ Cf}}{98}$
243Fm $\frac{210 \text{ ms}}{\alpha 60\%}$ $\frac{239 \text{ Cf}}{98}$	243Fm $\frac{210 \text{ ms}}{\epsilon 39.43\%}$ $\frac{243 \text{ Es}}{99}$	244Fm $\frac{3.3 \text{ ms}}{\alpha 0.4\%}$ $\frac{240 \text{ Cf}}{98}$	245Fm $\frac{4.2 \text{ s}}{\alpha 95.67\%}$ $\frac{241 \text{ Cf}}{98}$	245Fm $\frac{4.2 \text{ s}}{\epsilon 4.2\%}$ $\frac{245 \text{ Es}}{99}$
246Fm $\frac{1.1 \text{ s}}{\alpha 85.5\%}$ $\frac{242 \text{ Cf}}{98}$	247Fm $\frac{35 \text{ s}}{\alpha 50\%}$ $\frac{243 \text{ Cf}}{98}$	247Fm $\frac{35 \text{ s}}{\epsilon 50\%}$ $\frac{247 \text{ Es}}{99}$	248Fm $\frac{36 \text{ s}}{\alpha 92.91\%}$ $\frac{244 \text{ Cf}}{98}$	248Fm $\frac{36 \text{ s}}{\epsilon 6.993\%}$ $\frac{248 \text{ Es}}{99}$
249Fm $\frac{2.6 \text{ m}}{\epsilon 67\%}$ $\frac{249 \text{ Es}}{99}$	249Fm $\frac{2.6 \text{ m}}{\alpha 33\%}$ $\frac{245 \text{ Cf}}{98}$	250Fm $\frac{30 \text{ m}}{\alpha 89.99\%}$ $\frac{246 \text{ Cf}}{98}$	250Fm $\frac{30 \text{ m}}{\epsilon 9.999\%}$ $\frac{250 \text{ mEs}}{99}$	250mFm $\frac{1.8 \text{ s}}{\gamma 80\%}$ $\frac{250 \text{ Fm}}{100}$
250mFm $\frac{1.8 \text{ s}}{\alpha 20\%}$ $\frac{246 \text{ Cf}}{98}$	251Fm $\frac{5.3 \text{ h}}{\epsilon 98.2\%}$ $\frac{251 \text{ Es}}{99}$	251Fm $\frac{5.3 \text{ h}}{\alpha 1.8\%}$ $\frac{247 \text{ Cf}}{98}$	252Fm $\frac{1.058 \text{ d}}{\alpha 100\%}$ $\frac{248 \text{ Cf}}{98}$	253Fm $\frac{3 \text{ d}}{\epsilon 88\%}$ $\frac{253 \text{ Es}}{99}$
253Fm $\frac{3 \text{ d}}{\alpha 12\%}$ $\frac{249 \text{ Cf}}{98}$	254Fm $\frac{3.24 \text{ h}}{\alpha 99.94\%}$ $\frac{250 \text{ Cf}}{98}$	255Fm $\frac{20.07 \text{ h}}{\alpha}$ $\frac{251 \text{ Cf}}{98}$	256Fm $\frac{2.627 \text{ h}}{\alpha 8.1\%}$ $\frac{252 \text{ Cf}}{98}$	257Fm $\frac{100.5 \text{ d}}{\alpha 99.79\%}$ $\frac{253 \text{ Cf}}{98}$
245Md $\frac{900 \text{ } \mu\text{s}}{\alpha 50\%}$ $\frac{241 \text{ Es}}{99}$	245mMd $\frac{400 \text{ ms}}{\alpha 50\%}$ $\frac{241 \text{ Es}}{99}$	245mMd $\frac{400 \text{ ms}}{\epsilon 50\%}$ $\frac{245 \text{ Fm}}{100}$	246Md $\frac{1 \text{ s}}{\alpha 33.33\%}$ $\frac{242 \text{ Es}}{99}$	246Md $\frac{1 \text{ s}}{\epsilon 33.33\%}$ $\frac{246 \text{ Fm}}{100}$
247Md $\frac{270 \text{ ms}}{\alpha 50\%}$ $\frac{243 \text{ Es}}{99}$	247mMd $\frac{1.12 \text{ s}}{\alpha 100\%}$ $\frac{243 \text{ Es}}{99}$	248Md $\frac{7 \text{ s}}{\epsilon 79.95\%}$ $\frac{248 \text{ Fm}}{100}$	248Md $\frac{7 \text{ s}}{\alpha 20\%}$ $\frac{244 \text{ Es}}{99}$	249Md $\frac{24 \text{ s}}{\alpha 60\%}$ $\frac{245 \text{ Es}}{99}$
249Md $\frac{24 \text{ s}}{\alpha 40\%}$ $\frac{249 \text{ Fm}}{100}$	249mMd $\frac{1.9 \text{ s}}{\alpha}$ $\frac{245 \text{ Es}}{99}$	250Md $\frac{52 \text{ s}}{\epsilon 46.49\%}$ $\frac{250 \text{ Fm}}{100}$	250Md $\frac{52 \text{ s}}{\epsilon 46.49\%}$ $\frac{250 \text{ mFm}}{100}$	250Md $\frac{52 \text{ s}}{\alpha 7\%}$ $\frac{246 \text{ Es}}{99}$
251Md $\frac{4 \text{ m}}{\epsilon 95\%}$ $\frac{251 \text{ Fm}}{100}$	251Md $\frac{4 \text{ m}}{\alpha 5\%}$ $\frac{247 \text{ Es}}{99}$	252Md $\frac{2.3 \text{ m}}{\epsilon 50\%}$ $\frac{252 \text{ Fm}}{100}$	252Md $\frac{2.3 \text{ m}}{\alpha 50\%}$ $\frac{248 \text{ Es}}{99}$	253Md $\frac{12 \text{ m}}{\epsilon 99.4\%}$ $\frac{253 \text{ Fm}}{100}$
253Md $\frac{12 \text{ m}}{\alpha 0.6\%}$ $\frac{249 \text{ Es}}{99}$	254Md $\frac{10 \text{ m}}{\epsilon}$ $\frac{254 \text{ Fm}}{100}$	254mMd $\frac{28 \text{ m}}{\epsilon}$ $\frac{254 \text{ Fm}}{100}$	255Md $\frac{27 \text{ m}}{\epsilon 91.86\%}$ $\frac{255 \text{ Fm}}{100}$	255Md $\frac{27 \text{ m}}{\alpha 7.988\%}$ $\frac{251 \text{ Es}}{99}$
256Md $\frac{1.283 \text{ h}}{\alpha 87.8\%}$ $\frac{256 \text{ Fm}}{100}$	256Md $\frac{1.283 \text{ h}}{\alpha 9.2\%}$ $\frac{252 \text{ Es}}{99}$	257Md $\frac{5.52 \text{ h}}{\alpha 81.73\%}$ $\frac{257 \text{ Fm}}{100}$	257Md $\frac{5.52 \text{ h}}{\alpha 14.42\%}$ $\frac{253 \text{ Es}}{99}$	258Md $\frac{51.5 \text{ d}}{\alpha 100\%}$ $\frac{254 \text{ Es}}{99}$
258Md $\frac{51.5 \text{ d}}{\beta < 0.1\%}$ $\frac{258 \text{ Fm}}{100}$	258Md $\frac{51.5 \text{ d}}{\beta < 0.1\%}$ $\frac{258 \text{ No}}{101}$	258mMd $\frac{57 \text{ m}}{\epsilon 68.8\%}$ $\frac{258 \text{ Fm}}{100}$	258mMd $\frac{57 \text{ m}}{\beta 10\%}$ $\frac{258 \text{ No}}{102}$	258mMd $\frac{57 \text{ m}}{\alpha 1.2\%}$ $\frac{254 \text{ mEs}}{99}$
259Md $\frac{1.6 \text{ h}}{\alpha 1.3\%}$ $\frac{255 \text{ Es}}{99}$	260Md $\frac{27.8 \text{ d}}{\alpha 2.5\%}$ $\frac{256 \text{ Es}}{99}$	260Md $\frac{27.8 \text{ d}}{\alpha 2.5\%}$ $\frac{256 \text{ mEs}}{99}$	260Md $\frac{27.8 \text{ d}}{\beta 3.5\%}$ $\frac{260 \text{ No}}{102}$	261Md $\frac{40 \text{ m}}{\alpha}$ $\frac{257 \text{ Es}}{99}$
249No $\frac{57 \text{ } \mu\text{s}}{\epsilon 25\%}$ $\frac{249 \text{ Md}}{101}$	249No $\frac{57 \text{ } \mu\text{s}}{\epsilon 25\%}$ $\frac{249 \text{ mMd}}{101}$	249No $\frac{57 \text{ } \mu\text{s}}{\alpha 50\%}$ $\frac{245 \text{ Fm}}{100}$	250No $\frac{5.7 \text{ } \mu\text{s}}{\alpha < 0.1\%}$ $\frac{246 \text{ Fm}}{100}$	250No $\frac{5.7 \text{ } \mu\text{s}}{\epsilon < 0.1\%}$ $\frac{250 \text{ Md}}{101}$
251No $\frac{800 \text{ ms}}{\alpha}$ $\frac{247 \text{ Fm}}{100}$	251mNo $\frac{1.7 \text{ s}}{\alpha}$ $\frac{247 \text{ Fm}}{100}$	252No $\frac{2.44 \text{ s}}{\alpha 67\%}$ $\frac{248 \text{ Fm}}{100}$	252No $\frac{2.44 \text{ s}}{\epsilon 0.8\%}$ $\frac{252 \text{ Md}}{101}$	253No $\frac{1.62 \text{ m}}{\alpha 80\%}$ $\frac{249 \text{ Fm}}{100}$
253No $\frac{1.62 \text{ m}}{\epsilon 20\%}$ $\frac{253 \text{ Md}}{101}$	254No $\frac{51 \text{ s}}{\alpha 89.85\%}$ $\frac{250 \text{ Fm}}{100}$	254No $\frac{51 \text{ s}}{\epsilon 9.983\%}$ $\frac{254 \text{ Md}}{101}$	254mNo $\frac{280 \text{ ms}}{\gamma 80\%}$ $\frac{254 \text{ No}}{102}$	254mNo $\frac{280 \text{ ms}}{\alpha 10\%}$ $\frac{250 \text{ Fm}}{100}$
254mNo $\frac{280 \text{ ms}}{\alpha 10\%}$ $\frac{250 \text{ mFm}}{100}$	255No $\frac{3.1 \text{ m}}{\alpha 61\%}$ $\frac{251 \text{ Fm}}{100}$	255No $\frac{3.1 \text{ m}}{\epsilon 39\%}$ $\frac{255 \text{ Md}}{101}$	256No $\frac{2.91 \text{ s}}{\alpha 99.5\%}$ $\frac{252 \text{ Fm}}{100}$	257No $\frac{25 \text{ s}}{\alpha}$ $\frac{253 \text{ Fm}}{100}$
258No $\frac{1.2 \text{ ms}}{\alpha < 0.1\%}$ $\frac{254 \text{ Fm}}{100}$	259No $\frac{58 \text{ m}}{\alpha 68.18\%}$ $\frac{255 \text{ Fm}}{100}$	259No $\frac{58 \text{ m}}{\epsilon 22.73\%}$ $\frac{259 \text{ Md}}{101}$	261No $\frac{3 \text{ h}}{\alpha}$ $\frac{257 \text{ Fm}}{100}$	251Lr $\frac{150 \text{ } \mu\text{s}}{\epsilon 25\%}$ $\frac{251 \text{ No}}{102}$
251Lr $\frac{150 \text{ } \mu\text{s}}{\epsilon 25\%}$ $\frac{251 \text{ No}}{102}$	251Lr $\frac{150 \text{ } \mu\text{s}}{\alpha 25\%}$ $\frac{247 \text{ Md}}{101}$	251Lr $\frac{150 \text{ } \mu\text{s}}{\alpha 25\%}$ $\frac{247 \text{ mMd}}{101}$	252Lr $\frac{390 \text{ ms}}{\epsilon 71\%}$ $\frac{252 \text{ No}}{102}$	252Lr $\frac{390 \text{ ms}}{\alpha 28\%}$ $\frac{248 \text{ Md}}{101}$
253Lr $\frac{580 \text{ ms}}{\alpha 96.15\%}$ $\frac{249 \text{ Md}}{101}$	253Lr $\frac{580 \text{ ms}}{\epsilon 1.068\%}$ $\frac{253 \text{ No}}{102}$	253mLr $\frac{1.5 \text{ s}}{\alpha 90.91\%}$ $\frac{249 \text{ mMd}}{101}$	253mLr $\frac{1.5 \text{ s}}{\epsilon 1.01\%}$ $\frac{253 \text{ No}}{102}$	254Lr $\frac{13 \text{ s}}{\alpha 76\%}$ $\frac{250 \text{ Md}}{101}$
254Lr $\frac{13 \text{ s}}{\epsilon 12\%}$ $\frac{254 \text{ No}}{102}$	254Lr $\frac{13 \text{ s}}{\alpha}$ $\frac{254 \text{ mNo}}{102}$	255Lr $\frac{22 \text{ s}}{\epsilon 69\%}$ $\frac{251 \text{ Md}}{101}$	255Lr $\frac{22 \text{ s}}{\epsilon 30\%}$ $\frac{255 \text{ No}}{102}$	256Lr $\frac{27 \text{ s}}{\alpha 84.97\%}$ $\frac{252 \text{ Md}}{101}$
256Lr $\frac{27 \text{ s}}{\epsilon 15\%}$ $\frac{256 \text{ No}}{102}$	257Lr $\frac{646 \text{ } \mu\text{s}}{\alpha}$ $\frac{253 \text{ Md}}{101}$	258Lr $\frac{4.1 \text{ s}}{\alpha 47.5\%}$ $\frac{254 \text{ Md}}{101}$	258Lr $\frac{4.1 \text{ s}}{\alpha 47.5\%}$ $\frac{254 \text{ mMd}}{101}$	258Lr $\frac{4.1 \text{ s}}{\epsilon 5\%}$ $\frac{258 \text{ No}}{102}$
259Lr $\frac{6.2 \text{ s}}{\alpha 77.53\%}$ $\frac{255 \text{ Md}}{101}$	259Lr $\frac{6.2 \text{ s}}{\epsilon 0.596\%}$ $\frac{259 \text{ No}}{102}$	260Lr $\frac{3 \text{ m}}{\alpha 80\%}$ $\frac{256 \text{ Md}}{101}$	260Lr $\frac{3 \text{ m}}{\epsilon 20\%}$ $\frac{260 \text{ No}}{102}$	261Lr $\frac{39 \text{ m}}{\alpha 50\%}$ $\frac{257 \text{ Md}}{101}$

$^{262}_{103}\text{Lr}$ $\xrightarrow[45\%]{4\text{ h}}$ $^{262}_{102}\text{No}$	$^{262}_{103}\text{Lr}$ $\xrightarrow[22.5\%]{4\text{ h}}$ $^{258}_{101}\text{Md}$	$^{262}_{103}\text{Lr}$ $\xrightarrow[22.5\%]{4\text{ h}}$ $^{258m}_{101}\text{Md}$	$^{263}_{103}\text{Lr}$ $\xrightarrow[\alpha]{5\text{ h}}$ $^{259}_{101}\text{Md}$	$^{253}_{104}\text{Rf}$ $\xrightarrow[\alpha]{13\text{ ms}}$ $^{249}_{102}\text{No}$
$^{254}_{104}\text{Rf}$ $\xrightarrow[\alpha]{23\text{ }\mu\text{s}}$ $^{250}_{102}\text{No}$	$^{255}_{104}\text{Rf}$ $\xrightarrow[\alpha]{1.64\text{ s}}$ $^{251m}_{102}\text{No}$	$^{255m}_{104}\text{Rf}$ $\xrightarrow[\alpha]{1\text{ s}}$ $^{251}_{102}\text{No}$	$^{256}_{104}\text{Rf}$ $\xrightarrow[\alpha]{6.45\text{ ms}}$ $^{252}_{102}\text{No}$	$^{257}_{104}\text{Rf}$ $\xrightarrow[\alpha]{4.7\text{ s}}$ $^{253}_{102}\text{No}$
$^{257}_{104}\text{Rf}$ $\xrightarrow[\alpha]{4.7\text{ s}}$ $^{257}_{103}\text{Lr}$	$^{257m}_{104}\text{Rf}$ $\xrightarrow[\alpha]{3.9\text{ s}}$ $^{253}_{102}\text{No}$	$^{258}_{104}\text{Rf}$ $\xrightarrow[\alpha]{12\text{ ms}}$ $^{254}_{102}\text{No}$	$^{259}_{104}\text{Rf}$ $\xrightarrow[\alpha]{2.8\text{ s}}$ $^{255}_{102}\text{No}$	$^{259}_{104}\text{Rf}$ $\xrightarrow[\epsilon]{2.8\text{ s}}$ $^{259}_{103}\text{Lr}$
$^{260}_{104}\text{Rf}$ $\xrightarrow[\alpha]{21\text{ ms}}$ $^{256}_{102}\text{No}$	$^{260}_{104}\text{Rf}$ $\xrightarrow[\epsilon]{21\text{ ms}}$ $^{260}_{103}\text{Lr}$	$^{261}_{104}\text{Rf}$ $\xrightarrow[\alpha]{5.5\text{ s}}$ $^{257}_{102}\text{No}$	$^{261m}_{104}\text{Rf}$ $\xrightarrow[\alpha]{1.35\text{ m}}$ $^{257}_{102}\text{No}$	$^{261m}_{104}\text{Rf}$ $\xrightarrow[\alpha]{1.35\text{ m}}$ $^{261}_{103}\text{Lr}$
$^{262}_{104}\text{Rf}$ $\xrightarrow[\alpha]{2.3\text{ s}}$ $^{258}_{102}\text{No}$	$^{263}_{104}\text{Rf}$ $\xrightarrow[\alpha]{11\text{ m}}$ $^{259}_{102}\text{No}$	$^{264}_{104}\text{Rf}$ $\xrightarrow[\alpha]{1\text{ h}}$ $^{260}_{102}\text{No}$	$^{265}_{104}\text{Rf}$ $\xrightarrow[\alpha]{13\text{ h}}$ $^{261}_{102}\text{No}$	$^{255}_{105}\text{Db}$ $\xrightarrow[\alpha]{1.7\text{ s}}$ $^{251}_{103}\text{Lr}$
$^{256}_{105}\text{Db}$ $\xrightarrow[\alpha]{1.9\text{ s}}$ $^{258}_{103}\text{Lr}$	$^{256}_{105}\text{Db}$ $\xrightarrow[\epsilon]{36\%}$ $^{256}_{104}\text{Rf}$	$^{257}\text{Db}$ $\xrightarrow[105]{1.53\text{ s}}$ $^{253}\text{Lr}$	$^{257}\text{Db}$ $\xrightarrow[\alpha]{1.53\text{ s}}$ $^{253m}_{103}\text{Lr}$	$^{257}\text{Db}$ $\xrightarrow[\alpha]{1.53\text{ s}}$ $^{257m}_{104}\text{Rf}$
$^{257m}_{105}\text{Db}$ $\xrightarrow[\alpha]{790\text{ ms}}$ $^{253}_{103}\text{Lr}$	$^{257m}_{105}\text{Db}$ $\xrightarrow[\alpha]{790\text{ ms}}$ $^{253m}_{103}\text{Lr}$	$^{257m}\text{Db}$ $\xrightarrow[\alpha]{790\text{ ms}}$ $^{257}\text{Rf}$	$^{258}\text{Db}$ $\xrightarrow[\alpha]{4.5\text{ s}}$ $^{254}\text{Lr}$	$^{258}\text{Db}$ $\xrightarrow[\epsilon]{35.64\%}$ $^{258}\text{Rf}$
$^{258m}_{105}\text{Db}$ $\xrightarrow[\epsilon]{20\text{ s}}$ $^{258}\text{Rf}$	$^{259}\text{Db}$ $\xrightarrow[\alpha]{510\text{ ms}}$ $^{255}\text{Lr}$	$^{260}\text{Db}$ $\xrightarrow[\alpha]{1.52\text{ s}}$ $^{256}\text{Lr}$	$^{260}\text{Db}$ $\xrightarrow[\alpha]{1.52\text{ s}}$ $^{260}\text{Rf}$	$^{261}\text{Db}$ $\xrightarrow[\alpha]{1.8\text{ s}}$ $^{257}\text{Lr}$
$^{262}_{105}\text{Db}$ $\xrightarrow[\alpha]{35\text{ s}}$ $^{258}\text{Lr}$	$^{262}_{105}\text{Db}$ $\xrightarrow[\epsilon]{1.5\%}$ $^{262}\text{Rf}$	$^{262}\text{Db}$ $\xrightarrow[\epsilon]{35\text{ s}}$ $^{262m}\text{Rf}$	$^{263}\text{Db}$ $\xrightarrow[\alpha]{29\text{ s}}$ $^{259}\text{Lr}$	$^{263}\text{Db}$ $\xrightarrow[\alpha]{29\text{ s}}$ $^{263}\text{Rf}$
$^{264}\text{Db}$ $\xrightarrow[\alpha]{3\text{ m}}$ $^{260}\text{Lr}$	$^{265}\text{Db}$ $\xrightarrow[\alpha]{15\text{ m}}$ $^{261}\text{Lr}$	$^{258}\text{Sg}$ $\xrightarrow[\alpha]{3.3\text{ ms}}$ $^{254}\text{Rf}$	$^{259}\text{Sg}$ $\xrightarrow[\alpha]{580\text{ ms}}$ $^{255m}\text{Rf}$	$^{260}\text{Sg}$ $\xrightarrow[\alpha]{3.8\text{ ms}}$ $^{256}\text{Rf}$
$^{261}\text{Sg}$ $\xrightarrow[\alpha]{230\text{ ms}}$ $^{257}\text{Rf}$	$^{261}\text{Sg}$ $\xrightarrow[\alpha]{230\text{ ms}}$ $^{257m}\text{Rf}$	$^{262}\text{Sg}$ $\xrightarrow[\alpha]{8\text{ ms}}$ $^{258}\text{Rf}$	$^{263}\text{Sg}$ $\xrightarrow[\alpha]{1\text{ s}}$ $^{259}\text{Rf}$	$^{263m}\text{Sg}$ $\xrightarrow[\alpha]{120\text{ ms}}$ $^{259}\text{Rf}$
$^{263m}\text{Sg}$ $\xrightarrow[\alpha]{120\text{ ms}}$ $^{263}\text{Sg}$	$^{264}\text{Sg}$ $\xrightarrow[\alpha]{400\text{ ms}}$ $^{260}\text{Rf}$	$^{265}\text{Sg}$ $\xrightarrow[\alpha]{8\text{ s}}$ $^{261m}\text{Rf}$	$^{266}\text{Sg}$ $\xrightarrow[\alpha]{21\text{ s}}$ $^{262}\text{Rf}$	$^{266}\text{Sg}$ $\xrightarrow[\alpha]{21\text{ s}}$ $^{262m}\text{Rf}$
$^{269}\text{Sg}$ $\xrightarrow[\alpha]{35\text{ s}}$ $^{265}\text{Rf}$	$^{260}\text{Bh}$ $\xrightarrow[\alpha]{300\text{ }\mu\text{s}}$ $^{256}\text{Db}$	$^{261}\text{Bh}$ $\xrightarrow[\alpha]{13\text{ ms}}$ $^{257}\text{Db}$	$^{261}\text{Bh}$ $\xrightarrow[\alpha]{13\text{ ms}}$ $^{257m}\text{Db}$	$^{262}\text{Bh}$ $\xrightarrow[\alpha]{290\text{ ms}}$ $^{258}\text{Db}$
$^{262}\text{Bh}$ $\xrightarrow[\alpha]{290\text{ ms}}$ $^{258m}\text{Db}$	$^{262m}\text{Bh}$ $\xrightarrow[\alpha]{14\text{ ms}}$ $^{258}\text{Db}$	$^{262m}\text{Bh}$ $\xrightarrow[\alpha]{14\text{ ms}}$ $^{258m}\text{Db}$	$^{263}\text{Bh}$ $\xrightarrow[\alpha]{200\text{ ms}}$ $^{259}\text{Db}$	$^{264}\text{Bh}$ $\xrightarrow[\alpha]{1.3\text{ s}}$ $^{260}\text{Db}$
$^{264}\text{Bh}$ $\xrightarrow[\alpha]{1.3\text{ s}}$ $^{264}\text{Sg}$	$^{265}\text{Bh}$ $\xrightarrow[\alpha]{500\text{ ms}}$ $^{261}\text{Db}$	$^{266}\text{Bh}$ $\xrightarrow[\alpha]{5\text{ s}}$ $^{262}\text{Db}$	$^{267}\text{Bh}$ $\xrightarrow[\alpha]{22\text{ s}}$ $^{263}\text{Db}$	$^{269}\text{Bh}$ $\xrightarrow[\alpha]{25\text{ s}}$ $^{265}\text{Db}$
$^{263}\text{Hs}$ $\xrightarrow[\alpha]{1\text{ ms}}$ $^{259}\text{Sg}$	$^{264}\text{Hs}$ $\xrightarrow[\alpha]{540\text{ }\mu\text{s}}$ $^{260}\text{Sg}$	$^{265}\text{Hs}$ $\xrightarrow[\alpha]{2.1\text{ ms}}$ $^{261}\text{Sg}$	$^{265m}\text{Hs}$ $\xrightarrow[\alpha]{780\text{ }\mu\text{s}}$ $^{261}\text{Sg}$	$^{266}\text{Hs}$ $\xrightarrow[\alpha]{2.7\text{ ms}}$ $^{262}\text{Sg}$
$^{267}\text{Hs}$ $\xrightarrow[\alpha]{32\text{ ms}}$ $^{263m}\text{Sg}$	$^{268}\text{Hs}$ $\xrightarrow[\alpha]{2\text{ s}}$ $^{264}\text{Sg}$	$^{269}\text{Hs}$ $\xrightarrow[\alpha]{27\text{ s}}$ $^{265}\text{Sg}$	$^{273}\text{Hs}$ $\xrightarrow[\alpha]{50\text{ s}}$ $^{269}\text{Sg}$	$^{265}\text{Mt}$ $\xrightarrow[\alpha]{2\text{ ms}}$ $^{261}\text{Bh}$
$^{266}\text{Mt}$ $\xrightarrow[\alpha]{1.2\text{ ms}}$ $^{262}\text{Bh}$	$^{266}\text{Mt}$ $\xrightarrow[\alpha]{1.2\text{ ms}}$ $^{262m}\text{Bh}$	$^{266m}\text{Mt}$ $\xrightarrow[\alpha]{6\text{ ms}}$ $^{262}\text{Bh}$	$^{266m}\text{Mt}$ $\xrightarrow[\alpha]{6\text{ ms}}$ $^{262m}\text{Bh}$	$^{267}\text{Mt}$ $\xrightarrow[\alpha]{10\text{ ms}}$ $^{263}\text{Bh}$
$^{268}\text{Mt}$ $\xrightarrow[\alpha]{53\text{ ms}}$ $^{264}\text{Bh}$	$^{269}\text{Mt}$ $\xrightarrow[\alpha]{200\text{ ms}}$ $^{265}\text{Bh}$	$^{270}\text{Mt}$ $\xrightarrow[\alpha]{2\text{ s}}$ $^{266}\text{Bh}$	$^{271}\text{Mt}$ $\xrightarrow[\alpha]{5\text{ s}}$ $^{267}\text{Bh}$	$^{273}\text{Mt}$ $\xrightarrow[\alpha]{20\text{ s}}$ $^{269}\text{Bh}$
$^{267}\text{Ds}$ $\xrightarrow[\alpha]{10\text{ }\mu\text{s}}$ $^{263}\text{Hs}$	$^{268}\text{Ds}$ $\xrightarrow[\alpha]{100\text{ }\mu\text{s}}$ $^{264}\text{Hs}$	$^{269}\text{Ds}$ $\xrightarrow[\alpha]{230\text{ }\mu\text{s}}$ $^{265m}\text{Hs}$	$^{270}\text{Ds}$ $\xrightarrow[\alpha]{160\text{ }\mu\text{s}}$ $^{266}\text{Hs}$	$^{270m}\text{Ds}$ $\xrightarrow[\alpha]{10\text{ ms}}$ $^{266}\text{Hs}$
$^{270m}\text{Ds}$ $\xrightarrow[\alpha]{10\text{ ms}}$ $^{270}\text{Ds}$	$^{271}\text{Ds}$ $\xrightarrow[\alpha]{210\text{ ms}}$ $^{267}\text{Hs}$	$^{271m}\text{Ds}$ $\xrightarrow[\alpha]{1.3\text{ ms}}$ $^{267}\text{Hs}$	$^{273}\text{Ds}$ $\xrightarrow[\alpha]{360\text{ }\mu\text{s}}$ $^{269}\text{Hs}$	$^{273m}\text{Ds}$ $\xrightarrow[\alpha]{120\text{ ms}}$ $^{269}\text{Hs}$
$^{272}\text{Rg}$ $\xrightarrow[\alpha]{2\text{ ms}}$ $^{268}\text{Mt}$				