

Radioactive Decay Worksheet

For each section, write out the complete equation for 5 random equations. For the others, put only the daughter nuclide which results from the decay. Using a periodic table is helpful.

Alpha Decay

1. $^{208}_{84}\text{Po}$ 2. $^{211}_{86}\text{Rn}$ 3. $^{211}_{87}\text{Fr}$ 4. $^{222}_{88}\text{Ra}$ 5. $^{225}_{89}\text{Ac}$ 6. $^{227}_{91}\text{Pa}$ 7. $^{231}_{91}\text{Pa}$
8. $^{233}_{92}\text{U}$ 9. $^{237}_{93}\text{Np}$ 10. $^{239}_{94}\text{Pu}$ 11. $^{241}_{95}\text{Am}$ 12. $^{240}_{96}\text{Cm}$ 13. $^{247}_{97}\text{Bk}$ 14. $^{251}_{98}\text{Cf}$
15. $^{252}_{99}\text{Es}$ 16. $^{257}_{100}\text{Fm}$ 17. $^{255}_{101}\text{Md}$ 18. $^{255}_{102}\text{No}$ 19. $^{256}_{103}\text{Lr}$

Beta Decay

20. ^6_2He 21. ^8_3Li 22. $^{10}_4\text{Be}$ 23. $^{13}_5\text{B}$ 24. $^{14}_6\text{C}$ 25. $^{16}_7\text{N}$ 26. $^{19}_8\text{O}$
27. $^{20}_9\text{F}$ 28. $^{24}_{11}\text{Na}$ 29. $^{32}_{15}\text{P}$ 30. $^{35}_{16}\text{S}$ 31. $^{42}_{19}\text{K}$ 32. $^{52}_{26}\text{Fe}$ 33. $^{60}_{27}\text{Co}$
34. $^{82}_{35}\text{Br}$ 35. $^{90}_{38}\text{Sr}$ 36. $^{99}_{43}\text{Tc}$ 37. $^{131}_{53}\text{I}$ 38. $^{137}_{55}\text{Cs}$ 39. $^{192}_{77}\text{Ir}$ 40. $^{201}_{79}\text{Au}$

Electron Capture

41. $^{37}_{18}\text{Ar}$ 42. $^{50}_{23}\text{V}$ 43. $^{51}_{24}\text{Cr}$ 44. $^{57}_{27}\text{Co}$ 45. $^{56}_{28}\text{Ni}$ 46. $^{67}_{31}\text{Ga}$ 47. $^{73}_{33}\text{As}$
48. $^{81}_{36}\text{Kr}$ 49. $^{80}_{38}\text{Sr}$ 50. $^{91}_{41}\text{Nb}$ 51. $^{97}_{44}\text{Ru}$ 52. $^{125}_{53}\text{I}$ 53. $^{128}_{56}\text{Ba}$ 54. $^{145}_{62}\text{Sm}$
55. $^{168}_{69}\text{Tm}$ 56. $^{200}_{84}\text{Po}$ 57. $^{235}_{94}\text{Pu}$ 58. $^{239}_{96}\text{Cm}$ 59. $^{244}_{97}\text{Bk}$ 60. $^{247}_{99}\text{Es}$ 61. $^{257}_{101}\text{Md}$

Positron Decay

62. $^{13}_7\text{N}$ 63. $^{15}_8\text{O}$ 64. $^{18}_9\text{F}$ 65. $^{19}_{10}\text{Ne}$ 66. $^{21}_{11}\text{Na}$ 67. $^{23}_{12}\text{Mg}$ 68. $^{25}_{13}\text{Al}$
69. $^{27}_{14}\text{Si}$ 70. $^{30}_{15}\text{P}$ 71. $^{30}_{16}\text{S}$ 72. $^{37}_{19}\text{K}$ 73. $^{39}_{20}\text{Ca}$ 74. $^{42}_{21}\text{Sc}$ 75. $^{45}_{22}\text{Ti}$
76. $^{54}_{27}\text{Co}$ 77. $^{60}_{29}\text{Cu}$ 78. $^{61}_{30}\text{Zn}$ 79. $^{83}_{38}\text{Sr}$ 80. $^{68}_{31}\text{Ga}$ 81. $^{75}_{35}\text{Br}$ 82. $^{155}_{66}\text{Dy}$