

1 Half-life, Q-value and Decay mode

$T_{1/2}$:	0.10	(2)	$\times 10^{-3}$	s
Q_α	:	8178	(4)		keV
α	:	100			%

2 α Emissions

	Energy keV	Probability $\times 100$
$\alpha_{0,1}$	7628 (4)	0.05 (2)
$\alpha_{0,0}$	8026 (4)	99.95 (2)

3 Electron Emissions

		Energy keV	Electrons per 100 disint.
e_{AL}	(Bi)	5.42 - 16.34	0.0027 (5)
e_{AK}	(Bi)		0.00015 (7)
	KLL	57.491 - 63.419	}
	KLX	70.025 - 77.105	}
	KXY	82.53 - 90.52	}

4 Photon Emissions

4.1 X-Ray Emissions

		Energy keV	Photons per 100 disint.	
XL	(Bi)	9.4207 — 15.7084	0.0017 (4)	
XK α_2	(Bi)	74.8157	0.0012 (5)	} K α
XK α_1	(Bi)	77.1088	0.0020 (9)	}
XK β_3	(Bi)	86.835	}	
XK β_1	(Bi)	87.344	}	0.00069 (28) K β'_1
XK β'_5	(Bi)	87.862	}	
XK β_2	(Bi)	89.732	}	
XK β_4	(Bi)	90.074	}	0.00021 (9) K β'_2
XK $O_{2,3}$	(Bi)	90.421	}	

4.2 Gamma Transitions and Emissions

	Energy keV	$P_{\gamma+ce}$ $\times 100$	Multipolarity	α_T	P_γ $\times 100$
$\gamma_{1,0}(\text{Bi})$	404.853 (9)	0.05 (2)	M1+E2	0.122 (8)	0.045 (18)

5 References

- W.W.MEINKE, A.GHIORSO, G.T.SEABORG, Phys. Rev. 81 (1951) 782
(Half-life, energy of alpha-emission)
- G.GRAEFFE, P.KAURANEN, J. Inorg. Nucl. Chem. 28 (1966) 933
(Alpha-particle energies and emission probabilities, Bi-211 levels)
- J.D.BOWMAN, R.E.EPPLEY, E.K.HYDE, Phys. Rev. C25 (1982) 941
(Alpha-particle energies)
- A.RYTZ, At. Data Nucl. Data Tables 47 (1991) 205
(Alpha-particle energies and emission probabilities)
- G.AUDI, A.H.WAPSTRA, C.THIBAUT, Nucl. Phys. A729 (2003) 337
(Q)
- E.BROWNE, Nucl. Data Sheets 103 (2004) 183
(At215 alpha decay scheme, Bi211 levels)
- T.KIBÉDI, T.W.BURROWS, M.B.TRZHASKOVSKAYA, P.M.DAVIDSON, C.W.NESTOR JR., Nucl. Instrum. Methods Phys. Res. A589 (2008) 202
(Band-Raman ICC for gamma-ray transitions)