

APPENDIX A

RADIONUCLIDE AND CHEMICAL NOMENCLATURE

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Table A.1. Nomenclature for elements and chemical constituents

Constituent	Symbol
Aluminum	Al
Ammonia	NH ₃
Antimony	Sb
Arsenic	As
Barium	Ba
Beryllium	Be
Cadmium	Cd
Calcium	Ca
Chromium	Cr
Cobalt	Co
Copper	Cu
Iron	Fe
Lead	Pb
Lithium	Li
Magnesium	Mg
Manganese	Mn
Mercury	Hg
Nickel	Ni
Nitrogen	N
Nitrate ion	NO ₃ ⁻
Nitrite ion	NO ₂ ⁻
Phosphorus	P
Phosphate ion	PO ₄ ²⁻
Potassium	K
Selenium	Se
Silver	Ag
Sodium	Na
Sulfate ion	SO ₄ ⁻
Sulfur dioxide	SO ₂
Thallium	Tl
Uranium	U
Vanadium	V
Zinc	Zn

Table A.2. Nomenclature and half-life for radionuclides

Radionuclide	Symbol	Half-life (years)
Americium-241	²⁴¹ Am	432.2
Neptunium-237	²³⁷ Np	2,140,000
Plutonium-238	²³⁸ Pu	87.7
Plutonium-239	²³⁹ Pu	24,100
Plutonium-240	²⁴⁰ Pu	6,564
Technetium-99	⁹⁹ Tc	211,000
Uranium-233	²³³ U	159,000
Uranium-234	²³⁴ U	246,000
Uranium-235	²³⁵ U	704,000,000
Uranium-236	²³⁶ U	23,400,000
Uranium-238	²³⁸ U	4,470,000,000

Source: *Derived Concentration Technical Standard* (DOE 2011b), Table A.3.