



Periodic table of the elements  
Thermal Neutron Cross Sections

1.01 1 Hydrogen 20.49 0.333 gas	9.01 3 Lithium 6.95 70.5 3.31	9.01 4 Beryllium 6.15 0.0076 0.76	44.96 21 Scandium 22.4 27.2 1.99	47.88 22 Titanium 4.09 6.09 0.58	50.94 23 Vanadium 4.8 5.08 0.71	51.97 24 Chromium 3.38 3.07 0.54	54.94 25 Manganese 2.2 13.3 1.24	55.85 26 Iron 11.35 2.56 1.18	58.93 27 Cobalt 6 37.18 3.93	58.69 28 Nickel 17.8 4.49 2.04	63.55 29 Copper 7.78 3.78 0.98	65.39 30 Zinc 4.08 1.11 0.34	69.72 31 Gallium 6.5 2.9 0.48	72.59 32 Germanium 8.37 2.3 0.47	74.92 33 Arsenic 5.43 4.5 0.46	78.96 34 Selenium 8.56 11.7 0.74	79.90 35 Bromine 6.1 6.9 0.31	83.80 36 Krypton 7.5 25 gas																	
22.99 11 Sodium 3.025 0.53 0.09	24.31 12 Magnesium 3.414 0.063 0.15	26.98 13 Aluminum 1.413 0.231 0.1	28.09 14 Silicon 2.0437 0.171 0.11	30.97 15 Phosphorus 3.134 0.172 0.12	32.07 16 Sulfur 0.9787 0.53 0.06	35.45 17 Chlorine 15.8 33.5 gas	39.95 18 Argon 0.647 0.675 gas	40.08 19 Potassium 2.04 2.1 0.05	40.08 20 Calcium 2.93 0.43 0.08	69.72 31 Gallium 6.5 2.9 0.48	72.59 32 Germanium 8.37 2.3 0.47	74.92 33 Arsenic 5.43 4.5 0.46	78.96 34 Selenium 8.56 11.7 0.74	79.90 35 Bromine 6.1 6.9 0.31	83.80 36 Krypton 7.5 25 gas	85.47 37 Rubidium 6.4 0.38 0.07	87.62 38 Strontium 10 1.28 0.2	88.91 39 Yttrium 7.67 1.28 0.27	91.22 40 Zirconium 6.4 0.185 0.28	92.91 41 Niobium 6.37 1.15 0.42	95.94 42 Molybdenum 5.59 2.55 0.53	97.91 43 Technetium -	101.07 44 Ruthenium 6.5 2.56 0.67	102.91 45 Rhodium 5 145 10.89	106.42 46 Palladium 4.2 6.9 0.75	107.87 47 Silver 5.08 63.3 4.01	112.41 48 Cadmium 5.6 2520 117	114.82 49 Indium 2.45 193.8 7.52	118.71 50 Tin 4.909 0.626 0.16	121.75 51 Antimony 4.2 5.1 0.31	127.60 52 Tellurium 3.74 4.7 0.25	126.90 53 Iodine 3.54 6.2 0.23	131.29 54 Xenon 4.3 23.9 gas		
132.91 55 Cesium 20 29.15 0.42	137.33 56 Barium 3.42 1.2 0.07	138.91 57 Lanthanum 10.13 8.97 0.51	178.49 72 Hafnium 10.3 104.1 5.14	180.95 73 Tantalum 6.12 20.5 1.47	183.85 74 Tungsten 4.77 18.4 1.46	186.21 75 Rhenium 11.3 89.7 6.86	190.20 76 Osmium 15 16 2.21	192.22 77 Iridium 14.2 425.3 30.86	195.08 78 Platinum 12.4 10.3 1.5	196.97 79 Gold 7.84 98.65 6.14	200.59 80 Mercury 26.5 372.3 16.21	204.38 81 Thallium 10.01 3.43 0.47	207.20 82 Lead 11.26 0.171 0.38	208.98 83 Bismuth 9.3 0.0338 0.26	208.98 84 Polonium -	209.99 85 Astatine -	222.02 86 Radon -	223.02 87 Francium -	226.03 88 Radium -	227.03 89 Actinium -	261 104 Rutherfordium -	262 105 Dubnium -	266 106 Seaborgium -	264 107 Bohrium -	269 108 Hassium -	268 109 Meitnerium -	271 110 Darmstadtium -	272 111 Roentgenium -	285 112 Ununbium -	284 113 Ununtrium -	289 114 Ununquadium -	288 115 Ununpentium -	292 116 Ununhexium -	291 117 Ununseptium -	290 118 Ununoctium -
140.12 58 Cerium 9 0.63 0.28	140.91 59 Praseodymium 2.54 11.5 0.41	144.24 60 Neodymium 16 50.5 1.89	144.91 61 Promethium -	150.36 62 Samarium 38 5670 171.86	151.96 63 Europium -	157.25 64 Gadolinium 172 48890 1483.88	158.93 65 Terbium 6.92 23.4 0.95	162.50 66 Dysprosium 105.9 940 33.13	164.93 67 Holmium 8.65 64.7 2.35	167.26 68 Erbium 9 159.2 5.49	168.93 69 Thulium 6.3 105 3.7	173.04 70 Ytterbium 23.4 35.5 1.43	174.97 71 Lutetium 6.8 76.4 2.82	232.04 90 Thorium 12.97 7.37 0.62	231.04 91 Protactinium -	238.03 92 Uranium 14.3/9.38 680/9/2.68 33.75/0.58	237.05 93 Neptunium -	244.06 94 Plutonium -	243.06 95 Americium -	247.07 96 Curium -	247.07 97 Berkelium -	251.08 98 Californium -	252.08 99 Einsteinium -	257.10 100 Fermium -	258.10 101 Mendelevium -	259.10 102 Nobelium -	260.11 103 Lawrencium -								

140.12 58 Cerium 9 0.63 0.28	140.91 59 Praseodymium 2.54 11.5 0.41	144.24 60 Neodymium 16 50.5 1.89	144.91 61 Promethium -	150.36 62 Samarium 38 5670 171.86	151.96 63 Europium -	157.25 64 Gadolinium 172 48890 1483.88	158.93 65 Terbium 6.92 23.4 0.95	162.50 66 Dysprosium 105.9 940 33.13	164.93 67 Holmium 8.65 64.7 2.35	167.26 68 Erbium 9 159.2 5.49	168.93 69 Thulium 6.3 105 3.7	173.04 70 Ytterbium 23.4 35.5 1.43	174.97 71 Lutetium 6.8 76.4 2.82	232.04 90 Thorium 12.97 7.37 0.62	231.04 91 Protactinium -	238.03 92 Uranium 14.3/9.38 680/9/2.68 33.75/0.58	237.05 93 Neptunium -	244.06 94 Plutonium -	243.06 95 Americium -	247.07 96 Curium -	247.07 97 Berkelium -	251.08 98 Californium -	252.08 99 Einsteinium -	257.10 100 Fermium -	258.10 101 Mendelevium -	259.10 102 Nobelium -	260.11 103 Lawrencium -
---	--	---	---------------------------------	--	-------------------------------	---	---	---	---	--	--	---	---	--	-----------------------------------	--	--------------------------------	--------------------------------	--------------------------------	-----------------------------	--------------------------------	----------------------------------	----------------------------------	-------------------------------	-----------------------------------	--------------------------------	----------------------------------