To n=12				To n=13				To n=14				To n=15				To n=16				To n=17				To n=18				To n=19				To n=20			
Selenium	54.6	0.12%	**Copper**	**122.5**	**0.04%**	Praseodymium	217.6	-0.04%	Palladium	340.3	0.11%	Tungsten	494.2	0.12%	Iridium	665.3	-0.21%	Tellurium	870.8	0.00%	Rubidium	1090.2	-0.46%	Lanthanum	1327.8	0.07%	Cerium	1602.0	0.39%	Osmium	1902.0	0.58%	Mercury	2295.0	-0.19%	Thorium	2677.0	0.39%	**Lead**	**3060.0**	**0.11%**	Thorium	**3529.2**	**-0.00%**	Antimony	4300.0	-0.04%	Tellurium	4939.0	0.56%	Xenon	5453.0	0.20%
Lithium	**54.7**	**0.01%**	Thulium	122.2	-0.21%	Hafnium	339.0	-1.06%	Platinum	492.2	**0.00%**	Rhenium	665.1	-0.01%	Osmium	870.6	-0.04%	Iridium	1090.0	-0.01%	Cerium	1601.8	-0.01%	Praseodymium	1926.0	-0.01%	Iridium	2294.8	-0.01%	Tungsten	2676.8	-0.01%	Iridium	3059.2	-0.01%	Iridium	**4493.0**	**-0.11%**	Vanadium	**5452.0**	**-0.11%**
Thulium	54.7	0.55%	Iodine	122.0	0.37%	Krypton	214.6	1.51%	Thorium	342.4	0.06%	Iridium	495.8	1.22%	Osmium	658.2	-1.27%	**Nickel**	**870.0**	**-0.00%**	Samarium	1115.8	0.80%	Praseodymium	1307.0	0.26%	Ytterbium	1950.0	-0.47%	Thulium	2307.0	0.33%	Bismuth	2688.0	0.80%	Technetium	3043.0	0.60%	Cadmium	3538.0	1.58%	Bismuth	3999.0	-1.70%	Tellurium	4597.0	0.00%	Iodine	5152.0	-0.22%	Lanthanum	5680.0	0.75%
Ytterbium	55.0	0.01%	Xenon	121.8	0.01%	Germanium	213.8	-1.05%	Xenon	341.5	0.00%	Ytterbium	493.5	0.00%	Ytterbium	655.5	0.00%	Ytterbium	869.5	0.00%	Lanthanum	1115.6	0.00%	Praseodymium	1306.8	0.00%	Krypton	1949.0	-0.01%	Ytterbium	2306.8	-0.01%	Ytterbium	2687.8	-0.01%	Ytterbium	3042.8	-0.01%	Iodine	3537.8	-0.01%	Iodine	4000.0	-0.01%	Ytterbium	4596.8	-0.01%	Cadmium	5151.8	-0.01%	Ytterbium	5679.8	-0.01%
Iron	**52.7**	**0.17%**	Neodymium	120.5	-1.55%	Tungsten	213.2	-2.33%	Iodine	338.7	0.08%	Palladium	492.0	-0.01%	Iridium	654.8	-0.01%	Iridium	**867.8**	**-0.01%**	Iodine	1107.0	-2.17%	Dysprosium	1303.0	-0.03%	Europium	1914.0	-1.96%	Neodymium	1923.0	-1.85%	**Lanthanum**	2268.0	-1.58%	Rubidium	3035.0	-1.60%	Thulium	3416.0	-1.55%	**Calcium**	**4038.0**	**-2.79%**	Rhenium	4586.0	-1.50%	Rhenium	5150.0	-1.50%	Rhenium	5678.0	-1.50%
Iodine	52.7	0.00%	Praseodymium	120.0	-0.00%	Neodymium	213.0	-0.00%	Tungsten	337.8	0.00%	Osmium	492.0	0.00%	Osmium	653.8	0.00%	Osmium	867.0	0.00%	Iodine	1107.0	0.00%	Europium	1303.0	0.00%	Europium	1914.0	0.00%	Neodymium	1923.0	0.00%	Lanthanum	2268.0	0.00%	Iodine	3035.0	0.00%	Ytterbium	3416.0	0.00%	**Calcium**	**4038.0**	**0.00%**	Iodine	4586.0	0.00%	Iodine	5150.0	0.00%	Iodine	5678.0	0.00%
Neodymium	52.4	0.63%	Promethium	120.0	-2.00%	Neodymium	212.6	2.17%	**Calcium**	**336.7**	**1.88%**	Iridium	488.0	-0.96%	Rhenium	652.0	-2.02%	**Iron**	**867.0**	**-0.96%**	Rhenium	1106.0	-0.96%	Samarium	1302.0	-0.96%	Iridium	1913.0	-0.96%	Iridium	2304.0	-0.96%	Iodine	2687.0	-0.96%	Iodine	3034.0	-0.96%	Iodine	3535.0	-0.96%	Iodine	4037.0	-0.96%	Osmium	4586.0	-0.96%	Osmium	5149.0	-0.96%	Osmium	5677.0	-0.96%
Europium	52.0	4.61%	Bismuth	119.0	-2.62%	Tantalum	206.4	4.00%	Dysprosium	333.5	-1.95%	Molybdenum	506.3	3.37%	Calcium	652.6	-2.17%	Lanthanum	853.0	-2.64%	**Sodium**	**1070.0**	**-2.84%**	Neodymium	1303.0	3.12%	Gadolinium	1888.0	2.33%	Erbium	2096.2	2.39%	Rhenium	2307.0	2.64%	Thulium	2601.0	-2.46%	Gold	3148.0	2.61%	**Lead**	**3554.0**	**2.04%**	Silver	3806.0	-2.01%	Iodine	4037.0	-2.37%	Antimony	4600.0	-4.35%	Thorium	5182.0	-4.78%
			Mercury	127.0	3.71%	Molybdenum	237.9	-4.00%	Samarium	347.2	2.21%	Gadolinium	504.8	4.78%	Neodymium	549.0	3.26%	**Iron**	**841.8**	**3.41%**	Europium	1106.0	3.26%	Neodymium	1300.0	3.26%	Lutetium	2024.0	3.16%	Ytterbium	2304.8	3.16%	Europium	2687.0	3.26%	Ruthenium	2990.0	3.26%	Europium	3530.0	3.26%	Europium	3761.0	3.26%	Europium	4036.8	-3.84%				
			Radon	127.0	3.71%				Thulium	332.6	-2.22%	Thulium	479.0	0.61%	Europium	548.0	0.61%	Europium	841.0	0.61%	Barium	1107.0	3.17%	Samarium	1414.6	3.67%	Thulium	1905.0	-0.79%	Thulium	2303.0	-0.79%	Lead	**2586.0**	**-0.93%**	Thulium	2977.0	-0.61%	Mercury	2982.0	2.27%												
			Aluminum	**117.8**	**3.0%**				Platinum	331.8	0.00%	Europium	479.0	0.00%	Thulium	547.0	0.00%	Thulium	**840.8**	**0.00%**	Thulium	1106.8	0.00%	Thulium	1303.0	0.00%	Gadolinium	1888.0	0.00%	Thulium	2302.8	0.00%	Thulium	2686.8	0.00%	Thulium	2977.8	0.00%	Thulium	3529.8	0.00%	Thulium	3760.8	0.00%	Thulium	4036.8	0.00%				
									Rubidium	326.7	-1.85%	Neodymium	478.0	-1.85%	Samarium	546.0	-1.85%	Samarium	840.0	-1.85%	Europium	1105.0	-1.85%	Europium	1302.0	-1.85%	Europium	2040.0	-1.85%	Europium	2302.0	-1.85%	Europium	2686.0	-1.85%	Europium	2976.0	-1.85%	Europium	3528.0	-1.85%	Europium	3760.0	-1.85%	Europium	4035.0	-1.85%				
									Argon	326.4	-4.01%	Rubidium	477.0	-4.01%	Europium	545.0	-4.01%	Europium	839.0	-4.01%	Samarium	1105.0	-4.01%	Samarium	1301.0	-4.01%	Samarium	2039.0	-4.01%	Samarium	2301.0	-4.01%	Samarium	2685.0	-4.01%	Samarium	2975.0	-4.01%	Samarium	3527.0	-4.01%	Samarium	3759.0	-4.01%	Samarium	4034.0	-4.01%				
												Cesium	476.0	-0.00%	Rubidium	544.0	-0.00%	Rubidium	838.0	-0.00%	Rubidium	1104.0	-0.00%	Rubidium	1300.0	-0.00%	Rubidium	2038.0	-0.00%	Rubidium	2300.0	-0.00%	Rubidium	2684.0	-0.00%	Rubidium	2974.0	-0.00%	Rubidium	3526.0	-0.00%	Rubidium	3758.0	-0.00%	Rubidium	4033.0	-0.00%				
												Rubidium	475.0	-0.00%	Cesium	543.0	-0.00%	Cesium	837.0	-0.00%	Cesium	1103.0	-0.00%	Cesium	1299.0	-0.00%	Cesium	2037.0	-0.00%	Cesium	2299.0	-0.00%	Cesium	2683.0	-0.00%	Cesium	2973.0	-0.00%	Cesium	3525.0	-0.00%	Cesium	3757.0	-0.00%	Cesium	4032.0	-0.00%				
															Rubidium	1844.0	-0.86%	Thorium	2298.0	-0.32%																
																		Argon	3205.9	-4.01%															
Scandium	51.1	0.15%	Bismuth	119.0	-0.04%	Krypton	214.4	0.06%	Gold	335.1	-0.49%	**Tin**	**484.0**	**-0.21%**	Iridium	645.3	0.30%	**Nickel**	**870.0**	**0.30%**	Radon	1090.0	-0.15%	Praseodymium	1307.0	-0.01%	Lutetium	1939.0	-0.24%	Osmium	1902.0	0.21%	Mercury	2295.0	-0.04%	Technetium	2677.0	0.15%	**Lead**	**3060.0**	**0.27%**	Thorium	3491.0	0.23%	**Tin**	**3529.2**	**0.01%**	Antimony	4300.0	-0.04%	Tellurium	4939.0	0.46%	Xenon	5453.0	0.24%
Palladium	50.9	-0.24%	Praseodymium	118.0	3.81%	Radon	214.2	-0.14%	Palladium	335.0	-0.49%	Ruthenium	483.0	-0.49%	Gold	644.0	-0.49%	Gold	867.0	-0.49%	Iridium	1089.0	0.14%	Neodymium	1306.0	0.14%	Osmium	1900.0	0.14%	Iridium	2294.0	0.14%	Iridium	2676.0	0.14%	Iridium	3059.0	0.14%	Iridium	3490.0	0.14%	Iridium	3528.0	0.14%	Iridium	4299.0	0.14%	Iodine	4938.0	0.14%	Iodine	5452.0	0.14%
Osmium	50.7	0.63%	**Aluminum**	**117.8**	**-1.05%**	Xenon	213.2	-0.53%	Tungsten	494.0	0.63%	Palladium	475.0	-1.26%	Ruthenium	478.0	-1.26%	Ruthenium	644.0	-1.26%	Ruthenium	1118.0	1.13%	Lanthanum	1362.0	0.56%	Ruthenium	1942.0	-1.26%	Ruthenium	2293.0	-1.26%	Ruthenium	2675.0	-1.26%	Ruthenium	3040.0	-0.63%	Gold	3425.0	-1.51%	Ruthenium	3491.0	-1.26%	Ruthenium	**4062.0**	**-1.26%**	Tellurium	4938.0	0.00%	Xenon	5452.0	0.00%
Osmium	50.6	-0.01%	Thulium	117.8	0.00%	Dysprosium	212.8	-0.01%	Ytterbium	334.8	-0.01%	Osmium	474.0	-0.01%	Osmium	643.0	-0.01%	Osmium	866.0	-0.01%	Osmium	1117.0	-0.01%	Ytterbium	1361.0	-0.01%	Osmium	1941.0	-0.01%	Osmium	2292.0	-0.01%	Osmium	2674.0	-0.01%	Osmium	3039.0	-0.01%	Ytterbium	3424.0	-0.01%	Osmium	3490.0	-0.01%	Osmium	4061.0	-0.01%	Ytterbium	4937.0	-0.01%	Ytterbium	5451.0	-0.01%
Ytterbium	50.6	-0.01%	Europium	117.8	0.00%	Europium	211.8	-0.01%	Europium	333.8	-0.01%	Europium	473.0	-0.01%	Europium	642.0	-0.01%	Europium	865.0	-0.01%	Europium	1116.0	-0.01%	Europium	1360.0	-0.01%	Europium	1940.0	-0.01%	Europium	2291.0	-0.01%	Europium	2673.0	-0.01%	Europium	3038.0	-0.01%	Europium	3423.0	-0.01%	Europium	3489.0	-0.01%	Europium	4060.0	-0.01%	Europium	4936.0	-0.01%	Europium	5450.0	-0.01%
Lutetium	50.6	-0.01%	Neodymium	117.8	1.05%	Neodymium	211.6	1.54%	Neodymium	333.6	-1.05%	Neodymium	472.6	-1.54%	Neodymium	641.6	-1.54%	Neodymium	864.6	-1.54%	Neodymium	1115.6	-1.54%	Neodymium	1359.6	-1.54%	Neodymium	1939.6	-1.54%	Neodymium	2290.6	-1.54%	Neodymium	2672.6	-1.54%	Neodymium	3037.6	-1.54%	Neodymium	3422.6	-1.54%	Neodymium	3488.6	-1.54%	Neodymium	4059.6	-1.54%	Neodymium	4935.6	-1.54%	Neodymium	5449.6	-1.54%
Gadolinium	50.6	0.00%	Cerium	117.8	0.00%	Cerium	211.6	0.00%	Cerium	333.6	0.00%	Cerium	472.6	0.00%	Cerium	641.6	0.00%	Cerium	864.6	0.00%	Cerium	1115.6	0.00%	Cerium	1359.6	0.00%	Cerium	1939.6	0.00%	Cerium	2290.6	0.00%	Cerium	2672.6	0.00%	Cerium	3037.6	0.00%	Cerium	3422.6	0.00%	Cerium	3488.6	0.00%	Cerium	4059.6	0.00%	Cerium	4935.6	0.00%	Cerium	5449.6	0.00%
Europium	39.0	-4.65%	Lanthanum	105.3	-2.20%	Radium	200.0	-2.00%	Erbium	320.2	-1.94%	Tantalum	463.4	-2.89%	Palladium	631.6	-2.84%	Radon	870.0	-2.58%	Cerium	1114.6	-2.57%	Magnesium	1300.0	-5.26%	Krypton	1878.4	-2.84%	Erbium	2096.0	-3.19%	Erbium	2297.0	-3.45%	Tantalum	2668.0	-2.57%	Erbium	2972.0	-2.38%	Erbium	3392.0	-2.38%	Erbium	3762.0	-2.38%	Erbium	4038.0	-2.32%	Erbium	4599.0	-2.38%	Erbium	5148.0	-2.38%
Samarium	38.9	-4.78%	Thorium	105.2	0.00%	Neodymium	199.8	-1.54%	Neodymium	319.8	-1.54%	Neodymium	463.0	-1.54%	Neodymium	631.0	-1.54%	Neodymium	853.0	-1.54%	Neodymium	1113.0	-1.54%	Neodymium	1299.0	-1.54%	Neodymium	1877.0	-1.54%	Neodymium	2095.0	-1.54%	Neodymium	2296.0	-1.54%	Neodymium	2667.0	-1.54%	Neodymium	2971.0	-1.54%	Neodymium	3391.0	-1.54%	Neodymium	3761.0	-1.54%	Neodymium	4037.0	-1.54%	Neodymium	4598.0	-1.54%	Neodymium	5147.0	-1.54%
			Gadolinium	105.1	-0.01%	Thulium	199.6	-0.01%	Thulium	319.6	-0.01%	Thulium	462.6	-0.01%	Thulium	630.6	-0.01%	Thulium	852.6	-0.01%	Thulium	1112.6	-0.01%	Thulium	1298.6	-0.01%	Thulium	1876.6	-0.01%	Thulium	2094.6	-0.01%	Thulium	2295.6	-0.01%	Thulium	2666.6	-0.01%	Thulium	2970.6	-0.01%	Thulium	3390.6	-0.01%	Thulium	3760.6	-0.01%	Thulium	4036.6	-0.01%	Thulium	4597.6	-0.01%	Thulium	5146.6	-0.01%
									Europium	319.4	-0.01%	Europium	462.4	-0.01%	Europium	630.4	-0.01%	Europium	852.4	-0.01%	Europium	1112.4	-0.01%	Europium	1298.4	-0.01%	Europium	1876.4	-0.01%	Europium	2094.4	-0.01%	Europium	2295.4	-0.01%	Europium	2666.4	-0.01%	Europium	2970.4	-0.01%	Europium	3390.4	-0.01%	Europium	3760.4	-0.01%	Europium	4036.4	-0.01%	Europium	4597.4	-0.01%	Europium	5146.4	-0.01%
									Cerium	318.4	-0.01%	Cerium	461.4	-0.01%	Cerium	629.4	-0.01%	Cerium	851.4	-0.01%	Cerium	1111.4	-0.01%	Cerium	1297.4	-0.01%	Cerium	1875.4	-0.01%	Cerium	2093.4	-0.01%	Cerium	2294.4	-0.01%	Cerium	2665.4	-0.01%	Cerium	2969.4	-0.01%	Cerium	3389.4	-0.01%	Cerium	3759.4	-0.01%	Cerium	4035.4	-0.01%	Cerium	4596.4	-0.01%	Cerium	5145.4	-0.01%
									Thorium	318.2	-0.00%	Thorium	461.2	-0.00%	Thorium	629.2	-0.00%	Thorium	851.2	-0.00%	Thorium	1111.2	-0.00%	Thorium	1297.2	-0.00%	Thorium	1875.2	-0.00%	Thorium	2093.2	-0.00%	Thorium	2294.2	-0.00%	Thorium	2665.2	-0.00%	Thorium	2969.2	-0.00%	Thorium	3389.2	-0.00%	Thorium	3759.2	-0.00%	Thorium	4035.2	-0.00%	Thorium	4596.2	-0.00%	Thorium	5145.2	-0.00%