

# Trinary Science Periodic Table of Elements

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Atomic Weight	Fire Frequency	M.P. (°C)	B.P. (°C)	Density (g/cm <sup>3</sup> )	Electron configuration	Ionization energy (eV)	Electronegativity	Valence
1.0079		-259.0	-253.0	0.0899	1s <sup>1</sup>	13.5984	2.2	1, 0, -1
4.0026		-272.0	-269.0	0.1785	1s <sup>2</sup>	24.5874	?	0
6.941		180.0	1,347.00	0.53	[He] 2s <sup>1</sup>	5.3917	0.98	1,-1
9.0122		1,278.00	2,970.00	1.85	[He] 2s <sup>2</sup>	9.3227	1.57	2
10.811		2,300.00	2,550.00	2.34	[He] 2s <sup>2</sup> 2p <sup>1</sup>	8.298	2.04	3,2,1
12.0107		3,500.00	4,827.00	2.26	[He] 2s <sup>2</sup> 2p <sup>2</sup>	11.2603	2.55	4,3,2,1,-1,-2,-4
14.0067		-210.0	-196.0	1.25	[He] 2s <sup>2</sup> 2p <sup>3</sup>	14.5341	3.04	5,4,3,2,1,0,-1,-2,-3
15.9994		-218.0	-183.0	1.43	[He] 2s <sup>2</sup> 2p <sup>4</sup>	13.6181	3.44	2,1,0,-1,-2
18.9984		-220.0	-188.0	1.7	[He] 2s <sup>2</sup> 2p <sup>5</sup>	17.4228	3.98	0,-1
20.1797		-249.0	-246.0	0.9	[He] 2s <sup>2</sup> 2p <sup>6</sup>	21.5645	?	0
22.9897		98.0	883.0	0.97	[Ne] 3s <sup>1</sup>	5.1391	0.93	1, -1
24.305		639.0	1,090.00	1.74	[Ne] 3s <sup>2</sup>	7.6462	1.31	2
26.9815		660.0	2,467.00	2.7	[Ne] 3s <sup>2</sup> 3p <sup>1</sup>	5.9858	1.61	3, 1
28.0855		1,410.00	2,355.00	2.33	[Ne] 3s <sup>2</sup> 3p <sup>2</sup>	8.1517	1.90	4,3,2,1, -1,-2,-4
30.9738		44.0	280.0	1.82	[Ne] 3s <sup>2</sup> 3p <sup>3</sup>	10.4867	2.19	5, 4, 3, 2, 1, 0, -1, -2, -3

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32.065		113.0	445.0	2.07	[Ne] 3s <sup>2</sup> 3p <sup>4</sup>	10.36	2.58	6,5,4,3,2,1, 0, -1,-2
35.453		-101.0	-35.0	3.21	[Ne] 3s <sup>2</sup> 3p <sup>5</sup>	12.9676	3.16	6,5,4,3,2,1, 0, -1,-2
39.948		-189.0	-186.0	1.78	[Ne] 3s <sup>2</sup> 3p <sup>6</sup>	15.7596	?	0
39.0983		64.0	774.0	0.86	[Ar] 4s <sup>1</sup>	4.3407	0.82	1, -1
40.078		839.0	1,484.00	1.55	[Ar] 4s <sup>2</sup>	6.1132	1.00	2
44.9559		1,539.00	2,832.00	2.99	[Ar] 3d <sup>1</sup> 4s <sup>2</sup>	6.5615	1.36	3,2,1
47.867		1,660.00	3,287.00	4.54	[Ar] 3d <sup>2</sup> 4s <sup>2</sup>	6.8281	1.54	4,3,2,0, -1,-2
50.9415		1,890.00	3,380.00	6.11	[Ar] 3d <sup>3</sup> 4s <sup>2</sup>	6.7462	1.63	5,4,3,2,1,0,-1,-2
51.9961		1,857.00	2,672.00	7.19	[Ar] 3d <sup>5</sup> 4s <sup>1</sup>	6.7665	1.66	6,5,4,3,2,1,0,-1, -2,-3,-4
54.938		1,245.00	1,962.00	7.43	[Ar] 3d <sup>5</sup> 4s <sup>2</sup>	7.434	1.55	7, 6, 5, 4, 3, 2, 1, 0, -1, -2, -3
55.845		1,535.00	2,750.00	7.87	[Ar] 3d <sup>6</sup> 4s <sup>2</sup>	7.9024	1.83	6,5,4,3,2,1,0,-1,-2
58.9332		1,495.00	2,870.00	8.9	[Ar] 3d <sup>7</sup> 4s <sup>2</sup>	7.881	1.88	5, 4, 3, 2, 1, 0, -1
58.6934		1,453.00	2,732.00	8.9	[Ar] 3d <sup>8</sup> 4s <sup>2</sup>	7.6398	1.91	6, 4, 3, 2, 1, 0, -1
63.546		1,083.00	2,567.00	8.96	[Ar] 3d <sup>10</sup> 4s <sup>1</sup>	7.7264	1.90	4,3,2, 1,0
65.39		420.0	907.0	7.13	[Ar] 3d <sup>10</sup> 4s <sup>2</sup>	9.3942	1.65	2, 1, 0
69.723		30.0	2,403.00	5.91	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>1</sup>	5.9993	1.81	3, 2, 1

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72.64		937.0	2,830.00	5.32	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>2</sup>	7.8994	2.01	4, 3, 2, 1
74.9216		81.0	613.0	5.72	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>3</sup>	9.7886	2.18	5, 3, 2, -3
78.96		217.0	685.0	4.79	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>4</sup>	9.7524	2.55	6, 4, 2, 1, -2
79.904		-7.0	59.0	3.12	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>5</sup>	11.8138	2.96	7,5,4,3,1,0,-1
83.8		-157.0	-153.0	3.75	[Ar] 3d <sup>10</sup> 4s <sup>2</sup> 4p <sup>6</sup>	13.9996	3.00	2, 0
85.4678		39.0	688.0	1.63	[Kr] 5s <sup>1</sup>	4.1771	0.82	1, -1
87.62		769.0	1,384.00	2.54	[Kr] 5s <sup>2</sup>	5.6949	0.95	2
88.9059		1,523.00	3,337.00	4.47	[Kr] 4d <sup>1</sup> 5s <sup>2</sup>	6.2173	1.22	3, 2
91.224		1,852.00	4,377.00	6.51	[Kr] 4d <sup>2</sup> 5s <sup>2</sup>	6.6339	1.33	4,3,2,1,0,-2
92.9064		2,468.00	4,927.00	8.57	[Kr] 4d <sup>4</sup> 5s <sup>1</sup>	6.7589	1.6	5,4,3,2,1, 0,-1,-3
95.94		2,617.00	4,612.00	10.22	[Kr] 4d <sup>5</sup> 5s <sup>1</sup>	7.0924	2.16	6,5,4,3,2,1, 0,-1,-2
98.0		2,200.00	4,877.00	11.5	[Kr] 4d <sup>5</sup> 5s <sup>2</sup>	7.28	1.9	7,6,5,4,3,2,1, 0,-1,-3
101.07		2,250.00	3,900.00	12.37	[Kr] 4d <sup>7</sup> 5s <sup>1</sup>	7.3605	2.2	8,7,6,5,4,3,2,1, 0,-2
102.9055		1,966.00	3,727.00	12.41	[Kr] 4d <sup>8</sup> 5s <sup>1</sup>	7.4589	2.28	6,5,4,3,2,1, 0,-1
106.42		1,552.00	2,927.00	12.02	[Kr] 4d <sup>10</sup>	8.3369	2.20	4, 2, 0
107.8682		962.0	2,212.00	10.5	[Kr] 4d <sup>10</sup> 5s <sup>1</sup>	7.5762	1.93	3, 2, 1, 0

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112.411		321.0	765.0	8.65	[Kr] 4d <sup>10</sup> 5s <sup>2</sup>	8.9938	1.69	<b>2, 1</b>
114.818		157.0	2,000.00	7.31	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>1</sup>	5.7864	1.78	<b>3, 2, 1</b>
118.71		232.0	2,270.00	7.31	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>2</sup>	7.3439	1.96	<b>4, 2, -4</b>
121.76		630.0	1,750.00	6.68	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>3</sup>	8.6084	2.05	<b>5, 3, -3</b>
127.6		449.0	990.0	6.24	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>4</sup>	9.0096	2.1	<b>6,5,4,2,1,-2</b>
126.9045		114.0	184.0	4.93	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>5</sup>	10.4513	2.66	<b>7,5,3,1, 0,-1</b>
131.293		-112.0	-108.0	5.9	[Kr] 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>6</sup>	12.1298	2.6	<b>8,6,4,3,2,0</b>
132.9055		29.0	678.0	1.87	[Xe] 6s <sup>1</sup>	3.8939	0.79	<b>1, -1</b>
137.327		725.0	1,140.00	3.59	[Xe] 6s <sup>2</sup>	5.2117	0.89	<b>2</b>
138.9055		920.0	3,469.00	6.15	[Xe] 5d <sup>1</sup> 6s <sup>2</sup>	5.5769	1.10	<b>3, 2</b>
140.116		795.0	3,257.00	6.77	[Xe] 4f <sup>1</sup> 5d <sup>1</sup> 6s <sup>2</sup>	5.5387	1.12	<b>4, 3, 2</b>
140.9077		935.0	3,127.00	6.77	[Xe] 4f <sup>3</sup> 6s <sup>2</sup>	5.473	1.13	<b>4, 3, 2</b>
144.24		1,010.00	3,127.00	7.01	[Xe] 4f <sup>4</sup> 6s <sup>2</sup>	5.525	1.14	<b>4, 3, 2</b>
145.0		1,100.00	3,000.00	7.3	[Xe] 4f <sup>5</sup> 6s <sup>2</sup>	5.582	1.13	<b>3</b>
150.36		1,072.00	1,900.00	7.52	[Xe] 4f <sup>6</sup> 6s <sup>2</sup>	5.6437	1.17	<b>3, 2</b>
151.964		822.0	1,597.00	5.24	[Xe] 4f <sup>7</sup> 6s <sup>2</sup>	5.6704	1.2	<b>3, 2</b>

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157.25		1,311.00	3,233.00	7.9	[Xe] 4f <sup>7</sup> 5d <sup>1</sup> 6s <sup>2</sup>	6.1501	1.2	<b>3</b> , 2, 1
158.9253		1,360.00	3,041.00	8.23	[Xe] 4f <sup>9</sup> 6s <sup>2</sup>	5.8638	1.22	4, <b>3</b> , 1
162.5		1,412.00	2,562.00	8.55	[Xe] 4f <sup>10</sup> 6s <sup>2</sup>	5.9389	1.23	4, <b>3</b> , 2
164.9303		1,470.00	2,720.00	8.8	[Xe] 4f <sup>11</sup> 6s <sup>2</sup>	6.0215	1.24	<b>3</b> , 2
167.259		1,522.00	2,510.00	9.07	[Xe] 4f <sup>12</sup> 6s <sup>2</sup>	6.1077	1.24	<b>3</b>
168.9342		1,545.00	1,727.00	9.32	[Xe] 4f <sup>13</sup> 6s <sup>2</sup>	6.1843	1.25	<b>3</b> , 2
173.04		824.0	1,466.00	6.9	[Xe] 4f <sup>14</sup> 6s <sup>2</sup>	6.2542	1.1	<b>3</b> , 2
174.967		1,656.00	3,315.00	9.84	[Xe] 4f <sup>14</sup> 5d <sup>1</sup> 6s <sup>2</sup>	5.4259	1.27	<b>3</b>
178.49		2,150.00	5,400.00	13.31	[Xe] 4f <sup>14</sup> 5d <sup>2</sup> 6s <sup>2</sup>	6.8251	1.3	<b>4</b> , 3, 2, 1
180.9479		2,996.00	5,425.00	16.65	[Xe] 4f <sup>14</sup> 5d <sup>3</sup> 6s <sup>2</sup>	7.5496	1.5	<b>5</b> , <b>4</b> ,3,2,1, -1,-3
183.84		3,410.00	5,660.00	19.35	[Xe] 4f <sup>14</sup> 5d <sup>4</sup> 6s <sup>2</sup>	7.864	2.36	<b>6</b> , <b>5</b> , <b>4</b> ,3,2,1, 0,-1,-2,-4
186.207		3,180.00	5,627.00	21.04	[Xe] 4f <sup>14</sup> 5d <sup>5</sup> 6s <sup>2</sup>	7.8335	1.9	7,6,5, <b>4</b> , <b>3</b> ,2,1, 0,-1,-3
190.23		3,045.00	5,027.00	22.6	[Xe] 4f <sup>14</sup> 5d <sup>6</sup> 6s <sup>2</sup>	8.4382	2.2	8,7,6,5, <b>4</b> ,3,2,1, 0,-2
192.217		2,410.00	4,527.00	22.4	[Xe] 4f <sup>14</sup> 5d <sup>7</sup> 6s <sup>2</sup>	8.967	2.2	6,5, <b>4</b> , <b>3</b> ,2,1, 0,-1
195.078		1,772.00	3,827.00	21.45	[Xe] 4f <sup>14</sup> 5d <sup>9</sup> 6s <sup>1</sup>	8.9587	2.28	6, 5, <b>4</b> , <b>2</b> , 0

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196.9665		1,064.00	2,807.00	19.32	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>1</sup>	9.2255	2.54	7,5, <b>3</b> ,2,1, 0,-1
200.59		-39.0	357.0	13.55	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup>	10.4375	2.00	<b>2</b> , 1
204.3833		303.0	1,457.00	11.85	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>1</sup>	6.1082	1.62	<b>3</b> , 1
207.2		327.0	1,740.00	11.35	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>2</sup>	7.4167	2.33	4, <b>2</b>
208.9804		271.0	1,560.00	9.75	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>3</sup>	7.2856	2.02	5, <b>3</b> , <b>1</b> ,-3
209.0		254.0	962.0	9.3	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>4</sup>	8.417	2.0	6, <b>4</b> , 2, -2
210.0		302.0	337.0		[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>5</sup>	9.3	2.2	7, 5, 3, 1, -1
222.0		-71.0	-62.0	9.73	[Xe] 4f <sup>14</sup> 5d <sup>10</sup> 6s <sup>2</sup> 6p <sup>6</sup>	10.7485	?	2, <b>0</b>
223.0		27.0	677.0		[Rn] 7s <sup>1</sup>	4.0727	0.7	<b>1</b>
226.0		700.0	1,737.00	5.5	[Rn] 7s <sup>2</sup>	5.2784	0.89	<b>2</b>
227.0		1,050.00	3,200.00	10.07	[Rn] 6d <sup>1</sup> 7s <sup>2</sup>	5.17	1.1	<b>3</b>
232.0381		1,750.00	4,790.00	11.72	[Rn] 6d <sup>2</sup> 7s <sup>2</sup>	6.3067	1.3	<b>4</b> , 3, 2
231.0359		1,568.00		15.4	[Rn] 5f <sup>2</sup> 6d <sup>1</sup> 7s <sup>2</sup>	5.89	1.5	<b>5</b> , 4, 3
238.0289		1,132.00	3,818.00	18.95	[Rn] 5f <sup>3</sup> 6d <sup>1</sup> 7s <sup>2</sup>	6.1941	1.38	<b>6</b> , 5, 4, 3, 2
237.0		640.0	3,902.00	20.2	[Rn] 5f <sup>4</sup> 6d <sup>1</sup>	6.2657	1.36	<b>7</b> , 6, 5, 4, 3, 2

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					7s <sup>2</sup>			
244.0		640.0	3,235.00	19.84	[Rn] 5f <sup>6</sup> 7s <sup>2</sup>	6.0262	1.28	7, 6, 5, 4, 3, 2
243.0		994.0	2,607.00	13.67	[Rn] 5f <sup>7</sup> 7s <sup>2</sup>	5.9738	1.3	7, 6, 5, 4, 3, 2
247.0		1,340.00		13.5	[Rn]5f <sup>7</sup> 6d <sup>1</sup> 7s <sup>2</sup>	5.9915	1.3	6, 5, 4, 3, 2
247.0		986.0		14.78	[Rn]5f <sup>9</sup> 7s <sup>2</sup>	6.1979	1.3	4, 3, 2
251.0		900.0		15.1	[Rn]5f <sup>10</sup> 7s <sup>2</sup>	6.2817	1.3	5, 4, 3, 2
252.0		860.0		13.5 (?)	[Rn]5f <sup>11</sup> 7s <sup>2</sup>	6.42	1.3	4, 3, 2
257.0		1,527.00		Unknown	[Rn]5f <sup>12</sup> 7s <sup>2</sup>	6.5	1.3	4, 3, 2
258.0				Unknown	[Rn]5f <sup>13</sup> 7s <sup>2</sup>	6.58	1.3	3, 2, 1
259.0		827.0		Unknown	[Rn]5f <sup>14</sup> 7s <sup>2</sup>	6.65	1.3	3, 2
262.0		1,627.00		9.84 >	[Rn]5f <sup>14</sup> 7s <sup>2</sup> 7p <sup>1</sup>	4.9	?	3, 2
261.0				18.1	[Rn]5f <sup>14</sup> 6d <sup>2</sup> 7s <sup>2</sup>		?	4, 3
262.0				39 (?)	*[Rn]5f <sup>14</sup> 6d <sup>2</sup> 7s <sup>2</sup> (!Verified)		?	5, 4
266.0				35 (?)	*[Rn]5f <sup>14</sup> 6d <sup>4</sup> 7s <sup>2</sup>		?	6, 5, 4
264.0				37 (?)	*[Rn]5f <sup>14</sup> 6d <sup>5</sup> 7s <sup>2</sup>		?	7, 6, 5, 4, 3
277.0				41 (?)	*[Rn]5f <sup>14</sup> 6d <sup>6</sup> 7s <sup>2</sup>		?	8, 7, 4, 3, 2
268.0				35 (?)	*[Rn]5f <sup>14</sup> 6d <sup>7</sup> 7s <sup>2</sup>		?	6, 5, 4, 3, 2, 1
271				21.46 >	*[Rn]5f <sup>14</sup> 6d <sup>9</sup> 7s		?	6, 5, 4, 3, 2, 1

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					1			
272				28.7	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>1</sup>		?	3,-1
285				23.7	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup>		?	2, 1
284		700	1400	16	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>1</sup>		?	1
289		340	420	14	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>2</sup>		?	2
288		13.5	700	13.5	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>3</sup>		?	3, 1
292		12.9	709	12.9	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>4</sup>		?	4, 2
294		7.2	723	7.2	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>5</sup>		?	?
294		5.0	258	5.0	*[Rn]5f <sup>14</sup> 6d <sup>10</sup> 7s <sup>2</sup> 7p <sup>6</sup>		?	8, 6, 4, 2