

Element Name List

Element Name	Symbol	Period	Group	Block	Atomic Number	Atomic Weight	Covalent Radius	vdW Radius
Actinium	Ac	7Act	20	f	89	[227]	2.15	2.00
Aluminium	Al	3	13	p	13	26.982	1.21	2.00
Americium	Am	7Act	20	f	95	[243]	1.8	2.00
Antimony	Sb	5	15	p	51	121.760	1.39	2.00
Argon	Ar	3	18	p	18	39.948	1.51	1.88
Arsenic	As	4	15	p	33	74.922	1.21	1.85
Astatine	At	6	17	p	85	[210]	1.21	2.00
Barium	Ba	6	2	s	56	137.327	2.15	2.00
Berkelium	Bk	7Act	20	f	97	[247]	1.54	2.00
Beryllium	Be	2	2	s	4	9.012	0.96	2.00
Bismuth	Bi	6	15	p	83	208.980	1.48	2.00
Bohrium	Bh	7	7	d	107	[264]	1.50	2.00
Boron	B	2	13	p	5	10.811	0.83	2.00
Bromine	Br	4	17	p	35	79.904	1.21	1.85
Cadmium	Cd	5	12	d	48	112.411	1.54	1.58
Caesium	Cs	6	1	s	55	132.905	2.44	2.00
Calcium	Ca	4	2	s	20	40.078	1.76	2.00
Californium	Cf	7Act	20	f	98	[251]	1.83	2.00
Carbon	C	2	14	p	6	12.011	0.68	1.70
Cerium	Ce	6Lan	19	f	58	140.116	2.04	2.00
Chlorine	Cl	3	17	p	17	35.453	0.99	1.75
Chromium	Cr	4	6	d	24	51.996	1.39	2.00
Cobalt	Co	4	9	d	27	58.933	1.26	2.00
Copper	Cu	4	11	d	29	63.546	1.32	1.40
Curium	Cm	7Act	20	f	96	[247]	1.69	2.00
Darmstadtium	Ds	7	10	d	110	[271]	1.50	2.00
Dubnium	Db	7	5	d	105	[262]	1.50	2.00
Dysprosium	Dy	6Lan	19	f	66	162.500	1.92	2.00
Einsteinium	Es	7Act	20	f	99	[252]	1.50	2.00
Erbium	Er	6Lan	19	f	68	167.260	1.89	2.00
Europium	Eu	6Lan	19	f	63	151.964	1.98	2.00
Fermium	Fm	7Act	20	f	100	[257]	1.50	2.00
Fluorine	F	2	17	p	9	18.998	0.64	1.47
Francium	Fr	7	1	s	87	[223]	2.60	2.00
Gadolinium	Gd	6Lan	19	f	64	157.250	1.96	2.00
Gallium	Ga	4	13	p	31	69.723	1.22	1.87
Germanium	Ge	4	14	p	32	72.610	1.17	2.00
Gold	Au	6	11	d	79	196.967	1.36	1.66
Hafnium	Hf	6	4	d	72	178.490	1.75	2.00
Hassium	Hs	7	8	d	108	[269]	1.50	2.00
	He	1	18	p	2	4.003	1.50	1.40

Radii & Bond Lengths

Helium								
Holmium	Ho	6Lan	19	f	67	164.930	1.92	2.00
Hydrogen	H	1	1	s	1	1.008	0.23	1.09
Indium	In	5	13	p	49	114.818	1.42	1.93
Iodine	I	5	17	p	53	126.904	1.40	1.98
Iridium	Ir	6	9	d	77	192.217	1.41	2.00
Iron	Fe	4	8	d	26	55.845	1.52	2.00
Krypton	Kr	4	18	p	36	83.800	1.50	2.02
Lanthanum	La	6Lan	19	f	57	138.906	2.07	2.00
Lawrencium	Lr (Lw)	7	3	d	103	[262]	1.50	2.00
Lead	Pb	6	14	p	82	207.200	1.46	2.02
Lithium	Li	2	1	s	3	6.941	1.28	1.82
Lutetium	Lu	6	3	d	71	174.967	1.87	2.00
Magnesium	Mg	3	2	s	12	24.305	1.41	1.73
Manganese	Mn	4	7	d	25	54.938	1.61	2.00
Meitnerium	Mt	7	9	d	109	[268]	1.50	2.00
Mendelevium	Md	7Act	20	f	101	[258]	1.50	2.00
Mercury	Hg	6	12	d	80	200.590	1.32	1.55
Molybdenum	Mo	5	6	d	42	95.940	1.54	2.00
Neodymium	Nd	6Lan	19	f	60	144.240	2.01	2.00
Neon	Ne	2	18	p	10	20.180	1.50	1.54
Neptunium	Np	7Act	20	f	93	[237]	1.90	2.00
Nickel	Ni	4	10	d	28	58.693	1.24	1.63
Niobium	Nb	5	5	d	41	92.906	1.64	2.00
Nitrogen	N	2	15	p	7	14.007	0.68	1.55
Nobelium	No	7Act	20	f	102	[259]	1.50	2.00
Osmium	Os	6	8	d	76	190.230	1.44	2.00
Oxygen	O	2	16	p	8	15.999	0.68	1.52
Palladium	Pd	5	10	d	46	106.420	1.39	1.63
Phosphorus	P	3	15	p	15	30.974	1.05	1.80
Platinum	Pt	6	10	d	78	195.078	1.36	1.72
Plutonium	Pu	7Act	20	f	94	[244]	1.87	2.00
Polonium	Po	6	16	p	84	[210]	1.40	2.00
Potassium	K	4	1	s	19	39.098	2.03	2.75
Praseodymium	Pr	6Lan	19	f	59	140.908	2.03	2.00
Promethium	Pm	6Lan	19	f	61	[145]	1.99	2.00
Protactinium	Pa	7Act	20	f	91	231.036	2.00	2.00
Radium	Ra	7	2	s	88	[226]	2.21	2.00
Radon	Rn	6	18	p	86	[222]	1.50	2.00
Rhenium	Re	6	7	d	75	186.207	1.51	2.00
Rhodium	Rh	5	9	d	45	102.906	1.42	2.00
Rubidium	Rb	5	1	s	37	85.468	2.20	2.00
Ruthenium	Ru	5	8	d	44	101.070	1.46	2.00
Rutherfordium	Rf	7	4	d	104	[261]	1.50	2.00

Samarium	Sm	6Lan	19	f	62	150.360	1.98	2.00
Scandium	Sc	4	3	d	21	44.956	1.70	2.00
Seaborgium	Sg	7	6	d	106	[266]	1.50	2.00
Selenium	Se	4	16	p	34	78.960	1.22	1.90
Silicon	Si	3	14	p	14	28.086	1.20	2.10
Silver	Ag	5	11	d	47	107.868	1.45	1.72
Sodium	Na	3	1	s	11	22.991	1.66	2.27
Strontium	Sr	5	2	s	38	87.620	1.95	2.00
Sulphur	S	3	16	p	16	32.066	1.02	1.80
Tantalum	Ta	6	5	d	73	180.948	1.70	2.00
Technetium	Tc	5	7	d	43	[98]	1.47	2.00
Tellurium	Te	5	16	p	52	127.600	1.47	2.06
Terbium	Tb	6Lan	19	f	65	158.925	1.94	2.00
Thallium	Tl	6	13	p	81	204.383	1.45	1.96
Thorium	Th	7Act	20	f	90	232.038	2.06	2.00
Thulium	Tm	6Lan	19	f	69	168.934	1.90	2.00
Tin	Sn	5	14	p	50	118.71	1.39	2.17
Titanium	Ti	4	4	d	22	47.867	1.60	2.00
Tungsten	W	6	6	d	74	183.840	1.62	2.00
Uranium	U	7Act	20	f	92	238.029	1.96	1.86
Vanadium	V	4	5	d	23	50.942	1.53	2.00
Xenon	Xe	5	18	p	54	131.290	1.50	2.16
Ytterbium	Yb	6Lan	19	f	70	173.040	1.87	2.00
Yttrium	Y	5	3	d	39	88.906	1.90	2.00
Zinc	Zn	4	12	d	30	65.390	1.22	1.39
Zirconium	Zr	5	4	d	40	91.224	1.75	2.00

Element Symbol List

Element Name	Symbol	Period	Group	Block	Atomic Number	Atomic Weight	Covalent Radius	vdW Radius
Actinium	Ac	7Act	20	f	89	[227]	2.15	2.00
Silver	Ag	5	11	d	47	107.868	1.45	1.72
Aluminium	Al	3	13	p	13	26.982	1.21	2.00
Americium	Am	7Act	20	f	95	[243]	1.80	2.00
Argon	Ar	3	18	p	18	39.948	1.51	1.88
Arsenic	As	4	15	p	33	74.922	1.21	1.85
Astatine	At	6	17	p	85	[210]	1.21	2.00
Gold	Au	6	11	d	79	196.967	1.36	1.66
Boron	B	2	13	p	5	10.811	0.83	2.00
Barium	Ba	6	2	s	56	137.327	2.15	2.00
Beryllium	Be	2	2	s	4	9.012	0.96	2.00
Bohrium	Bh	7	7	d	107	[264]	1.50	2.00
Bismuth	Bi	6	15	p	83	208.980	1.48	2.00

Berkelium	Bk	7Act	20	f	97	[247]	1.54	2.00
Bromine	Br	4	17	p	35	79.904	1.21	1.85
Carbon	C	2	14	p	6	12.011	0.68	1.70
Calcium	Ca	4	2	s	20	40.078	1.76	2.00
Cadmium	Cd	5	12	d	48	112.411	1.44	1.58
Cerium	Ce	6Lan	19	f	58	140.116	2.04	2.00
Californium	Cf	7Act	20	f	98	[251]	1.83	2.00
Chlorine	Cl	3	17	p	17	35.453	0.99	1.75
Curium	Cm	7Act	20	f	96	[247]	1.69	2.00
Cobalt	Co	4	9	d	27	58.933	1.26	2.00
Chromium	Cr	4	6	d	24	51.996	1.39	2.00
Caesium	Cs	6	1	s	55	132.905	2.44	2.00
Copper	Cu	4	11	d	29	63.546	1.32	1.40
Dubnium	Db	7	5	d	105	[262]	1.50	2.00
Darmstadtium	Ds	7	10	d	110	[271]	1.50	2.00
Dysprosium	Dy	6Lan	19	f	66	162.500	1.92	2.00
Erbium	Er	6Lan	19	f	68	167.260	1.89	2.00
Einsteinium	Es	7Act	20	f	99	[252]	1.50	2.00
Europium	Eu	6Lan	19	f	63	151.964	1.98	2.00
Fluorine	F	2	17	p	9	18.998	0.64	1.47
Iron	Fe	4	8	d	26	55.845	1.52	2.00
Fermium	Fm	7Act	20	f	100	[257]	1.50	2.00
Francium	Fr	7	1	s	87	[223]	2.60	2.00
Gallium	Ga	4	13	p	31	69.723	1.22	1.87
Gadolinium	Gd	6Lan	19	f	64	157.250	1.96	2.00
Germanium	Ge	4	14	p	32	72.610	1.17	2.00
Hydrogen	H	1	1	s	1	1.008	0.23	1.09
Helium	He	1	18	p	2	4.003	1.50	1.40
Hafnium	Hf	6	4	d	72	178.490	1.75	2.00
Mercury	Hg	6	12	d	80	200.590	1.32	1.55
Holmium	Ho	6Lan	19	f	67	164.930	1.92	2.00
Hassium	Hs	7	8	d	108	[269]	1.50	2.00
Iodine	I	5	17	p	53	126.904	1.40	1.98
Indium	In	5	13	p	49	114.818	1.42	1.93
Iridium	Ir	6	9	d	77	192.217	1.41	2.00
Potassium	K	4	1	s	19	39.098	2.03	2.75
Krypton	Kr	4	18	p	36	83.800	1.50	2.02
Lanthanum	La	6Lan	19	f	57	138.906	2.07	2.00
Lithium	Li	2	1	s	3	6.941	1.28	1.82
Lawrencium	Lr (Lw)	7	3	d	103	[262]	1.50	2.00
Lutetium	Lu	6	3	d	71	174.967	1.87	2.00
Mendelevium	Md	7Act	20	f	101	[258]	1.50	2.00
Magnesium	Mg	3	2	s	12	24.305	1.41	1.73
Manganese	Mn	4	7	d	25	54.938	1.61	2.00

Molybdenum	Mo	5	6	d	42	95.940	1.54	2.00
Meitnerium	Mt	7	9	d	109	[268]	1.50	2.00
Nitrogen	N	2	15	p	7	14.007	0.68	1.55
Sodium	Na	3	1	s	11	22.991	1.66	2.27
Niobium	Nb	5	5	d	41	92.906	1.64	2.00
Neodymium	Nd	6Lan	19	f	60	144.240	2.01	2.00
Neon	Ne	2	18	p	10	20.180	1.50	1.54
Nickel	Ni	4	10	d	28	58.693	1.24	1.63
Nobelium	No	7Act	20	f	102	[259]	1.50	2.00
Neptunium	Np	7Act	20	f	93	[237]	1.90	2.00
Oxygen	O	2	16	p	8	15.999	0.68	1.52
Osmium	Os	6	8	d	76	190.230	1.44	2.00
Phosphorus	P	3	15	p	15	30.974	1.05	1.80
Protactinium	Pa	7Act	20	f	91	231.036	2.00	2.00
Lead	Pb	6	14	p	82	207.200	1.46	2.02
Palladium	Pd	5	10	d	46	106.420	1.39	1.63
Promethium	Pm	6Lan	19	f	61	[145]	1.99	2.00
Polonium	Po	6	16	p	84	[210]	1.40	2.00
Praseodymium	Pr	6Lan	19	f	59	140.908	2.03	2.00
Platinum	Pt	6	10	d	78	195.078	1.36	1.72
Plutonium	Pu	7Act	20	f	94	[244]	1.87	2.00
Radium	Ra	7	2	s	88	[226]	2.21	2.00
Rubidium	Rb	5	1	s	37	85.468	2.20	2.00
Rhenium	Re	6	7	d	75	186.207	1.51	2.00
Rutherfordium	Rf	7	4	d	104	[261]	1.50	2.00
Rhodium	Rh	5	9	d	45	102.906	1.42	2.00
Radon	Rn	6	18	p	86	[222]	1.50	2.00
Ruthenium	Ru	5	8	d	44	101.070	1.46	2.00
Sulphur	S	3	16	p	16	32.066	1.02	1.80
Antimony	Sb	5	15	p	51	121.760	1.39	2.00
Scandium	Sc	4	3	d	21	44.956	1.70	2.00
Selenium	Se	4	16	p	34	78.960	1.22	1.90
Seaborgium	Sg	7	6	d	106	[266]	1.50	2.00
Silicon	Si	3	14	p	14	28.086	1.20	2.10
Samarium	Sm	6Lan	19	f	62	150.360	1.98	2.00
Tin	Sn	5	14	p	50	118.71	1.39	2.17
Strontium	Sr	5	2	s	38	87.620	1.95	2.00
Tantalum	Ta	6	5	d	73	180.948	1.70	2.00
Terbium	Tb	6Lan	19	f	65	158.925	1.94	2.00
Technetium	Tc	5	7	d	43	[98]	1.47	2.00
Tellurium	Te	5	16	p	52	127.600	1.47	2.06
Thorium	Th	7Act	20	f	90	232.038	2.06	2.00
Titanium	Ti	4	4	d	22	47.867	1.60	2.00
Thallium	Tl	6	13	p	81	204.383	1.45	1.96

Thulium	Tm	6Lan	19	f	69	168.934	1.90	2.00
Uranium	U	7Act	20	f	92	238.029	1.96	1.86
Vanadium	V	4	5	d	23	50.942	1.53	2.00
Tungsten	W	6	6	d	74	183.840	1.62	2.00
Xenon	Xe	5	18	p	54	131.290	1.50	2.16
Yttrium	Y	5	3	d	39	88.906	1.90	2.00
Ytterbium	Yb	6Lan	19	f	70	173.040	1.87	2.00
Zinc	Zn	4	12	d	30	65.390	1.22	1.39
Zirconium	Zr	5	4	d	40	91.224	1.75	2.00

Periodic Table Period List

Element Name	Symbol	Period	Group	Block	Atomic Number	AtomicWeight	Covalent Radius	vdW Radius
Hydrogen	H	1	1	s	1	1.008	0.23	1.09
Helium	He	1	18	p	2	4.003	1.50	1.40
Lithium	Li	2	1	s	3	6.941	1.28	1.82
Beryllium	Be	2	2	s	4	9.012	0.96	2.00
Boron	B	2	13	p	5	10.811	0.83	2.00
Carbon	C	2	14	p	6	12.011	0.68	1.70
Nitrogen	N	2	15	p	7	14.007	0.68	1.55
Oxygen	O	2	16	p	8	15.999	0.68	1.52
Fluorine	F	2	17	p	9	18.998	0.64	1.47
Neon	Ne	2	18	p	10	20.180	1.50	1.54
Sodium	Na	3	1	s	11	22.991	1.66	2.27
Magnesium	Mg	3	2	s	12	24.305	1.41	1.73
Aluminium	Al	3	13	p	13	26.982	1.21	2.00
Silicon	Si	3	14	p	14	28.086	1.20	2.10
Phosphorus	P	3	15	p	15	30.974	1.05	1.80
Sulphur	S	3	16	p	16	32.066	1.02	1.80
Chlorine	Cl	3	17	p	17	35.453	0.99	1.75
Argon	Ar	3	18	p	18	39.948	1.51	1.88
Potassium	K	4	1	s	19	39.098	2.03	2.75
Calcium	Ca	4	2	s	20	40.078	1.76	2.00
Scandium	Sc	4	3	d	21	44.956	1.70	2.00
Titanium	Ti	4	4	d	22	47.867	1.60	2.00
Vanadium	V	4	5	d	23	50.942	1.53	2.00
Chromium	Cr	4	6	d	24	51.996	1.39	2.00
Manganese	Mn	4	7	d	25	54.938	1.61	2.00
Iron	Fe	4	8	d	26	55.845	1.52	2.00
Cobalt	Co	4	9	d	27	58.933	1.26	2.00
Nickel	Ni	4	10	d	28	58.693	1.24	1.63
Copper	Cu	4	11	d	29	63.546	1.32	1.40
Zinc	Zn	4	12	d	30	65.390	1.22	1.39

Gallium	Ga	4	13	p	31	69.723	1.22	1.87
Germanium	Ge	4	14	p	32	72.610	1.17	2.00
Arsenic	As	4	15	p	33	74.922	1.21	1.85
Selenium	Se	4	16	p	34	78.960	1.22	1.90
Bromine	Br	4	17	p	35	79.904	1.21	1.85
Krypton	Kr	4	18	p	36	83.800	1.50	2.02
Rubidium	Rb	5	1	s	37	85.468	2.20	2.00
Strontium	Sr	5	2	s	38	87.620	1.95	2.00
Yttrium	Y	5	3	d	39	88.906	1.90	2.00
Zirconium	Zr	5	4	d	40	91.224	1.75	2.00
Niobium	Nb	5	5	d	41	92.906	1.64	2.00
Molybdenum	Mo	5	6	d	42	95.940	1.54	2.00
Technetium	Tc	5	7	d	43	[98]	1.47	2.00
Ruthenium	Ru	5	8	d	44	101.070	1.46	2.00
Rhodium	Rh	5	9	d	45	102.906	1.45	2.00
Palladium	Pd	5	10	d	46	106.420	1.39	1.63
Silver	Ag	5	11	d	47	107.868	1.45	1.72
Cadmium	Cd	5	12	d	48	112.411	1.44	1.58
Indium	In	5	13	p	49	114.818	1.42	1.93
Tin	Sn	5	14	p	50	118.71	1.39	2.17
Antimony	Sb	5	15	p	51	121.760	1.39	2.00
Tellurium	Te	5	16	p	52	127.600	1.47	2.06
Iodine	I	5	17	p	53	126.904	1.40	1.98
Xenon	Xe	5	18	p	54	131.290	1.50	2.16
Caesium	Cs	6	1	s	55	132.905	2.44	2.00
Barium	Ba	6	2	s	56	137.327	2.15	2.00
Lutetium	Lu	6	3	d	71	174.967	1.87	2.00
Hafnium	Hf	6	4	d	72	178.490	1.75	2.00
Tantalum	Ta	6	5	d	73	180.948	1.70	2.00
Tungsten	W	6	6	d	74	183.840	1.62	2.00
Rhenium	Re	6	7	d	75	186.207	1.51	2.00
Osmium	Os	6	8	d	76	190.230	1.44	2.00
Iridium	Ir	6	9	d	77	192.217	1.41	2.00
Platinum	Pt	6	10	d	78	195.078	1.36	1.72
Gold	Au	6	11	d	79	196.967	1.50	1.66
Mercury	Hg	6	12	d	80	200.590	1.32	1.55
Thallium	Tl	6	13	p	81	204.383	1.45	1.96
Lead	Pb	6	14	p	82	207.200	1.46	2.02
Bismuth	Bi	6	15	p	83	208.980	1.48	2.00
Polonium	Po	6	16	p	84	[210]	1.40	2.00
Astatine	At	6	17	p	85	[210]	1.21	2.00
Radon	Rn	6	18	p	86	[222]	1.50	2.00
Cerium	Ce	6Lan	19	f	58	140.116	2.04	2.00
Dysprosium	Dy	6Lan	19	f	66	162.500	1.92	2.00

Erbium	Er	6Lan	19	f	68	167.260	1.89	2.00
Europium	Eu	6Lan	19	f	63	151.964	1.98	2.00
Gadolinium	Gd	6Lan	19	f	64	157.250	1.96	2.00
Holmium	Ho	6Lan	19	f	67	164.930	1.92	2.00
Lanthanum	La	6Lan	19	f	57	138.906	2.07	2.00
Neodymium	Nd	6Lan	19	f	60	144.240	2.01	2.00
Promethium	Pm	6Lan	19	f	61	[145]	1.99	2.00
Praseodymium	Pr	6Lan	19	f	59	140.908	2.03	2.00
Samarium	Sm	6Lan	19	f	62	150.360	1.98	2.00
Terbium	Tb	6Lan	19	f	65	158.925	1.94	2.00
Thulium	Tm	6Lan	19	f	69	168.934	1.90	2.00
Ytterbium	Yb	6Lan	19	f	70	173.040	1.87	2.00
Francium	Fr	7	1	s	87	[223]	2.60	2.00
Radium	Ra	7	2	s	88	[226]	2.21	2.00
Lawrencium	Lr (Lw)	7	3	d	103	[262]	1.50	2.00
Rutherfordium	Rf	7	4	d	104	[261]	1.50	2.00
Dubnium	Db	7	5	d	105	[262]	1.50	2.00
Seaborgium	Sg	7	6	d	106	[266]	1.50	2.00
Bohrium	Bh	7	7	d	107	[264]	1.50	2.00
Hassium	Hs	7	8	d	108	[269]	1.50	2.00
Meitnerium	Mt	7	9	d	109	[268]	1.50	2.00
Darmstadtium	Ds	7	10	d	110	[271]	1.50	2.00
Actinium	Ac	7Act	20	f	89	[227]	2.15	2.00
Americium	Am	7Act	20	f	95	[243]	1.80	2.00
Berkelium	Bk	7Act	20	f	97	[247]	1.54	2.00
Californium	Cf	7Act	20	f	98	[251]	1.83	2.00
Curium	Cm	7Act	20	f	96	[247]	1.69	2.00
Einsteinium	Es	7Act	20	f	99	[252]	1.50	2.00
Fermium	Fm	7Act	20	f	100	[257]	1.50	2.00
Mendelevium	Md	7Act	20	f	101	[258]	1.50	2.00
Nobelium	No	7Act	20	f	102	[259]	1.50	2.00
Neptunium	Np	7Act	20	f	93	[237]	1.90	2.00
Protactinium	Pa	7Act	20	f	91	231.036	2.00	2.00
Plutonium	Pu	7Act	20	f	94	[244]	1.87	2.00
Thorium	Th	7Act	20	f	90	232.038	2.06	2.00
Uranium	U	7Act	20	f	92	238.029	1.96	1.86

Periodic Table Group List

Element Name	Symbol	Period	Group	Block	Atomic Number	Atomic Weight	Covalent Radius	vdW Radius
Hydrogen	H	1	1	s	1	1.008	0.23	1.09
Lithium	Li	2	1	s	3	6.941	1.28	1.82
Sodium	Na	3	1	s	11	22.991	1.66	2.27

Gold	Au	6	11	d	79	196.967	1.36	1.66
Zinc	Zn	4	12	d	30	65.390	1.22	1.39
Cadmium	Cd	5	12	d	48	112.411	1.44	1.58
Mercury	Hg	6	12	d	80	200.590	1.32	1.55
Boron	B	2	13	p	5	10.811	0.83	2.00
Aluminium	Al	3	13	p	13	26.982	1.21	2.00
Gallium	Ga	4	13	p	31	69.723	1.22	1.87
Indium	In	5	13	p	49	114.818	1.42	1.93
Thallium	Tl	6	13	p	81	204.383	1.45	1.96
Carbon	C	2	14	p	6	12.011	0.68	1.70
Silicon	Si	3	14	p	14	28.086	1.20	2.10
Germanium	Ge	4	14	p	32	72.610	1.17	2.00
Tin	Sn	5	14	p	50	118.71	1.39	2.17
Lead	Pb	6	14	p	82	207.200	1.46	2.02
Nitrogen	N	2	15	p	7	14.007	0.68	1.55
Phosphorus	P	3	15	p	15	30.974	1.05	1.80
Arsenic	As	4	15	p	33	74.922	1.21	1.85
Antimony	Sb	5	15	p	51	121.760	1.39	2.00
Bismuth	Bi	6	15	p	83	208.980	1.48	2.00
Oxygen	O	2	16	p	8	15.999	0.68	1.52
Sulphur	S	3	16	p	16	32.066	1.02	1.80
Selenium	Se	4	16	p	34	78.960	1.22	1.90
Tellurium	Te	5	16	p	52	127.600	1.47	2.06
Polonium	Po	6	16	p	84	[210]	1.40	2.00
Fluorine	F	2	17	p	9	18.998	0.64	1.47
Chlorine	Cl	3	17	p	17	35.453	0.99	1.75
Bromine	Br	4	17	p	35	79.904	1.21	1.85
Iodine	I	5	17	p	53	126.904	1.40	1.98
Astatine	At	6	17	p	85	[210]	1.21	2.00
Helium	He	1	18	p	2	4.003	1.50	1.40
Neon	Ne	2	18	p	10	20.180	1.50	1.54
Argon	Ar	3	18	p	18	39.948	1.51	1.88
Krypton	Kr	4	18	p	36	83.800	1.50	2.02
Xenon	Xe	5	18	p	54	131.290	1.50	2.16
Radon	Rn	6	18	p	86	[222]	1.50	2.00
Cerium	Ce	6Lan	19	f	58	140.116	2.04	2.00
Dysprosium	Dy	6Lan	19	f	66	162.500	1.92	2.00
Erbium	Er	6Lan	19	f	68	167.260	1.89	2.00
Europium	Eu	6Lan	19	f	63	151.964	1.98	2.00
Gadolinium	Gd	6Lan	19	f	64	157.250	1.96	2.00
Holmium	Ho	6Lan	19	f	67	164.930	1.92	2.00
Lanthanum	La	6Lan	19	f	57	138.906	2.07	2.00
Neodymium	Nd	6Lan	19	f	60	144.240	2.01	2.00
Promethium	Pm	6Lan	19	f	61	[145]	1.99	2.00

Praseodymium	Pr	6Lan	19	f	59	140.908	2.03	2.00
Samarium	Sm	6Lan	19	f	62	150.360	1.98	2.00
Terbium	Tb	6Lan	19	f	65	158.925	1.94	2.00
Thulium	Tm	6Lan	19	f	69	168.934	1.90	2.00
Ytterbium	Yb	6Lan	19	f	70	173.040	1.87	2.00
Actinium	Ac	7Act	20	f	89	[227]	2.15	2.00
Americium	Am	7Act	20	f	95	[243]	1.80	2.00
Berkelium	Bk	7Act	20	f	97	[247]	1.54	2.00
Californium	Cf	7Act	20	f	98	[251]	1.83	2.00
Curium	Cm	7Act	20	f	96	[247]	1.69	2.00
Einsteinium	Es	7Act	20	f	99	[252]	1.50	2.00
Fermium	Fm	7Act	20	f	100	[257]	1.50	2.00
Mendelevium	Md	7Act	20	f	101	[258]	1.50	2.00
Nobelium	No	7Act	20	f	102	[259]	1.50	2.00
Neptunium	Np	7Act	20	f	93	[237]	1.90	2.00
Protactinium	Pa	7Act	20	f	91	231.036	2.00	2.00
Plutonium	Pu	7Act	20	f	94	[244]	1.87	2.00
Thorium	Th	7Act	20	f	90	232.038	2.06	2.00
Uranium	U	7Act	20	f	92	238.029	1.96	1.86