

Periodic Table of ICP OES Elements

Period	1	1A																	18	VIII A		
	1	1s	1	2																	10	He
			H	He																		
			hydrogen	helium																		
			1.008	4.003																		
	2	2s	3	4																	10	Ne
			Li	Be																		
			lithium	beryllium																		
		6.941	9.012																			
3	3s	11	12																	18	Ar	
		Na	Mg																			
		sodium	magnesium																			
		22.99	24.31																			
4	4s	19	20																	36	Kr	
		K	Ca																			
		potassium	calcium																			
		39.10	40.08																			
5	5s	37	38																	54	Xe	
		Rb	Sr																			
		rubidium	strontium																			
		85.47	87.62																			
6	6s	55	56																	86	Rn	
		Cs	Ba																			
		cesium	barium																			
		132.9	137.3																			
7	7s	87	88																	118	Uuo	
		Fr	Ra																			
		francium	radium																			
		223	226																			

  

atomic # →	29	+2,1	← common oxidation states
atomic symbol →	Cu		
element name →	copper		
	63.55		← atomic mass (rounded)

  

□	Non ICP OES	■	ICP OES	■	Extended VUV ICP OES
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3	4	5	6	7	8	9	10	11	12
III B	IV B	V B	VI B	VII B	VIII B	VIII B	VIII B	I B	II B

  

21	22	23	24	25	26	27	28	29	30
Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
scandium	titanium	vanadium	chromium	manganese	iron	cobalt	nickel	copper	zinc
44.96	47.87	50.94	52.00	54.94	55.85	58.93	58.69	63.55	65.41

  

39	40	41	42	43	44	45	46	47	48
Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
yttrium	zirconium	niobium	molybdenum	technetium	ruthenium	rhodium	palladium	silver	cadmium
88.91	91.22	92.91	95.94	98	101.1	102.9	106.4	107.9	112.4

  

71	72	73	74	75	76	77	78	79	80
Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg
lutetium	hafnium	tantalum	tungsten	rhenium	osmium	iridium	platinum	gold	mercury
175.0	178.5	180.9	183.8	186.2	190.2	192.2	195.1	197.0	200.6

  

103	104	105	106	107	108	109	110	111	112
Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn
lawrencium	rutherfordium	dubnium	seaborgium	bohrium	hassium	meitnerium	damstadtium	roentgenium	copernicium
262	261	262	266	264	277	268	281	272	285

  

57	58	59	60	61	62	63	64	65	66	67	68	69	70
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb
lanthanum	cerium	praseodymium	neodymium	promethium	samarium	europium	gadolinium	terbium	dysprosium	holmium	erbium	thulium	ytterbium
138.9	140.1	140.9	144.2	145	150.4	152.0	157.3	158.9	162.5	164.9	167.3	168.9	173.0

  

89	90	91	92	93	94	95	96	97	98	99	100	101	102
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No
actinium	thorium	protactinium	uranium	neptunium	plutonium	americium	curium	berkelium	californium	einsteinium	fermium	mendelevium	nobelium
227	232.0	231.0	238.0	237	239	243	247	247	251	252	257	258	259