

Periodic Table of the Quantum Numbers

1 1A																13 3A	14 4A	15 5A	16 6A	17 7A	18 8A
H n=1 l=0 m _l =0 m _s =+ ½	2 2A	Symbol Principle QN = n Angular QN = l Magnetic QN = m_l Spin QN = m_s										B n=2 l=1 m _l =-1 m _s =+ ½	C n=2 l=1 m _l =0 m _s =+ ½	N n=2 l=1 m _l =1 m _s =+ ½	O n=2 l=1 m _l =-1 m _s =- ½	F n=2 l=1 m _l =0 m _s =- ½	Ne n=2 l=1 m _l =1 m _s =- ½				
Li n=2 l=0 m _l =0 m _s =+ ½	Be n=2 l=0 m _l =0 m _s =- ½											Al n=3 l=1 m _l =-1 m _s =+ ½	Si n=3 l=1 m _l =0 m _s =+ ½	P n=3 l=1 m _l =1 m _s =+ ½	S n=3 l=1 m _l =-1 m _s =- ½	Cl n=3 l=1 m _l =0 m _s =- ½	Ar n=3 l=1 m _l =1 m _s =- ½				
Na n=3 l=0 m _l =0 m _s =+ ½	Mg n=3 l=0 m _l =0 m _s =- ½											3 3B	4 4B	5 5B	6 6B	7 7B	8 -----8B-----	9 -----8B-----	10 -----8B-----	11 1B	12 2B
K n=4 l=0 m _l =0 m _s =+ ½	Ca n=4 l=0 m _l =0 m _s =- ½	Sc n=3 l=2 m _l =-2 m _s =+ ½	Ti n=3 l=2 m _l =-1 m _s =+ ½	V n=3 l=2 m _l =0 m _s =+ ½	Cr n=3 l=2 m _l =1 m _s =+ ½	Mn n=3 l=2 m _l =2 m _s =+ ½	Fe n=3 l=2 m _l =-2 m _s =- ½	Co n=3 l=2 m _l =-1 m _s =- ½	Ni n=3 l=2 m _l =0 m _s =- ½	Cu n=3 l=2 m _l =1 m _s =- ½	Zn n=3 l=2 m _l =2 m _s =- ½	Ga n=4 l=1 m _l =-1 m _s =+ ½	Ge n=4 l=1 m _l =0 m _s =+ ½	As n=4 l=1 m _l =1 m _s =+ ½	Se n=4 l=1 m _l =-1 m _s =- ½	Br n=4 l=1 m _l =0 m _s =- ½	Kr n=4 l=1 m _l =1 m _s =- ½				
Rb n=5 l=0 m _l =0 m _s =+ ½	Sr n=5 l=0 m _l =0 m _s =- ½	Y n=4 l=2 m _l =-2 m _s =+ ½	Zr n=4 l=2 m _l =-1 m _s =+ ½	Nb n=4 l=2 m _l =0 m _s =+ ½	Mo n=4 l=2 m _l =1 m _s =+ ½	Tc n=4 l=2 m _l =2 m _s =+ ½	Ru n=4 l=2 m _l =-2 m _s =- ½	Rh n=4 l=2 m _l =-1 m _s =- ½	Pd n=4 l=2 m _l =0 m _s =- ½	Ag n=4 l=2 m _l =1 m _s =- ½	Cd n=4 l=2 m _l =2 m _s =- ½	In n=5 l=1 m _l =-1 m _s =+ ½	Sn n=5 l=1 m _l =0 m _s =+ ½	Sb n=5 l=1 m _l =1 m _s =+ ½	Te n=5 l=1 m _l =-1 m _s =- ½	I n=5 l=1 m _l =0 m _s =- ½	Xe n=5 l=1 m _l =1 m _s =- ½				
Cs n=6 l=0 m _l =0 m _s =+ ½	Ba n=6 l=0 m _l =0 m _s =- ½	Lu n=5 l=2 m _l =-2 m _s =+ ½	Hf n=5 l=2 m _l =-1 m _s =+ ½	Ta n=5 l=2 m _l =0 m _s =+ ½	W n=5 l=2 m _l =1 m _s =+ ½	Re n=5 l=2 m _l =2 m _s =+ ½	Os n=5 l=2 m _l =-2 m _s =- ½	Ir n=5 l=2 m _l =-1 m _s =- ½	Pt n=5 l=2 m _l =0 m _s =- ½	Au n=5 l=2 m _l =1 m _s =- ½	Hg n=5 l=2 m _l =2 m _s =- ½	Tl n=6 l=1 m _l =-1 m _s =+ ½	Pb n=6 l=1 m _l =0 m _s =+ ½	Bi n=6 l=1 m _l =1 m _s =+ ½	Po n=6 l=1 m _l =-1 m _s =- ½	At n=6 l=1 m _l =0 m _s =- ½	Rn n=6 l=1 m _l =1 m _s =- ½				
Fr n=7 l=0 m _l =0 m _s =+ ½	Ra n=7 l=0 m _l =0 m _s =- ½	Lr n=6 l=2 m _l =-2 m _s =+ ½	Rf n=6 l=2 m _l =-1 m _s =+ ½	Db n=6 l=2 m _l =0 m _s =+ ½	Sg n=6 l=2 m _l =1 m _s =+ ½	Bh n=6 l=2 m _l =2 m _s =+ ½	Hs n=6 l=2 m _l =-2 m _s =- ½	Mt n=6 l=2 m _l =-1 m _s =- ½	Ds n=6 l=2 m _l =0 m _s =- ½	Rg n=6 l=2 m _l =1 m _s =- ½	Cn n=6 l=2 m _l =2 m _s =- ½	Nh n=7 l=1 m _l =-1 m _s =+ ½	Fl n=7 l=1 m _l =0 m _s =+ ½	Mc n=7 l=1 m _l =1 m _s =+ ½	Lv n=7 l=1 m _l =-1 m _s =- ½	Ts n=7 l=1 m _l =0 m _s =- ½	Og n=7 l=1 m _l =1 m _s =- ½				

Symbol

Principle QN = n

Angular QN = l

Magnetic QN = m_l

Spin QN = m_s

La n=4 l=3 m _l =-3 m _s =+ ½	Ce n=4 l=3 m _l =-2 m _s =+ ½	Pr n=4 l=3 m _l =-1 m _s =+ ½	Nd n=4 l=3 m _l =0 m _s =+ ½	Pm n=4 l=3 m _l =1 m _s =+ ½	Sm n=4 l=3 m _l =2 m _s =+ ½	Eu n=4 l=3 m _l =3 m _s =+ ½	Gd n=4 l=3 m _l =-3 m _s =- ½	Tb n=4 l=3 m _l =-2 m _s =- ½	Dy n=4 l=3 m _l =-1 m _s =- ½	Ho n=4 l=3 m _l =0 m _s =- ½	Er n=4 l=3 m _l =1 m _s =- ½	Tm n=4 l=3 m _l =2 m _s =- ½	Yb n=4 l=3 m _l =3 m _s =- ½	Lu n=5 l=2 m _l =-2 m _s =+ ½
Ac n=5 l=3 m _l =-3 m _s =+ ½	Th n=5 l=3 m _l =-2 m _s =+ ½	Pa n=5 l=3 m _l =-1 m _s =+ ½	U n=5 l=3 m _l =0 m _s =+ ½	Np n=5 l=2 m _l =1 m _s =+ ½	Pu n=5 l=3 m _l =2 m _s =+ ½	Am n=5 l=3 m _l =3 m _s =+ ½	Cm n=5 l=3 m _l =-3 m _s =- ½	Bk n=5 l=3 m _l =-2 m _s =- ½	Cf n=5 l=3 m _l =-1 m _s =- ½	Es n=5 l=3 m _l =0 m _s =- ½	Fm n=5 l=3 m _l =1 m _s =- ½	Md n=5 l=3 m _l =2 m _s =- ½	No n=5 l=3 m _l =3 m _s =- ½	Lr n=6 l=2 m _l =-2 m _s =+ ½