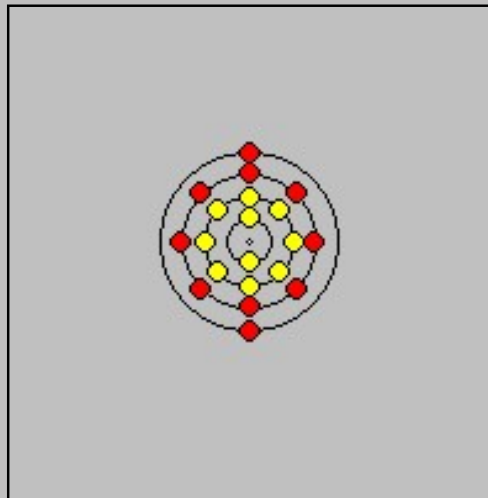




<u>Be</u>	<u>Mg</u>	<u>Ca</u>	<u>Sr</u>	<u>Ba</u>	<u>Ra</u>	<u>Ubn</u>	<u>Usn</u>	<u>Bbn</u>
4	12	20	38	56	88	120	170	220

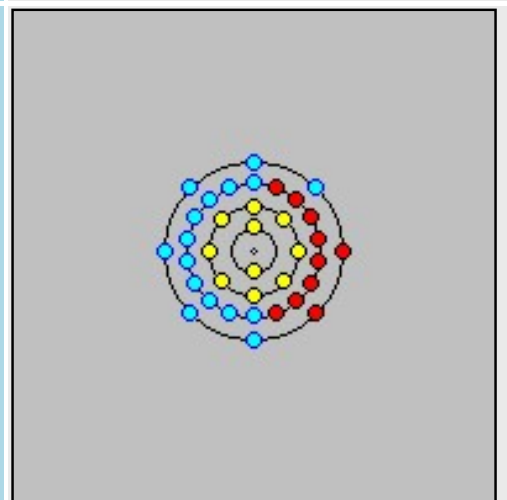
Calcium

Symbol	Ca
Atomic Number	20
Relative Atomic Mass $^{12}\text{C} = 12.0000$	40.078 (± 4) [Since 1983]
Atomic Radius pm	197 (\pm -form)
First Ionisation Energy kJ mol^{-1}	589.7
Ionisation Energy (eV)	6.1132
Electronegativity	1.00
Density kg m^{-3}	1550 [293 K] 1365 [m.p.]
Molar Volume cm^3	25.86
Thermal Conductivity $\text{W m}^{-1} \text{K}^{-1}$	200 [300 K]
Melting Point K	1112
Boiling Point K	1757
Number of Isotopes	16
Isotope Atomic mass/u Mole fraction	40Ca 39.962 5912(3) 0.969 41(156) 42Ca 41.958 6183(4) 0.006 47(23) 43Ca 42.958 7668(5) 0.001 35(10) 44Ca 43.955 4811(9) 0.020 86(110) 46Ca 45.953 6927(25) 0.000 04(3) 48Ca 47.952 533(4) 0.001 87(21)
Inner + outer Shells	2 + 2 =4
Inner + outer Orbitals	10 + 10 =20
Filling Orbital	4s ²
Ground State Electron Configuration	Ar] 4s ²



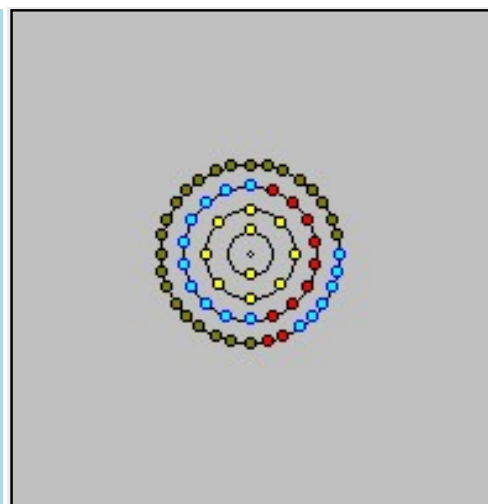
2, 8, 8, 2

Ground State Electron Configuration with free Orbitals (n= 16)
0, 0, 10, 6



Ground State Electron Configuration with compressed Orbitals (n= 24)

0, 0, 0, 24



Singularity

$$60 = 10 + 10 + 16 + 24$$

	s	p	d	f	g	h	i	j
1	2							
2	2	6						
3	2	6	10					
4	2	6	10	14				
5								
6								
7								

Term Symbol

1S_0

Discovery

It was first isolated by chemist Sir [Humphry Davy](#) (London, England) in 1808 with help from the Swedish chemist [J öns Jacob Berzelius](#) and the Swedish court physician [M. M. af Pontin](#).

Name Derived From

The name derives from the Latin calx for "lime (CaO)" or "limestone (CaCO₃)" in which it was found.