

2, 8, 18, 8

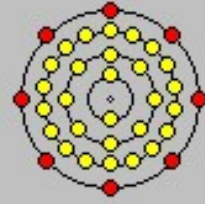
<u>He</u>	<u>Ne</u>	<u>Ar</u>	<u>Kr</u>	<u>Xe</u>	<u>Rn</u>	<u>Uuo</u>	<u>Uho</u>	<u>Buo</u>
2	10	18	36	54	86	118	168	218

Krypton

Symbol	Kr
Atomic Number	36
Relative Atomic Mass $^{12}\text{C} = 12.0000$	83.798 (± 2) [Since 2001]
Atomic Radius pm	110
First Ionisation Energy kJ mol^{-1}	1350.7
First Ionisation Energy (eV)	13.9996
Electronegativity	-
Density kg m^{-3}	2823 [s., m.p.] 2413 [l., b.p.] 3.7493 [g., 273 K]
Molar Volume cm^3	29.68 [116 K]
Thermal Conductivity $\text{W m}^{-1} \text{K}^{-1}$	0.00949 [300 K]
<u>Melting Point</u> K	116.6
<u>Boiling Point</u> K	120.85
Number of Isotopes	27
Isotope Atomic mass/u Mole fraction	78Kr 77.920 388(7) 0.003 55(3) 80Kr 79.916 379(4) 0.022 86(10) 82Kr 81.913 4850(28) 0.115 93(31) 83Kr 82.914 137(4) 0.115 00(19) 84Kr 83.911 508(3) 0.569 87(15) 86Kr 85.910 615(5) 0.172 79(41)
Inner + outer Shells	3 + 1 = 4
Inner + outer Orbitals	28 + 8 = 36
Filling Orbital	4p ⁶
Ground State Electron Configuration	[Kr] 3d ¹⁰ 4s ² 4p ⁶ = [Kr]

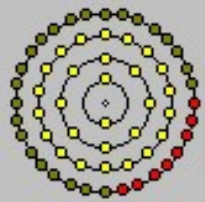
Ground State Electron Configuration with free Orbitals (n= 0)

0, 0, 0, 0



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

0, 0, 0, 24



Singularity

60 = 28 + 8 + 0 + 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 discovered in liquefied atmospheric air by the Scottish chemist **William Ramsay** and the English chemist **Morris William Travers** (London, England) in 1898. A wavelength in the atomic spectrum of ^{86}Kr is the fundamental standard of length.

Name Derived From

The name derives from the Greek *kryptos* for "concealed" or "hidden".