

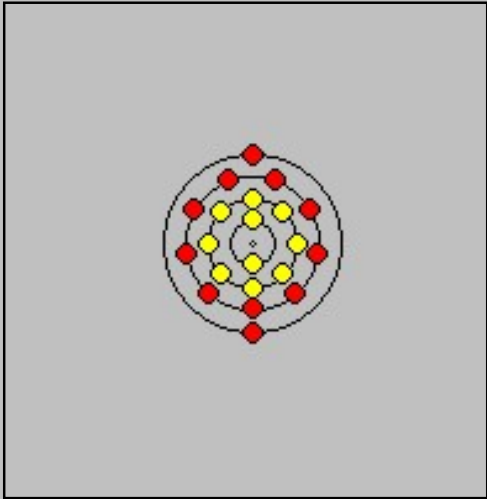


<a href="#">Sc</a>	<a href="#">Y</a>	<a href="#">La</a>	<a href="#">Ac</a>	<a href="#">Ubu</a>	<a href="#">Usu</a>	<a href="#">Bbu</a>
21	39	57	89	121	171	221

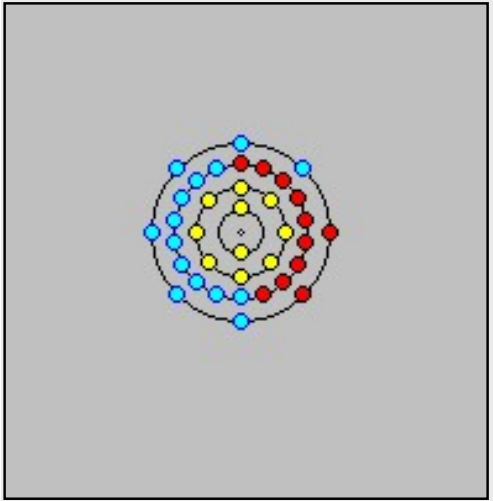
# Scandium

Truss Element

Symbol	Sc
Atomic Number	21
Relative Atomic Mass $^{12}\text{C} = 12.0000$	44.955 910 ( $\pm 8$ ) [Since 1995]
Atomic Radius pm	161
First Ionisation Energy $\text{kJ mol}^{-1}$	631
Ionisation Energy (eV)	6.5615
Electronegativity	1.36
Density $\text{kg m}^{-3}$	2989 [273 K]
Molar Volume $\text{cm}^3$	15.04
Thermal Conductivity $\text{W m}^{-1} \text{K}^{-1}$	15.8 [300 K]
Melting Point K	1814
Boiling Point K	3104
Number of Isotopes	15
Isotope Atomic mass/u Mole fraction	$^{45}\text{Sc}$ 44.955 9102(12) 1.0000
Inner + outer Shells	2 + 2 = 4
Inner + outer Orbitals	10 + 11 = 21
Filling Orbital	3d <sup>1</sup>
Ground State Electron Configuration	Ar] 3d <sup>1</sup> 4s <sup>2</sup>
Ground State Electron Configuration with free Orbitals (n= 15)	
	0, 0, 9, 6

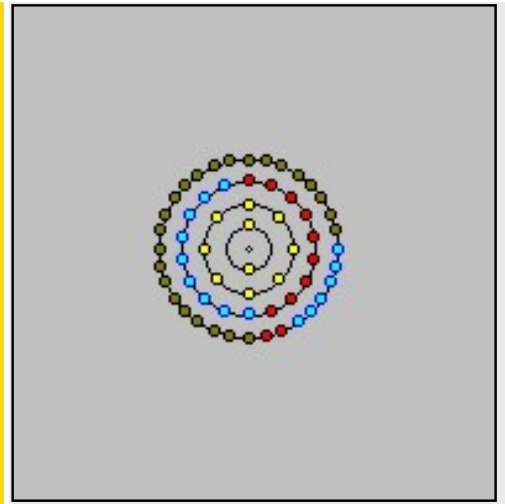


2, 8, 9, 2



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

0, 0, 0, 24



**Singularity**

60 = 10 + 11 + 15 + 24

	s	p	d	f	g	h	i	j
1	2							
2	2	6						
3	2	6	1	9				
4	2	6	10	14				
5								
6								
7								

**Term Symbol**

$^2D_{3/2}$

**Discovery**

It was discovered by the chemist **Lars-Fredrik Nilson** (Uppsala, Sweden) in 1879 in an ytterbium sample. In the same year, the Swedish chemist **Per Theodore Cleve** proved that scandium was Mendeleev's hypothetical element "eka-boron".

**Name Derived From**

The name derives from the Latin scandia for Scandinavia, where the mineral was found.