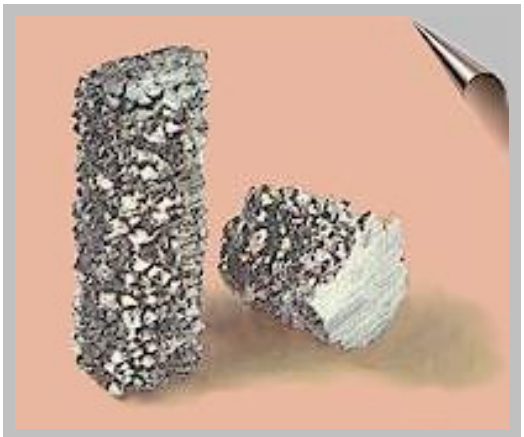
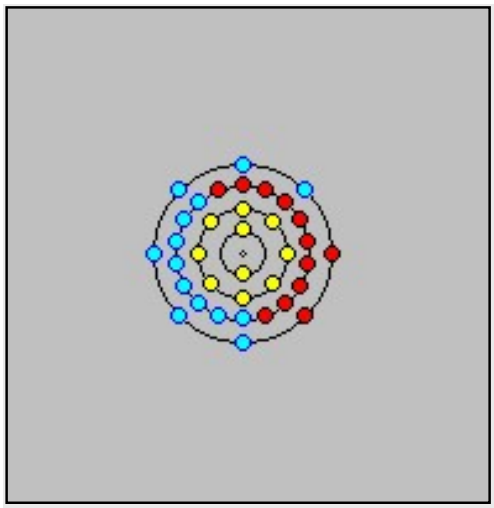
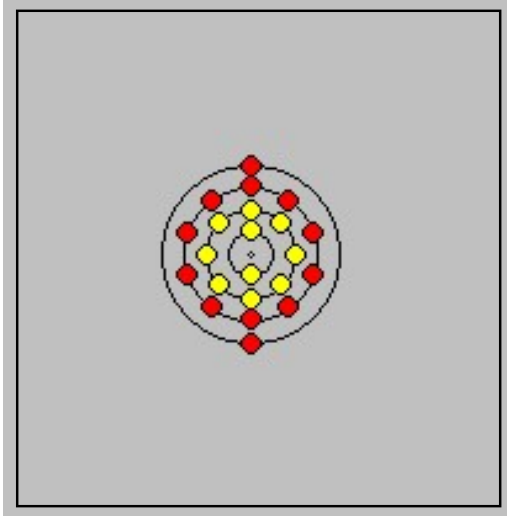


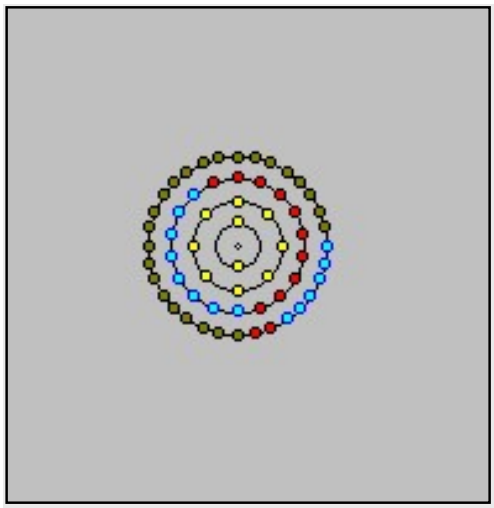
Ti	Zr	Hf	Rf	Upq	Bnq
22	40	72	104	154	204

Titanium

Symbol	Ti
Atomic Number	22
Relative Atomic Mass $^{12}C = 12.0000$	47.867 (±1) [Since 1993]
Atomic Radius pm	145
First Ionisation Energy kJ mol $^{-1}$	658
Ionisation Energy (eV)	6.8281
Electronegativity	1.54
Density kg m $^{-3}$	4540 [293 K] 4110 [l., m.p.]
Molar Volume cm ^{3}	10.55
Thermal Conductivity W m $^{-1}$ K $^{-1}$	21.9 [300 K]
Melting Point K	1933
Boiling Point K	3560
Number of Isotopes	13
Isotope Atomic mass/u Mole fraction	46Ti 45.952 6295(12) 0.0825(3) 47Ti 46.951 7637(10) 0.0744(2) 48Ti 47.947 9470(10) 0.7372(3) 49Ti 48.947 8707(10) 0.0541(2) 50Ti 49.944 7920(11) 0.0518(2)
Inner + outer Shells	2 + 2 =4
Inner + outer Orbitals	10 + 12 =22
Filling Orbital	3d ^{2}
Ground State Electron Configuration	Ar] 3d ^{2} 4s ^{2}
Ground State Electron Configuration with free Orbitals (n= 14) 0, 0, 8, 6	



2, 8, 10, 2

Ground State Electron Configuration with compressed Orbitals (n= 24)	
0, 0, 0, 24	

Singularity	60 = 10 + 12 + 14 + 24

	s	p	d	f	g	h	i	j
1	2							
2	2	6						
3	2	6	2	8				
4	2	6	10	14				
5								
6								
7								

Term Symbol	$^{3}F_{2}$
Discovery	It was originally discovered by the clergyman Rev. William Gregor (Cornwall, England) in the mineral ilmenite ($FeTiO_3$) in 1791. He called this iron titanite menachanite and the element menachin, for the Menachan parish where it was found. It was rediscovered in 1795 by the chemist Martin Heinrich Klaproth (Berlin, Germany), who called it titanium because it had no characteristic properties to use as a name. Titanium metal was first isolated by the Swedish chemists Sven Otto Pettersson and Lars Fredrik Nilson.
Name Derived From	The name derives from the Latin titans, who were the mythological "first sons of the earth".

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