Viaggio nella …Tavola Periodica

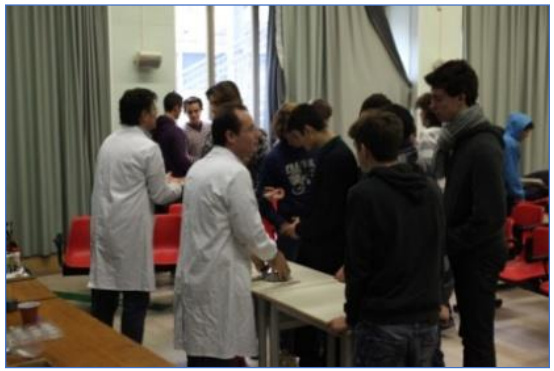
CHIMICA

Piano Lauree Scientifiche PLS

Una passeggiata sulla tavola periodica toccando gli elementi chimici e scoprendo le proprietà periodiche ….

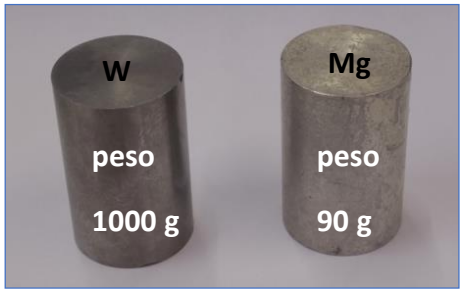
Una lezione interattiva sulla tavola periodica……



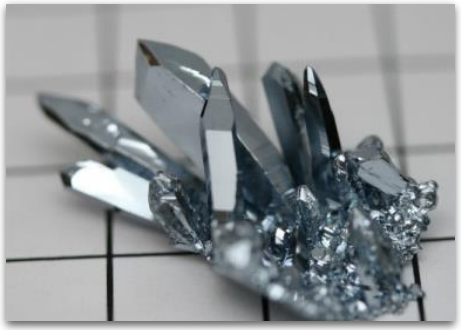





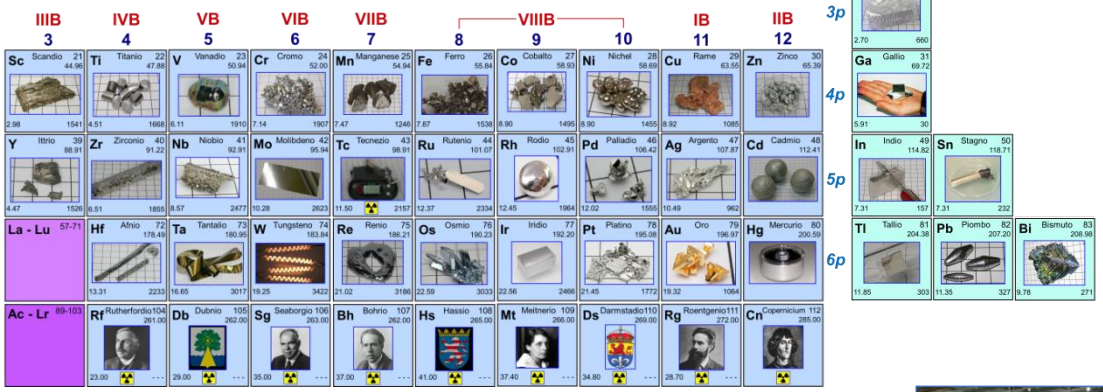

Metalli



La densità dei metalli

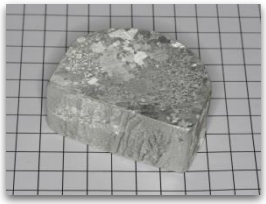


Osmio in forma cristallina
densità = 22,6 Kg/dm^2



Metalli resistenti e leggeri, loro leghe ed applicazioni

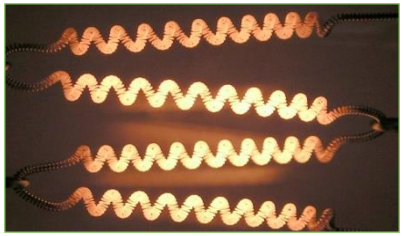
Scandio cristallino
Densità = 2,9 Kg/dm^2



Alluminio
Densità = 2,7 Kg/dm^2

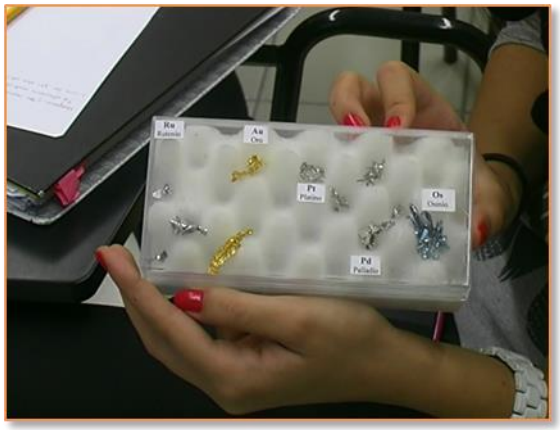
I metalli e le temperature di fusione

Cucchiaino realizzato in gallio
p.f. = 29,8 °C



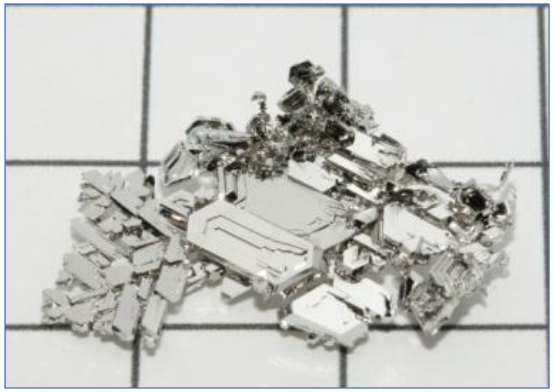
Filamenti di tungsteno
p.f. = 3410 °C

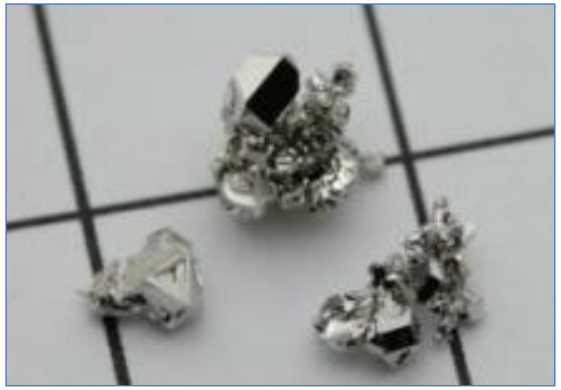
Mercurio
p.f. = − 38 °C



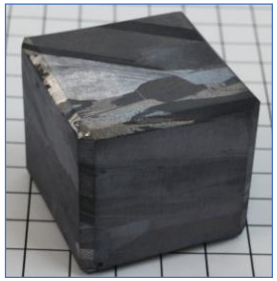
Metalli preziosi

Cristalli di alcuni metalli ottenuti nei laboratori di inorganica di UNICAM con il metodo del trasporto di vapore chimico

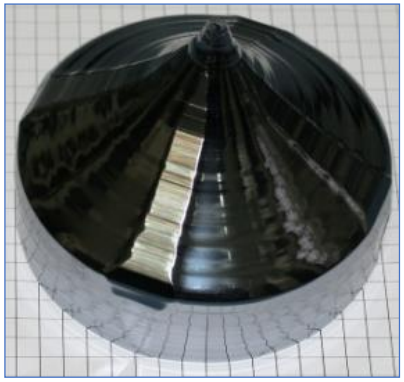




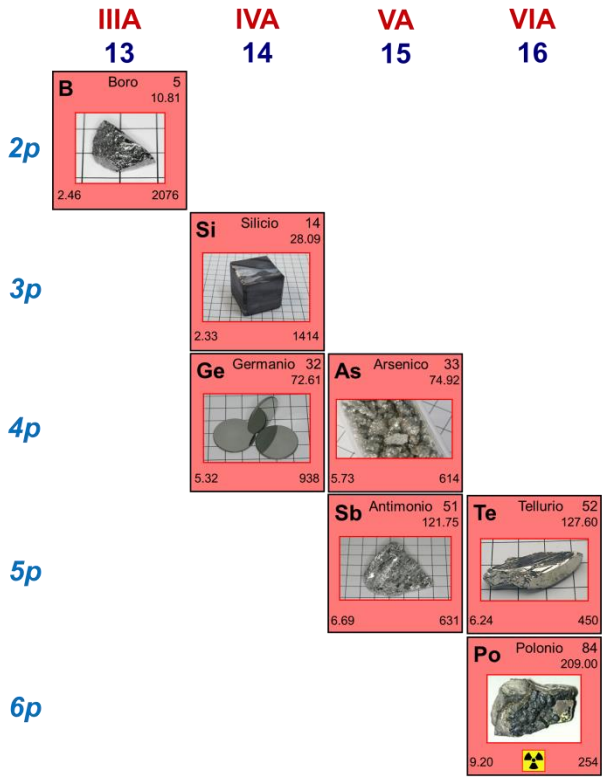
I semimetalli o metalloidi



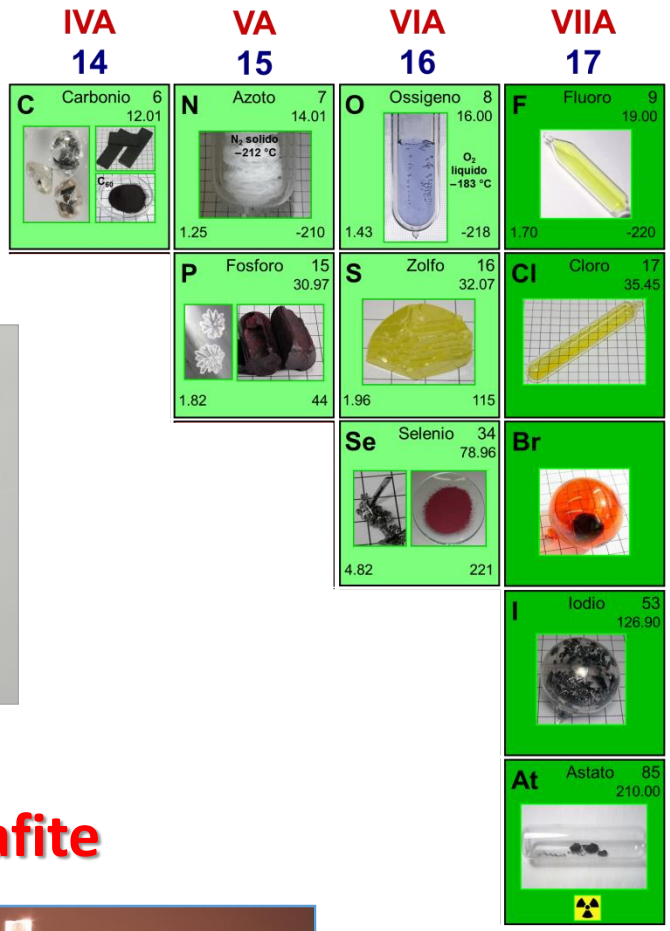
Cubo di silicio policristallino



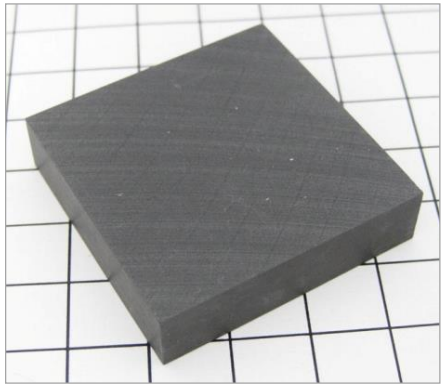
Monocristallo di silicio

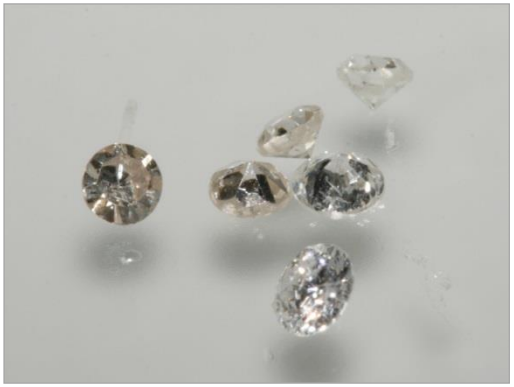


I non metalli

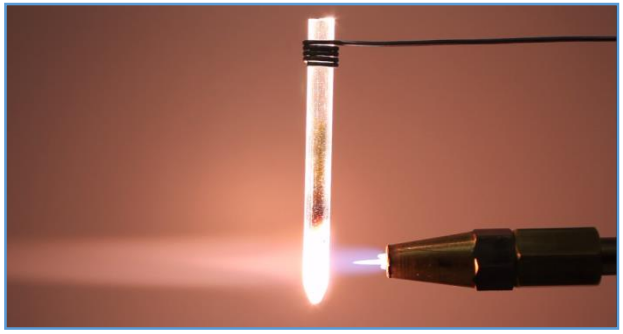


La grafite ed il diamante



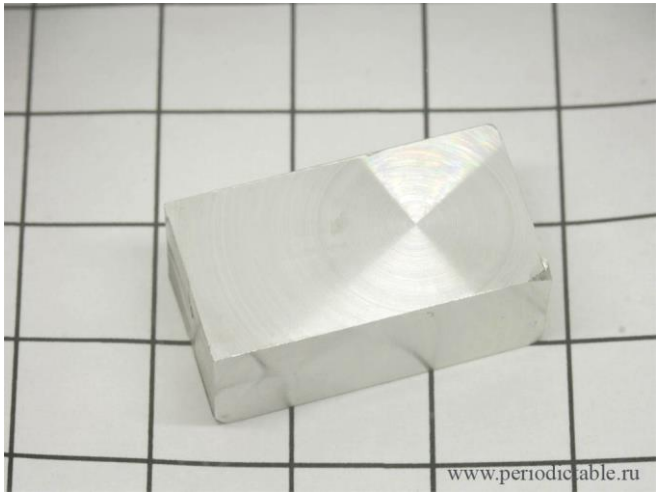


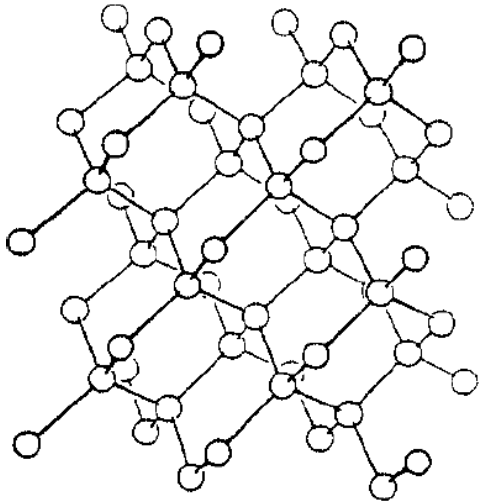
Conversione del diamante in grafite



Gli Allotropi dello Stagno

La peste dello stagno

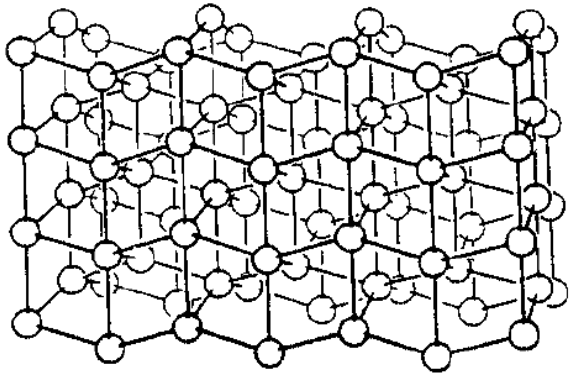




$^{3}_{\infty}[Sn_{4/4}](cF8)$

(α-tin)

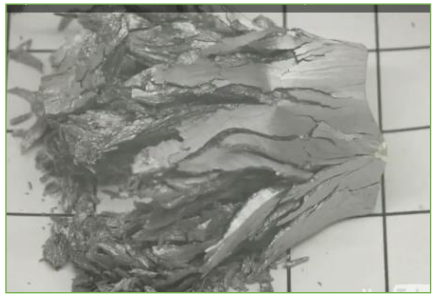
versus



$^{3}_{\infty}[Sn_{6/6}](tI4)$

(β-tin)

Stagno Grigio



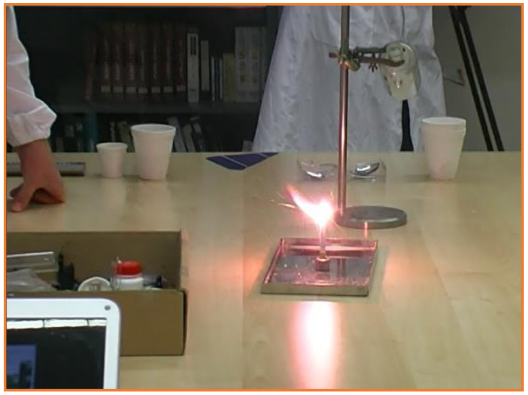
Stagno Bianco

I non metalli

Azoto liquido e solido

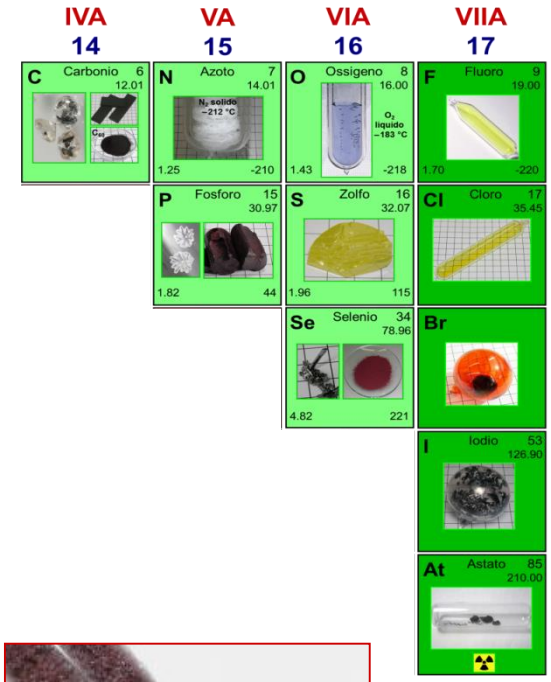
Ossigeno liquido

Reattività dell'ossigeno

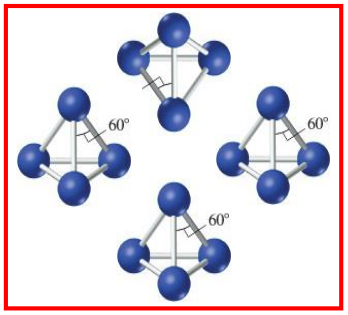


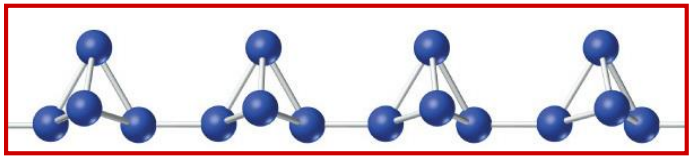
IVA	VA	VIA	VIIA
14	15	16	17
C Carbonio 6 12.01	N Azoto 7 14.01	O Ossigeno 8 16.00	F Fluoro 9 19.00
	N_2 solido −212 °C	O_2 liquido −183 °C	
	1.25 -210	1.43 -218	1.70 -220
P Fosforo 15 30.97	S Zolfo 16 32.07	Se Selenio 34 78.96	Cl Cloro 17 35.45
1.82 44	1.96 115	4.82 221	
			Br
			I Iodio 53 126.90
			At Astato 85 210.00

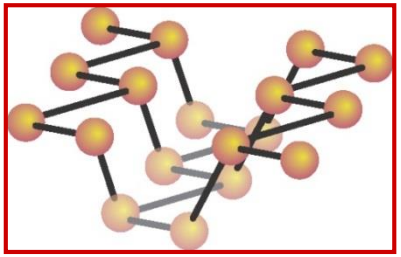
I non metalli



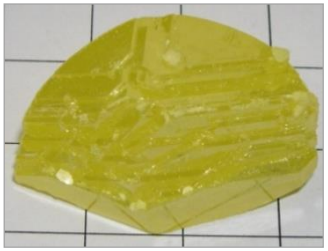
Il fosforo

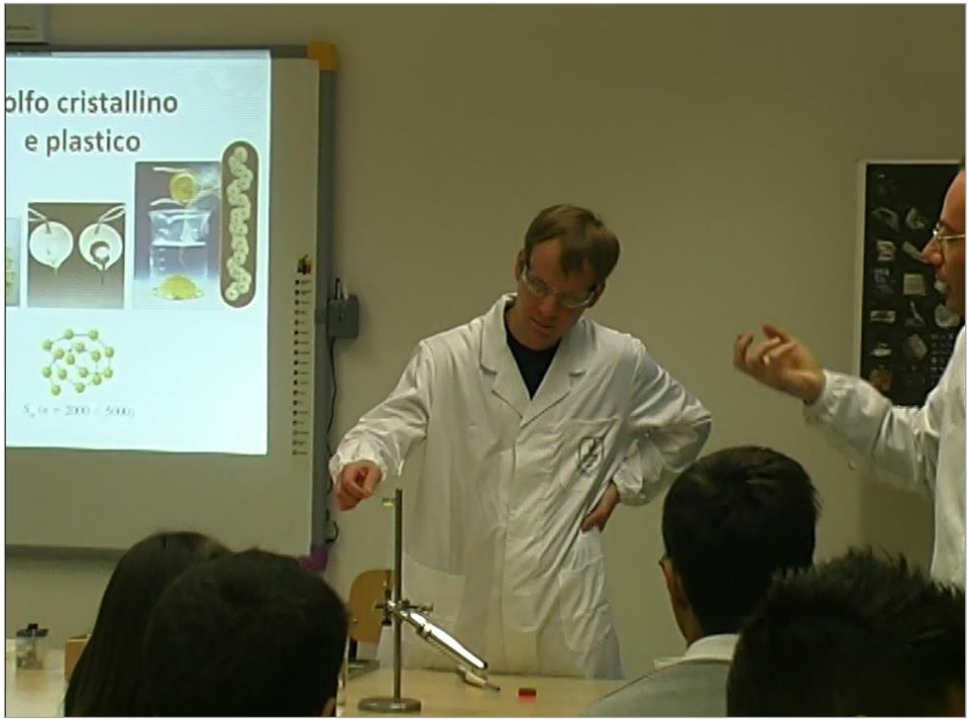




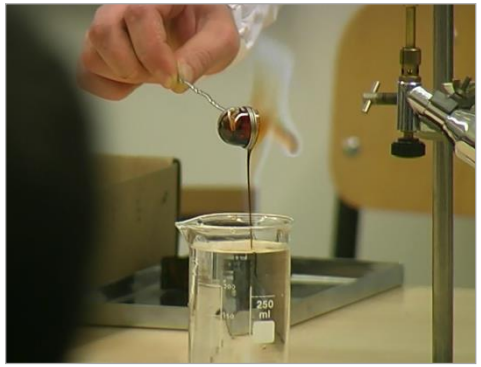


I non metalli

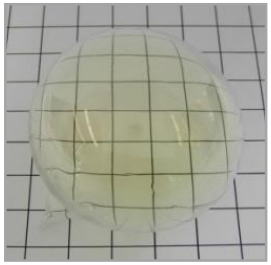


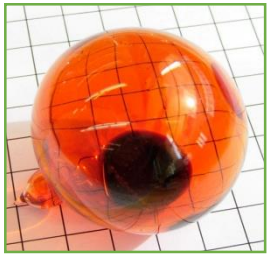


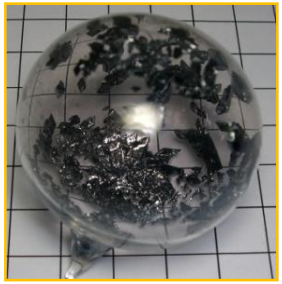
Conversione in zolfo plastico



I non metalli: Gli Alogeni



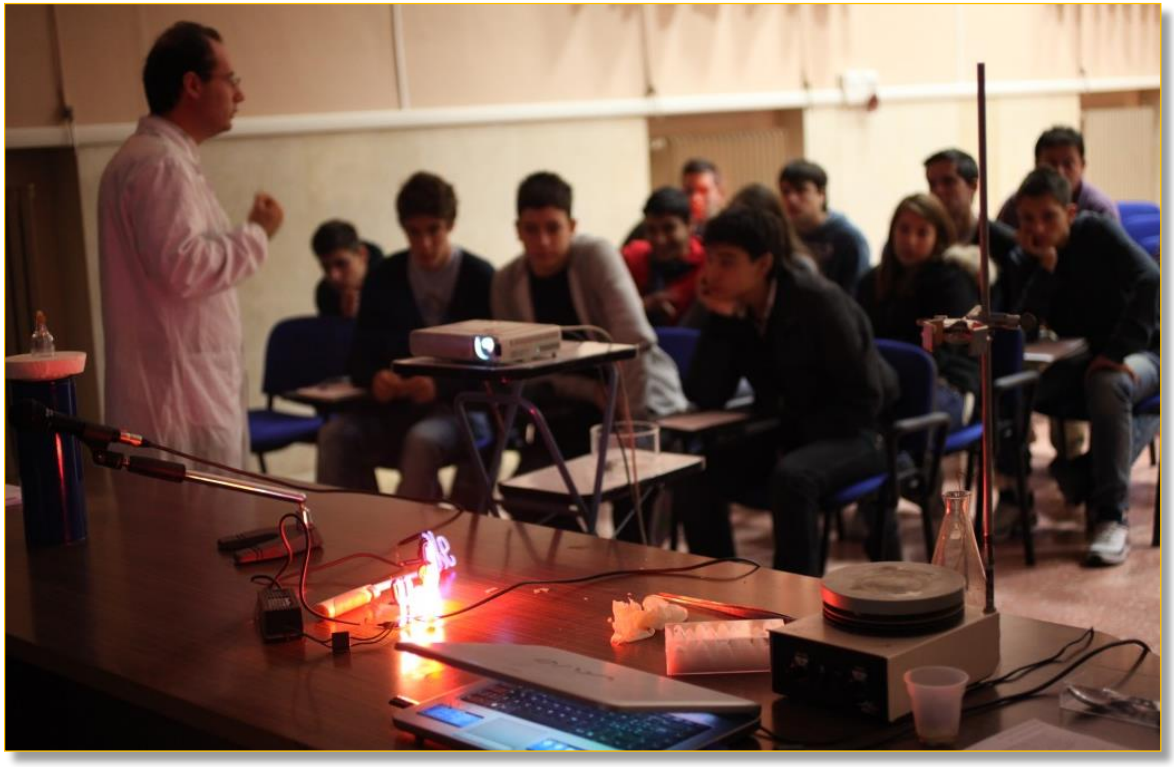




Passaggi di stato del cloro

Gas
↓
Liquido
↓
solido

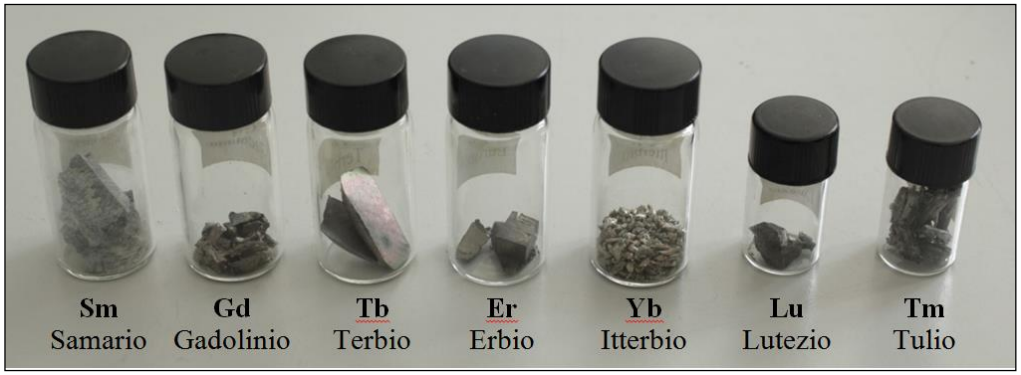
I non metalli: I gas nobili

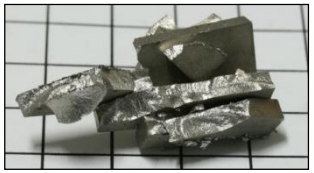


VIIIA
18

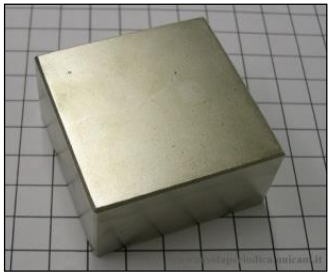
He	Elio	2	4.00
Ne	Neon	10	20.18
Ar	Argon	18	39.95
Kr	Kripton	36	83.80
Xe	Xenon	54	131.30
Rn	Radon	86	222.00

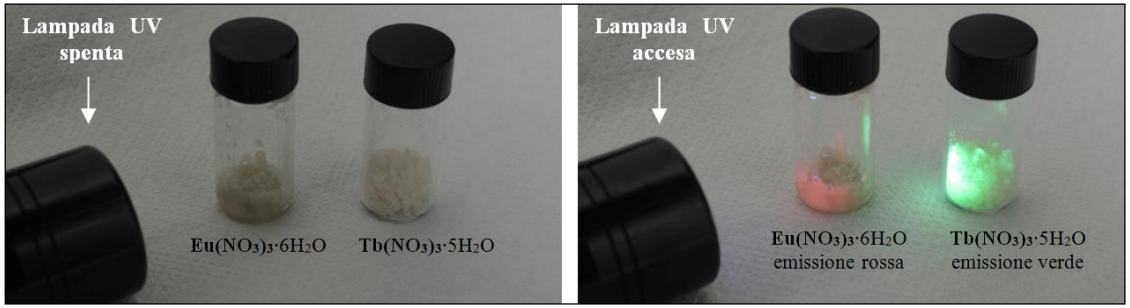
Terre rare: I Lantanidi





Magneti di samario-cobalto $SmCo_5$.





Magnete al neodimio