

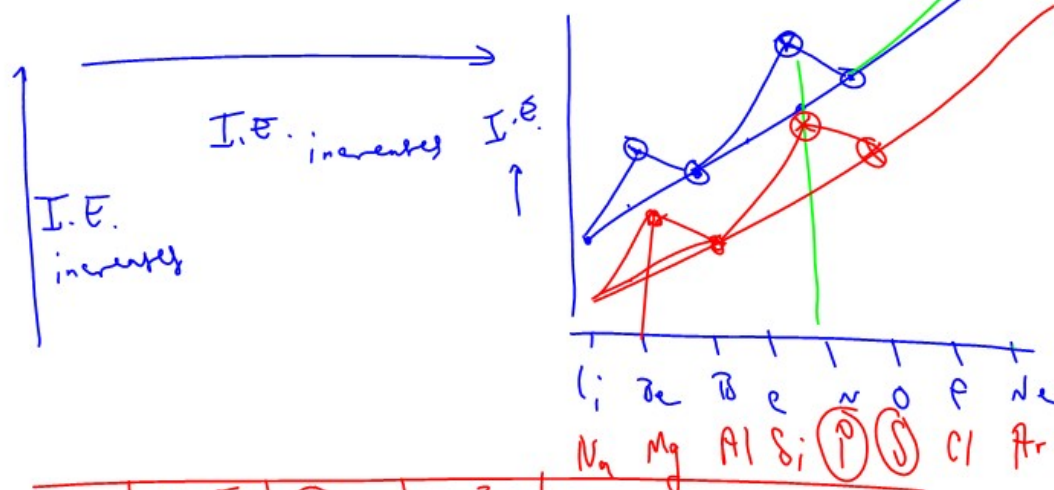
Li Be B C N O F Ne

eff. $\rightarrow$ increases

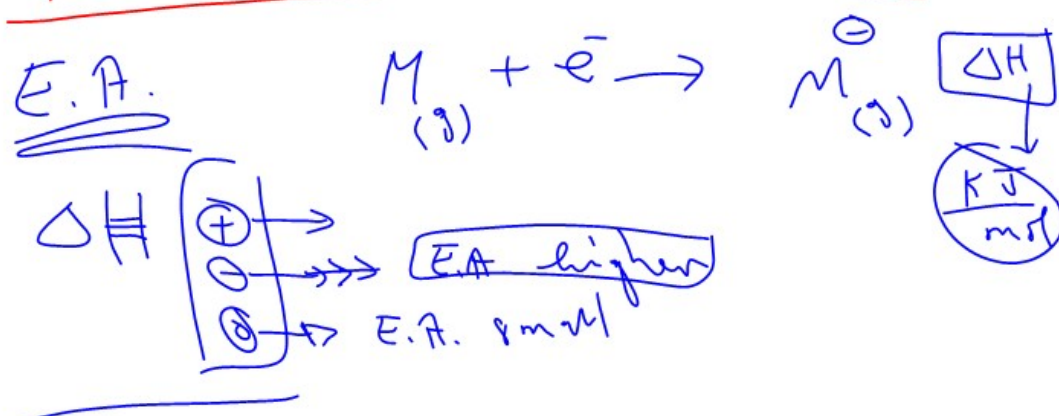
Ioniz. E (I.E.)

energy needed to completely remove
outer most e^- from isolated gaseous g.s.
neutral per mol

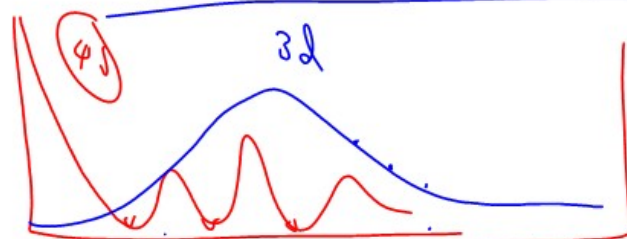
$$E_n = -\frac{A}{n^2} \quad n=1 \rightarrow n=\infty$$



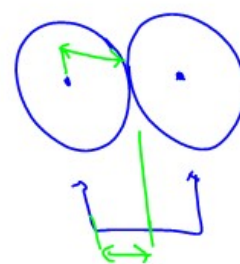
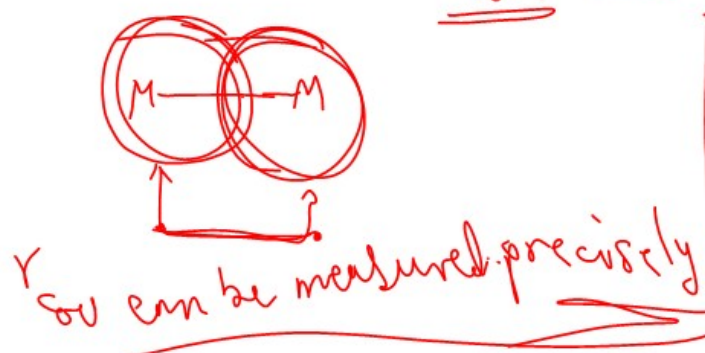
	I.E.	②	③
Na	500	5000	
Ca	500	1000	⑦ 7000
Al			

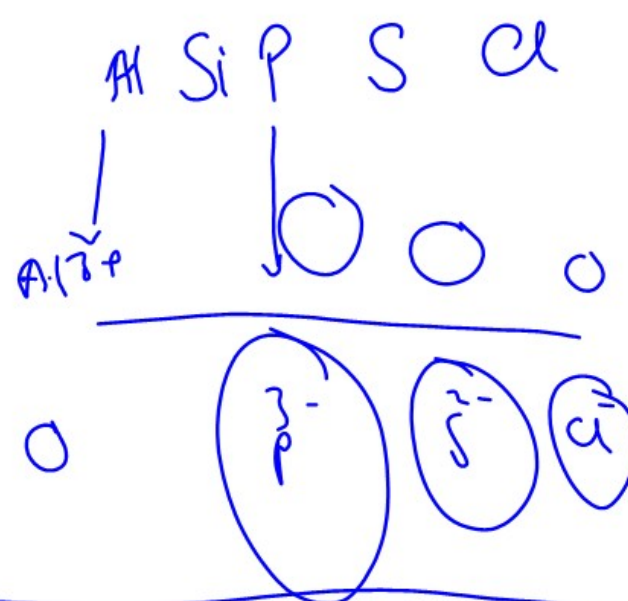
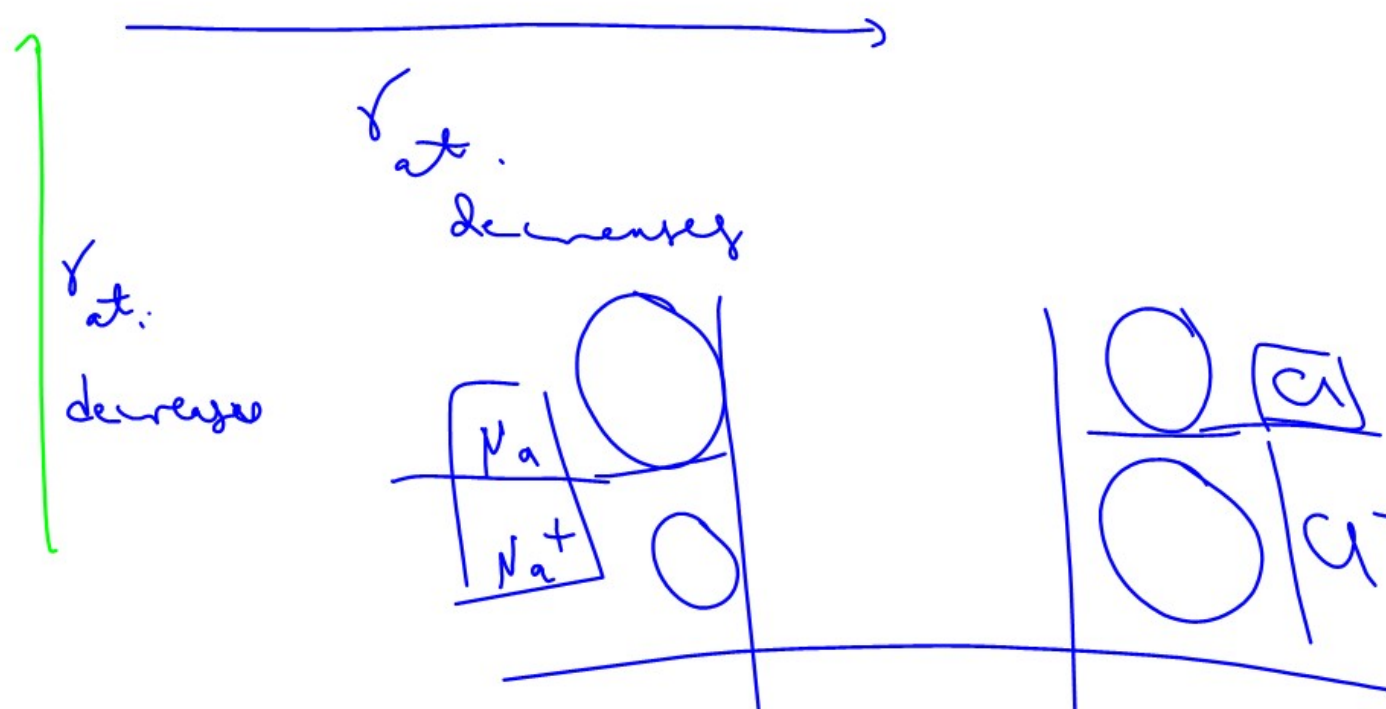


Size / atomic size (radius)
cov. size (radius)

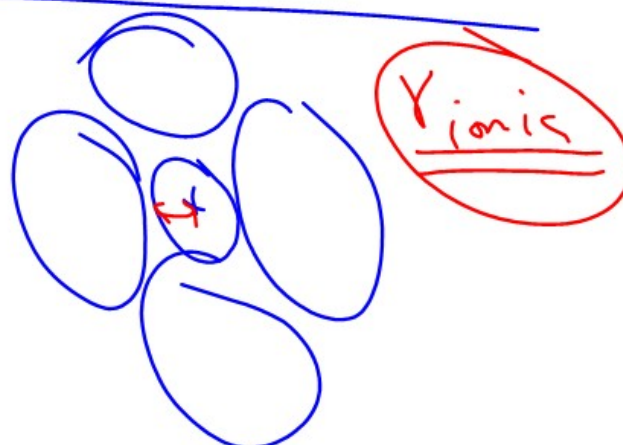


$$r_{cov.} < r_{atom.}$$





ionic Rad. | crystal rad.



$r_{ionic/crystal}$

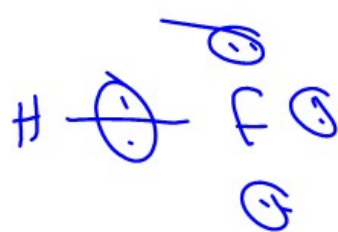
→ C.N. ✓✓
→ cov. bond. ✓✓

→ crystal distortion

→ delocalization of e^-
✓✓



الأيون



Chapt. 3 Bonding

Bonds

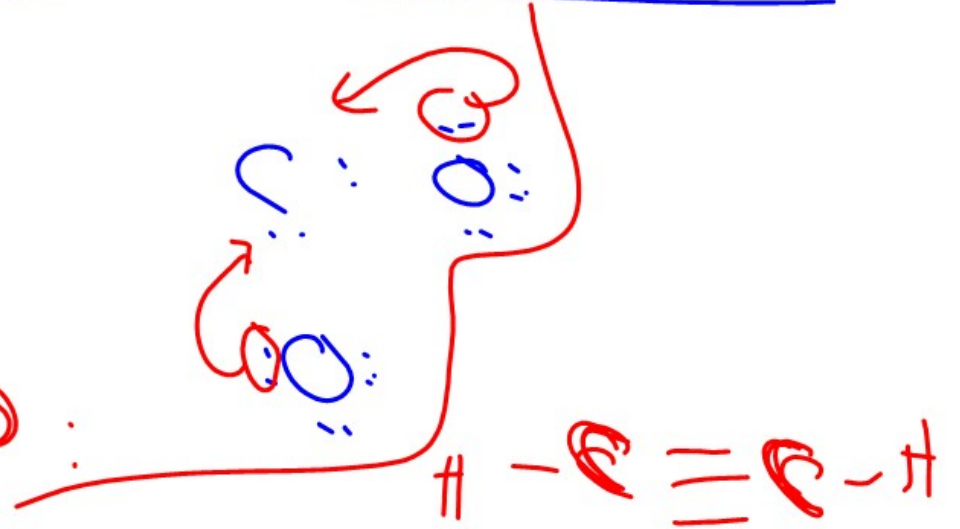
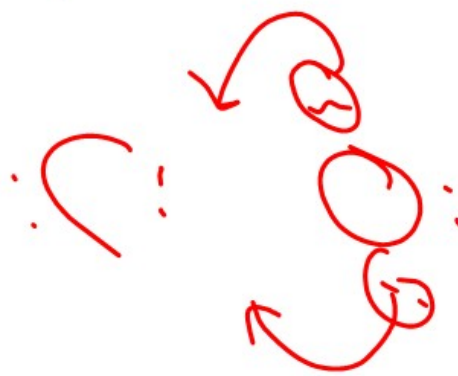
Primary
Chemical
→ ionic
→ cov.
→ coord.

Secondary H-bond.

dipol - dipole
dipol - non polar
non pol. - non pol. → bond.

8 e⁻

CO₂



تاریخ	27.2
Mon.	29.2
Wed.	2.3
Sat.	5.3
Mon.	7.3