F M.H.Khan D1(H) 9-5-20
Sat, Time-11:40-12:30, Topic

Fazan's Rule Fajan rule and Inert pair effect, Magnesium

- According to fazan's rule covalent character, Polarizati Polarisability increase with ↑ size of anion and decrease with increase size of cation and vice-versa is ionic character.

eg: HI > HBr > HCl > HF

because size of I^- greater than Br^- greater than Cl^- greater than F^-

KCl, NaCl, LiCl, RbCl, MgCl

Li ← Be
Na ⇄ Mg
K → Ca
Rb ↑ Sr
Cs ↑ Ba
Fr ↑ Ra

LiCl > MgCl > NaCl > KCl > RbCl.

Q.

(1)

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- Inert pair effect
  ↓
  unreactive

- The reluctancy (Not take part in rxn or to rate) of the reluctancy of NS orbital to take part in bond formation that is only N-P orbital take part in bond formation because NS orbital present inner side but N-P orbital present outer side. inert pair effect occurs only in P-block not in S-d and F block. only IIIA, IVA and VA elements show inert pair effect but ≠ VIA, VIIA, O or VIIIA element does not show inert pair effect.

- Due to inert pair effect stability in less oxidation no. increase from Top to buttom in a group and decrease reactivity in more oxidation no. stability ves ↓ from top to buttom in group and vise-versa in reactivity.

Q. which more stable and less reactive
(1) $PbCl_2$ and $SnCl_2$ (2) $PbCl_4$ and $SnCl_4$