

BORON FAMILY.

Atomic Radius: $B < Al > Ga < In < Tl$.

Reason for $Al > Ga$ is screening effect.

Density: $B < Al < Ga < In < Tl$.

Mt. Pt: $B > Al > Ga < In < Tl$.

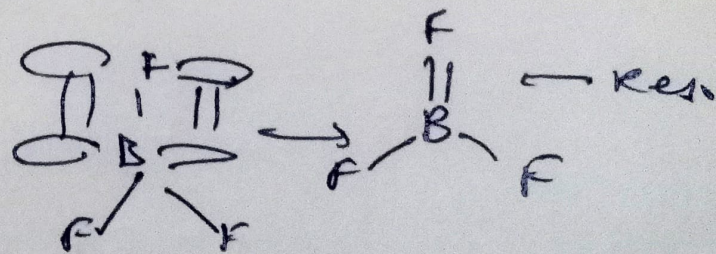
B has high melting pt. as it exist in polymeric state in both solid & liquid.

I.E $\Rightarrow B > Al < Ga > In < Tl$.

Reason: B is smaller in size & close s-c- & Ga experience inert pair effect

$U+1$ O.S. stability \uparrow down the group.
4 +3 decreases.

Backbonding: In BX_3 X atom forms back bonding with B e.g.:



Polymerization: Boron & Al. compound polymerize for stability.
ex: $2AlCl_3 \rightarrow Al_2Cl_6$.