

When BCl_3 is treated with water, it hydrolyses and forms $[\text{B}(\text{OH})_4]^-$ only whereas AlCl_3 in acidified aqueous solution forms $[\text{Al}(\text{H}_2\text{O})_6]^{3+}$ ion. Explain what is the hybridisation of boron and aluminium in these species?

Ans : Sp^3 and Sp^3d^2