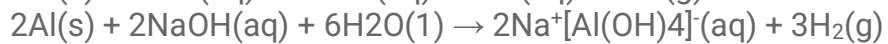
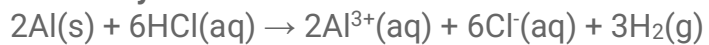


## GROUP 13 ELEMENTS: THE BORON FAMILY

### Oxidation state and trends in chemical reactivity:

General oxidation state = +3

### Reactivity towards acids and alkalis:



Sodium

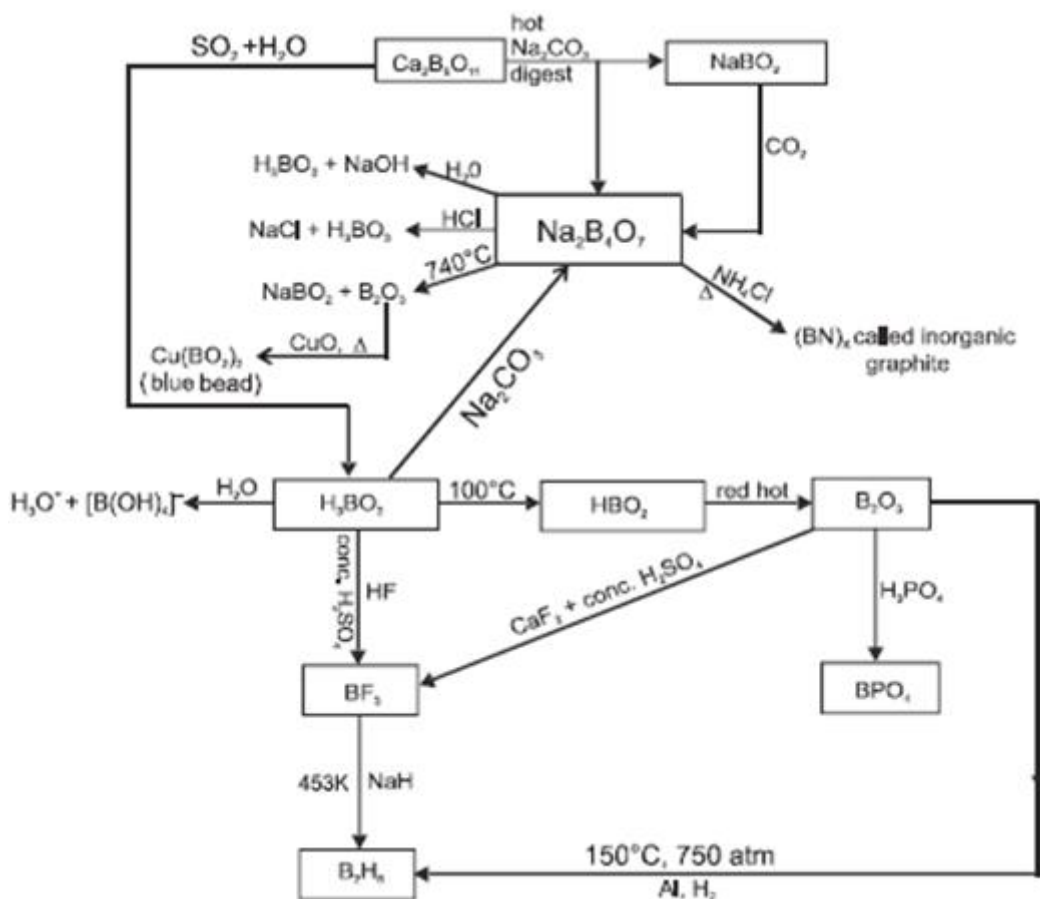
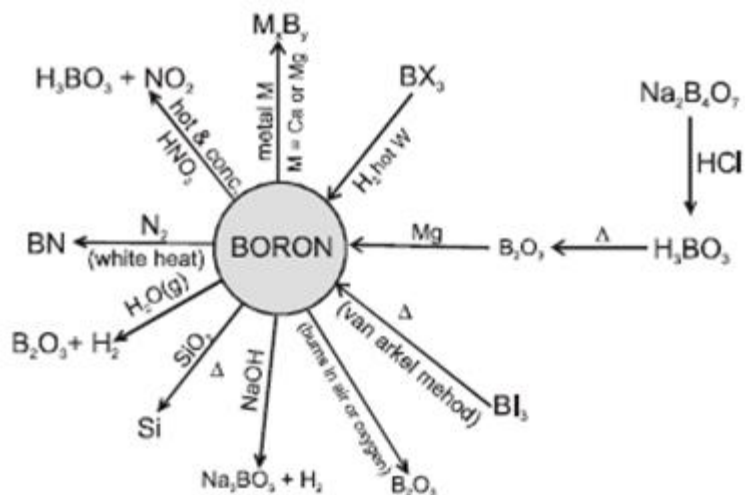
tetrahydroxoaluminate (III)

### Reactivity towards halogens:



## BORON (B):

Some important reactions of boron and its compounds:



1. Small amines such as  $\text{NH}_3$ ,  $\text{CH}_3\text{NH}_2$  and  $(\text{CH}_3)_2\text{NH}$  give unsymmetrical cleavage of diborane.



2. Large amines such as  $(\text{CH}_3)_3\text{N}$  and pyridine give symmetrical cleavage of diborane.

