DIFFERENCES BETWEEN DIBORANE AND ETHANE

Differences between Diborane and Ethane

1. Diborane is a dimer of BH_3, while ethane is not a dimer of CH_3

2. BH_3 is an electron deficient compound, while CH_3 is a free radical or methyl radical $(-CH_3)\cdot$

3. C_2H_6 is a second member of alkanes which is a saturated hydrocarbon, while B_2H_6 is a first member of boranes.

4. B_2H_6 gives different types of chemical reactions e.g. reactions with acids, alkalies, alcohols, Lewis bases,

alkali-amalgams, ethers, carbon monoxide, oxidation etc. while C_2H_6 gives mainly' substitution reactions being an alkane.

5. B_2H_6 consists of bridging H-atom, while C_2H_6 does not contain such H- atom.

6. B_2H_6 liberates too much heat on combustion, while C_2H_6 does not.
