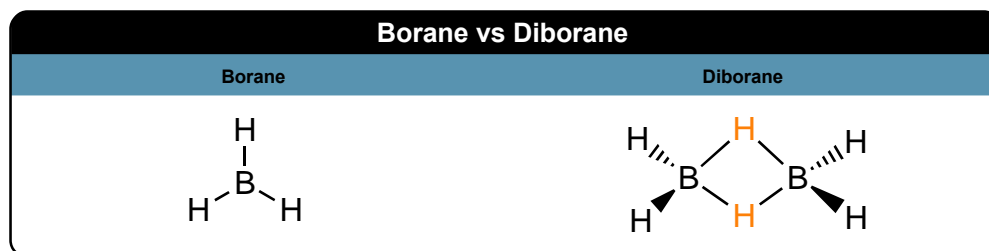


CONCEPT: BORON FAMILY: BORANE

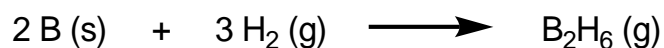
- Boranes represent highly reactive covalent hydrides composed of only _____ and _____ atoms.
 - The _____ form is diborane, which is two boranes connected by *bridged hydrogens*.
 - **Bridging Hydrogens:** Hydrogen atoms that unite molecules by forming ____ polarized covalent bonds.
- These are rare and in-depth discussion is beyond the scope of this course.



EXAMPLE: Based on the structure of the diborane molecule determine the hybridization of the boron atoms.

- a) sp b) sp^2 c) sp^3 d) sp^3d e) sp^3d^2

PRACTICE: The formation of diborane from its elemental components is given below:



Determine the enthalpy value for the formation of diborane when given the enthalpy values for the following partial reactions:

