

LECTURE 15 VALENCE BOND THEORY AND HYBRIDIZATION

I. sp^3 Hybridization

- A. Example 1: Methane CH_4
- B. Example 2: Ethane C_2H_6
- C. Example 3: Ammonia NH_3
- D. Example 4: Water H_2O

II. sp^2 Hybridization

- A. Example 1: Borane BH_3
- B. Example 2: Ethylene C_2H_4
- C. Example 3: Benzene C_6H_6

III. sp Hybridization