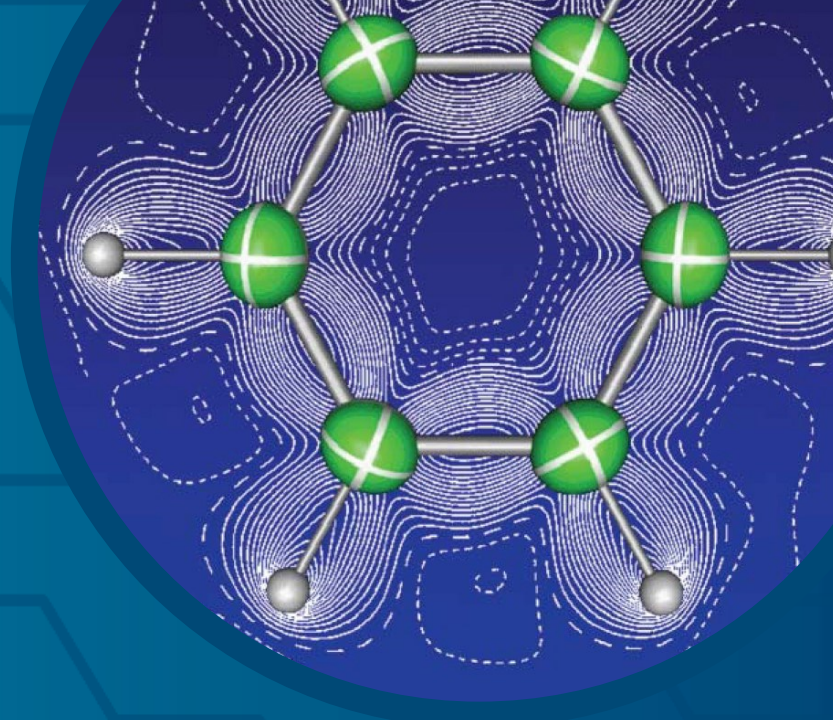


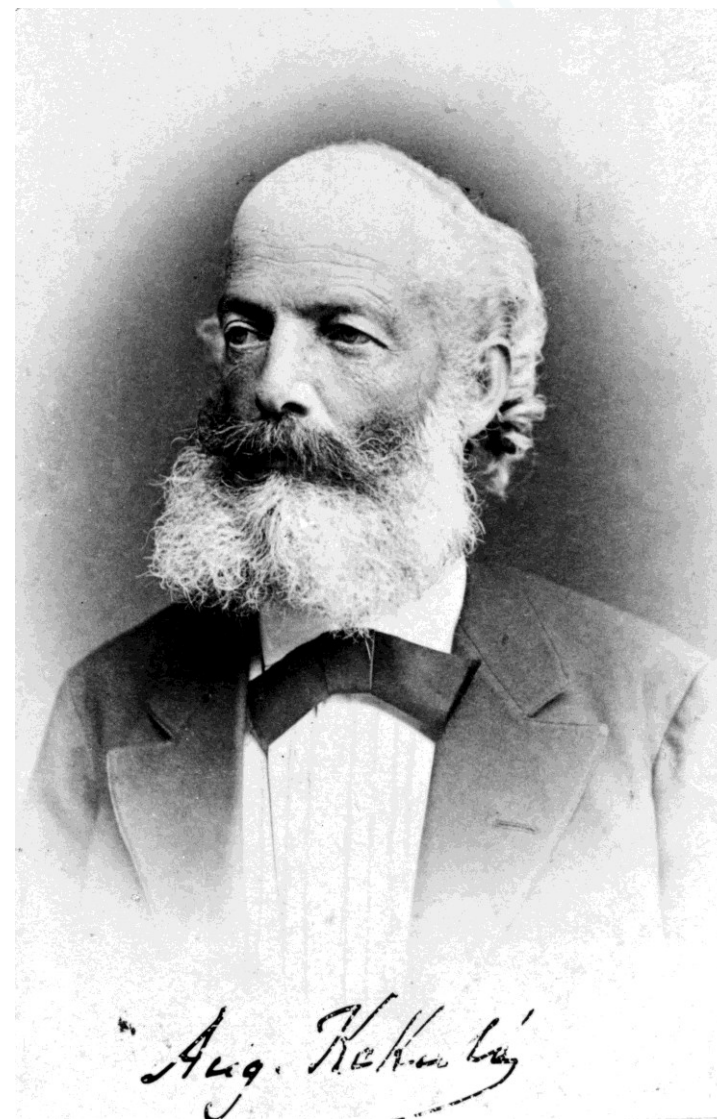
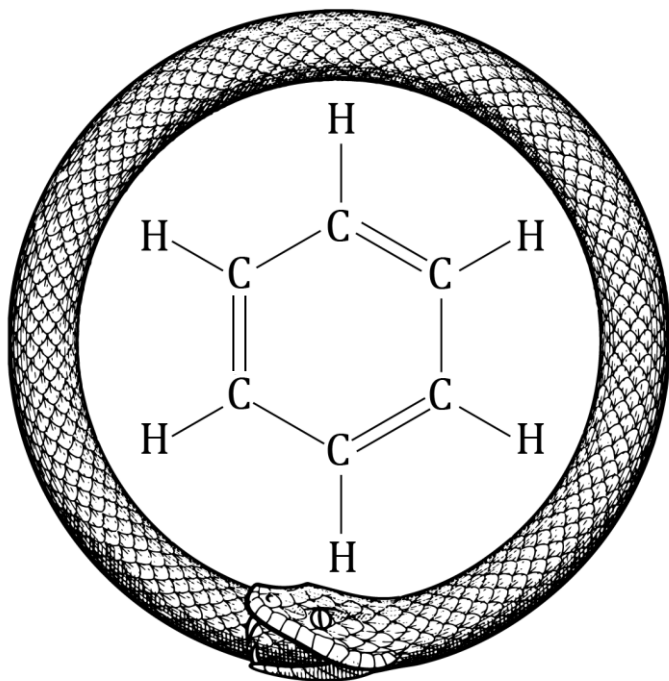
16–18 years

The structure of benzene



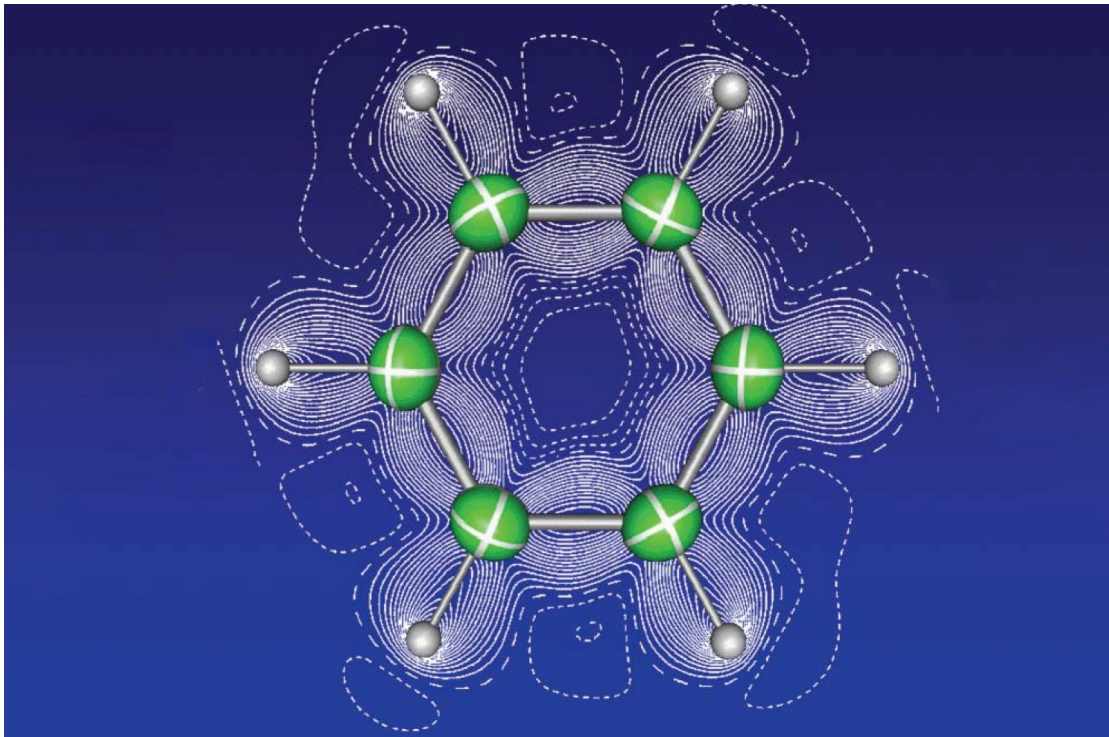
August Kekulé

- German chemist
- First to declare that carbon forms four bonds
- Proposed his structure of benzene after dreaming of a snake swallowing its own tail

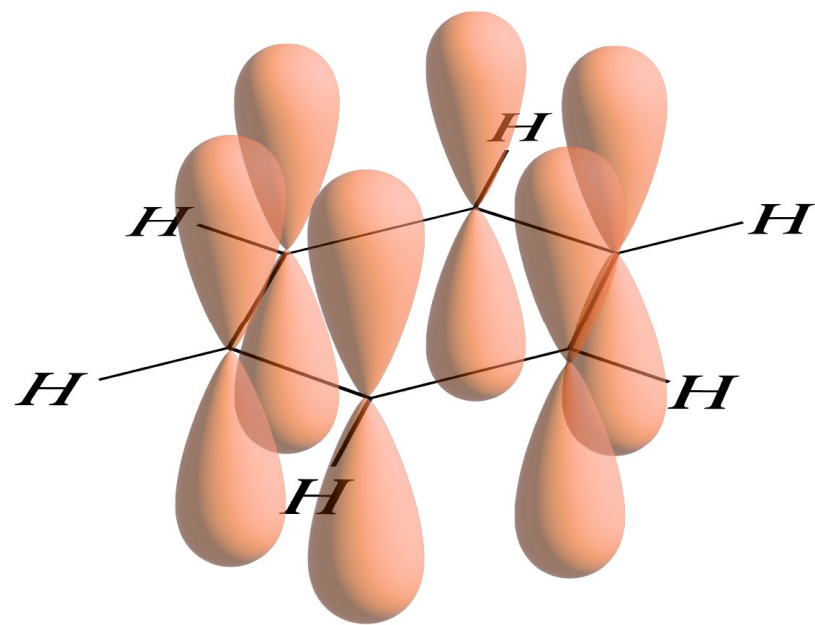


Kathleen Lonsdale

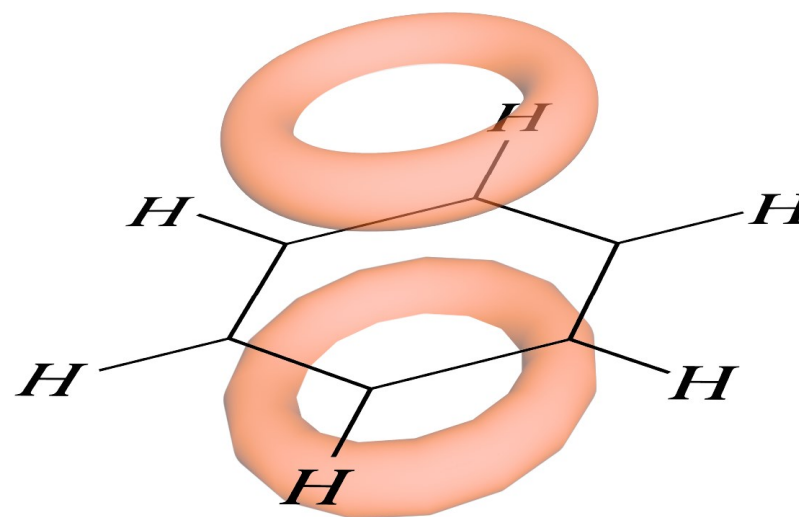
- British crystallographer
- Professor at University College London
- Used x-ray crystallography to determine the bond lengths in benzene



The delocalised π -bond in benzene extends round the ring

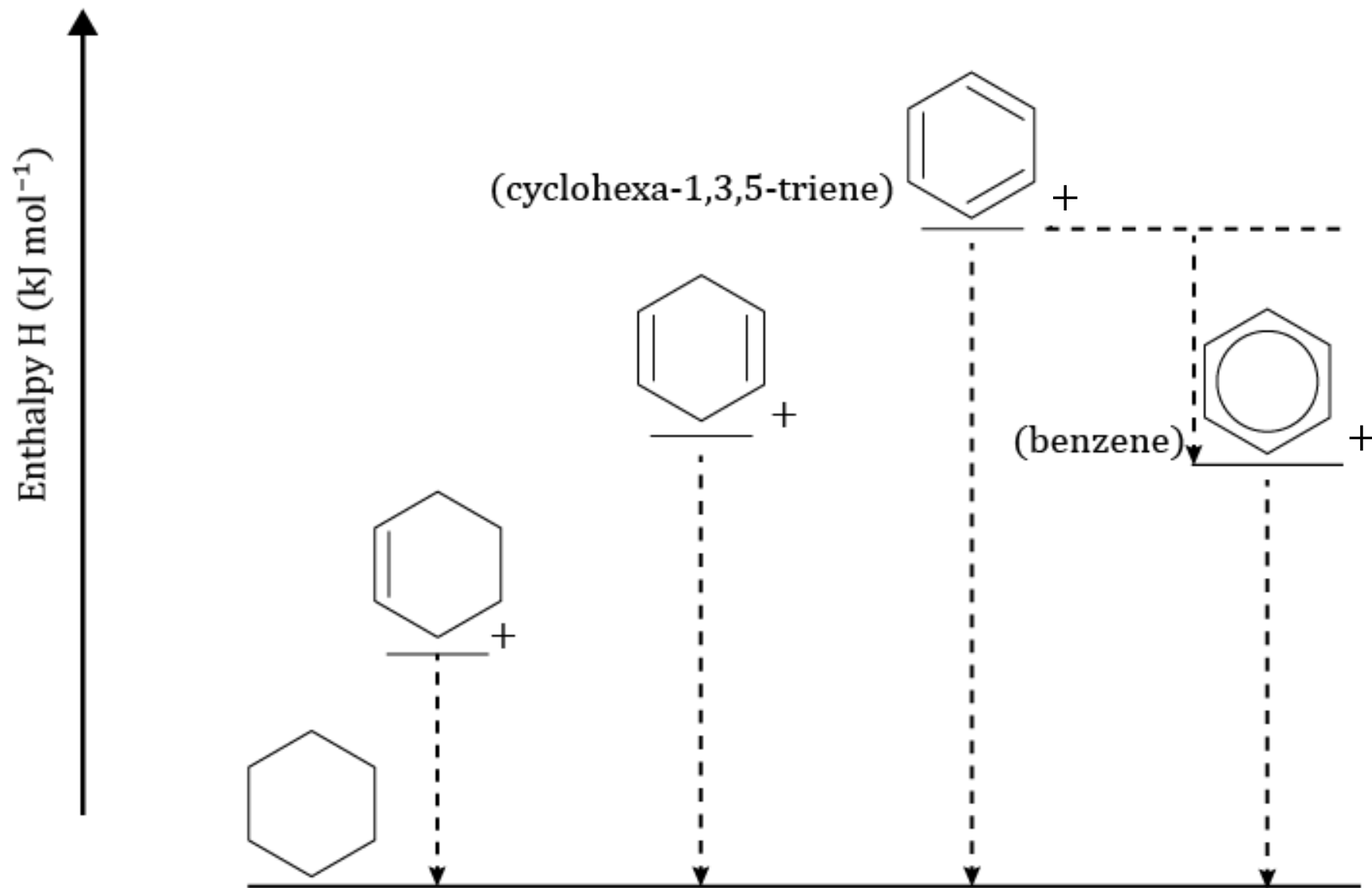


6 p_z orbitals

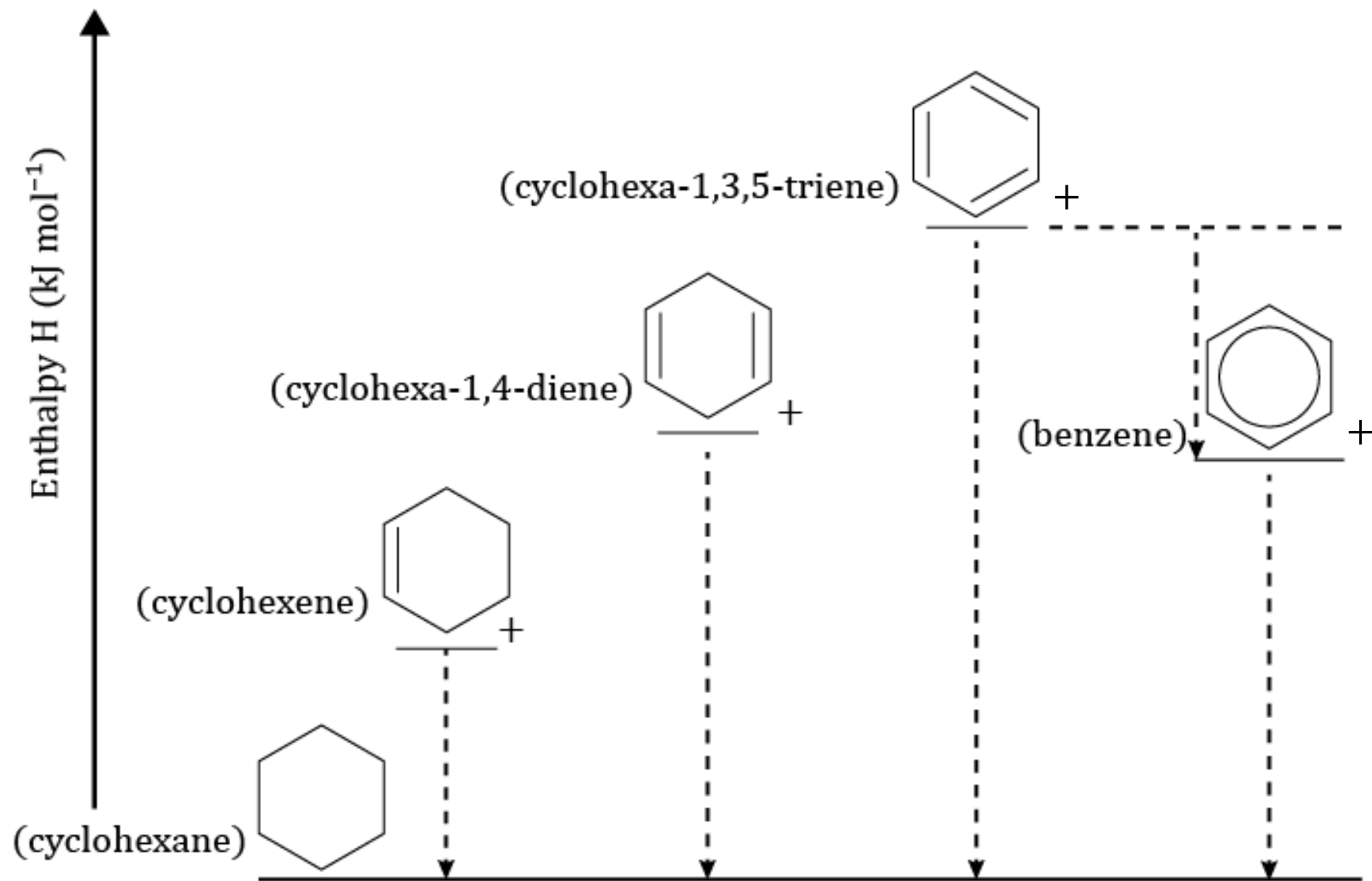


Delocalised pi system

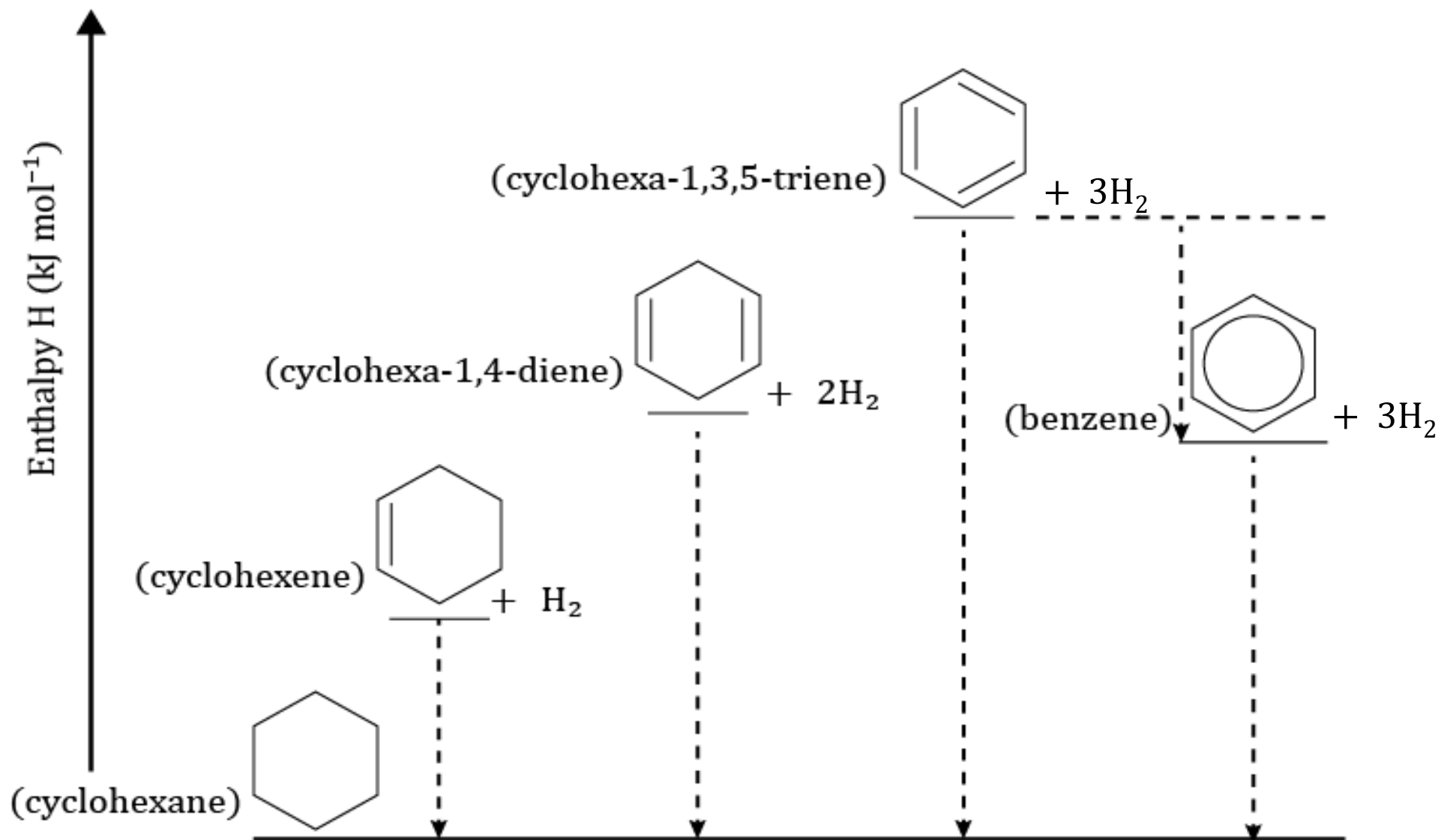
The thermodynamic stability of benzene



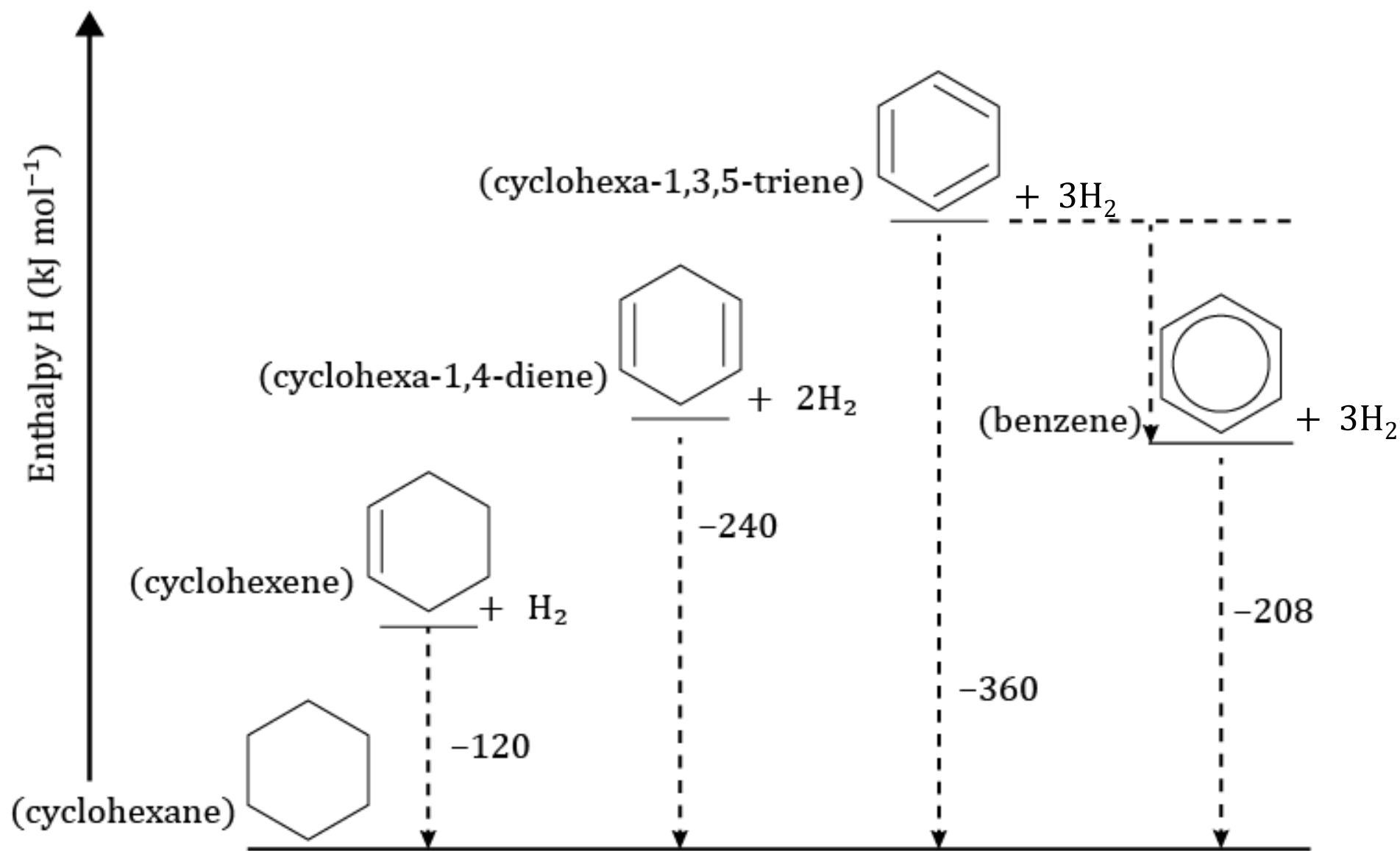
The thermodynamic stability of benzene



The thermodynamic stability of benzene



The thermodynamic stability of benzene



The thermodynamic stability of benzene

