

Mononuclear Aromatic Hydrocarbons (benzene)

- Out of plane bending of aromatic C-H bonds: most informative
 - 900–675 cm^{-1}
 - intense bands, strongly coupled to adjacent hydrogens on the ring
 - position and number of bands gives information about the substitution pattern (particularly useful for alkyl substituted aromatics. Substitution of polar groups can give rise to exceptions)
- C=C stretch: 1600-1585; 1500-1400 cm^{-1}
- C=C out of plane ring bending: 600-420 cm^{-1}

disubstituted benzenes

Out of plane bending of aromatic C-H bonds used to distinguish para, meta, ortho isomers

