

electronic Density Functional Theory

Cluster:

- structure, energy, forces
- electrostatic moments
- harmonic frequencies
- charge transfer

Small systems:

- structure
- electrostatics in liquid phase
- fast dynamic processes

Experiments

- IR spectra
- X-ray/neutron scattering
- Dielectric spectra
- Thermodynamics, dynamics, and statics

post-Hartree-Fock

- continuum solvation models
- vibrational frequencies

Molecular dynamics