

***Possible define and/or characterize for chapters 8 and 9***

Perturbation theory

Trial function for  $He$

Hartree-Fock approximation

Orbital

Self-Consistent Field

Correlation energy

Spin angular momentum

Antisymmetric wave function

Spin orbital

Slater Determinant

Fock Operator

Koopmans' theorem

Orbital energies

Atomic Term Symbol

Russell-Saunders coupling

Equivalent orbitals

Hund's rules

Spin-Orbit coupling

Born-Oppenheimer approximation

Born Oppenheimer Hamiltonian for  $H_2$

Born Oppenheimer Hamiltonian for  $H_2^+$

LCAO approximation

Overlap Integral

Coulomb Integral

Exchange Integral

Bonding/Antibonding orbital

u and g symmetry

Inversion operator

Bond order

Electron Configuration

Photoelectron Spectra

Equilibrium distance in diatomic

Bond energy

Which operators commute with the Born-Oppenheimer Hamiltonian for  $X_2$

Dipole moment of a diatomic molecule