Chapters 12 and 13

Rotation matrix

Unit matrix

Requirements for a set of elements to form a group

Five types of symmetry elements

Improper rotation

C_N rotation

Principal axis

Point group

Order of a group

Group multiplication table

Matrix representation

Trace of a matrix

Reducible representation

Basis for a representation

Class of symmetry operators

Character table

Generating operator

Dihedral versus horizontal versus vertical plane of symmetry

P and R branch

Vibration-rotation interaction

Centrifugal distortion constant

Fundamental transition

De versus D₀

Franck-Condon Principle

Normal coordinate

Normal mode

Degree of freedom

Vibrational energy levels of a polyatomic molecule

Selection rule

Transition dipole