

## Fundamentals of Molecular Spectroscopy

- A. Basic Principles of Molecular Spectroscopy
- B. Rotational and Vibrational Spectroscopies of Diatomic Molecules
- C. Rotational Spectroscopy of Polyatomic Molecules
- D. Vibrational Spectroscopy of Polyatomic Molecules
- E. NMR and ESR Spectroscopies
- F. Selected Topics:
  - i. Laser systems
  - ii. Several photon processes.

Course grades will be determined on the basis of: i. problem assignments ( $4 \times 20$  pts.);  
ii. final exam (40 pts.).