

Advanced Chiroptical Spectroscopy

Schedule:

Week 1: Concepts of stereochemistry

Week 2: The significance of stereochemistry and absolute configuration

Week 3: Interaction between optically active substances and electromagnetic radiation

Week 4: Circular dichroism and optical rotation

Week 5: The phenomenon of circular dichroism

Week 6: ORD and ECD spectra

Week 7: Methods for determining configuration

Week 8: Qualitative MO theory

Week 9: Sector and helicity rules

Week 10: Disulfide chirality and helicity rules for oxygen heterocycles

Week 11: Exciton-coupled circular dichroism

Week 12: TDDFT calculation of ECD spectra

Week 13: HPLC-ECD technique and VCD method