

CHM-631/631A: APPLICATIONS OF MODERN INSTRUMENTAL METHODS

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Course Description: Applications of NMR, ESR, MS, IR, UV-Vis, Mossbauer, Magnetism, Cyclic Voltammetry towards structure/property elucidation of inorganic, organic and biologically important compounds

Pre-requisites: CHM 402 / CHM 442

Books:

1. Physical Methods in Chemistry, RS Drago, 2nd Edn., Saunder, 1992.
2. Basic One- and Two-dimensional NMR Spectroscopy, H. Friebolin, VCH, 1991.
3. Spectroscopic Methods in Organic Chemistry, D. H. Williams and I. Fleming, 4th Ed., 1988.
4. Spectrometric Identification of Organic compounds, R. M. Silverstein, G. C. Bassler and T. C. Morrill, John Wiley & Sons, New York, 5th Ed. 1991.
5. Interpretation of Mass Spectra, F. W. McLafferty, 1980.
6. Electron Paramagnetic Resonance, Elementary Theory and Practical Applications, Weil, John A, J. R. Bolton, and Wertz, J. E, Wiley-Interscience, New York, (1994).
7. Structural Methods in Inorganic Chemistry, E. A. V. Ebsworth, D. W. H. Rankin, & S. Craddock, 2nd Ed. 1991, CRC Press, Boca Raton, Florida.
8. Electrochemical Methods -Fundamental and Applications, A. J. Baird and L. R. Faulkner, Wiley, 1980.

Grading Scheme:

Attendance	:10
Assignment	:10
Quizzes	:20
Mid-Sem	:30
End-Sem	:30

Total Grading points :100

Letter Grades: Letter grades will be awarded based on the total marks out of 100.