COMPLETE REFERENCE BOOKS FOR CSIR NET/GATE

ORGANIC CHEMISTRY

- Organic Chemistry by LG Wade
- Organic Chemistry by John Mcmurry
- Stuart Warren, Organic Synthesis The Disconnection Approach, John Wiley and Sons, 2005
- Modern Organic Synthesis by Michael Nantz and Zweifel
- Organic Reaction Mechanism by Peter Sykes (Must have for Basic Organic Mechanism)
- Organic chemistry the fundamental principles by Finar
- 3000 solved problems in organic chemistry by Meislich, Estelle K; Meislich, Herbert; Sharefkin, Joseph
- Advanced organic chemistry : reactions and mechanisms by Maya Shankar Singh
- Organic chemistry by Loudon
- Name reactions and reagents in organic synthesis By Bradford Mundy

STEREOCHEMISTRY

- Nasipuri, D, *Stereochemistry of Organic Compounds: Principles and Applications*
- Organic stereochemistry by Robinson, Michael J. T

MOLECULAR SPECTROSCOPY

- Spectroscopy by Donald Pavia (Excellent Book for Basic Spectroscopy)
- Organic Spectroscopy by William kemp
- 1H NMR and C13 NMR spectroscopy by Metin and Balci
- Symmetry and spectroscopy of Molecules by K Veera Reddy (Another Good book for Electronic Spectroscopy)
- Molecular Spectroscopy by Banwell (Basic Book for Physical spectroscopy)
- Spectrometric identification by Silverstein
Advance Additional Readings


RELATED LINKS

- http://www.cis.rit.edu/htbooks/nmr/
- http://www-keeler.ch.cam.ac.uk/lectures/
- http://www.chem.queensu.ca/FACILITIES/NMR/nmr/webcourse/

EPR Spectroscopy

- Principles of Electron Spin Resonance by N. M. Atherton
- Electron Spin Resonance Spectroscopy of Organic Radicals by Fabian Gerson and Walter Huber
- Electron Spin Resonance: Analysis and Interpretation by Philip Rieger

Additional Advance Reading

MOLECULAR SPECTROSCOPY


ADDITIONAL ADVANCE READINGS


PHYSICAL ORGANIC CHEMISTRY


RELATED LINKS

http://orgchem.iisc.ernet.in/faculty/um/teaching.html
http://users.ox.ac.uk/~mwalter/web_05/year3/phys/physical_organic_chemistry.shtml
http://www.chembio.uoguelph.ca/schwan/chem%20769%20outline%202006.pdf

INORGANIC CHEMISTRY

• Coordination chemistry by ramlingam
• Fundamental Concepts of Inorganic Chemistry By Asim K Das (Vol I & II)
• Physical methods in inorganic chemistry by Russel Drago
• General & Inorganic Chemistry (Part I & II) by R. Sarkar.
• Inorganic Chemistry by Gary Wulfsberg , 2006,University Science Books (For Advance Readers)
• Biological inorganic chemistry : structure and reactivity / edited by Ivano Bertini
• Vogel's Qualitative Inorganic Analysis, by G. Svehla
• Inorganic chemistry By Holleman
• Inorganic chemistry : by G. S. Sodhi.
• Descriptive inorganic chemistry by Rayner-Canham, Geoffrey
• Modern inorganic chemistry by William L. Jolly.
• Inorganic structural chemistry / Ulrich Müller
• Inorganic polymers by Mark, James E ; Allcock, H. R ; West, Robert
• Essentials of inorganic chemistry by Mingos
• Inorganic spectroscopic methods by Brisdon, Alan K
• Principles of inorganic chemistry : comprehensively covering the ugc syllabus by Puri, B R ; Sharma, L. R ; Kalia, K C.
• Infrared and Raman spectra of inorganic and coordination compounds by Nakamoto
• Inorganic and organometallic polymers by Chandrasekhar, Vadapalli.
• Physical inorganic chemistry : vol-II principles, methods, and models by Bakac., Andreja (editor) ; Bakac, Andreja
• Solid state chemistry : compounds by Cheetham, A.K. (ed) ; Cheetham, A. K ; Day, P

ORGANOMETALLIC CHEMISTRY

• Basic Organometallic Chemistry: Concepts, Syntheses and Application by BD Gupta & Anil J Elias Year, 2013, Universities Press
• The organometallic chemistry of the transition metals by Robert H Crabtree, Third edition, 2001, John Wiley & sons, Inc.
• Inorganic and Organometallic Reaction Mechanisms, Atwood
• NMR spectroscopy in inorganic chemistry / Jonathan A. Iggo.
PHYSICAL CHEMISTRY

- Physical chemistry by Castellan
- Physical Chemistry by KL Kapoor (VOL I – V) (must have collection of these series)
- Physical chemistry by Mortimer (Very good book for thermodynamics & quantum chemistry)
- Physical chemistry by Atkins (Favorite book of CSIR NET Exam Setter)
- Physical chemistry by silbey and bawendi (For Basic Concepts)
- Physical chemistry by Barrow
- Physical chemistry by Samuel Glasstone.

QUANTUM CHEMISTRY

- Quantum Chemistry by RK Prasad
- Quantum Chemistry by Era Levine (For Advance Quantum Chemistry)
- Introduction to Quantum Chemistry by Clifford Dykstra
- Elementary Quantum Chemistry by Frank Pilar, Mineola, N.Y. – Dover, 2001
- Quantum chemistry and spectroscopy by Thomas Engel, Pearson/Benjamin Cummings, c2006
- Quantum Mechanics by R. Shankar
- Pauling and Wilson, Introduction to Quantum Mechanics, Dover Edition
- Quantum Mechanics by Schwabl, Springer Books
- P.M. Mathews and Venkatesan, Quantum Mechanics, Tata McGraw Hill
- Physical chemistry: Quantum mechanics by Horia Metieu, Taylor & Francis Group, c2006
- Physical chemistry by Robert G. Mortimer, Harcourt/Academic Press, c2000
- Ideas of quantum chemistry by Piela,Lucjan, Oxford Press.
- Quantum chemistry : a unified approach by David, Cook, London Imperial College.
- Quantum Chemistry : through problems and solutions by RK Prasad.
GROUP THEORY

- Group theory by Alan Vincent

ADDITIONAL READINGS


RELATED LINKS

Professor David Sherrill group at Georgia Institute of Technology, Atlanta, Georgia USA has maintained a website with very useful pdf summary of many lectures in the area of quantum chemistry. Its URL is http://vergil.chemistry.gatech.edu/notes/index.html

CHEMICAL KINETICS

- Chemical Kinetics and Reaction Dynamics by Paul L. Houston
- Chemical Kinetics and Dynamics by Jeffrey I. Steinfield, Joseph S. Francisco, William L. Hase
- Principles of Chemical Kinetics by James E. House
- Molecular Reaction Dynamics by Raphael D. Levine
- Chemical kinetics and Reaction dynamics by Santosh Upadhayay
- Chemical Kinetics by Ladler
- Principles of chemical kinetics by James House
- Fundamentals of enzyme kinetics by Cornish-Bowden, Athel

PHOTOCHEMISTRY AND PERICYCLIC REACTIONS:

- Photochemistry and pericyclic Reactions by Jagdamba Singh
- N. J. Turro, "Modern Molecular Photochemistry" (MMP), University Press, Menlo Park, CA, 1978
HETERO CYCLIC CHEMISTRY

- Aromatic Heterocyclic Chemistry (Oxford Chemistry Primers) by David T. Davies
- Heterocyclic Chemistry (3rd Edition) by Thomas. L. Gilchrist
- Heterocyclic Chemistry by John A. Joule and K. Mills
- The Chemistry of Heterocycles: Structure, Reactions, Syntheses, and Applications by Theophil Eicher and Siegfried Hauptmann

ELECTROCHEMISTRY

General Reading:
1. P.H.Rieger Electrochemistry
2. S.Glasstone Electrochemistry
3. Mortimer Physical Chemistry
4. Berry, Rice and Ross Physical Chemistry

Additional Readings:
- W.Schmickler Interfacial Electrochemistry Oxford University Press

STATISTICAL MECHANICS

- Statistical Mechanics by Mayer, J. E.; Mayer, M. G.
- Statistical Mechanics by Norman Davidson
- Statistical Mechanics: Principles and Selected Applications by Terrell Hill
- Statistical Physics by L. D. Landau and M. Lifshitz
- Quantum Chemistry by Donald Mcquarrie.
- Physical Chemistry of Surfaces by A.W. Adamson, A.P. Gast, Wiley
- Surface Chemistry and Spectroscopy by G. Ranga Rao

Additional Advance Reading