



**Devrukh Shikshan Prasarak Mandal's**  
**Nya. Tatyasaheb Athalye Arts, Ved. S.R. Sapre Commerce and**  
**Vid. Dadasaheb Pitre Science College**  
**(Autonomous)**

Late Kakasaheb Pandit Educational Campus,  
Devrukh, Dist: Ratnagiri- 415 804, Maharashtra

NAAC Accredited 'A' Grade (Third Cycle), Mumbai University Best College Award 2009-10

## **Syllabus**

**Programme: T. Y. B. Sc.**

**Course- Chemistry Practical-II**

**w.e.f. Academic Year 2021-22**

**Choice Based Credit System**  
**T. Y. B. Sc.**  
**Chemistry Syllabus**  
**To be implemented from the Academic year 2021-22**

**Course Content**  
**Semester V**

Course Code	Unit	Topics	Credits	L/Week
USCHT51	I	Molecular Spectroscopy		
	II	Electrochemistry		
	III	Nuclear Chemistry		
	IV	Surface Chemistry & Colloidal State		
USCHT52	I	Molecular Symmetry and Chemical Bonding		
	II	Solid State Chemistry		
	III	Chemistry of Inner Transition Elements		
	IV	Some Selected Topics		
USCHT53	I	Mechanism of Organic Reactions; Pericyclic Reactions & Photochemistry		
	II	Stereochemistry & Heterocyclic Chemistry		
	III	IUPAC & Synthesis of Organic Compounds		
	IV	Spectroscopy-I & Natural Products		
USCHT54	I	Statistical Treatment of Analytical Data-II		
	II	Classical Methods of Analysis (Titrimetry)		
	III	Optical Methods		
	IV	Methods of Separation-I		
USCHP51		Chemistry Practicals I		
USCHP52		Chemistry Practicals II		
USCHP53		Chemistry Practicals III		
USCHP54		Chemistry Practicals IV		

# Chemistry Practicals

## Semester V

### Paper II: Inorganic Chemistry

#### I. Inorganic preparations

1. Preparation of Potassium diaquobis-(oxalato)cuprate (II)
2. Preparation of Ferrous ethylene diammonium sulphate.
3. Preparation of bisacetylacetonatocopper (II)

#### II. Determination of percentage purity of the given water-soluble salt and qualitative detection w.r.t added cation and/or anion (qualitative analysis only by wet tests).

(Any three salts of transition metal ions)

#### Reference Books for Practicals:

##### **Inorganic Chemistry**

1. Vogel Textbook of Quantitative Chemical Analysis G.H. Jeffery, J. Basset.
2. Advanced experiments in Inorganic Chemistry., G. N. Mukherjee., 1st Edn., 2010., U.N.Dhur & Sons Pvt Ltd .
3. Vogel's. Textbook of. Macro and Semimicro qualitative inorganic analysis. Fifth edition.
4. Practical Inorganic Chemistry by G. Marr and B. W. Rockett, Van Nostrand Reinhold Company London 1972. P 34. (For synthesis of iron ethylenediamine sulphate)
5. D. F. Shriver and P. W. Atkins, Inorganic chemistry, 3rd Ed., Oxford University Press, (1999).