

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act, 1956)

Pollachi Main Road, Eachanari Post, Coimbatore – 641 021, Tamil Nadu, India.

Phone: 0422- 2980011-14, Fax No: 0422 – 2980022-23 Email: info@kahedu.edu.in

Syllabus

Name of the Faculty : Dr.M.R.Ezhilarasi
Department : Chemistry
Course Name : Inorganic Chemistry Practical-I
Course Code : 19CHP211
Academic Year : 2019-2020
Semester : II
Class : I M.Sc Chemistry

Semester-II

19CHP211 INORGANIC CHEMISTRY PRACTICAL-I 4H 2C
(QUALITATIVE ANALYSIS AND PREPARATIONS)

Instruction Hours/week:L: 0 T:0 P:4 Marks: Internal:40 External: 60 Total:100

Course Objectives

On successful completion of the course the students should have

1. Learnt about the qualitative analysis by semi micro-qualitative method.
2. Learnt the preparation of inorganic complexes.

Course Outcome

1. Learned about the qualitative analysis by semi micro-qualitative method
2. Learned the preparation of inorganic complexes.

Contents

Thallium, Tungsten, Selenium, Tellurium, Molybdenum, Cerium, Thorium, Titanium, Zirconium, Vanadium, Beryllium, Uranium and Lithium.

Note: Each student should analyze a minimum of six inorganic mixtures.

About ten preparations involving different techniques selected from the following:

Lead tetra acetate, dipyridinium hexaplumbate, hydroxylamine hydrochloride, ortho and para-hydroxy phenyl mercuric chloride, potassium cupric chloride, chrome alum, copper(I) chloride, tris(thio urea) copper(I) Chloride, potassium trioxalato- aluminato(III), potassium trioxalato-chromate(III), potassium trioxalato- ferrate(III), hexammine cobalt(III)chloride, chloropentammine chromium(III), chloro aquo pentammine chromium(III) nitrate, tetrammine copper(II) sulphate, ammonium hexa chloro stanate(IV).

Note: Each student should do a minimum of ten preparations.

SUGGESTED READINGS:

Text Books:

1. Ramanujam, V. V. (2004). *Inorganic Semi-micro Qualitative Analysis* (III Edition). Chennai: The National Publishing Company.
2. Venkateswaran, R., Veeraswamy, R. & Kulandaivelu, A.R. (2015). *Basic Principles of Practical Chemistry*. New Delhi: S. Chand & Sons Ltd.
3. Siddhiqui, Z. N. (2002). *Practical Industrial Chemistry* (I Edition). New Delhi: Anmol Publications Pvt. Ltd.

Reference Books:

1. Mendham, J. R., Denney, C., Barnes, J. D., & Thomas, M. (2002). *Vogel's Textbook of Quantitative Chemical Analysis* (VI Edition). Singapore: Pearson Education Ltd.
2. Lepse, P. A., & Peter, L. B. (1986). *Lab Manual for Lingren's Essentials of Chemistry*. New Delhi: Prentice Hall.

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act, 1956)

Pollachi Main Road, Eachanari Post, Coimbatore – 641 021, Tamil Nadu, India.

Phone: 0422- 2980011-14, Fax No: 0422 – 2980022-23 Email: info@kahedu.edu.in

LIST OF PRACTICAL

Name of the Faculty: Dr.M.R.Ezhilarasi

Department: Chemistry

Course Name: Inorganic Chemistry Practical-I

Course Code: 19CHP211

Academic Year: 2019-2020

Semester: II

Class: I M.Sc Chemistry

S.No	Lecture Duration Period	Topics to be Covered	Support Material/Page Nos
1	4	Preparation of chrome alum, tris(thio urea) copper(I) Chloride,	T1:73
2	4	Preparation of tetrammine copper(II) sulphate, potassium trioxalato-chromate(III)	T2:501 T1:72-73, 74
3	4	Preparation of potassium trioxalato-ferrate(III), potassium trioxalato-aluminato(III)	T2:505 T1:74-75
4	4	Preparation of copperI chloride, lead tetra acetate	T1:78
5	4	Preparation of ortho and para-hydroxy phenyl mercuric chloride, hydroxylamine hydrochloride	T1:76-77
6	4	Analysis of inorganic mixture-I	T2:41-66
7	4	Analysis of inorganic mixture-II	

8	4	Analysis of inorganic mixture-III	T2:41-66
9	4	Analysis of inorganic mixture-IV	T2:41-66
10	4	Model Practical examination	
	Total No of Hours Planned For Practical= 40 hours		

REFERENCE BOOK

T1: V. Venkateswaran, R. Veerasamy and A.R. Kulandaivelu, 2015, Basic Principles of Practical Chemistry, Sultan Chand & Sons Publishers, NewDelhi.

T2: A.O. Thomas, 2003, Practical Chemistry for B.Sc Main Students, Scientific Book Centre, Cannore-1, Kerala