

POLYMER CHEMISTRY LABORATORY

CHEM-450

(4 Hours Weekly)

TERM # 082

Instructor: Dr. Hasan Al-Muallem

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Laboratory: Tuesday, 1:10-5:10 PM

Location: 1-111 (OTC)

Office Hours: Open-door policy, by appointment, and 9:00-11:00 Saturday, Monday and Wednesday.

Catalog Outline Description:

The Laboratory classes are organized to provide practical experience in the field of polymer chemistry, polymer synthesis, mechanism and kinetics of polymerization, properties and characterization of polymers.

Lab Book:

Experiments in Polymer Science: Theory & Practice by Professor Shaikh Asrof Ali, KFUPM, Dhahran, 2007.

EXPERIMENTS INCLUDE THE FOLLOWING:

No.	TOPICS	PERIODS
1	Characterization of Polymers Using Solubility Behavior	1 session
2	Polymer Purification Techniques	1 session
3	Polymer Characterization by GPC	1 session
4	Polymer Characterization by Viscosity	2 sessions
5	Condensation Polymerizations	1 session
6	Suspension Polymerization of Styrene	1 session
7	Emulsion Polymerization of Styrene	1 session
8	Kinetics of Free Radical Addition Polymerization	2 sessions
9	Copolymerization: Determination of Reactivity Ratio	1 session
10	Determination of the Mole Fraction of Head-to-Head Units in Poly(vinyl alcohol)	1 session