

高分子材料分析

POLYMER CHARACTERIZATION

Instructor: 楊台鴻

Objectives:

Investigation in the field of polymeric biomaterials requires an adequate knowledge of physicochemical methods in this Branch of science. Also, a basic understanding of instrumentation is essential for the successful interpretation of experimental results. Therefore, this course highlights the experimental methods of polymeric biomaterials, while also providing a discussion of the advantages and disadvantages of the various techniques for particular polymeric systems.

Text:

1. J.L. Koenig, Spectroscopy of polymers, Elsevier Science, New York, 1999.
2. D. Campbell, Polymer characterization, Chapman and Hall, London, 1989.

Prerequisites: Polymer Science

Tentative Schedule:

Topic	Period (week)
1 Introduction	1
2 Molecular weight determination	2
3 Infrared and Raman spectroscopy	4
4 Nuclear magnetic spectroscopy	2
5 Electron spin resonance spectroscopy	2
6 Ultraviolet-visible spectroscopy	2
7 Thermal analysis	4