MATE130017	电子材料分析	学分：3	周学时：3
	Analysis of Electronic Materials	总学时：54	
预修课程：普通物理、高等数学、材料物理基础等			
修读对象：材料科学系本科三年级学生			

中文课程简介（150 字以内）

本课程是材料科学系本科生所必修的一门专业课程，它主要由原子光谱、分子光谱和表面分析三部分组成，内容包括原子发射光谱、原子吸收光谱、紫外可见光谱、红外光谱、X 射线荧光光谱、俄歇电子能谱、X 射线光电子能谱、电子探针微分析及二次离子质谱等。重点介绍各分析技术的基本原理、仪器结构和检测方法及其它们在电子材料分析中的应用。

英文课程简介

The course of Analysis of Electronic Materials is a specialized course required for the juniors in Department of Materials Science. It is mainly composed of three parts as Atomic Spectrometry, Molecular Spectrometry and Surface Analysis, including Atomic Emission Spectrometry, Atomic Absorption Spectrometry, UV-Visible Spectrophotometry, Infrared Spectrometry, X-ray Fluorescence Spectrometry, Auger Electron Spectrometry, X-ray Photoelectron Spectroscopy, Electron Probe Microanalysis and Secondary Ion Mass Spectrometry. The emphasis is focused on the basic principles, the structure of apparatus and the testing methods of these analytical technologies, as well as their applications in electronic material analysis.