

MATE130022	薄膜技术	学分：3	周学时：3
	Thin Film Technology	总学时：54	
预修课程：真空物理与技术			
修读对象：电子科学与技术专业			

中文课程简介（150 字以内）

论述薄膜形成的物理基础，主要论述成核理论和生长理论，以及影响薄膜结构与性能的各种因素；介绍薄膜的制备方法，着重介绍真空蒸发、磁控溅射和 CVD 等制备技术；介绍薄膜的电学、光学、磁学、力学等各类性质，分析测量方法及其应用。

英文课程简介

This course aims at introducing three aspects on thin film technology, including: physical foundation of thin film formation, mainly discussing the theories of nucleation and growth and various factors that affect structure and properties of thin film; preparations of thin film, focusing on evaporation, magnetic sputtering and CVD; and electrical, optical, magnetic and mechanical characteristics of thin film as well as their measurements and applications.