

MATE130065	薄膜材料与器件	学分：2	周学时：2
	Thin Film Materials and Devices	总学时：36	
预修课程：材料制备与加工 或 薄膜技术			
修读对象：材料科学系各专业学生			

#### 中文课程简介（150 字以内）

包括薄膜材料，薄膜器件两部分。介绍半导体薄膜、高温超导薄膜、透明导电薄膜、铁电薄膜、金刚石薄膜等薄膜材料以及薄膜太阳能电池、薄膜晶体管等薄膜器件。着重介绍这些薄膜材料与薄膜器件的原理、结构、特性和应用。

#### 英文课程简介

This course aims at introducing two aspects on thin films, including: thin film materials, mainly discussing semiconducting thin films, high temperature superconducting thin films, transparent conducting thin films, ferroelectric thin films, thin film diamonds, etc.; thin film devices, mainly discussing thin film solar cells, thin film transistors, etc. The theory, structure, characteristics and application of thin film materials and devices are discussed.