

<<热力学>>

图书基本信息

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内容概要

本书是为满足国内工科院校材料专业学生了解和掌握热力学原理和应用而引进出版的。

热力学是理工科，比如物理、化学、工程等学科的重要基础课程之一。

在美国大学工学院的基础课程里，热力学是机械、化工、航空、环境、材料等工程专业的必修课。

Thermodynamics是为美国工学院本科生二年级的学生设置的普通热力学课程，内容主要分三个部分：

第一部分为热力学的基础部分，阐述了热力学第一、第二定律、熵的统计学解释、热力学参数。

第二部分主要讨论了最基本的热力学关系，如能量平衡、热机和卡诺循环、不可逆过程、混合气体行为、扩展的热力学关系等。

该部分还讨论了相与相平衡、气体与液体的行为以及相图的概念。

第三部分介绍更接近实际的化学反应、化学平衡、气体循环，以及与此相关的实际应用。

这个部分结合工程科学的实际，强调热力学与工业应用的关系，并以热力学的理论为基础讨论工程热力学概念和行为，比如燃料电池、制冷、热机等。

本书条理有序、结构清晰、内容丰富，十分适于一般工学院的热力学导论课程。

同时，它也适用于相关专业的同类课程的参考。

尤其本书所给出的思考作业题，内容十分广泛，而且突出重点，切题实用。

本书出版时，针对国内教学特点对本书15，16两章做了删节。

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作者简介

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