

<<能源与动力工程专业英语>>

图书基本信息

书名：<<能源与动力工程专业英语>>

13位ISBN编号：9787560950617

10位ISBN编号：7560950612

出版时间：2009-2

出版时间：华中科技大学出版社

作者：陈冬林 主编

页数：219

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<能源与动力工程专业英语>>

前言

近年来,我国国民经济持续快速增长,为了建设能源节约型和环境友好型社会,人们对实现可持续发展的能源开发与电力生产提出了更高的要求,并促使能源与电力部门大量应用最新技术和设备,为此,有相当一部分先进技术与设备需要在全世界范围内进行招标选优。

显然,在这种新的形势下,我国需要大量既精通能源与电力生产及设备专业技术,又具有用英语进行专业技术交流与沟通能力的高级专业技术人才。

此书正是在此背景下组织编写而成,它适用于能源与动力工程相关专业的在校大学生及广大科技工作者。

通过精读与泛读此书,可以使读者直接掌握并熟练应用能源与动力工程技术领域中最常用的专业词汇、特有的语法现象、学术论文的写作风格及翻译技巧,并从中领悟专业英语与普通英语文献的差异与共同点,从而全面提升读者的专业英语阅读、写作、听说交流能力。

本书作者通过查阅众多国内外最新专业权威期刊、国外经典文献及厂家资料,根据多年教学实践对本书内容进行了精心选材和编排,并配置了大量精美的图表。

本书主要包括:热工理论基础、燃料及燃烧理论、火力发电厂热力设备及运行、热交换理论及换热器技术、新能源、内燃料机、供热通风与空气调节、热工自动控制及其应用等。

该书从取材上力图既为在校大学生提供原汁原味的专业英语知识与素材,也为广大一线从事能源与动力工程的科技工作者提供题材广泛、内容新颖的专业文献参考。

<<能源与动力工程专业英语>>

内容概要

本书由作者通过收集国外能源与动力工程领域的最新技术资料，并在总结多年专业英语教学经验的基础上编写而成。

全书由热工理论基础、燃料及燃烧理论、火力发电厂热力设备及运行、热交换理论及换热器技术、新能源、内燃料机、供热通风及空气调节、热工过程控制等内容组成。

全书共有12章，每章由数个单元组成，而每个单元则包含课文、词汇表、难句注释、问答题以及翻译。

本书有较强的知识性和实用性，可作为高等院校能源与动力工程类、建筑环境与设备工程类、热工自动化类以及相关专业的本科生和研究生的专业英语教材，也可供从事相关专业的工程技术人员参考。

<<能源与动力工程专业英语>>

书籍目录

Chapter 1 Thermodynamics, Heat Transfer and Fundamentals of Fluid 1.1 Thermodynamics 1.2 Heat Transfer 1.3 Fluid Mechanics

Chapter 2 Fuels and Combustion 2.1 A Short History of Combustion Theory 2.2 Fossil Fuels 2.3 Methods of Burning Solid Fuels 2.4 The Formation and Control of NO_x During Combustion

Chapter 3 Powerplants 3.1 Fossil-Fuel Power Plant 3.2 Hydroelectric Power Plant 3.3 Nuclear Power Plant 3.4 Combined Cycle Power Plant

Chapter 4 Boiler 4.1 Boiler Types and Applications 4.2 Furnace 4.3 Superheater and Reheater 4.4 Economizer and Airheater

Chapter 5 Turbine 5.1 Principles of Steam Turbine 5.2 Gas-Turbine 5.3 Hydraulic Turbine 5.4 Wind Turbine

Chapter 6 Auxiliary in Power Plants 6.1 Pulverized Fuel System 6.2 Fans 6.3 Electrostatic Precipitator 6.4 Sulfur Dioxide Wet Scrubber System 6.5 Condensers 6.6 The Feed Pumps

Chapter 7 Operation of Boiler and Turbine 7.1 Boiler Start-Up 7.2 Boiler Normal Operation 7.3 Boiler Shutdown 7.4 Turbine Operation

Chapter 8 Heat Exchanger 8.1 Classification of Heat Exchangers 8.2 An Overview of Heat Exchanger Design Methodology 8.3 Selection of Heat Exchangers and Their Components 8.4 Heat Exchangers in Municipal Wastewater Treatment Plants

Chapter 9 New Energy 9.1 The Future of Energy 9.2 Typical Solar Energy Utilization Systems 9.3 Nonwood Bioenergy 9.4 Wind Energy 9.5 Tidal Energy

Chapter 10 Internal Combustion Engine 10.1 Thermodynamic Cycle for Internal Combustion 10.2 Free-Piston Engine Basics 10.3 Direct-Injection Hydrogen-Fueled Internal Combustion Engine

Chapter 11 Air Conditioning and Ventilation 11.1 Human Comfort 11.2 Air Conditioning Systems 11.3 Ventilation and Air Handling Systems

Chapter 12 Instrumentation and Control in Coal-fired Power Plants 12.1 Introduction to Control Theory 12.2 Fundamentals of Process Control 12.3 Distributed Control Systems 12.4 Typical Control Loops in Coal-fired Power Plants

References

章节摘录

After combustion is established , the required air-fuel rates must be maintained . With insufficient airflow , the formation of combustible gas pockets is possible , which creates the potential for explosions . Air should be furnished to match the combustion requirements of the fuel . and a small amount of excess air should be used to ensure proper mixing and to promote the correct fuel-air distribution . In addition , it is important to verify boiler water levels and flows . Combustion should never be established until adequate cooling water is in the tubes and steam drum . Operating procedures should be followed carefully based on the designer ' s instructions . The set point for each safety valve is normally checked and adjusted , if necessary , immediately after reaching the operating pressure for the first time with steam . Safety valve seats are susceptible to damage from wet steam or grit . For initial operation or after maintenance , this potential damage to the seats is a primary reason to clean the boiler and blow out the superheater and steam lines prior to testing the safety valves . Safety valves on drum-type boilers are normally tested for both setpoint pressure and the closing pressure . This requires that the boiler pressure be raised until the safety valve opens and it relieves enough pressure so that the safety valve closes properly .

<<能源与动力工程专业英语>>

编辑推荐

本书作者通过查阅众多国内外最新专业权威期刊、国外经典文献及厂家资料，根据多年教学实践对本书内容进行了精心选材和编排，并配置了大量精美的图表。

本书主要包括：热工理论基础、燃料及燃烧理论、火力发电厂热力设备及运行、热交换理论及换热器技术、新能源、内燃料机、供热通风与空气调节、热工自动控制及其应用等。

该书从取材上力图既为在校大学生提供原汁原味的专业英语知识与素材，也为广大一线从事能源与动力工程的科技工作者提供题材广泛、内容新颖的专业文献参考。

版权说明

本站所提供下载的PDF图书仅提供预览和简介, 请支持正版图书。

更多资源请访问:<http://www.tushu007.com>