

<<激光光谱学>>

图书基本信息

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前言

Keeping abreast of the latest techniques and applications, this new edition of the standard reference and graduate text on laser spectroscopy has been completely revised and expanded. While the general concept is unchanged, the new edition features a broad array of new material, e.g., frequency doubling in external cavities, reliable cw-parametric oscillators, tunable narrow-band UV sources, more sensitive detection techniques, tunable femtosecond and sub-femtosecond lasers (X-ray region and the attosecond range), control of atomic and molecular excitations, frequency combs able to synchronize independent femtosecond lasers, coherent matter waves, and still more applications in chemical analysis, medical diagnostics, and engineering.

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内容概要

《激光光谱学》系统介绍了现代激光光谱学中的基本理论,方法和应用。

《激光光谱学》选题丰富,阐述清楚深刻,注重实际应用,已经成为一本经典的激光光谱学研究生教材和参考用书。

此次影印的是最新的第三版。

在前两版的基础上,作者做了全面的修订和增补,介绍了激光光谱学最新的实验技术和理论进展,例如:外腔中的倍频,可调控的窄带紫外光源,更灵敏的检测技术,可调谐飞秒和分飞秒激光器(X光区域和阿秒范围),可控原子分子激发,相干物质波,还有更多在化学分析,医疗诊断和工程等方面的应用。

适合从事激光光谱学研究的物理学家和化学物理学家以及众多的工程人员学习和参考。

《激光光谱学》特色:(1)内容非常丰富,涵盖了激光光谱学中众多分支,并附有全面的参考文献。

(2)把重要的概念和公式用边框括起来,方便读者查阅。

读者对象:适用于物理,化学和材料专业的高年级本科生、研究生和相关专业的科研人员和工程师。

目次:简介;光的吸收和发散;非线性光谱;激光拉曼光谱;束中的激光光谱;光泵谱和双共振技术;时间分辨的激光光谱;相干光谱;碰撞过程中的激光光谱;激光光谱新进展;激光光谱的应用;参考文献;主题索引。

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作者简介

德姆特勒德，德国凯泽斯劳滕大学教授，著名激光光谱学专家。
创建了高分辨率激光光谱技术及其在原子分子理学中的应用这一研究领域。
1995年获得由德国物理学会和物理研究所颁发的马克思—博恩奖。
2000年获得洪堡基金会颁发的海森堡奖。

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