

<<质谱>>

图书基本信息

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内容概要

《质谱(原著第2版)(英文版)》作为一部成功的教科书,其全新修订的第2版在内容上得以充分的扩展,以其详尽和准确的叙述,精美的插图和照片为读者津津乐道。

新增串联质谱法,涵盖了仪器设备、离子激活方法(CID, ECD, ETD, IRMPD)及其应用?新增敞开式质谱(DART, DESI等),新增无机质谱,包含元素形态分析和成像,?新增了所有章节的学习目标,新增先进仪器介绍,诸如orbitraps、线性离子阱、串联TOFs、FT-ICR,以及各种联用仪器。

JurgenH.Gross对书中的概念、方法和技术做出了深入的阐述。

指导学生和专业人员从新手逐步成长为质谱应用的行家里手。

JurgenH.Gross首先介绍了气相离子化学原理、同位素组成和精确质量,然后是各种质量分析器和离子化方法的设计,最后是质谱图的解析和联用技术。

可以说《质谱(原著第2版)(英文版)》是实用信息和基于丰富文献的理论知识的完美结合。

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章节摘录

版权页：插图：Applied to solid materials, especially semiconductors and thin films, SIMS can determine trace levels of all elements in the periodic table. Spatial microanalysis is provided by collimating the primary ion beam to about 1 μm in diameter and control of where the beam strikes the sample surface. This way, SIMS provides lateral and depth distributions of these elements within the sample. Currently, SIMS is being adapted to achieve lateral resolutions well below 100 nm. The driving force comes from the progress in microelectronics aiming at structures that approach 10 nm. Also, the depth resolution needs to come close to the atomic scale. SIMS surface analysis is classified into two modes of operation, the so-called static SIMS and dynamic SIMS mode. Static SIMS employs an extremely low sputtering rate, often with a pulsed primary ion beam, for better sensitivity to the characteristics of the top monolayer and even may reveal molecular information (see below) .

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媒体关注与评论

“截至目前我见过的最好的质谱教科书之..... ” ——International Journal of Mass Spectrometry
“ 这是一本很好的现代质谱教科书.....如此系统的质谱教科书国内尚不多见，尤其是对质谱新技术的介绍值得称道..... ” ——刘虎威，北京大学化学与分子工程学院

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