

# BIACore技术及其在生命科学中的应用

陈媛媛、李永进、毕利军\*  
中国科学院生物物理研究所

生物分子的活性功能是通过分子之间的相互作用来体现的,了解这种相互作用的过程对于生命科学领域的研究及揭示生命发生发展的基本机制具有重要的意义。基于表面等离子共振(surface plasmon resonance, SPR)的新型生物传感技术——BIACore (biomolecular interaction analysis)是研究生物分子相互作用的理想工具。它可以实时跟踪检测生物分子间结合、解离的整个过程,已被广泛应用于蛋白质组学、信号转导、新药开发、遗传学分析和食品检测等领域,并且显示出广阔的应用前景。

## BIACore Technique and Its Applications in Life Science

Biomolecular active function is realized by the interaction of molecules. Detection and study of the biomolecular interaction process are of great importance in revealing the fundamental mechanisms of life occurrence and development. BIACore (Biomolecular Interaction Analysis) technique which is based on surface plasmon resonance (SPR) has been an ideal tool in studying the biomolecular interaction. It can detect the whole process of biomolecules association and dissociation in real time and has a broad variety of applications and exciting future in proteomics, signal transduction, drug discovery, genetics and food analysis etc.

### 关键词

BIACore技术(BIACore technique); 生物分子相互作用(biomolecular interaction); 表面等离子共振(surface plasmon resonance (SPR)); 蛋白质组学(proteomics); 信号转导(signal transduction); 新药开发(drug discovery)