



学术报告



State Key Laboratory
of Chemical Resource Engineering

Electron Microscopy of Complex Nanostructured Catalysts

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地点: 无机楼107会议室

报告人简介:

张炳森，中国科学院金属研究所研究员。主要从事纳米催化剂表界面结构及其在催化反应中的构效关系研究。近5年，在*Angew Chem Int Ed*、*ACS Catal*、*Chem Rev*等国际期刊上发表学术论文100余篇，撰写专著图书章节1章；负责主持NSFC重大研究计划培育项目、NSFC青年基金和辽宁省自然科学基金等项目10余项，并作为项目骨干参与中国科学院A类战略先导纳米专项等项目；参与组织国际会议2次，做国际/国内学术会议邀请报告及受邀到清华大学、中国科学院大连化学物理研究所等多家知名学府和科研院所做学术报告20余次。任多种学术期刊审稿人，并于2015年在*ChemCatChem*作为共同客座主编出版“Advanced Electron Microscopy and Spectroscopy for Catalysis”专刊。担任中国颗粒学会青年理事、中国化学快报青年编委，且入选中国科学院青年创新促进会会员。曾获中国颗粒学会青年颗粒学奖、沈阳材料科学国家（联合）实验室“青年创新奖”一等奖、中科院金属所“葛庭燧奖研金”等。

报告内容简介:

Catalysis is the science of chemical reactions on an atomic or molecular level. The structures of catalysts are complex and associated with their ability to undergo in every catalytic cycle. It is essential to understand the synthesis-structure-property relationship for improving their performance. Advanced transmission electron microscopy techniques and associate detectors, such as X-rays, backscattered electrons and electron energy loss spectroscopy, are powerful and versatile research tools for probing the structural information of nanostructured catalysts. It can provide local information of surface and bulk of samples at atomic scale and also reveal chemical, electronic, and three-dimensional structural information, which are relevant to their electrical or catalytic properties significantly affecting the performance. Here, the recent development of transmission electron microscopy and selected several examples will be demonstrated in this presentation.

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