



多相复杂系统国家重点实验室

特邀学术报告



报告人: Prof. Jim Yang Lee

National University of Singapore

报告题目: Materials Design for the Anode of Lithium-Ion Batteries

报告时间: 2011 年 9 月 22 日 (星期四) 15:00 ~ 16:30

报告地点: 中科院过程大厦 308 会议室

报告摘要:

The lithium-ion batteries are undoubtedly the most advanced rechargeable batteries in the market today. They are also the most favorite battery chemistry for vehicle electrification and utility grid integration. However, the storage requirements for these large scale applications far exceeded the capability of current battery systems which have been designed mainly for small consumer electronic products. While engineering solutions may provide some relief of current needs, continual development has to depend on materials innovations. This presentation will discuss some of the materials design principles that have been learned from working with the lithium-ion battery materials over the last two decades. The discussion will focus on anode materials which are known to impact battery safety and cycle life most substantially. Examples will be drawn from the literature and also from the work of the author on tin-carbon nanocomposites.

报告人简介:

Jim Yang Lee 教授现任新加坡国立大学工学院常务副院长和化学与生物分子工程系的系主任,同时兼任新加坡能源科学研究所的资深研究员。他 1979 年获得新加坡国立大学化学工程学士学位,1985 年获得位于美国 Ann Arbor 的密西根大学化学工程博士学位。Lee 教授是美国化学工程师协会 (AIChE)、美国化学会 (ACS)、国际材料学会 (MRS) 和国际电化学学会 (ECS) 等科学团体的会员。Lee 教授和他的科研团队致力于纳米材料用于能源转化和储存(集中在锂离子电池和直接醇类电池)、纳米结构调控和自组装及纳米材料的绿色合成等研究领域。通过在纳米尺度上研究材料的基本性能,获得可用于能源转化与储存的高性能材料。Lee 教授团队的研究成果可以通过[通过链接他们的主页进一步了解](http://www.researcherid.com/rid/E-5904-2010):

<http://www.researcherid.com/rid/E-5904-2010>.

All are Welcome!!!

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