9th US – CHINA
Electric Vehicle and Battery Technology WORKSHOP
第九届中美电动汽车和电池技术研讨会

August 18 – 19, 2014
2014年 8月18-19日

Hosted by (承办):

Pacific Northwest National Laboratory
西北太平洋国家实验室

Argonne National Laboratory
阿岗国家实验室

Sponsored by (主办):

US Department of Energy
美国能源部

China Ministry of Science and Technology
中国科技部

9th US-China
Electric Vehicle and Battery Technology Workshop
第九届中美电动车与电池技术研讨会

Scientific Committee 学术委员会

Chairmen 主席
Dave Howell, Feng Wu
Dave Howell, 吴锋

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Dave Howell, Paul Telleen, Khalil Amine, XiaoQing Yang, Larry Johnson, Jun Liu

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Khalil Amine, 邱新平

China is now the world's largest net importer of petroleum
中国是世界上最大的石油净进口国

Introduction

United States President Barack Obama and the People's Republic of China President Hu Jintao announced seven programs on clean energy that would strengthen cooperation in research and development between the United States and China on November 17, 2009. One of these programs is the Electric Vehicle Initiative (EVI). This EVI workshop, held in Seattle, is hosted by Pacific Northwest National Laboratory with support from the US Department of Energy (DOE). It is the ninth meeting between the two countries on the EVI.

Activities in this initiative include: development of joint standards, demonstration projects, technical road mapping for the research that will be undertaken and public education projects.

The goals of the cooperative research are to accelerate the sales of electric vehicles, to reduce the dependence of both countries on foreign oil and to reduce greenhouse gas emissions—while at the same time—promoting economic growth.

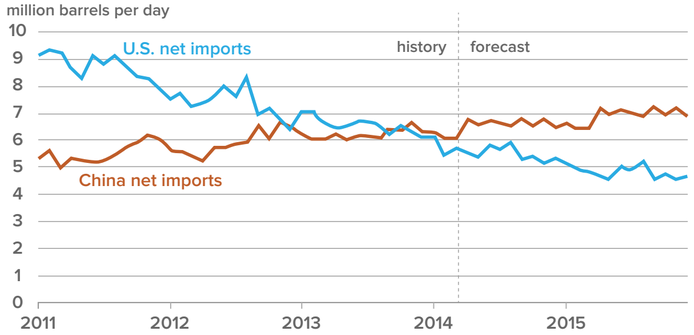
介绍

2009年11月17日，美国总统奥巴马和中国国家主席胡锦涛宣布了七个清洁能源项目，以加强美国和中国之间的合作和研发。其中一个项目是电动汽车倡议研讨会。本次在西雅图举办的研讨会，由美国能源局（DOE）支持太平洋西北国家实验室主办。这是两国之间的第九次研讨会。

这一倡议的活动包括：制定共同标准，示范项目，指导研究的技术路线，和公众教育项目。

合作研究的目标是，加快电动汽车的销售，以减少两国对进口石油的依赖，并减少温室气体排放 – 同时促进经济增长。

Comparison of net petroleum and other liquid fuel imports for China and the United States



Source: US Energy Information Administration, Short-Term Energy Outlook, March 2014

数据来源：美国能源信息署，短期能源展望，2014年3月

http://www.eia.gov/todayinenergy/detail.cfm?id=15531

China's net imports of petroleum and other liquid fuels were greater than those of the United States on a monthly basis, as of September 2013. This made China the largest net importer of crude oil and other liquid fuels in the world. Chinese petroleum production is forecast to be only one-third of US production in 2014. Due to current geopolitical uncertainties, China has been diversifying the sources of its crude oil imports in recent years. Saudi Arabia remains China's largest supplier of crude oil, but China has expanded its imports from Oman, Iraq, the United Arab Emirates, Angola, Venezuela and Russia.

中国的石油和其他液化能源月净进口量在2013年9月超过美国，这使得中国成为世界上石油和其他液化能源最大净进口国。中国2014年石油预测产量仅为美国产量的三分之一。由于目前地缘政治的不确定性，最近几年中国一直在多元化原油进口来源。沙特阿拉伯仍然中国最大的是原油供应国，但中国也从阿曼，伊拉克，阿联酋，安哥拉，委内瑞拉和俄罗斯扩大了进口。

FACT SHEET: United States of America – People's Republic of China Electric Vehicles Initiative

November 17, 2009

President Barack Obama and President Hu Jintao announced the launch of a United States-China Electric Vehicles Initiative. The two leaders emphasized their countries' strong shared interests in accelerating the deployment of electric vehicles in order to reduce oil dependence, cut greenhouse gas emissions and promote economic growth.

Activities under the initiative will include:

- Joint standards development. The two countries will explore development of joint product and testing standards for electric vehicles. This will include common design standards for plugs to be used in electric vehicles, as well as common test protocols for batteries and other devices. Each country currently has extensive literature and data on its own standards. Making this information mutually available and working towards common standards can help facilitate rapid deployment of electric vehicles in both countries.
- Joint demonstrations. The Initiative will link more than a dozen cities with electric vehicle demonstration programs in both countries. Paired cities will collect and share data on charging patterns, driving experiences, grid integration, consumer preferences and other topics. The demonstrations will help facilitate large-scale introduction of this technology.
- Joint technical road map. A US-China task force will create a multi-year road map to identify research and development needs as well as issues related to the manufacture, introduction and use of electric vehicles. The road map will be made widely available to assist not just US and Chinese developers, but also the global automotive industry. It will be updated regularly to reflect advances in technology and the evolution of the marketplace.
- Public awareness and engagement. The United States and China will develop and disseminate materials to improve public understanding of electric vehicle technologies. Building on the success of the first-ever US-China Electric Vehicles Forum in September 2009, the United States and China will sponsor the event annually, alternating between the two countries. The Forum will bring together key stakeholders in both countries to share information on best practices and identify new areas for collaboration.

情况说明书：美国-中国电动汽车合作草案

2009年11月17日

2009年11月17日，奥巴马总统和胡锦涛主席宣布了美中电动汽车合作草案。 两位国家领导人强调了彼此在加速电动汽车发展以减少对石油的依赖，减少温室气体排放，和刺激经济发展等方面的共同兴趣。

草案所包括内容如下：

- 联合制定标准：两个国家将共同发展电动汽车的通用产品和测试标准,包括可充电式电动汽车插头的通用设计标准电池和其他相关设备的通用测试程序等。每个国家目前都有很多关于自己标准的文档和数据。互相共享这些 信息并且建立统一的标准将极大地加速电动汽车在两个国家的发展。
- 联合的展示。草案将两个国家的十多个城市的电动汽车展示项目联系起来。配对的城市将收集并共享关于充电规律，驾驶经验，电网整合，消费者偏好等方面的数据。联合展示将有效促进电动汽车的大规模市场引进。
- 联合的技术发展规划。美中将联合制定关于未来几年电动汽车研究、制造、市场引入和使用的发展规划。 这个发展规划将被允许广泛使用，不仅中美两国，全球的汽车产业都可以从中受益。发展规划还将定期更新以反映市场动向和技术革新。
- 公众意识和参与。 美国和中国将共同宣传相关信息以促进公众的对电动汽车技术的认识。基于2009年9月第一届美中电动汽车论坛的成功举行，美中两国将每年轮流举办该研讨会。研讨会将聚集两个国家的主要相关人员来分享最佳的实践信息和确定新的合作领域。

Pacific Northwest National Laboratory (PNNL) and the University of Washington (UW)

西北太平洋国家实验室(PNNL)和华盛顿大学(UW)

A Pacific Northwest National Laboratory | 902 Battelle Boulevard, Richland, WA 99354 | 888.375.7665 | www.pnnl.gov

西北太平洋国家实验室 | 902 Battelle Boulevard, Richland, WA 99354 | 888.375.7665 | www.pnnl.gov

B University of Washington | 022 Odegaard, Seattle, WA 98195 | Campus Operator 206.543.2100 | www.washington.edu

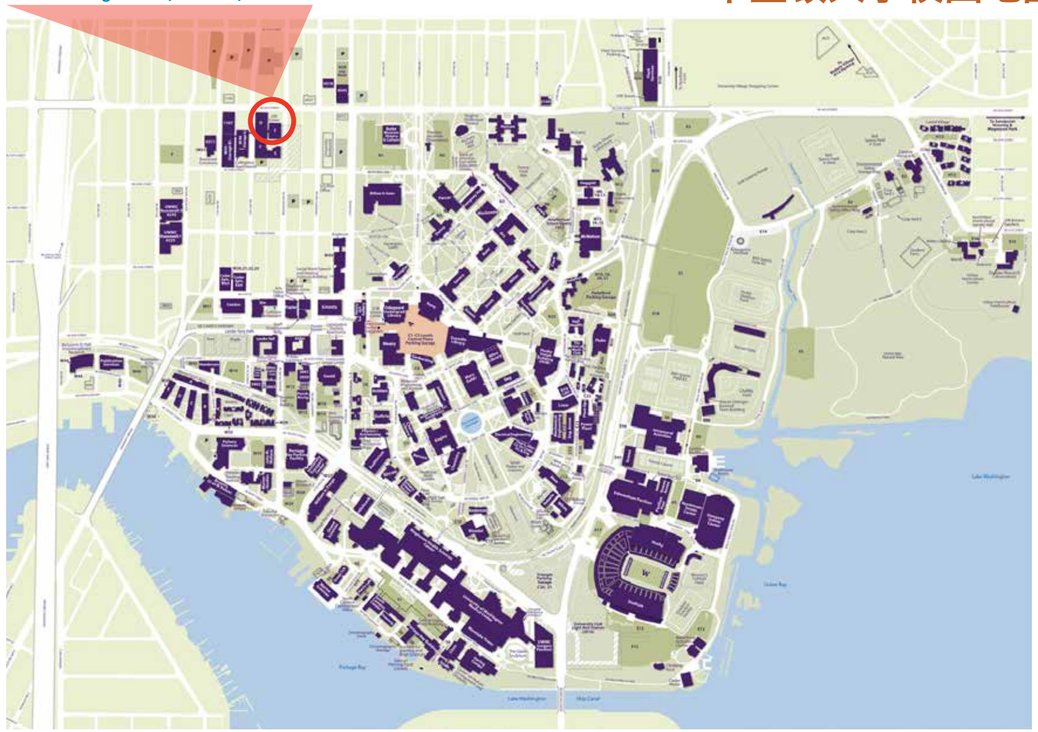
华盛顿大学 | 022 Odegaard, Seattle, WA 98195 | 校园运营 206.543.2100 | www.washington.edu

Workshop location:
University of Washington (UW) Tower Building
4333 Brooklyn Avenue NE
Seattle, Washington 98105
206.685.5648
www.washington.edu/facilities/uwtower

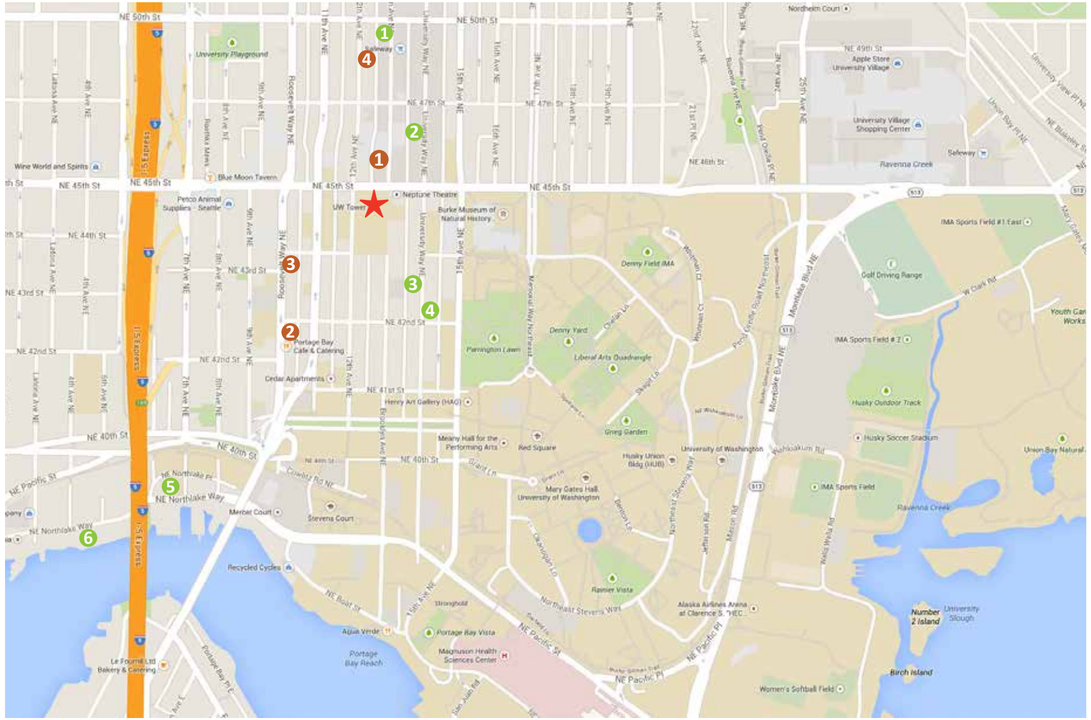
研讨会地址:
华盛顿大学塔楼

University of Washington Campus Map

华盛顿大学校园地图 -



UW Tower, Hotels, Restaurants and Surrounding Area
华盛顿大学塔楼，酒店，餐馆和周边地区



Workshop location 研讨会地址

UW Tower Building
4333 Brooklyn Ave NE
Seattle, WA 98105
206.685.5648
www.washington.edu/facilities/uwtower

Hotels 酒店

Hotel Deca
1 4333 Brooklyn Ave NE
Seattle, WA 98105
206.634.2000
www.hoteldeca.com

University Inn
2 4140 Roosevelt Way NE
Seattle, WA 98105
206.632.5055
www.universityinnseattle.com

Watertown Hotel
3 4242 Roosevelt Way NE
Seattle, WA
206.862.4242
www.watertownseattle.com

University Motel Suites*
4 4731 12th Ave NE
Seattle, WA 98105
206.522.4724
www.universitymotelsuites.com

* A very economical option, in an older building, with one or two bedroom suites and cooking facilities.

* 很经济的选择，相对旧的楼房，每个房间里有两张床和做饭设备。

Restaurants 餐馆

1 **Cedars**
Mediterranean, Indian 地中海，印度 -
4759 Brooklyn Avenue NE
Seattle, WA 98105
206.527.4000

2 **Thai Tom**
Thai 泰国
4543 University Avenue
Seattle, WA 98105
206.548.9548

3 **Flowers Restaurant & Bar**
Vegetarian, vegan 素食 -
4247 University Way NE
Seattle, WA 98105
206.633.1903

4 **A Burger Place**
Build your own burgers 自选汉堡 -
4234 University Way NE
Seattle, WA 98105
206.547.5096

5 **Northlake Tavern & Pizza House**
Pizza 比萨 -
660 NE Northlake Way
Seattle, WA 98105
206.633.5317

6 **Ivar's Salmon House**
Chowder, fish and chips,
seafood, oysters 海鲜，鱼，牡蛎 -
401 NE Northlake Way
Seattle, WA 98105
206-632-0767

Taxi Services
出租车服务

Taxi Services near the University of Washington
Transportation by taxi is likely the easiest form of transportation, though it is also the costliest. Services from the airport are available 24 hours a day. Taxis depart from the street at the baggage claim area level. If you do not see a taxi, you can use one of the curbside phones to call STITA taxi at 206.246.9999 to arrange for pick-up. The average fare from the airport to the University of Washington-District ranges from $40.00 to $50.00 depending on traffic and time of day. It is customary to give the driver a 15% gratuity or tip in addition to the fare.

Other reliable taxi services are available in the Seattle area. All taxi companies operate at the same rate in King County: $2.50 meter drop, $2.00 per mile, $.50 per minute waiting time, $.50 per extra passenger (over two, excluding minors). Here are some taxi companies and their phone numbers:

- **Farwest** 206.622.1717
- **Orange Cab** 206.522.8800
- **Yellow Cab** 206.622.6500

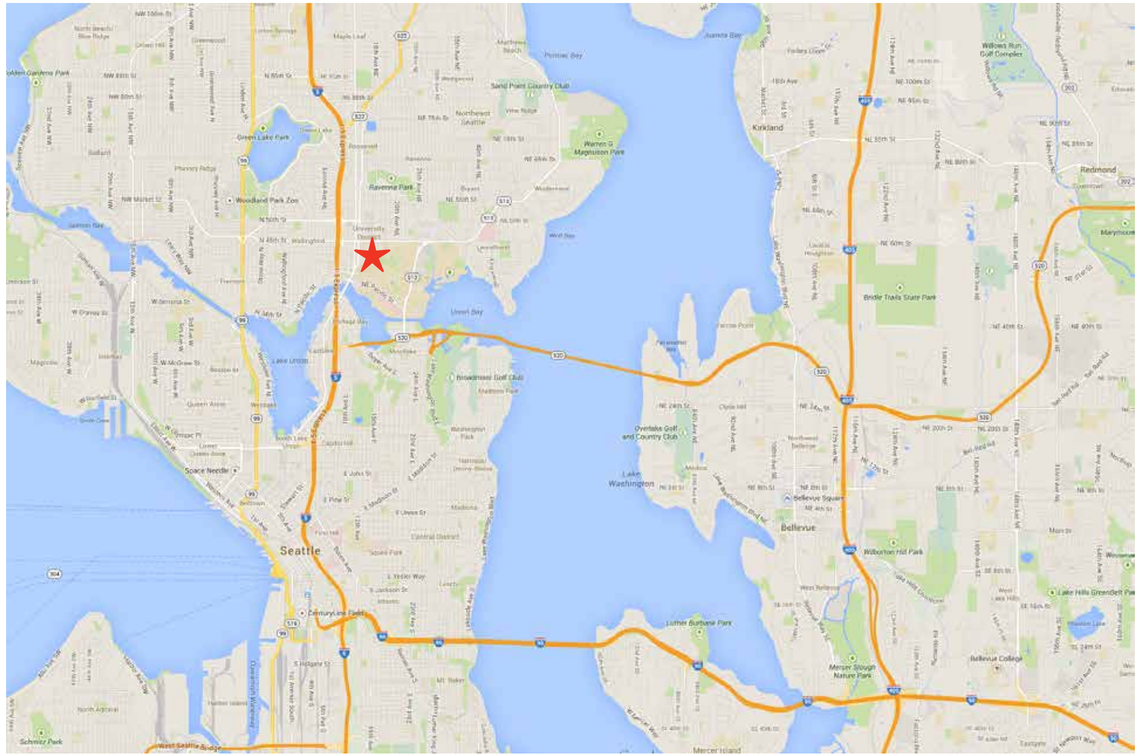
华盛顿大学附近的出租车服务
出租车可能是最简单的交通方式，但也是最昂贵的。机场提供24小时全天候服务。出租车从行李认领区外的等候区出发。如果您没有看到出租车，可以使用的路边电话(STITA) 打206.246.9999叫出租安排接机。从机场到华盛顿大学的大概资费40美金到50美金不等取决于交通状况和时间段。除了车费请额外给司机约15%的小费。

出租车服务也可到西雅图其它地区。景县的所有的出租车公司以如下标准计价：起步价2.5美金，每英里2美金，每分钟等待0.5美金，每多一个乘客0.5美金。不包括未成年人。下面列出部分出租车公司和他们的电话号码：

- **Farwest** 206.622.1717
- **Orange Cab** 206.522.8800
- **Yellow Cab** 206.622.6500

Area Map
地图

★ = UW Tower Building 华盛顿大学塔楼



Session 1: Opening and Overview 开幕式和概述

August 18, 2014 | UW Tower Building; 4th Floor Auditorium

星期一, 8月18日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

UNITED STATES
美国

Paul Telleen
US Department of Energy
Paul Telleen, 美国能源部

CHINA
中国

QIU Xinping
Tsinghua University
邱新平, 清华大学

8:30 – 8:35 | **Building Safety**
楼内安保介绍
- o Rachel Frost, UW Tower Operations
  Rachel Frost, UW 塔楼结构介绍

8:35 – 8:45 | **Welcome**
致欢迎辞
- o Jud Virden, Pacific Northwest National Laboratory
  Jud Virden, 西北太平洋国家实验室

8:45 – 9:00 | **US DOE Battery R&D Progress and Plans**
美国能源部电池研究进展和计划
- o David Howell, US Department of Energy
  David Howell, 美国能源部

9:00 – 9:15 | **Review of Advanced Green Secondary Batteries and Related Materials**
先进绿色二次电池及相关材料评论
- o WU Feng, Beijing Institute of Technology
  吴锋, 北京理工大学

9:15 – 9:35 | **Summary of Chinese Battery Research in the US-China Clean Energy Research Center – Clean Vehicles Consortium (CERC-CVC)**
中美清洁能源研究中心-清洁能源汽车合作联盟(CERC-CVC)在中国电池研究的介绍
- o QIU Xinping, Tsinghua University
  邱新平，清华大学

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Notes 备注

Session 1: Opening and Overview: continued 开幕式和概述

August 18, 2014 | UW Tower Building; 4th Floor Auditorium

星期一, 8月18日 | UW 塔楼；4层礼堂

9:35 – 9:55 | **Battery Research Activities and Progress**
电池研究活动进展
- o Jun Liu, Pacific Northwest National Laboratory
  Jun Liu, 西北太平洋国家实验室

9:55 – 10:25 | **Break** 茶歇

10:25 – 10:45 | **Update on US Activities in the US-China Clean Energy Research Center – Clean Vehicles Consortium (CERC-CVC)**
美国方面中美清洁能源研究中心-清洁能源汽车合作联盟(CERC-CVC)的工作现状
- o Don Siegel, University of Michigan
  Don Siegel, 密歇根大学

10:45 – 11:05 | **Status of the CERC-CVC Activities in China**
中国方面中美清洁能源研究中心-清洁能源汽车合作联盟(CERC-CVC)的工作现状
- o OUYANG Minggao, Tsinghua University
  欧阳明高, 清华大学

11:05 – 11:50 | **General Questions and Open Forum** – moderated by Dave Howell
问题讨论和开放式论坛- 由Dave Howell主持

11:50 – 1:00 | **Lunch** 午餐

Notes 备注

Session 2: Advances in Li-ion Batteries 锂离子电池研究进展

August 18, 2014 | UW Tower Building; 4th Floor Auditorium

星期一, 8月18日 | UW 塔楼；4层礼堂

Session Chairs: 会议主席	UNITED STATES 美国	CHINA 中国
	Khalil Amine Argonne National Laboratory Khalil Amine, 阿贡国家实验室	**MA Zifeng** Shanghai Jiaotong University 马紫峰，上海交通大学

1:00 – 1:20 | **Electrolyte and Interphases for Li-ion and Beyond**
锂离子电池和下一代电池的电解质和界面
- o Kang Xu, US Army Research Laboratory
  Kang Xu, UW 美国陆军研究实验室

1:20 – 1:40 | **Graphene Composites as Electrode Materials in Batteries**
石墨烯复合材料作为电池电极材料的研究
- o DONG Quanfeng, Xiamen University
  董全峰，厦门大学

1:40 – 2:00 | **Silicon Anodes: From Fundamental Materials Research to Commercial Success**
硅负极：从基础材料研究到成功的商业化
- o Yi Cui, Stanford University
  Yi Cui, 斯坦福大学

2:00 – 2:20 | **Silicon Oxide Anode Material for Lithium-ion Batteries**
硅氧化物作为锂离子电池负极材料的研究
- o ZHAO Hailei, University of Science and Technology Beijing
  赵海雷，北京科技大学

2:20 – 3:00 | **Break 茶歇**

Notes 备注

Session 3: Recent Developments in Vehicle Applications 电动汽车实际应用的进展

August 18, 2014 | UW Tower Building; 4th Floor Auditorium

星期一, 8月18日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

UNITED STATES
美国

Xiao-Qing Yang
Brookhaven National Laboratory
Xiao-Qing Yang, 布鲁克海文国家实验室

CHINA
中国

WANG Xindong
Science and Technology University Beijing
王新东，北京科技大学

3:00 – 3:20 | **Silicon/Carbon Composites for Anode Applications**
硅/碳 复合材料作为负极材料的应用
o Aaron Feaver, EnerG2
Aaron Feaver, EnerG2 公司

3:20 – 3:40 | **Recent Development of Cylinder Cells in BAK and Their Application in Electric Vehicles (EVs)**
比克公司圆柱电池的进展及其在电动车中的应用
o LIN Jian, BAK Co.
林建，深圳比克公司

3:40 – 4:00 | **Silicon/Graphene Nanocomposites**
硅/石墨烯 纳米复合材料
o Joshua Lau, SiNode Systems
Joshua Lau, SiNode系统

4:00 – 4:20 | **Integration of Battery Systems for Energy Storage Systems**
储能系统的电池系统集成
o HUI Dong, China Electric Power Institute
慧东，中国电力科学院

4:20 – 5:00 | **Questions and Open Forum** - Moderated by Yi Cui
问题讨论和开放式论坛- 由Cui Yi主持

6:30 – 9:30 | **Banquet 晚宴**
UW Faculty Dining Club Building 华盛顿大学教工俱乐部
o Speaker: Gary Yang, UniEnergy, **Major Challenges and Activities for Grid Scale Energy Storage**
杨振国，电网级储能的主要挑战和活动

Notes 备注

Session 4: Beyond Li-ion Chemistry 超越锂离子电池的化学体系

August 19, 2014 | UW Tower Building; 4th Floor Auditorium

星期二， 8月19日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

UNITED STATES
美国

Jun Liu
Pacific Northwest National Laboratory
Jun Liu, 西北太平洋国家实验室

CHINA
中国

ZHAO Hailei
Beijing Institute of Technology
赵海雷，北京科技大学

8:00 – 8:20 | **Towards Practical Lithium-Sulfur Batteries: Electrode Materials and Electrochemistry**
走向可实用的锂硫电池：电极材料和电化学
- o Jie Xiao, Pacific Northwest National Laboratory
  Jie Xiao, 西北太平洋国家实验室

8:20 – 8:40 | **Progress in Lithium-Sulfur Batteries**
锂硫电池研究进展
- o WANG Jiulin, Shanghai JiaoTong University
  王久林，上海交通大学

8:40 – 9:00 | **Oxygen Reduction on a Carbon-based Gas Diffusion Electrode in Non-aqueous Electrolyte for Li-air Batteries**
锂空气电池非水电解液中气相扩散电极上的氧还原反应
- o Deyang Qu, University of Massachusetts, Boston
  Deyang Qu，波士顿马萨诸塞大学

9:00 – 9:20 | **Non Lithium-ion Batteries**
新型非锂离子电池体系
- o LIU Xingjiang, Tianjin Institute of Power Source
  刘兴江，天津电源技术研究所

Session 4 continues on page 22 第4节继续在第22页

Notes 备注

Session 4: Beyond Li-ion Chemistry: continued
超越锂离子电池的化学体系

August 19, 2014 | UW Tower Building; 4th Floor Auditorium

星期二， 8月19日 | UW 塔楼；4层礼堂

9:20 – 9:40 | **Metal Anode Interfacial Reactions and Protection Strategies**
金属负极的界面反应和保护策略

o Kevin Zavadil, Sandia National Laboratories and Joint Center for Energy Storage Research (JCESR)
Kevin Zavadil, 桑迪亚国家实验室和能源储存研究联合中心

9:40 – 10:00 | **R&D of Lithium-Sulfur Batteries at Dalian Institute of Chemical Physics**
大连化物所的锂硫电池研究发展

o CHEN Jian, Dalian Institute of Chemical Physics
陈剑，大连化物所

Notes 备注

Session 5: Progress in Characterization 电池分析检测技术

August 19, 2014 | UW Tower Building; 4th Floor Auditorium

星期二， 8月19日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

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美国

Chongmin Wang
Pacific Northwest National Laboratory
Chongmin Wang, 西北太平洋国家实验室

CHINA
中国

LIU Xingjiang
Tianjin Institute of Power Sources
刘兴江，天津电源技术研究所

10:00 – 10:20 | Break 茶歇

10:20 – 10:40 | An Overview of Selected Diagnostic Studies of Electrode Materials for Next Generation Electric Vehicle Batteries
下一代电动汽车电池电极材料的诊断研究概述
o Xiao-Qing Yang, Brookhaven National Laboratory
Xiao-Qing Yang, 布鲁克海文国家实验室

10:40 – 11:00 | Using the Advanced Photon Source for Battery Research
应用先进光子光源开展电池研究
o Tianpin Wu, Argonne National Laboratory
Tianpin Wu, 阿贡国家实验室

11:00 – 11:40 | Questions and Open Forum – Moderated by Chongmin Wang
提问和开放式论坛- 由王成敏主持

11:40 – 1:00 | Lunch 午餐

Notes 备注

Session 6: Battery Testing, Safety, and Recycling
电池测试，安全和再利用

August 19, 2014 | UW Tower Building; 4th Floor Auditorium
星期二， 8月19日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

UNITED STATES
美国

Bor Yann Liaw
University of Hawaii
Bor Yann Liaw, 夏威夷大学

CHINA
中国

DING Xiaohua
Shanghai International Automobile City
丁晓华，上海国际汽车城

1:00 – 1:20 | **A Comparison of US and Chinese EV Battery Testing Protocols and Results**
中美电动汽车电池测试协议和测试结果的对比
o Ira Bloom, Argonne National Laboratory
Ira Bloom, 阿贡国家实验室

1:20 – 1:40 | **Standardization of Lithium Batteries in China**
中国锂电池之标准化
o CAO Lin, China Electronics Standardization Institute
曹林，中国电子标准化研究所

1:40 – 2:00 | **Battery Abuse Testing in the US**
美国国家实验室在电池滥用实验方面的进展
o Joshua Lamb, Sandia National Laboratories
Joshua Lamb, 桑迪亚国家实验室

2:00 – 2:20 | **Safety of Lithium-ion Batteries in China**
中国的锂离子电池安全
o Lu Languang, Tsinghua University
卢兰光，清华大学

Session 6 continues on page 28 第6节继续在第28页

Notes 备注

Session 6: Battery Testing, Safety, and Recycling: continued
电池测试，安全和再利用

August 19, 2014 | UW Tower Building; 4th Floor Auditorium
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2:20 – 2:40 | **Challenges and Opportunities of Recycling Spent Lithium-ion Batteries**
废旧锂离子电池回收利用所面临的机遇和挑战
- Li Li, Beijing Institute of Technology
  李丽，北京理工大学

2:40 – 3:00 | **Advanced Battery Recycling**
先进的电池回收方法
- Steve Sloop, OnTo Technology
  Steve Sloop, 昂图科技

3:00 – 3:20 | **Break 茶歇**

Notes 备注

Session 7: Vehicle Systems and Infrastructure 汽车系统和基础设施

August 19, 2014 | UW Tower Building; 4th Floor Auditorium

星期二， 8月19日 | UW 塔楼；4层礼堂

Session Chairs:
会议主席

UNITED STATES
美国

Michael Wang
Argonne National Laboratory
Michael Wang, 阿贡国家实验室

CHINA
中国

WANG Hewu
Tsinghua University
王贺武, 清华大学

3:20 – 3:40 | Status of the US and European EV Interoperability Centers
美国和欧洲电动汽车交互操作中心的发展现状

- o Keith Hardy, Argonne National Laboratory
  Keith Hardy, 阿贡国家实验室

3:40 – 4:00 | US-China Advanced Vehicle Testing Collaboration
中美先进车辆测试的合作

- o Mike Duoba, Argonne National Laboratory
  Mike Duoba, 阿贡国家实验室

OU Yang, China Automotive Engineering Research Institute
欧阳， 中国汽车工程研究院

4:00 – 4:20 | Plug-in Electric Vehicle Data Collection in the US
美国插电混合动力汽车的数据采集

- o Jim Francfort, Idaho National Laboratory
  Jim Francfort, 爱达荷国家实验室

4:20 – 4:40 | Progress of Shanghai Electric Vehicle Promotion and Data Analysis
上海电动汽车的推广进展和数据分析

- o DING Xiaohua, Shanghai International Automobile City
  丁晓华，上海国际汽车城

Notes 备注

Session 8: Closing Session 闭幕式 -

August 19, 2014 | UW Tower Building; 4th Floor Auditorium

星期二， 8月19日 | UW 塔楼；4层礼堂

Moderated by 主持	**Dave Howell** US Department of Energy **Dave Howell, 美国能源部**	**WU Feng** Beijing Institute of Technology **吴锋，北京理工大学**

4:40 – 5:00 | **Discussion and Open Forum**
讨论和开放式论坛

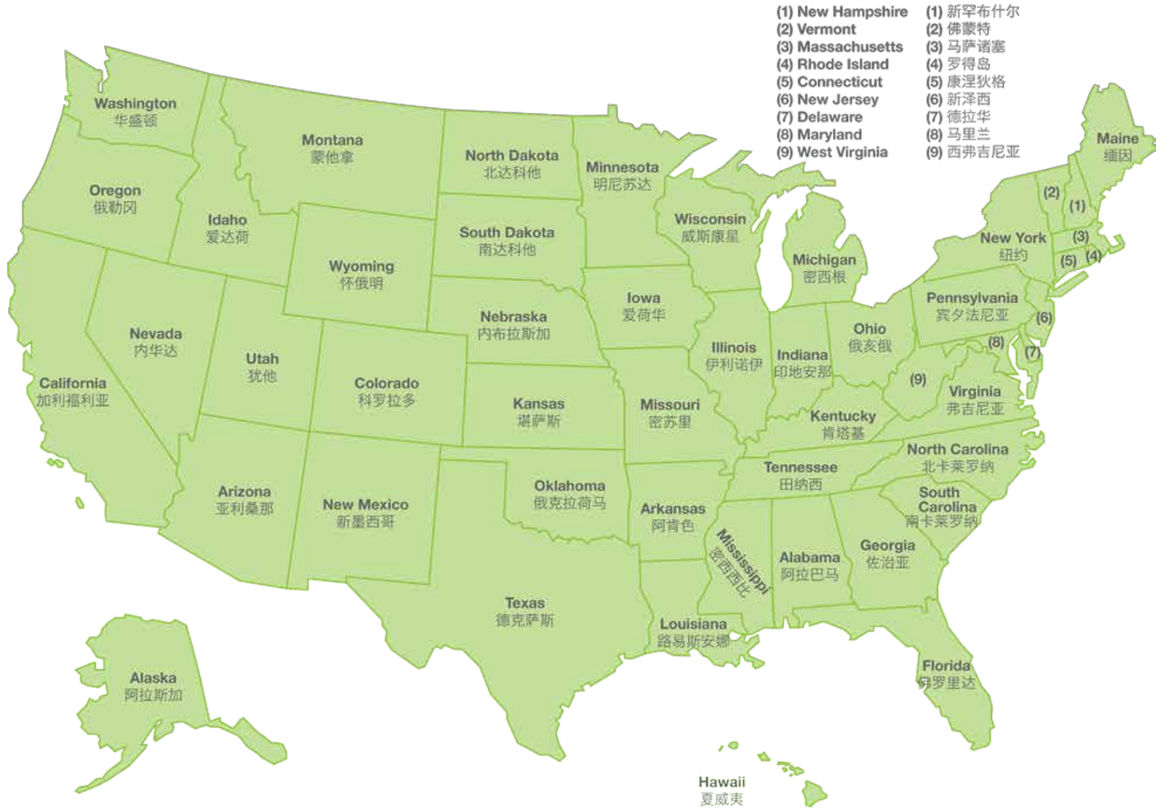
5:00 – 5:10 | **Wrap-up and Next Steps**
总结和下一步工作展望

5:10 | **Adjourn** 休会

Notes 备注

The 50 States in the United States of America

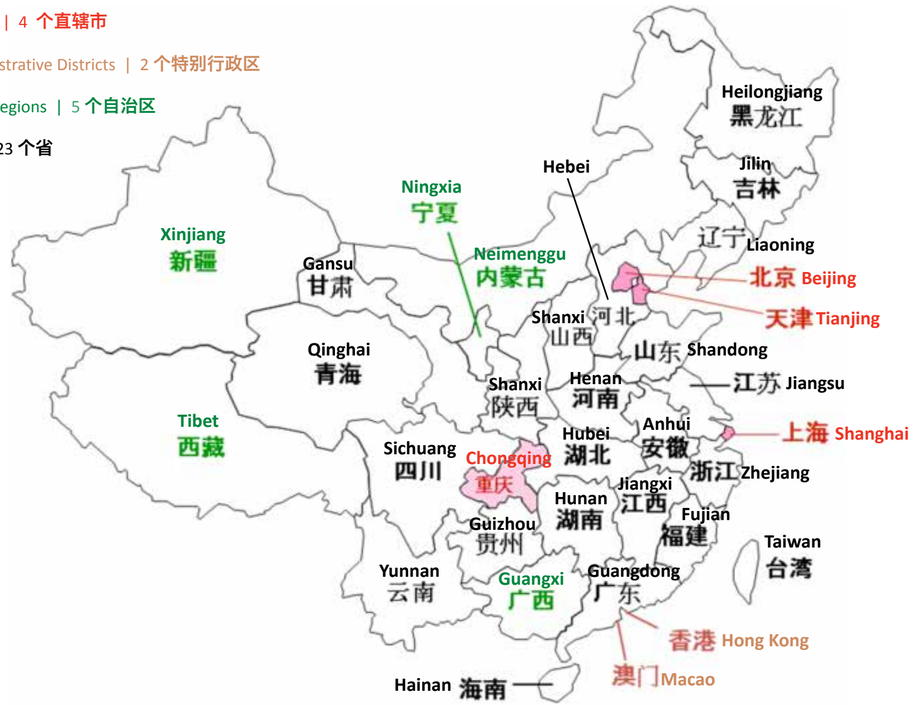
The "Lower 48" plus Alaska and Hawaii



People's Republic of China

中华人民共和国

- 4 Municipalities | 4 个直辖市
- 2 Special Administrative Districts | 2 个特别行政区
- 5 Autonomous Regions | 5 个自治区
- 23 Provinces | 23 个省



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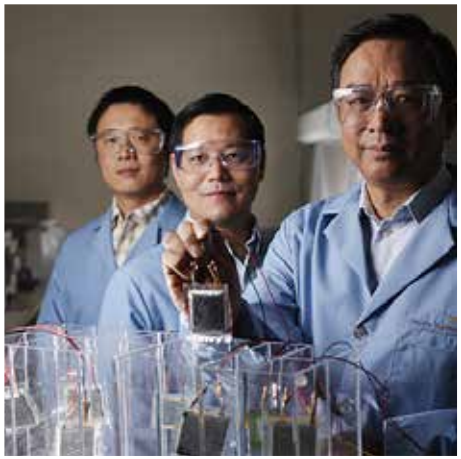
Argonne National Laboratory

阿贡国家实验室



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9th US-China Electric Vehicle and Battery Technology Workshop

第九届美中电动汽车和电池技术研讨会 -

August 18-19, 2014 | Pacific Northwest National Laboratory

2014年8月18-19日 | 西北太平洋国家实验室

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