

LBIS 2019

4th Lithium Battery International Summit (LBIS) Invitation

Hyatt Regency Shenzhen Airport--Shenzhen, China

May 5-9, 2019

The 4th LBIS will be held in Shenzhen on May 5-9, 2019. The conference is organized by the LBIS committee, Shenzhen Graduate School of Tsinghua University and China Industrial Association of Power Sources, co-hosted by China Industrial Association of Power Sources, Industry-University-Institute Cooperation Innovation Alliance for Advanced Battery and Materials, Shenzhen JITE New Energy Technology Co., Ltd.

This 4-day Summit has been organized with the vision of bringing together for the world's premier science and technology leaders in the fields of energy storage devices, especially Li-ion batteries and the technologies beyond Li-ion (Solid State Batteries, Li/Air, Li/S, Fuel Cell, etc.), as well as EDV, CE and ESS applications, for focused discussions on materials, designs, processes.

Day 4: Special lectures with detailed discussions on critical and important topics presented by Jeff Dahn, John Zhang, T. Ohzuku/M. Yoshio, JM. Tarascon, S. Visco.

Goals of the Summit

Discuss Challenges and Demonstrate Progress of Higher Energy Density, Lower Cost and Safer Energy Systems (HLSS) for EDV/ESS/CE applications

TIME	ACTIVITIES
May 5, 2019	Registration
May 6-8, 2019	Summit focus on lithium battery's new materials, new designs, new performance and new energy systems etc. and poster sessions
May 9, 2019	Special Lectures

For further details about the conference, please visit the official website: <https://lbis.net/>

Discussions and exchanges on these critical topics will be held among highest level of academic and industrial experts. For example, the top 20 scientists/Engineers and EDV industrial leaders worldwide will attend and give presentations, sharing their most recent discoveries and challenges. In the past, LBIS usually has about 1300 attendees from all over the world and they regard this LBIS as the conference with the highest level of academic and industrial standards in the lithium battery/EDV/ESS/CE field. Again, it is our honor to invite you to attend the 4th LBIS.

Sincerely,

John Zhang (张正铭), Chairman of LBIS

Jeff Dahn, Vice Chairman of LBIS

On behalf of LBIS Organization Committee.

Organization Committee Members and Keynote Speakers (Partial)



Chairman, LBIS

John Zhang

IEEE(P1625) Cell Group Chair;
Inventor of Ceramic Coated
Separators, Pioneer of Sulfide
SSE; Sr. Tech Exec Officer of
Asahi Kasei Separator;
Celgard CTO



Special Invited Guest

Yoshio Nishi

Founder of Commercial Li-ion
Battery; CS Draper Awardee;
Former Sony CTO



Special Invited Guest

Akira Yoshino

Inventor of Li-ion Battery;
CS Draper Awardee; Fellow
of Asahi Kasei



Vice Chairman, LBIS

Jeff Dahn

Member of Canadian
Academy of Science
& Prof. of Dalhousie
U.



T. Ohzuku

World Renowned
Scientist and Prof. of
Osaka City U.



JM Tarascon

Member of French
Academy of Science
& Prof. of College de
France



M. Yoshio

World Renowned
Scientist & Prof. of
Saga U.



Liqun Chen

Member of
Chinese
Academy of
Engineering



Robert Galyen

Chair of SAE
EDV, SAE Fellow,
Chair of
NAATBatt CATL
CTO



**Minggao
Ouyang**

Member of
Chinese
Academy of
Science



**Shoichi
Matsumoto**

Nissan VP of
Operation,
Former CEO of
AESC



Jiqiang Wang

Sr. Advisor of
China Industrial
Association of
Power Sources



Ted Miller
 Chairman of
 USABC
 Sr. Mgr of Ford
 Motor



Yusheng Yang
 Member of
 Chinese
 Academy of
 Engineering



Steven Visco
 Inventor of Li/S
 and Li/Air
 Batteries, CEO of
 Polyplus



Feng Wu
 Member of
 Chinese
 Academy of
 Engineering &
 CTO of National
 973 Plan



Khalil Amine
 Chairman of
 ABAA
 Senior fellow of
 Argonne
 National
 Laboratory



James Akridge
 Renowned Solid
 State Battery
 Expert, Former
 CEO/CTO of
 Scion/Valence



FeiYu Kang
 Dean of
 Graduate School
 at Shenzhen,
 Tsinghua U.



Hiroyuki Akashi
 Nissan Motor
 Company,
 Deputy General
 Manager,



Yang Kook Sun
 Member of
 Korea Academy
 of Engineering
 Prof. HanYang U.



**Didier
 Marginedes**
 Pioneer of Solid
 State Battery
 EDV, Former
 R&D director of
 Bollere, EVP of
 Bluesolutions

Additional Organization Committee Members & Invited Speakers



Zhen Li
Chairman and
CEO of Gotion
High-Tech



WeiPing Liu
BYD CTO



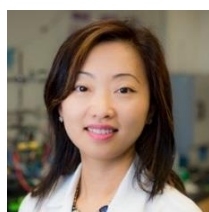
ChengDu Liang
CATL CTO



JunKui Gao
LiShen Battery
CTO



XueJie Huang
Chinese
Academy, Vice
Chair of Chinese
Battery
Association



Shirley Meng
Prof. UCSD
P&E Center
Founding
Director
Editor-J. Power
Source



Jun Liu
US DOE
500Wh/kg
Program in
Charge
AAAS Fellow



Yong Yang
Prof. Xiamen U.
Editor-J. Power
Source



ChengWei Xiao
Chief Tech
Expert National
863 Program



BoYan Llao
Prof./Manager
US Idaho
National
Laboratory



Yu Wang
Farasis Corp.
Founder and
CEO



**Special Advisor
Hong Li**
Prof. Physics
Inst. Chinese
Academy



**Philippe
Biensan**
Saft
Tech Director



**Kiyoshi.
Kanamura**
Prof. Tokyo
Metropolitan U.



XiaoKang Lai
National
Electricity R&D
Director



William Chen
ATL Founder
PuTaiLai CEO



Christophe Pillot
Avicenne
Market Director



Yi Cui
Prof. Stanford
U.
MRS and ECS
Fellow



Guohua Li
Former Sony
SHA R&D GM,
Chinese Chem
New Energy
CTO



Pierre Tran-Van
Renault Group
EDV Manager



NingNing Wu
CITIC GuoAn
MGL Battery
CTO



FengChao Xie
HuaWei
Chief Scientist



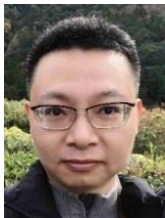
ZhaoJun Luo
BAK CTO



XiaoHe Hou
eTrust Power
CEO



Shmuel De-Leon
Battery Market
Expert & Analyst



沈晞
BYD Leader of
EDV Batteries



S. Takayama
Asahi Kasei
Materials CEO



WenJuan Liu
Microvast CTO



XinPing Qiu
Prof. Tsinghua
U.



Yongyao Xia
Prof. Fudan U.
Editor-J. Power
Source



Dingguo Xia
Prof. Peking U.



YanMing Xu
Costlight Battery
CEO



Zidong Wang
National
Battery Test
Center Director



**YongHong
Deng**
CapChem Chief
Scientist



Feng Xiao
Former BYD
SHA GM,
HongNa
Materials CEO



T. Amazutsumi
Sanyo Li-ion
Founder



H. Matsuyama
Polypore/Asahi
CEO



XinPing Ai
Prof. WuHan U.



XueLong Lv
ITRIT Market
Director



RuKun Yang
GeeSung
Machinery CEO



ChiWei Wang
JEVE CEO



Bruce Miller
Chair, IEEE Bat
System; Sr. Mgr
of Dell
Computer



Yao Zhang
Sunwoda CTO



LiWei Chen
Prof. Shanghai
Jiao Tong U.



Guorong Hu
Prof. Central
South U.



Quanhong Yang
Prof. Tianjin U.



Qiang Zhang
Prof. Tsinghua
U.



**Chaoyang
Wang**
Prof. Penn State
U., Battery
model expert



Yuguo Guo
Prof. Institute of
Chemistry CAS



Kent Tu
HuNan Li-Fun
CEO



S. Reinartz
R&D Director of
Celgard



Guanglei Cui
Prof. Qingdao
Inst. of
BioEnergy CAS



MEETING

Kamal Shah
Intel Director
Chair of US PC
Battery Group



Mo-Hua Yang
Light EV STD
Chair;
TD Hi-Tech CEO



Zhibin Zhou
Prof. Huazhong
Science and
Technology U.



Renjie Chen
Prof. Beijing
Institute of
Technology U.



Haijun Yu
Prof. Beijing U.
of Technology



Jian Chen
Prof. Dalian
Inst. of
Chemical
Physics, CAS



General Secretary
XiaoQing Yang
Prof. Brookhaven Lab.

Local Organizing Committee



Organizing Committee Honorary Chairman

Ping Gao

Rechargeable Power Energy N. Am LLC



Organizing Committee Chairman

Yanlong Liu

China Industrial Association of Power
Sources
General Secretary

Organization Committee General Secretaries



MEETING

Liwen Cheng

China Industrial
Association of
Power Sources
Director of
International
Liaison
Department



Zhexu Zhang

Graduate School
at Shenzhen,
Tsinghua U.



YaJun Chao



ShiLing Xiao

WeiShi New
Energy CEO



Prof. BaoHua Li

Graduate School
at Shenzhen,
Tsinghua U.

Focus of the Lithium Battery International Summit (LBIS)

(1) Challenges of Various Energy Systems

- a. Li-ion systems: see details in section two
- b. Li metal battery systems – Mainly Safety
 - 1) Liquid Electrolyte Systems: General Education; Dendrite, large format cells; Life and Safety
 - 2) Solid State Electrolyte (SSE) Systems: Solid/Solid Interface; Electrode/SSE
 - 3) Interface and Stability; Dendrite and Safety
 - 4) Hybrid SSE Systems: New Breakthroughs; New Cell Designs
 - 5) Li/S Systems: Li₂S deposition; Polysulfide Concentration and Efficiency; Cell Size and Life; Dendrites and Safety
 - 6) Li/Air Systems: Air Electrode Catalysts; Basic Electrolyte and Li₂CO₃ Deposition; Anode/SSE Interface; Large Format Cells; Interface, Dendrites and Safety
- c. Fuel Cell (FC) System – Mainly Economics and Safety
 - 1) General Education
 - 2) H₂ Systems: Well to Wheel Efficiency; Fuel Purity and Cell Life; Pt/Ru Reduction; Cost of FC components; Power/Temperature/Hybrid of FC for EDV; Pure H₂ Generation and Storage; Cost of H₂ Distribution for EDV, H₂ FC Car Safety, Operating Cost
 - 3) DMFC Type FC: Performance and Efficiency; Catalysts (Pt/Ru); Cell Cost,
 - 4) Energy density/Hybrid; Pre-former and Efficiency for EDV; Human Safety

(2) Detailed Challenges of the Li-ion battery Systems

- a. Practical Higher Energy Density, Lower Cost and Safer Systems (HLSS)
- b. New electrode materials: Stability and Mechanical Stress of High Energy Active Material; Co and/or Ni replacement of layered Compound; New Stable High Capacity Anode
- c. KEY functions of Separators and Electrolytes: High Voltage Solvent, Mixed Salt; Composition Change during Long life; Additives; New Separators; Mechanical Stress; Ceramic Coating; Shut Down Separator and Thickness Limit for EDV/ESS/CE
- d. The battery performance mechanism --- capacity fade and safety; battery life; pack/cell safety;
- e. Cell/pack Components Design on Performance: particle crystal structure change and stress influence; Cell charging rate; Battery cycling temperature and storage; None uniform distribution of cell performance and EDV/ESS/CE life and safety
- f. Cell Design and Cell format: Pro and cons of individual application, Stacked Prismatic Processes; Cell Safety Criteria and Test Methodology (Normal Abuse and Abuse)
- g. Mass production process and HLSS ---- cell components (all materials) selection; electrode process and pore size; cell formation and gassing; jelly roll methodology/control and its impact on HLSS; electrolyte filling and Formation processing; battery validation methodologies vs cell performance quality control
- h. Cell process equipment automation and cell quality
- i. Cell, Module, Pack, BMS design on DEV/ESS/CE performance/safety

- j. EDV/ESS/CE failure mechanisms
- k. Battery modeling and its applications

(3) EDV/ESS/CE Applications and Needs

- a. EDV --- BEV, HEV, Micro-HEV Economics, Safety and Performance
- b. ESS System Economics, Safety and Performance (BMS Long Control)
- c. CE Economics (Market), Safety and Performance
- d. Mass Production, Automation, Quality and Safety

(4) Battery market, Gov. financial aid and possible future human transportation systems

- a. Past, now and future battery/energy device market
- b. Power cell overcapacity and real EDV/ESS market
- c. What is possible outcome when GOV stop the financial aid for EDV/ESS
- d. The real air pollution and CO2 emission of BEV, Fuel Cell car and ICE (including HEV)
- e. Cost analysis of various new energy technologies

Special Lectures (9 May)

SPEAKER	CONTENT
Jeff Dahn	New Cathode Developments and New Diagnose Tools for Li-ion Cell Degradation
John Zhang	Battery Safety Mechanism, Separators and Li-ion Fundamentals
JM. Tarascon	Electrolyte Systems etc.
Masaki Yoshio	New Anode and Electrolytes
Steven Visco	Solid State Batteries, Li/air, Li/S etc.

Registration Contact Information

e-mail: lbis_info@celgard.com

Website: <https://lbis.net/>

Summit Registration Fee

REGISTRATION	STUDENT	UNIVERSITY & GOV.	INDUSTRY
Before March 1, 2019	500 (USD)	750 (USD)	1000 (USD)
After March 1, 2019	650 (USD)	950 (USD)	1150 (USD)
On Site	750 (USD)	1100 (USD)	1400 (USD)

NOTE: Registration Fee includes Lunches during the conference (5/6-5/8)

Special Lectures Registration Fee

REGISTRATION	STUDENT	UNIVERSITY & GOV.	INDUSTRY
Before March 1, 2019	100 (USD)	200 (USD)	300 (USD)
After March 1, 2019	150 (USD)	250 (USD)	350 (USD)
On Site	200 (USD)	300 (USD)	400 (USD)

NOTE: Seminar Registration Fee includes Lunch (5/9)

Name of Account Holder: China Industrial Association of Power Sources

Account No.: 277870507087

Name of Bank: Bank of China Tianjin Zhongbei Sub-branch

Address of Bank: No.11-108, Wanhui Road, Zhongbei Town, Xiqing District, Tianjin, China

Post No.: 300112

Swift Code: BKCHCNBJ200

Posters

To encourage the participation of the new energy R&D, we welcome posters for this conference and we will select 10 best posters for “BEST POSTER of LBIS” award. Please send your poster abstract to johnzhang@celgard.com with the deadline of April 5, 2019.

Sponsorship Opportunities

The conference will set up five grades of Diamond, Platinum, Golden, Silver and Bronze sponsors according to amount of sponsorship. The first four grades are predetermined with a total of 50 sponsorship quotas, and the bronze sponsorship quota is not limited. Based on different grades, the limits of authority are presented as below in the blank:

Sponsor Grades	Quantity	Sponsorship Benefits
Diamond Sponsor (45000USD)	5	a. Can be picked up as a candidate to make a presentation for 20 minutes in the first day of the conference. The draft should be authorized by the committee.
		b. 2 booths in the venue
		c. 8 free conference places
		d. Display boards permitted in the venue
		e. Corporate videos playback during the conference
		f. Company Logo will appear in all the conference materials as Diamond Sponsor, including invitation letter, ticket, attendance board, collected papers, conference agenda and background plate of main forum. Providing a large corporate advertising board (size: 2m (w) × 3m (h)) with company materials in conference tote bags and placed on the desks,
		g. Company Logo appears on conference official website with hyperlink
		h. Media interviews and campaigns

Sponsor Grades	Quantity	Sponsorship Benefits
		<ul style="list-style-type: none"> i. Free conference advertisement for 2 versions (Cross-version or pull page)
Platinum Sponsor (30000USD)	10	<ul style="list-style-type: none"> a. Can be picked up as a candidate to make a presentation for 15 minutes in the first day of the conference. The draft should be authorized by the committee. b. 5 free conference places c. 1 booth in the venue d. Named lunch. Company Logo appears on meal coupons and background board in the dining place. e. Corporate videos playback during the conference f. Company Logo will appear in all the conference materials as Platinum Sponsor, including invitation letter, ticket, attendance board, collected papers, conference agenda and background plate of main forum. Providing a large corporate advertising board (size: 2m (w) × 3m (h)) with company materials in conference tote bags and placed on the desks, etc. g. Company Logo appears on conference official website with hyperlink h. Media interviews and campaigns i. Free conference advertisement for 2 versions (Cross-version or pull page)
Golden Sponsor (15000USD)	15	<ul style="list-style-type: none"> a. 3 free conference places b. 1 booth in the venue c. Questioning opportunities in the conference d. Company Logo will appear in all the conference materials as Golden Sponsor, including invitation letter, ticket, attendance board, collected papers, conference agenda and background plate of main forum. Providing a large corporate advertising board (size: 1m (w) × 2.4m (h)) with company materials in conference tote bags and place the desks, etc. e. TV media interviews and campaigns f. Company Logo appears on conference official website with hyperlink

Sponsor Grades	Quantity	Sponsorship Benefits
		g. Free conference advertisement for 1 version
Silver Sponsor (7500USD)	20	a. 2 free conference places
		b. Company Logo will appear in all the conference materials as Silver Sponsor, including invitation letter, ticket, attendance board, collected papers, conference agenda and background plate of main forum. Providing a large corporate advertising board (size: 1m (w) × 2.4m (h)) with company materials in conference tote bags and place the desks, etc.
		c. Company Logo appears on conference official website with hyperlink
		d. Free conference advertisement for 1 version
Bronze Sponsor (4500USD)	Unlimited	a. 1 free conference places
		b. Company Logo will appear in all the conference materials as bronze Sponsor, including invitation letter, ticket, attendance board, collected papers, conference agenda and background plate of main forum.
		c. Free conference advertisement for 1 version

Information for Exhibitors

Exhibition Layout and Quotation:

The standard size of booth is 2m*3m with a desk and 2 chairs. If you have any other special requirements, please contact John Zhang at lbis_info@celgard.com for additional information or to secure your space. Totally, we will provide about 50 standard booths in the lobby with proposed price ~3000USD each booth.

Conference Hall & Hotel Information

The Conference Hall is located at Hyatt Regency Shenzhen Airport, which is one of the newest hotels in Shenzhen, having opened in 2018. The closest major public transportation, Ji Chang Metro Station, is only 600m away.

Conference Hall	Address
Hyatt Regency Shenzhen Airport	West of Bao'an International Airport (T3), Bao'an District, Shenzhen, China 0.6km from Metro Station: Ji chang

There are many hotels around the conference hotel and they rank from 2-star to 5-star. The best way to find your hotel around the conference hotel is to get on www.ctrip.com or www.booking.com to book, which may provide you the best price, location and service that fit your needs.

Hotels near the conference hotel:

Hotel	Address
Hyatt Place Shenzhen Airport	3F, Exit 14, GTC, Bao'an District Shenzhen China 0.59km from Metro Station: Ji chang
Vienna Best Sleep International Hotel (Shenzhen Airport flagship)	Airport 1st Road (150m Southwest of the West Silicon Valley) Bao'an District Shenzhen China 0.79km from Metro Station:Hourui
Shenzhen Airport Hotel	No.1028 Jichang 6th Road Bao'an District Shenzhen 518128 China 0.26km from Metro Station:Airport East
Tianhe Hotel (Shenzhen Airport Terminal 3)	No.1 Xinghua Road Bao'an District Shenzhen China 1.36km from Metro Station:Airport East
Vienna Hotel (Shenzhen Airport)	No.3, Alley 11, Xiasha Fuwei Community, Fuyong Town Bao'an District Shenzhen 518128 China 0.57km from Metro Station:Airport East

Chinese Visa Application

Please email lbis_info@celgard.com for Chinese Visa application.