4th Circular & Call for Papers

The 8th International Conference on Advances and Applications of Innovative Energy Materials (AAIEM2018)

Organized by

Guangxi University, China
Guangxi Association for Science and Technology, China

Hosted by

State Key Laboratory of Processing for Non-ferrous Metal and Featured Materials, Guangxi University, China
Collaborative Innovation Center of Sustainable Energy Materials, Guangxi University, China
Jiangsu Heng Tai Furnace Co. Ltd., China

Supported by

Guangxi Key Laboratory of Electrochemical Energy Materials, Guangxi University, China
Nanning Xixiu Technology Co. Ltd., China

Website: http://cicsem.gxu.edu.cn
E-mail: tianzhiqun@gxu.edu.cn (Zhiqun Tian)
Mobile: 18376650355
Scope

The 8th International Conference on Advances and Applications of Innovative Energy Materials (AAIEM2018) will be held from November 30th to December 4th, 2018 in Nanning, China and will be held in the beautiful campus of Guangxi University. The first AAIEM was started in Sun Yat-sen University, Guangzhou in 2001 (AAIEM2001), followed by successful 2nd to 6th AAIEM in Sun Yat-sen University from 2003 to 2014. The 7th AAIEM was transferred to Nanning organized by Guangxi University in 2015.

The Conference consists of plenary talks, invited keynotes, oral and poster presentations, focusing on the most recent advances and developments in novel energy materials, new electrochemical technologies and applications and fundamental understanding in this important field of electrochemical energy storage and conversion technologies. The Conference will provide a forum for leading national and international scientists and engineers to exchange and communicate their work to the next generation of researchers as well as to industry, and thereby inspire the research communities to continuously make the scientific and technological breakthroughs needed to accelerate the transition towards a clean and sustainable energy society.

Topics

Five main themes will be covered in this Conference, including Fuel Cells, Batteries, Electrochemical Capacitor and Renewable Energy Materials, Fundamental Electrochemistry and Electric Vehicles.

E1 -- Fuel Cells

This symposium is devoted to all aspects of research, development, and engineering of high temperature solid oxide fuel cells (SOFCs), direct carbon fuel cells, microbial fuel cells, polymer electrolyte fuel cells (PEFCs), as well as direct alcohol fuel cells using either anion or cation exchange membranes. The intention is to bring together the international community working on the subject and to enable effective interactions between research and engineering communities. The symposium is structured as different sections covering diagnostic techniques and stack systems design/components; catalysts and membranes, methanol and ethanol reforming to produce hydrogen
for fuel cells; included are also interconnect/bipolar plates, performance degradation and novel nano-structured materials and smart carbon-based materials for fuel cells.

**E2 -- Batteries**

Batteries in particular Lithium-ion batteries have been the workhorses in portable electronic devices such as cellular phones, laptop computers, and digital cameras. In recent years, lithium-ion batteries are being used for plug-in hybrid electric vehicle (PHEV) and full electric vehicle (EV) applications. This symposium is a forum for discussion on both fundamental and applied aspects of lithium-ion and other types of batteries such as flow batteries, lead-acid batteries and metal/air batteries. Specific areas to be covered include but not limited to: (1) Electrode design, characterization, and performance. (2) Electrolyte development and characterization. (3) Novel electrode processing and cell design. (4) Electrode interfacial studies and diagnostic techniques. (5) Materials, electrode, and cell modelling. (6) Elucidation of aging and failure modes and mechanisms, and (7) PHEV and EV performance, fast charge/discharge, safety and market prospect, etc.

**E3 – Electrochemical capacitors and renewable energy materials**

Electrochemical capacitors (i.e., “supercapacitors” or “ultracapacitors”) are emerging as an attractive energy-storage solution for new technologies with challenging power/energy requirements. The goal of this symposium is to address all aspects of electrochemical capacitor research, development, and real-world applications. They are: nanostructured materials including graphene, metal oxides, nitrides, other advanced inorganic materials, and conducting polymers; characterization and optimization of practical electrochemical capacitor components, new device designs (symmetric and asymmetric), and hybrid systems; theory and modelling as tools; and application tests of electrochemical capacitors in real-world conditions. Included are also renewable fuel and hydrogen production, electrochemical reduction of carbon dioxide, water splitting, and other electrochemical devices like electrolyzers, electrochemical hydrogen pumps, etc.

**E4 -- Fundamental electrochemistry**

This symposium will cover all aspects of the fundamental electrochemistry, electrochemical interfaces and new and in situ electrochemical characterization techniques related to energy storage,
energy conversion; cutting-edge researches of electrochemical science and technology. The fundamental phenomena related to the nano or mesoporous structured electrode and membrane materials are be covered. Developments in the new and smart carbon materials like graphene and their fundamental electrochemical and computational understanding will also welcome.

**E5 – Electric vehicles**

Meeting the Electric Vehicles challenge: cycle life, power & energy, cost and safety. The symposium covers all kind of electric vehicles including all-electric or battery electric vehicles (BEVs), plug-in hybrid vehicles, (PHEVs), and electric vehicle conversions of hybrid electric vehicles and conventional internal combustion engine vehicles. Materials and technologies related to improved car parts performance like fast charge/discharge batteries, auto lightweight technology, long-life oils, anti-fraction tyres.

**Conference Language**

The official language of the conference is English. The oral presentations and posters will be in English.

**Venue**

The conference will be held in the campus of the Guangxi University, [http://www.gxu.edu.cn/](http://www.gxu.edu.cn/)
Address: 100 Daxue Road, Nanning, 530004, China
Nanning is the capital city as well as the center of politics, economy, culture, education, technology, information and finance of Guangxi Zhuang Autonomous Region. The city exercises jurisdiction over five districts and two counties. With a total population of 2,945,600, Nanning covers an area or 10,029 square kilometers. On its east there are Guangdong province, Hong Kong and Macao; on its south there is Beibu Gulf.

Nanning is a green city, and is renowned for its green mountains and clear waters, fresh air, beautiful flowers blooming in every season and also for the aroma of melon and fruit around the city. The average temperature in November is around 16–24 °C. It has good ecological environment and investment environment. The administrative management here is highly efficient and incorruptible. It is an ideal city for investment, trade, meeting, exhibitions, tourism and residence.
Organizing Committee

Conference Chair

Yueyu Zhao, President, Guangxi University, China

Conference Co-Chairs

Xiang Na, Guangxi Association for Science and Technology, China
Haijun Wu, Jiangsu Heng Tai Furnace Co. Ltd., China

Hosted by

State Key Laboratory of Processing for Non-ferrous Metal and Featured Materials, Guangxi University, China
Collaborative Innovation Center of Sustainable Energy Materials, Guangxi University, China
Jiangsu Heng Tai Furnace Co. Ltd., China

Supported by

Guangxi Key Laboratory of Electrochemical Energy Materials, Guangxi University, China
Nanning Xixiu Technology Co. Ltd., China

International Advisory Board

Chairman

Prof. Douglas Macfarlane, Monash University, Australia

Members

Prof. Suddhasatwa Basu, Director, CSIR-Institute of Minerals & Materials Technology, India
Dr. Mei Cai, General Motors, USA
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Jun Chen</td>
<td>Nankai University, China</td>
</tr>
<tr>
<td>Prof. George Z. Chen</td>
<td>University of Nottingham, UK</td>
</tr>
<tr>
<td>Prof. Yi Cui</td>
<td>Stanford University, USA.</td>
</tr>
<tr>
<td>Prof. Jean-Pol Dodelet</td>
<td>Institute National de la Recherche Scientifique, Canada</td>
</tr>
<tr>
<td>Prof. Yury Gogotsi</td>
<td>Drexel University, USA</td>
</tr>
<tr>
<td>Dr. Xiangdong Huang</td>
<td>Guangzhou Automobile Group Co., Ltd, China</td>
</tr>
<tr>
<td>Prof. Yunhui Huang</td>
<td>Huazhong University of Science &amp; Technology, China</td>
</tr>
<tr>
<td>Prof. San Ping Jiang</td>
<td>Curtin University, Australia</td>
</tr>
<tr>
<td>Dr. Doo-Hwan Jung</td>
<td>Korea Institute of Energy Research, Korea</td>
</tr>
<tr>
<td>Prof. Hasuck Kim</td>
<td>Daegu Gyeongbuk Institute of Science and Technology, Korea.</td>
</tr>
<tr>
<td>Prof. Alessandro Lavacchi</td>
<td>Istituto di Chimica dei Composti OrganoMetallici–ICCOM, Italy</td>
</tr>
<tr>
<td>Prof. Huakun Liu</td>
<td>Wollonggong University, Australia</td>
</tr>
<tr>
<td>Prof. Meilin Liu</td>
<td>Georgia Institute of Technology, USA</td>
</tr>
<tr>
<td>Prof. Ru-Shi Liu</td>
<td>National Taiwan University, Taiwan</td>
</tr>
<tr>
<td>Prof. Chang Ming Li</td>
<td>Southwest University, China</td>
</tr>
<tr>
<td>Prof. Qingfeng Li</td>
<td>Technical University of Denmark, Denmark</td>
</tr>
<tr>
<td>Prof. Zifeng Ma</td>
<td>Shanghai JiaoTong University, China</td>
</tr>
<tr>
<td>Prof. Ken-Ichiro Ota</td>
<td>Yokohama National University, Japan</td>
</tr>
<tr>
<td>Prof. Brant A. Peppley</td>
<td>Queen’s University, Canada</td>
</tr>
<tr>
<td>Prof. Bruno G. Pollet</td>
<td>Norwegian University of Science and Technology (NTNU), Norway</td>
</tr>
<tr>
<td>Prof. Shizhang Qiao</td>
<td>University of Adelaide, Australia</td>
</tr>
<tr>
<td>Prof. Bob Slade</td>
<td>University of Surrey, UK</td>
</tr>
<tr>
<td>Prof. Gongquan Sun</td>
<td>Dalian Institute of Chemical Physics, CAS, China</td>
</tr>
<tr>
<td>Prof. Shigang Sun</td>
<td>Xiamen University, China</td>
</tr>
</tbody>
</table>
Prof. Panagiotis Tsiakaras, University of Thessaly, Greece.
Prof. Ulrich Stimming, University of Newcastle upon Tyne, UK
Prof. David P. Wilkinson, University of British Columbia, Canada
Prof. Chao-Yang Wang, Pennsylvania State University, USA
Prof. Zidong Wei, Chongqing University, China
Prof. Feng Wu, Beijing Institute of Technology, China
Prof. Changfeng Yan, Guangzhou Institute of Energy, CAS, China
Prof. Siyu Ye, Ballard Power Systems, Canada
Dr. Piotr Zelenay, Los Alamos National Laboratory, USA
Prof. Haiyan Zhang, Guangdong University of Technology, China
Prof. Huamin Zhang, Dalian Institute of Chemical Physics, CAS, China
Prof. Tim S. Zhao, Hong Kong University of Science & Technology, Hong Kong, China
Prof. Chuan-Jian Zhong, State University of New York at Binghamton, USA.
Prof. Lin Zhuang, Wuhan University, China
Prof. Zhigang Zou, Nanjing University, China

Local Organizing Committee

Chairman

Pei Kang Shen, Guangxi University, China

Members

Qingyu Li, Guangxi Normal University
Haiyan Zhang, Guangdong University of Technology
Lixian Sun, Guilin University of Electronic Technology
Fei Long       Guilin University of Technology
Haijun Wu      Jiangsu Heng Tai Furnace Co. Ltd.
Qidong Zhu     Guangxi Association for Science and Technology
Liang Ye       Guangxi University
Yanyun Luo     Guangxi University
Lin Luo        Guangxi University
Jin Guo        Guangxi University
Yuezhou Wei    Guangxi University
Zhixin Yin     Guangxi University
Yunyu Yu       Guangxi University
Huadong Qin    Guangxi University
Zhenjiang Yan  Guangxi University
Xiuyu Qin      Guangxi University
Quanlun Qin    Guangxi University
Jiajun Li      Guangxi University
Haibo Huang    Guangxi University
Shibin Yin     Guangxi University
Xinyi Zhang    Guangxi University
Jinliang Zhu   Guangxi University
Lizhe Liang    Guangxi University
Shuangbao Wang Guangxi University

Secretariat
Zhiqun Tian    Guangxi University, China
E-mail: tianzhiqun@gxu.edu.cn; Mobile: +86-18376650355

Call for Papers

Abstract submission is currently open for both oral and poster presentations. Please use the template as shown below and limited to one page:
Invited and contributed papers will be presented in either oral or poster sessions. One-page abstracts for the symposium must be submitted electronically by November 15th, 2018 via tianzhiqun@gxu.edu.cn.

For the invited speakers, as a token of appreciation, the organizing committee will give the speaker an honorarium.

**Important Days**

- Abstract Submission Close: November 15th, 2018
- Notification of Abstract Acceptance: November 20th, 2018
- Conference Beginning: November 30th, 2018
- Book Chapter Submission Close: March 30th, 2019
Confirmed Plenary Speakers

Prof. Yong Gan

Chinese Academy Engineering, China

Yong Gan, professor-level senior engineer, metallurgical material expert, academician of Chinese Academy of Engineering (2001), doctoral tutor. Since 1994, he has been the director of the National Engineering Research Center for Continuous Casting Technology. Since April 2001, he has served as the president of the Iron and Steel Research Institute. He is also the president of China Rare Earth Industry Association and the Chairman of China Metal Society. In 2002, he was elected as a representative of the 16th National Congress of the Communist Party of China and a member of the Presidium. In 2007, he was elected as the representative of the 17th CPC National Congress. In June 2010, he was elected as the vice president of the Chinese Academy of Engineering. He is currently a member of the 12th National Committee of the Chinese People's Political Consultative Conference and deputy director of the Population, Resources and Environment Committee, and the director of the National New Materials Industry Development Expert Advisory Committee.

Academician Yong Gan has been engaged in metallurgy, new materials and modern steel process technology research for a long time. He is one of the academic leaders of materials, metallurgy and modern steel processes in China. He has won 2 second prizes of National Science and Technology Progress Award and 5 first prizes of provincial and ministerial level scientific and technological progress. He has obtained 24 patents, including 15 invention patents, published more than 140 papers and published 3 books. Academician Yong Gan is a young and middle-aged expert with outstanding contributions at the national level. He was awarded the title of “National Advanced Worker” by the national “Eighth Five-Year Plan” for scientific and technological research and the “National Outstanding Contributor” of the National “Ninth Five-Year Plan”. He has presided over the research work of the National Eleventh Five-Year Major Support Project “New Generation Recyclable Steel Process Technology”, and served as the Chairman of the Steel Industry Technology Innovation Strategy Alliance and the National “Key New Materials R&D and Engineering” Major Engineering Program Expert Group The leader of the group, the chairman of the China Association for Science and Technology Advanced Materials Association, and the National Science and Technology Innovation 2030 Major Project - the team leader of the "Key New Materials R&D and Application".
Title: Operando Methods for The Study of Energy Materials

Abstract: This presentation will deal with the development of operando methods for the study and characterization of fuel cell and battery materials. The presentation will begin with a brief overview of the methods employed. Particular emphasis will be placed on the use of X-ray diffraction (XRD), X-ray absorption spectroscopy (XAS) X-ray microscopy and tomography and transmission electron microscopy (TEM) under active potential control. The utility of these methods will be illustrated by selected examples including electrocatalysts for the oxygen reduction reaction and spectroscopic studies of Li/S batteries and Li metal deposition and dendritic growth. The use of operando TEM will be illustrated by studies of fuel cell catalyst degradation and coalescence and lithiation/de-lithiation dynamics of LiFePO4 via energy-filtered TEM. The presentation will conclude with an assessment of future directions.
Abstract: In this lecture we will review recent development of platinum group metal-free (PGM-free) electrocatalysts for oxygen reduction reaction at Los Alamos National Laboratory (LANL). This effort is an integral part of Electrocatalysis Consortium (ElectroCat), one of several consortia comprising DOE-EERE’s Energy Materials Network (EMN). The primary objective of this research is to develop and implement PGM-free catalysts and electrodes by streamlining access to unique synthesis and characterization tools across the U.S. national laboratory system and continuous development of new capabilities. PGM-free research at LANL aims specifically at improving ORR active-site density through the development of new catalysts and advanced electrodes to improve mass transport of oxygen and product water, and to enhance ionic conductivity within the catalyst layer. In general, the approach focuses on fundamental understanding of the origins of the ORR activity in PGM-free catalysts and on the structure and composition of active sites as prerequisites for the rational design of future catalysts with significantly improved activity and performance durability.

We will present latest accomplishments in the development of atomically dispersed and partially nanoparticulate PGM-free catalysts at Los Alamos and methods for identifying and quantifying the ORR active sites and also for assessing the main causes of insufficient durability of the state-of-the-art M-N-C catalysts obtained via the high-temperature approach. The results from both experiment and modeling will be presented, emphasizing complementary character of the two approaches. We will also summarize the results from in situ and ex situ characterization studies, which target molecular-level insight into PGM-free catalysts. In this part of the presentation, we will
concentrate in particular on microscopic and x-ray absorption spectroscopic methods, with their capabilities recently enhanced by the implementation of molecular probes of possible ORR active sites, directly on the catalyst surface, such as nitric oxide (NO) and nitrite anion (NO2-). This approach, pursued in close collaboration with LANL’s ElectroCat partners, allows to make otherwise bulk techniques surface-specific.

We will conclude this presentation with a review of the biggest challenges facing PGM-free electrocatalysis for oxygen reduction, including (i) still unsatisfactory activity and durability of catalysts (especially those derived from metal organic frameworks), (ii) inadequate understanding of the catalyst and electrode degradation mechanism, (iii) risks of (over)relying on Fe-based formulations, and (iv) ultimate integration of PGM-free materials with existing automotive fuel cell stack and system technologies.
Abstract: Electrocatalyst is the key in developing electrochemical energy conversion and storage, and in green chemistry of electrosynthesis using electrons as reagents. The activity, selectivity and stability of electrocatalysts depend strongly on both their bulk and surface structures. Therefore, the rational design and control-synthesis of electrocatalysts are the central subjects and are mainly based on a well understanding in structure-catalytic functionality, which was achieved in the past through employing metal single crystal planes as model catalysts. Since practical electrocatalysts often consist of nanosize particles substrated on conductive support materials, design and control-synthesis of nanosize catalysts present effective strategy to overcome the gap between single crystal model catalysts and practical catalysts. This communication describes results focusing on structure design and control-synthesis of both anode and cathode catalysts towards fuel cell applications.

(1) Tuning the surface atomic arrangement of well-defined metal nanocatalysts. Well-defined Pt, Pd, Rh and Cu nanocrystals enclosed by high-index facets have been successfully obtained by developing electrochemically shape-controlled synthesis, such as tetrahexahedral nanocrystals (THH NCs) enclosed with \{hk0\} high-index facets, trapezohedral nanocrystals (TPH NCs) with \{hkk\} high-index facets, triambic icosahedral nanocrystals (TIH NCs) with \{hhl\} high-index facets and hexoctahedral Pt NCs (HOH NCs) with \{hkl\} facets. As the high-index facets contain a high density of active centers, these NCs of high surface energy exhibit much higher electrocatalytic activity than commercial catalysts for small organic fuel oxidation reactions.

(2) Tuning the electronic structure of Pt- and Pd-based nanocatalysts. The electronic structure of NCs catalysts has been tuned either by surface decoration using foreign adatoms, or through alloying Pt and Pd with other metals. Different adatoms such as Bi, Ru and Au were used to decorate the THH Pt NCs, and both THH and TPH Pt-based alloy nanocatalysts were prepared by electrochemically shape-controlled method. The THH and TPH alloy NCs preserve the high-index facets while hold a synergy of electronic effect that enhances further the electrocatalytic activity.

(3) Synthesis of non-precious metal electrocatalysts with high ORR activity. Fe/N/C is a promising electrocatalyst for oxygen reduction reaction (ORR). By well-screening the precursors, optimizing the synthetic procedures and surface decoration, the resulted Fe/N/C exhibits high activity and stability in both acid and alkaline conditions. The results demonstrated that the Fe/N/C-SCN catalysts in a proton exchange membrane fuel cell (PEMFC) can output a maximum power density
of 1.03 W cm², and by using 2-aminothiazole as precursor the synthesized S-doped Fe/N/C catalyst with graphene nanosheets can yield a peak power density of 164 mW cm² in an anion exchange membrane fuel cell (AEMFC).

Acknowledgements. The studies were supported by the National Key Research and Development Program of China (2017YFA0206500) and the National Science Foundation of China (21621091, 21573183, and 21703184)

References:
Abstract: The concept of using solar energy to solve the global energy and environmental problems are has been intensified from the standpoints to a technological assessment, since the energy and environmental issues in a global level are important themes tackled in the 21st century. The mass consumption of fossil fuels after 20th century has produced negative properties in future such as the exhaustion of petroleum resources and the contamination of environment. In order to continue the global human life, it is very important to exploit new clean energy resources instead of fossil fuels without heavy burden to energy and environment. Exactly the solar energy conversion satisfies above conditions. In this talk, we will introduce advance and development of the solar energy conversion research in our group and the relative research project.

Keywords: Photocatalys, solar fuel, solar energy conversion
Confirmed Keynote Speakers

Prof. Suddhasatwa Basu, Director, CSIR-Institute of Minerals & Materials Technology, India
Prof. Alessandro Lavacchi, Istituto di Chimica dei Composti OrganoMetallici–ICCOM, Italy
Prof. Bob Slade, University of Surrey, UK
Prof. Changfeng Yan Guangzhou Institute of Energy, CAS, China
Prof. Chuan-Jian Zhong State University of New York at Binghamton, USA
Prof. Haitao Huang Hong Kong Polytechnic University, Hong Kong
Prof. Haiyan Zhang Guangdong University of Technology, China
Prof. Hasuck Kim, Daegu Gyeongbuk Institute of Science and Technology, Korea
Prof. Huamin Zhang, Dalian Institute of Chemical Physics, CAS, China
Prof. Jinli Qiao Donghua University, China
Prof. Kenichiro Ota Yokohama National University, Japan
Prof. Meilin Liu, Georgia Institute of Technology, USA
Prof. Panagiotis Tsiakaras University of Thessaly, Greece
Prof. Hui Yang Shanghai Institute of Advanced Study, CAS, China
Prof. Liqiang Mai Wuhan University of Technology, China
Prof. Qiang Zhang Tsinghua University, China
Prof. Shichun Mu Wuhan University of Technology, China
Prof. Shuangyin Wang Hunan University, China
Prof. Yanxia Jiang Xiamen University, China
Prof. Ru-Shi Liu, National Taiwan University, Taiwan
Prof. San Ping Jiang Curtin University, Australia
Prof. Yunhui Huang Huazhong University of Science & Technology, China
Prof. Zhongfang Li Shandong University of Technology, China
Prof. Zidong Wei, Chongqing University, China
Prof. Zongping Shao, Curtin University, Australia
Important Information

Presentations can be oral or poster.

The one-page abstract should be sent to tianzhiqun@gxu.edu.cn by November 15th, 2018.

All the articles should be sent to tianzhiqun@gxu.edu.cn. Any technical questions please contact Prof. Pei Kang Shen (pkshen@gxu.edu.cn).

Sponsors/Exhibitors

As a valued sponsor in The International Conference on Advances and Applications of Innovative Energy Materials (AAIEM2018), your organization will receive the following benefits:

Contact the world’s top leaders in Clean Energy policy, business and technology; Increase market exposure; Introduce you to prospective clients; Promote your products or service to end users, purchasers, consumers, suppliers, etc.

We will have specific programs to fit individual needs by working with our partners to get a clear understanding of their business objectives. For more information, please feel free to contact us.

AAIEM2018 Sponsorship Program

一、Diamond Sponsors (≥US$20,000) :

(1) As the diamond sponsor of this conference and the co-organizer of the conference. The company's LOGO will be appeared at the meeting’s promotional materials.

(2) 20 minutes promote speech.

(3) One person serves as a member of the Organizing Committee.

(4) Promotional videos provided by sponsor during the conference and the breaks in the venue (VCD / DVD, within 5 minutes).

(5) One color page in brochures for interstitial advertising (provided by the sponsor).
(6) Two exhibition tables (about 1.5 m long) and power supply board for product and picture display.

(7) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(8) Free of registration fee for 4 people and Conference titular.

二、Platinum Sponsors (≥US$10,000):

(1) As the platinum sponsor of this conference and the co-organizer of the conference. The company's LOGO will be appeared at the meeting's promotional materials.

(9) One color page in brochures for interstitial advertising. (provided by the sponsor).

(2) Two exhibition tables (about 1.5 m long) and power supply board for product and picture display.

(3) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(4) Free of registration fee for 2 people, and conference titular.

三、Gold Sponsors (≥US$5,000):

(1) As the gold sponsor of this conference. The company's LOGO will be appeared at the meeting's promotional materials.

(2) One color page in brochures for interstitial advertising. (provided by the sponsor).

(3) Two exhibition tables (about 1.5 m long) and power supply board for product and picture display.

(4) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(5) Free of registration fee for 1 people, and conference titular.

四、Exhibition (≥US$2,500):

(1) As the sponsor of this conference. The company's LOGO will be appeared at the meeting's promotional materials.

(2) One exhibition tables (about 1.5 m long) and power supply board for product and picture display.

(3) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(4) Free of registration fee for 1 people.

五、Dinner Sponsorship (≥US$15,000):


(1) As the sponsor of the conference dinner and the co-organizer of the conference. The company's LOGO will be appeared at the meeting's promotional materials.

(2) 20 minutes promote speech.

(3) One person serves as a member of the Organizing Committee.

(4) Promotional videos provided by sponsor before dinner (VCD / DVD, within 5 minutes).

(5) One color page in brochures for interstitial advertising (provided by the sponsor).

(6) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(7) Two exhibition tables (about 1.5 m long) and power supply board for product and picture display

(8) Free of registration fee for 4 people, and conference titular.

(9) The person in charge of the company could give a speech at the dinner, and the dinner will be named by the company’s name.

六、Venue Advertising (≥US$10,000) :

(1) As the sponsor of this conference. The company's LOGO will be appeared at the meeting's promotional materials.

(2) One person serves as a member of the Organizing Committee.

(3) One color page in brochures for interstitial advertising (provided by the sponsor).

(4) Two exhibition tables (about 1.5 m long) and power supply board for product and picture display.

(5) A 4m x 6m billboard in the main venue.

(6) Two company’s Yi Labao at conference venue. (provided by the sponsor).

(7) Free of registration fee for 4 people.

七、Color Promotional Advertising in conference book

<table>
<thead>
<tr>
<th>Cover:</th>
<th>¥ 12000</th>
<th>Back Over:</th>
<th>¥ 10000</th>
<th>Title Page 1:</th>
<th>¥ 8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover 2:</td>
<td>¥ 8000</td>
<td>Cover 3:</td>
<td>¥ 6000</td>
<td>Color Inset:</td>
<td>¥ 5000</td>
</tr>
</tbody>
</table>

八、Bags and Volunteer Clothes Sponsorship (≥US$5,000) :

(1) One side is the company’s advertisement other side is the logo of the conference on the bags.

(2) The company's LOGO will be appeared at the meeting's promotional materials.

(3) Free of registration fee for 1 people.
九、Badges and Lanyard Ads（≥US$2,500）:

(1) Card advertising of the participate in the conference（100mm×130mm）.
(2) Free of registration fee for 1 people.

Any questions please contact:
Prof. Shibin Yin
Tel. 13207719409
E-mail: yinshibin@gxu.edu.cn

Registration, support and exhibition fees can be paid to

**Beneficiary**: GUANGXI UNIVERSITY

**Account number**: 618457484938

**Bank**: Bank of China, Nanning Branch, Sub-branch of Guangxi University

**Bank address**: 100 Daxue Road, Nanning, 530005, P.R. China

**Swift code**: BKCHCNBJ480

All participates reserve rooms, please contacting **Prof. Xinyi Zhang via zhangxinyi@gxu.edu.cn** in advance.

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Hotel Name</th>
<th>Room Type</th>
<th>Days</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hotel information**

1, Landmark Hotel
星级：五星  
Hotel rating: 5-star

地址：南宁市大学东路 118 号（雅诗特酒店旁）  
Address: 118 Daxue Road, Nanning (Beside the Yashite Hotel)

酒店联系电话：  
Tel: +86-771-2336888

100 meters away from the Guangxi Univ. Entrance

<table>
<thead>
<tr>
<th>Room types</th>
<th>Retail Price / Yuan (Free breakfast for two)</th>
<th>Conference Price /Yuan (Free breakfast for two)</th>
</tr>
</thead>
<tbody>
<tr>
<td>豪华双床房</td>
<td>478</td>
<td>458</td>
</tr>
<tr>
<td>Deluxe Twin Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>豪华大床房</td>
<td>488</td>
<td>470</td>
</tr>
<tr>
<td>Deluxe King Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>时尚大床房</td>
<td>528</td>
<td>500</td>
</tr>
<tr>
<td>Fashion King Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>尊荣大床房</td>
<td>598</td>
<td>588</td>
</tr>
<tr>
<td>Super King Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>商务套房</td>
<td>678</td>
<td>668</td>
</tr>
<tr>
<td>Business Suite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>佩纳宫（行政套房）</td>
<td>838</td>
<td>795</td>
</tr>
<tr>
<td>Palacio da pena</td>
<td></td>
<td></td>
</tr>
<tr>
<td>浦屏宫（情侣套房）</td>
<td>938</td>
<td>800</td>
</tr>
<tr>
<td>Phu ping palace</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. 广西大学荟萃楼

Gathering House, Guangxi University

<table>
<thead>
<tr>
<th>地址：广西大学西校园新闻学院北面</th>
<th>联系电话：暂无</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: North of the School of Journalism, Western Campus, Guangxi University</td>
<td>Telephone (not available yet)</td>
</tr>
</tbody>
</table>

酒店房型资料

Information of the hotel rooms

<table>
<thead>
<tr>
<th>房型</th>
<th>门市价/元</th>
<th>会议优惠价/元</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Retail Price / Yuan</td>
<td>Conference Price /Yuan</td>
</tr>
<tr>
<td></td>
<td>(Free breakfast for two)</td>
<td>(Free breakfast for two)</td>
</tr>
<tr>
<td>单人房</td>
<td>/</td>
<td>288（含双早）</td>
</tr>
<tr>
<td>Single room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>双床房</td>
<td>/</td>
<td>288（含双早）</td>
</tr>
<tr>
<td>Twin room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. 拜伦酒店

地址：南宁市大学东路 106 号（广西大学正门旁）

酒店联系电话：
0771-2212208/2796999

30 meters away from the Guangxi Univ. Entrance

### 酒店房型资料

<table>
<thead>
<tr>
<th>Room types</th>
<th>Retail Price / Yuan (Free breakfast for two)</th>
<th>Conference Price /Yuan (Free breakfast for two)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Large Bed Room</td>
<td>199</td>
<td>185</td>
</tr>
<tr>
<td>Standard Double Bed Room</td>
<td>199</td>
<td>185</td>
</tr>
<tr>
<td>Room Type</td>
<td>Number 1</td>
<td>Number 2</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Deluxe King Room</td>
<td>219</td>
<td>210</td>
</tr>
<tr>
<td>Deluxe Twin Room</td>
<td>219</td>
<td>210</td>
</tr>
<tr>
<td>Family Twin Room</td>
<td>239</td>
<td>220</td>
</tr>
</tbody>
</table>
4. 嘉悦大酒店

<table>
<thead>
<tr>
<th>Room types</th>
<th>Retail Price / Yuan (Free breakfast for two)</th>
<th>Conference Price /Yuan (Free breakfast for two)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deluxe King Room</td>
<td>229</td>
<td>219</td>
</tr>
<tr>
<td>Deluxe Twin Room</td>
<td>239</td>
<td>224</td>
</tr>
<tr>
<td>Deluxe Business Room</td>
<td>249</td>
<td>240</td>
</tr>
<tr>
<td>Fashion King Room</td>
<td>299</td>
<td>289</td>
</tr>
<tr>
<td>休闲麻将房</td>
<td>319</td>
<td>309</td>
</tr>
</tbody>
</table>

地址：南宁市大学东路 105 号（广西大学正门旁）
电话 0771-2336363

距离广西大学校门 30 米
30 meters away from the Guangxi Univ. Entrance
## Registration Fee*

<table>
<thead>
<tr>
<th>Category</th>
<th>Registration Fee / USD$ or RMB ¥</th>
<th>Registration Fee / USD$ or RMB ¥</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Early Registration</td>
<td>Late Registration</td>
</tr>
<tr>
<td></td>
<td>Before October 20th, 2018</td>
<td>After October 20th, 2018</td>
</tr>
<tr>
<td>Standard</td>
<td>$400 or ¥ 2400</td>
<td>$500 or ¥ 3000</td>
</tr>
<tr>
<td>Student</td>
<td>$200 or ¥ 1200</td>
<td>$300 or ¥ 1800</td>
</tr>
<tr>
<td>Single Day</td>
<td>$200 or ¥ 1200</td>
<td>$200 or ¥ 1200</td>
</tr>
<tr>
<td>Banquet</td>
<td>$50 or ¥ 300</td>
<td>$50 or ¥ 300</td>
</tr>
</tbody>
</table>

* Please mark “AAIEM2018” in the postscript and inform Secretariat via E-mail: tianzhiqun@gxu.edu.cn.

## Registration Form

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Age, √</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>≤35</td>
</tr>
<tr>
<td>Affiliation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fee / USD$RMB ¥</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banquet / $50/ ¥ 300 (Registered, free) √</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-mail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tel.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symposium No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstract Title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-day Sino-Vietnam Border Tour—4/12/2018 (Free of charge)</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
</tbody>
</table>
* Age less than 35 is as young people.

** Please submit the filled form before October 20th, 2018 to Prof. Zhiqun Tian. E-mail: tianzhiqun@gxu.edu.cn.

*** Any participant can pay early-bird fee in cash on site if registered before October 20th, 2018.

## Tentative Program

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/11/2018</td>
<td>Registration at Landmark Hotel, 118 Daxue Road, Xixiangtang Region, Nanning</td>
<td>Reception starts at 6:30 pm.</td>
</tr>
<tr>
<td></td>
<td>Reception</td>
<td></td>
</tr>
<tr>
<td>1/12/2018</td>
<td>Conference Opening</td>
<td>Six Plenary Lectures</td>
</tr>
<tr>
<td></td>
<td>Plenary Lecture</td>
<td>Forty Keynote Talks</td>
</tr>
<tr>
<td></td>
<td>Oral Presentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poster Exhibition</td>
<td></td>
</tr>
<tr>
<td>2/12/2018</td>
<td>Plenary Lecture</td>
<td>Banquet starts at 6:30 pm.</td>
</tr>
<tr>
<td></td>
<td>Oral Presentation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poster Exhibition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Banquet</td>
<td></td>
</tr>
<tr>
<td>3/12/2018</td>
<td>Oral Presentation</td>
<td>Twenty Best Paper Award (Oral and poster)</td>
</tr>
<tr>
<td></td>
<td>Poster Exhibition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conference Closing</td>
<td></td>
</tr>
<tr>
<td>4/12/2018</td>
<td>One-day Sino-Vietnam Border Tour</td>
<td>Free of Charge for All Participants</td>
</tr>
</tbody>
</table>
Host

Guangxi University

Guangxi Association for Science and Technology

Confirmed Sponsors

Diamond Sponsors:

Jiangsu Hengtai Furnace Co. Ltd.
Platinum Sponsors:

江苏建亚环保科技股份有限公司
Jiangsu Jianya Environmental Science & Technology Co., Ltd

Gold Sponsors:

Guangxi Mingzhihe Laboratory Equipment Co., Ltd.
Beihai Sence Carbon Materials Technology Co., Ltd
Ke Yang (Shanghai) Co., Ltd
Wuhan Zhi Hai Technology Co., Ltd.

Other sponsors:

Tianjin Brillante Technology Limited
Phychemi (Hong Kong) Company Limited

Neware Technology Limited

Kunshan Sunlaite New Energy Technology Co., Ltd.

Guangzhou Perfect Scientific Instrument Co., Ltd.

Wuhan LAND Electronic Co., Ltd

RED Matrix China Ltd.

Micromeritics Instrument (Shanghai) Ltd.

NETZSCH Geraetebau GmbH

Lanzhou Dahe Building Material and Chemicals Co., Ltd