Dear colleagues,

It is our pleasure and honor to welcome you to the 19th International Symposium on Small Particles and Inorganic Clusters (ISSPIC XIX) in Hangzhou. The Local Organizing Committee hopes that your visit will be both pleasant and fruitful.

This is the final circular before the meeting starts on August 12, 2018 and contains important information for your travel and arrival, as well as the agenda and final program of the conference.

Min Han & Lai-Sheng Wang
General Information
This Final Announcement is being sent to all registered participants as well as those who have sent us an abstract by email. It contains information necessary for those taking part in the 19th ISSPIC and should be read carefully.

The ISSPIC conference has been held every two years between America, Asia, and Europe since 1976 and covers the latest advances and applications of cluster science, nanoparticles, nanomaterials, and nanotechnology. The 19th conference will be held in the new business and civic center of Hangzhou city, located near the Qiantang River. It is now 42 years since the first ISSPIC conference was held in Lyon in 1976. The 19th conference arrangements are being prepared by the Local Organizing Committee (LOC) in cooperation with Zhejiang Normal University and Nanjing University with support from the National Natural Science Foundation, the Ministry of Education of China, Hangzhou Institute of Advanced Studies, National Laboratory of Solid State Microstructures, as well as the City of Hangzhou and Zhejiang Province.

The scientific program of ISSPIC-19 consists of 22 invited talks, 2 invited memorial lectures, 1 summary talk, 38 hot topic talks and more than 150 poster presentations. The conference program and further details on local transportation, accommodation as well as social program are available on the conference website: http://www.isspic19.com/

Conference Date and Location
ISSPIC-19 is taking place officially from Monday, August 13 at 8:00 am and ends on Friday, August 17 at 12:00 am.
The conference venue, Hangzhou International Conference Center (HICC), is located in the InterContinental hotel. The golden ball appearance is now a landmark of Hangzhou. Details such as locations of the conference sites and map of the nearby area can be found at the conference website.

Equipment
The lecture hall will be equipped with a LED screen for computer presentation. A personal computer operating with Microsoft Windows and equipped with Microsoft PowerPoint will be available for the oral presentations.

Book of abstracts and program booklet
A book of abstract and a booklet containing the conference program and some practical information will be found in your conference bag upon arrival and registration. Book of abstract will also be available electronically (pdf format) online. It can be downloaded at this page:

Registration and Information Desk
The registration and information desk is located on the ground floor of the InterContinental hotel. Here you will be able to finalize your registration, get information and your conference bag. The desk will be open for service to all participants from 12:00-22:00 on Sunday, August 12 and from 8:00-16:00 on the subsequent days (except the afternoon of Wednesday, August 15).
Internet Services
Wi-fi access will be provided at the conference sites. Details about these services will be given at the conference.

Please Note: The accesses to Google and Facebook are screened in China. This message is especially important for people who use Gmail. Since Gmail does not work in China, people who use Gmail are advised to setup another mail account, such as Yahoo account, and forward all your emails to that account during your travel in China.

Scientific Program
The scientific program consists of invited talks, hot topic oral presentations and poster presentations. The daily scientific program, along with the titles and names of the invited and hot topic speakers can be found on the conference website.

The daily scientific program is also given in this Announcement.

Invited Lectures
Invited talks are 30 minutes lecture plus 10 minutes for discussion. The hot topic presentations are 15 minutes lecture plus 5 minutes for discussion.

Poster sessions
Please prepare your poster within the following measurements 90 x 140 cm (Portrait). Pins and adhesive tapes will be available on site to display your poster.

The poster boards are numbered. Look for the number of the poster board matching the number of your poster in the program.

There will be two sessions for presentations, session A on Tuesday evening and session B on Thursday evening. All the posters for session A can be put up starting 8:00 am Tuesday Aug 14th and displayed through the night. They need to be taken down before Wednesday night. All the posters for session B can be put up starting 8:00 am Thursday Aug 16th. All posters need to be taken down immediately after poster session B on Thursday night.

Social Events
The organizer invites all participants and accompanying persons to take part in the following social events.

Welcome Reception:
All participants and accompanying persons are invited to attend a welcome reception to be held on Sunday evening, August 13, starting at 18:00 in the Wochinger German Restaurant inside InterContinental Hotel.

Conference Excursions:
A half-day excursion is offered to participants of ISSPIC-19 and accompanying persons, on Wednesday, August 15. The excursion will be a guided tour around the beautiful West Lake. We plan to first take a panoramic view of Hangzhou city, as well as the West Lake from the City God Pavilion on
the Wu Hill, followed with a visit to some museums and parks that locate around the Solitary Hill and Bai Causeway, and end with a boat cruise over the West Lake.

Conference Banquet:
The conference banquet will be held on Wednesday evening, August 15, following the excursion, at the West Lake Grand Ballroom of Hangzhou Shangri-La Hotel from 18:30 to 21:00. The banquet hall is a short walk from the lakeshore boat stop after the West Lake boat cruise.

Accompanying Persons’ Program
The accompanying persons will enjoy all the social events of the full registrants: opening reception on Sunday evening, conference excursion on Wednesday afternoon, conference banquet on Wednesday evening, and lunches.
In addition, three excursions are scheduled for accompanying persons. Accompanying persons can subscribe for these excursions by sending an email to isspic19@isspic19.com. The details of the scheduled excursions are available at:
http://www.isspic19.com/program/accompanying-persons

Transfers
Arriving by Plane:
Participants coming by air to China will probably arrive in Shanghai. Hangzhou is easily accessible by high-speed rail or Shuttle from Shanghai. There are many high-speed trains between Shanghai and Hangzhou (almost every 15 min.). Shuttle buses from Shanghai Pudong International Airport(PVG) to the conference venue will be arranged by the conference organizer at 13:00, 16:00, 18:20, 20:00 and 22:00 on Aug. 12, 2018.
Shuttle buses from the conference venue to Shanghai Pudong International Airport (PVG) will be arranged by the conference organizer at 13:00 and 16:00 on Aug. 17, 2018.
Those who have booked a seat on one of our shuttle buses should proceed to terminal T1. Look for a person from our local organization, holding an “ISSPIC” sign and wearing a T-shirt with the ISSPIC-19 logo, close to the exit of the international arrival gate. He/she will show you where the bus platform is located (it is close to the exit from terminal T1).
If your flight arrives at terminal T2 and you claim your baggage there, you can walk inside the building (about 400m) to terminal T1. Also, close to the exit of international arrival gate of terminal T2, there will be a person from our local organization, holding an “ISSPIC” sign and wearing a T-shirt with the ISSPIC-19 logo.
After the buses arrive in Hangzhou, you will be delivered to the conference hotels. Please make sure to remind the driver about your hotels.
In case you have emergency or trouble with flight delays, our staff can be contacted at this number: +86-13851638452.

Participants may also come by air directly to Hangzhou International Airport. It is straightforward to take a taxi from the airport to the conference venue or your hotel. The taxi station for airport passengers is outside Gate 4 and Gate 10 at the domestic arrival.
For more details, please refer to:
http://www.isspic19.com/information/access-to-the-venue

Weather
While it is still too early to predict accurately the weather for the conference week, the daily temperatures should be in the range of 28 – 36°C and down to 25 – 30°C during nights. Some rain showers are possible.
Monday, August 13

8:00 Opening

**Session I** (Session chair: Xueming Yang)
8:20 – 9:00 Daniel Neumark Spectroscopy of Metal and Metal Oxide Clusters using Slow Electron Velocity-Map Imaging of Cryogenically Cooled Anions
9:00 – 9:40 Manfred Kappes Photoluminescent Metal-Containing Ions
9:40 – 10:00 Ling Jiang Dalian Coherent Light Source-Based Infrared Spectroscopy of Neutral Clusters

10:00 – 10:30 Break

**Session II** (Session chair: Guanghou Wang)
10:30 – 11:10 Kehui Wu Two-Dimensional Boron Sheets
11:10 – 11:30 María J. López Manipulating the Magnetic Moment of Graphene-Supported Palladium Clusters by Adsorption of Hydrogen
11:30 – 11:50 Andre Fielicke Probing the Structures of Gas-Phase Boron Clusters Using Size-Selective IR Spectroscopy
11:50 – 12:10 Jijun Zhao Ab Initio Global Search of Pure and Metal-Doped Boron Clusters

12:10 – 13:30 Lunch

**Session III** (Session chair: Julio Alonso)
13:30 – 14:10 Ulrich Heiz When Not only Each Atom Counts!
14:10 – 14:50 Jun Li From Single-Atom Catalysis (SAC) to Single-Cluster Catalysis (SCC)
14:50 – 15:10 Xiao-Peng Xing Activation and Reactions of Small Molecules (O₂, NO, CO, C₂H₄, etc.) on IB Group (Cu, Ag, and Au) Metal Clusters

15:30 – 16:00 Break

**Session IV** (Session chair: Chuan-Gang Ning)
16:00 – 16:40 Stuard Mackenzie Infrared and Velocity-Map Imaging Studies of Decorated Metal Clusters and Metal-Ligand Complexes
16:40 – 17:20 Mingfei Zhou Infrared Spectroscopy of Donor-Acceptor Bonding Carbonyl Complexes
17:20 – 17:40 Piero Ferrari The Effect of Radiative Cooling on the Size-Dependent Stability of Small Boron Clusters
17:40 – 18:00 Motoyoshi Nakano Bilayer Fullerenes Studied by Ion Mobility Mass Spectrometry

Tuesday, August 14

**Session V** (Session chair: Ignacio Garzon)
8:00 – 8:40 Younan Xia Gold Nanocages: A Multifunctional Platform for Nanomedicine and Beyond
8:40 – 9:20 Xiaogang Peng Control of Photo- and Electro-Generated Excited States of Colloidal Quantum Dots
9:20 – 9:40 Takane Imaoka Toward Programmable Synthesis of Atom-precise and Multimetallic Clusters
9:40 – 10:00 Hanshi Hu Cubic Aromaticity from Multicenter-Bonded [MI]₈(M = Zn, Mn) Cluster

10:00 – 10:30 Break Conference Photo

**Session VI** (Session chair: Si-Dian Li)
10:30 – 11:10 Francesca Baletto How Shape Changes Alter Physico-Chemical Properties of Nanoparticles
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<thead>
<tr>
<th>Time</th>
<th>Name</th>
<th>Title</th>
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<tr>
<td>11:10 – 11:30</td>
<td>Claude Henry</td>
<td>Molecular Beam Study of the CO Oxidation on Regular Arrays of Pd Clusters</td>
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<td>11:30 – 11:50</td>
<td>Daojian Cheng</td>
<td>High Throughput and Rational Design of Transition Metal Cluster Catalyst</td>
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<td>11:50 – 12:10</td>
<td>Dong Qin</td>
<td>Enriching Silver Nanocrystals with a Second Noble Metal</td>
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<td>12:10 – 12:30</td>
<td>Lunch</td>
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Thursday, August 16

**Session XI**  (Session chair: Hannu Häkkinen)
8:00 – 8:40  Katsuaki Konishi  Ligand-Protected Clusters Beyond Nano: From Molecules to Assemblies
8:40 – 9:20  Haoshen Zhou  New Nanomaterials for Energy storage
9:20 – 9:40  Giovanni Salassa  Mechanism of Chirality Transfer from the Gold Surface to the Thiolate Monolayer in Au$_{36}$(SR)$_{24}$ Cluster
9:40 – 10:00  Robert Whetten  Discovery of Chiral Golden Fullerenes: I–Z60
10:00 – 10:30  **Break**

**Session XII**  (Session chair: La-Sheng Long)
10:30 – 11:10  Ron Naaman  Molecular Chirality and the Electron’s Spin- The Ultimate Nano Spintronics
11:10 – 11:30  Shifeng Zhao  Giant MagnetoElectric Effect in Pseudo 1–3 Heterostructural Films with FeGa Nanocluster-Assembled Micron Scale Discs Embedded into Bi$_2$Ti$_2$FeO$_{15}$ Matrices
11:30 – 11:50  Matthias Hillenkamp  Interface and Local Environment Dominate Plasmonic Quantum Size Effects in Silver Nanoparticles
11:50 – 12:10  Vijay Kumar  Semiconducting $A_2B_2XY$ (A = Si-Pb, B = Cl-I, and XY = PN and SiS) Inorganic Double Helices: Electronic and Atomic Structures from Ab Initio Calculations
12:10 – 13:30  **Lunch**

**Session XIII**  (Session chair: Bernd von Issendorff)
13:30 – 14:10  Vitaly Kresin  Molecular and Cluster Dipoles in Superfluid Helium Nanodroplets
14:10 – 14:50  Michael Gatchell  Spectroscopy and Mass Spectrometry of Molecules and Clusters in Helium Nanodroplets
14:50 – 15:10  Olof Echt  Atomic Gold Ions Clustered with Noble Gases
15:10 – 15:30  Andrei Kirilyuk  Magnetism and Electronic Correlations in Small Clusters: From Kramers Degeneracy to Non-Heisenberg Covalent Exchange
15:30 – 16:00  **Break**

**Session XIV**  (Session chair: Ken Judai)
16:00 – 16:40  Paolo Milani  Fabrication of Biomimetic Complex Systems by Supersonic Cluster Beam Deposition: From Soft Actuation to Neural Computing
16:40 – 17:20  You Qiang  New Radiation Detector Made by Nanoclusters for Nuclear Energy Application
17:20 – 17:40  Emmi Pohjolainen  Systematic Investigation of Gold Nanocluster – Superstructures with Atomistic Molecular Dynamics Simulations
17:40 – 18:00  Beien Zhu  MOSP: Multiscale Operando Simulation Package for Nanoparticles
18:00 – 20:00  **Poster Session B**

**Friday, August 17**

**Session XV**  (Session chair: Feng Yin)
8:00 – 8:40  Xuenian Chen  Syntheses of Boron Clusters and Their Applications
8:40 – 9:00  Ewald Janssens  Size-Specific Interaction between Isolated Gold Clusters and Graphene Devices
9:00 – 9:20  Jifeng Han  Interaction of Swift H$_2^+$ Cluster Beam with Thin Layer Graphene Foils
9:20 – 9:40  Hisato Yasumatsu  Low-Temperature Dissociation of NO Molecule in Catalytic Reduction on Size-Selected Platinum Cluster Disk Bound to Silicon Substrate
9:40 – 10:00  Yubiao Niu  Reduced Sintering of Mass-Selected Au Clusters on SiO$_2$ by Alloying with Ti

10:00 – 10:30  Break

**Session XVI (Session chair: Min Han)**

10:30 – 10:50  Qinfang Zhang  Research on Electronic Correlation Properties of Low Dimensional Rhodium

10:50 – 11:10  Maxim Tchaplyguine  Silver-Copper Oxides: Are the Hopes for Superconductivity Over?

11:10 – 11:40  Peter Lievens  Summary Talk

11:40 – 11:50  Robert Whetten  ISSPIC XX

11:50 – 12:00  Lai-Sheng Wang & Min Han  Closing

12:00  Adjourn