

Solid-state Chemistry & Ionics (SCI) workshop

[5th SCI](#)[4th SCI](#)[3rd SCI](#)[2nd SCI](#)[1st SCI](#)[Access to Nishijin Plaza](#)

5th Solid-state Chemistry & Ionics (SCI) workshop, September 10–13, 2018



Scope

Solid-state chemistry and solid-state ionics are the fields dealing with the breadth of advanced energy technologies such as lithium ion batteries, solid oxide fuel cells, electrolyzers, sensors, catalysts, photocatalysts, and so on. Fundamental understanding of the structure-chemical bonding-property relationship is the heart of the fields. Discovery of new compound always fascinated chemists and scientists, which brought tremendous advances in energy technologies. LiFePO_4 for Li-ion battery is a great example. Although the activities accelerate in both fields, it is getting difficult to cover progress in both fields. To address the situation, we started this workshop. Each workshop focuses on a specific theme covered by specialists in the fields.

The fifth edition explores a wide range of topics in both solid-state chemistry and solid-state ionics fields (including batteries, fuel cells, superconductors, thermoelectrics, sensors, photocatalysts, catalysts, computational design, and so on), extending for four days. We hope that this workshop broadens your perspectives, provides catalytic activities between the fields, and ultimately creates a new direction of our disciplines.

H. Kageyama and Y. Yamazaki

Schedule

Date: September 10(Mon) ~13(Thu), 2018

Place: Nishijin Plaza, Fukuoka, Japan

Organizations: Solid-state Chemistry & Ionics (SCI) and [Kyushu University Platform of Inter-/Transdisciplinary Energy Research \(Q-PIT\)](#)

Co-organization: [Japan Society for the Promotion of Science \(JSPS\)](#), Innovative area "Mixed anion"

Chairs: [Yoshihiro Yamazaki](#), Kyushu University and [Hiroshi Kageyama](#), Kyoto University

Local organizer vice-chair: [Junji Hyodo](#), Kyushu University

Important dates!!

June 28 Workshop application site opens

July 13–25 Registration fee payment site opens

July 27 Abstract submission closes

July 30 Poster presentation acceptance notification

Aug. 2 Reduced registration fee payment ends

Sep.10 Workshop begins

Sep.13 Workshop ends

Workshop application form

Fill and send [this application form](#) to [Dr. Junji Hyodo](#).

Abstract submission (poster)

Fill and send [this abstract form](#) to [Dr. Junji Hyodo](#).

Accommodation information

All are located within 5–10 min walk to Nishijin Plaza

[Hilton Fukuoka Sea Hawk Hotel](#)

[The Residential Suites Fukuoka](#)

[Seaside Hotel Twins Momochi](#) Japanese site only

Questions?

Contact Dr. Junji Hyodo, sci-5@ifrc.kyushu-u.ac.jp

Tentative early bird registration fee until Aug. 2nd (+15,000 yen after Aug. 3rd):

Persons in academia or NPO 40,000 yen (includes banquet and excursion)

Students and post-docs 15,000 yen (banquet and excursion are not included)

Business persons 55,000 yen (includes banquet and excursion)

Confirmed invited speakers:

[Prof. Joachim Maier](#) Max Planck Institute, Germany: ionics, batteries

[Prof. Hideo Hosono](#) Tokyo Institute of Technology, Japan: functional oxides, catalysts

[Prof. Kazunari Domen](#) University of Tokyo, Japan: solar fuels, photocatalysts

[Prof. William Chueh](#) Stanford University, USA: solar fuels, batteries

[Prof. Ram Seshadri](#) UC Santa Barbara, USA: solid-state chemistry

[Prof. Aron Walsh](#) Imperial College London, UK: simulation, materials informatics

[Prof. Zenji Hiroi](#) University of Tokyo, Japan: superconductors

[Prof. Manfred Martin](#) RWTH Aachen University, Germany: ionics

[Prof. Shu Yamaguchi](#) University of Tokyo, Japan: ionics

[Prof. Jeff Snyder](#) Northwestern University, USA: thermoelectrics

Program

September 10th, Monday, 2018

15:00–18:00 Registration

September 11th, Tuesday, 2018

8:00–18:00 Registration

9:00–9:10 Opening remarks

Session chair Prof. Yoshihiro Yamazaki

9:10–9:55 1. Prof. Joachim Maier, Max Planck Institute, Germany: **The Role of Solid State Ionics for Solid State Research**

9:55–10:10 Discussion

10:10–10:40 Coffee break

Session chair Prof. Hideo Hosono

10:40–11:25 2. Prof. William Chueh, Stanford University, USA: **solar fuels and lithium-ion batteries**

11:25–11:40 Discussion

11:40–13:40 Explore local cuisine in Nishijin (5–10 min walk from the conference place. Sushi, Shabu-shabu, Tempura, Ramen, etc...)

Session chair Prof. Ram Seshadri

13:40–14:25 3. Prof. Hideo Hosono, Tokyo Institute of Technology, Japan: functional oxides, catalysts

14:25–14:40 Discussion

14:40–15:00 Coffee break

Session chair Prof. Manfred Martin

15:00–15:45 4. Prof. Aron Walsh: computations

15:45–16:00 Discussion

Session chair Prof. Shu Yamaguchi

16:00–16:45 5. Prof. Jeff Snyder, Northwestern University, USA: Suppression of atom motion and metal deposition in mixed ionic electronic conductors

16:45–17:00 Discussion

17:00–19:30 Poster sessions and SCI poster award selection

September 12th, Wednesday, 2018

8:00–17:00 Registration

Session chair Prof. William Chueh

9:00–9:45 6. Prof. Kazunari Domen, University of Tokyo, Japan: solar fuels, photocatalysts

9:45–10:00 Discussion

10:00–10:30 Coffee break

Session chair Prof. Aron Walsh

10:30–11:15 7. Prof. Ram Seshadri, UC Santa Barbara, USA: solid-state chemistry

11:15–11:30 Discussion

Session chair Prof. Manfred Martin

11:30–12:15 8. Prof. Shu Yamaguchi, University of Tokyo, Japan: ionics

12:15–12:30 Discussion

12:30–12:40 Photo shoot

12:40–17:00 Excursion and free discussion, cultural inspirations from [Dazaifu Shrine](#) and [Kyushu National Museum](#), lunch box on the go

18:00–21:00 Banquet (Authentic Japanese cuisine)

September 13th, Thursday, 2018

8:00-12:00 Registration

Session chair Prof. Hiroshi Kageyama

9:00-9:45 9. Prof. Zenji Hiroi: superconductors

9:45-10:00 Discussion

Session chair Prof. Aron Walsh

**10:00-10:45 10. Prof. Manfred Martin, RWTH Aachen University, Gernany:
ionics**

10:45-11:00 Discussion

11:00-11:30 Coffee break

11:30-12:00 Announcement of SCI poster award and closing remarks



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