

International Symposium on  
Next Generation Synchrotron Radiation Facility Utilization for Catalysts Characterization  
as Post Symposium of TOCAT9

Synchrotron radiation (SR) facility is remarkably strong tool for the characterization of catalysts and the other materials. Next generation SR facility (NGSR) is now under construction in Aobayama new campus of Tohoku University. Scope of this symposium is to understand recent progress on characterization of catalysts, including heterogeneous, homogeneous, asymmetric, and biocatalysts, with use of SR facilities, and then to discuss the establishment of novel characterization procedures as utilization of NGSR, which will be open for us from 2024.

This symposium will be held as a post one of TOCAT9 in Sendai.

Date: July 30th, Saturday - 31th, Sunday, 2022

Venue:

Katahira Sakura Hall on Saturday

Aobayama Commons on Sunday

Program

Oral Session

- July 30, Saturday, 2022      2<sup>nd</sup> Floor, Sakura Hall

17:00-17:40 Plenary Lecture

Prof. Yoshihisa HARADA

"Advances in Soft X-ray Spectroscopy for Catalytic and Aquatic Functional Materials"

17:40-18:20 Plenary Lecture

Prof. Hieu Chi DAM

"Understanding physical and chemical phenomena through visualization of materials science data using data science approaches"

- July 31, Sunday, 2022      No. 1 Lecture Room on 2<sup>nd</sup> Floor, Aobayama Commons

9:00-9:40 Plenary Lecture

Prof. Yukio TAKAHASHI

"Development of coherent diffraction imaging technique and its application to nanoscale visualization of catalyst material"

9:40-10:20 Plenary Lecture

Prof. Satoru TAKAKUSAGI

"Development of operando PTRF-XAFS technique for precise 3D structure determination of active metal sites in heterogeneous catalysis"

10:30-10:50 Keynote Lecture

Dr. Peidong HU

"Revealing the amorphous-to-crystalline transition in zeolite synthesis using high-energy X-ray total scattering measurement"

10:50-11:10 Keynote Lecture

Dr. Shoji IGUCHI

"In-situ XAFS investigation of supported indium catalyst for non-oxidative coupling of methane"

11:10-11:30 Keynote Lecture

Dr. Kakeru NINOMIYA

"X-ray absorption and emission spectroscopy for catalytic and functional materials"

### Poster Session

- July 31, Sunday, 2022 1<sup>st</sup> Floor, Aobayama Commons

11:30-14:00 Lunch & Poster Presentation

Poster will be presented by Students.

14:00-15:30 Excursion to NGSF

Excursion to Next Generation Synchrotron Radiation Facility

Group Photo

Organized by Catalysis Society of Japan

Co-organized by Institute for Catalysis, Hokkaido University

Co-organized by International Center for Synchrotron Radiation Innovation Smart (SRIS), Tohoku University

Co-organized by Graduate School of Agricultural Science, Center for Agricultural and Life Sciences using Synchrotron Light (A-Sync), Tohoku University