

## The 9th Workshop on Next-Generation Utilization of Natural Gas

**Sponsorship** Young Study Group for Next-Generation Utilization of Natural Gas,  
Junior Society of Japan Petroleum Institute

**Co-sponsorship** Catalysis for natural gas conversion (Catalysis society of Japan)

**Support** Forum on Low-dimensional Photo-functional Materials of Chemical Society of Japan

**Day and time** November 20, 2021 (Sat.) 13:30-18:00 pm (admission 13:00-)

**Method** Online (Zoom)

**Language for Presentation** English

**Purpose** This workshop is aimed to discuss the next generation utilization technology of C1 compounds such as methane and CO<sub>2</sub>, and to give shape to the ideas and dreams of young researchers. The content of the meeting is planned to be presented by domestic (Japan) and overseas professors who are working at the leading edge. Young researchers and students from universities, research institutes, and companies are eligible to participate, but there is no age limit. If you are able to interact actively with young researchers, we welcome you. We are looking forward to seeing you there.

### Program

13:30-13:35 Opening remarks Shizuoka University Ryo Watanabe

13:35-14:35

Hanyang University (Korea), Assist. Prof. Youn Jeong Jang  
"Photoelectrochemical CO<sub>2</sub> conversion from catalyst to system"

14:35-15:00

Tokyo Institute of Technology (Japan), Assist. Prof. Shoji Iguchi  
"Electroreduction of CO<sub>2</sub> to CO using a solid-polymer-electrolyte electrolysis cell"

15:00-15:25

The University of Tokyo (Japan), Assist. Prof. Tatsuya Shinagawa  
"Development and understanding of electrocatalysts for selective reduction of carbon dioxide"

15:25-15:40 Break time

15:40-16:05

Mitsubishi Chemical Corp. (Japan), Kota Murakami  
"Ammonia synthesis using surface protonics and catalyst design based on DFT calculation"

16:05-16:30

Hokkaido University (Japan), Assist. Prof. Takashi Toyao  
"Enabling catalyst discovery through extrapolative machine-learning approach"

16:30-16:55

Tohoku University (Japan), Assist. Prof. Mizuho Yabushita  
"Heteroatom-containing zeolite catalysts prepared from amorphous metallosilicates  
for oxidative conversion of methane"

16:55-17:55

National Taiwan University (Taiwan), Assist. Prof. Yi-Pei Li  
"Tuning of zeolite catalysts: computer-aided mechanism discovery and catalysis engineering"

**Participation Fee** : Free

**How to apply** Please send your name, affiliation (including grade if you are a student), contact information (representative), laboratory name, and e-mail to the following address.

### Contact for application and inquiries

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### Committee member

Hitoshi Ogihara (Saitama Univ.), Akimitsu Miyaji (Tokyo Institute of Technology), Naohiro Shimoda (Tokushima Univ.), Shuhei Ogo (Kochi Univ.), Satoshi Ishikawa (Kanagawa Univ.), Kazumasa Oshima (Kyushu Univ.), Ryo Watanabe (Shizuoka Univ.)