SUSMAT

Research Center for Sustainable Material Energy Integration

[Materials, Energy and Social Systems for the Future]

Established in April 2022 for a six-year period.

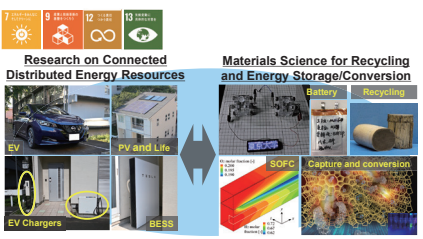
Director: Naoki Shikazono

http://susmat.iis.u-tokyo.ac.jp/index_e.html

The design of a sustainable society through the integration of materials engineering and energy engineering

Through the successive activities of International Research Center for Sustainable Materials, Integrated Research Center for Sustainable Energy and Materials, and Center for Collaborative Research on Energy Engineering, etc. we have established a core base for researches on "energy, resources and materials" to realize a sustainable society, under strong collaborations between industries and international institutes.

In the new center established in April 2022, we focus on the developments of new material processes for carbon neutrality and new technologies for the production and utilization of clean energy. Furthermore, we promote investigations on optimizing the entire system from supply, final use to recycling based on the collaborations between materials and energy researches from a bird's-eye view.

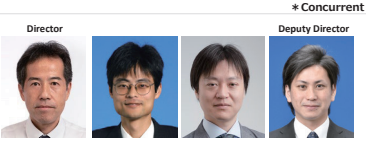


＊Concurrent Faculty

Energy Device Research Unit

Clean and highly efficient energy conversion, multifaceted R&D of fundamental energy device technologies for energy conservation

- Materials for generation and storage of energy
- Materials and technologies for power conversion
- Thermal chemistry and mechanical technology



Director: Naoki Shikazono, Professor
Keiichi Edagawa, Professor
Yusuke Sunada, Professor
Deputy Director: Shunsuke Yagi, Professor

Energy Materials Research Unit

Carbon neutral processes based on advanced material process and recycling technologies

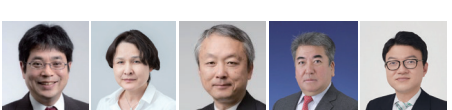
- Smelting and recycling processes for rare metals
- Innovative smelting processes for base metals (Reductant, Heat source, Supercirculation)
- Environmental catalyses and materials science

Toru H. Okabe, Professor
Masaru Ogura, Professor
Takanari Ouchi, Lecturer
Junya Inoue, Professor*

Materials & Energy Integration Research Unit

To examine specifications of new materials and devices in a sustainable society, and operability & social acceptability of developed technologies.

- System design for materials and energy integration (Total design of materials and energy circulations)
- Utilization of demand-side distributed energy resources
- Energy carrier conversion



Ryozo Ooka, Professor
Yumiko Iwafune, Professor*
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Masaki Imanaka, Project Lecturer*