

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

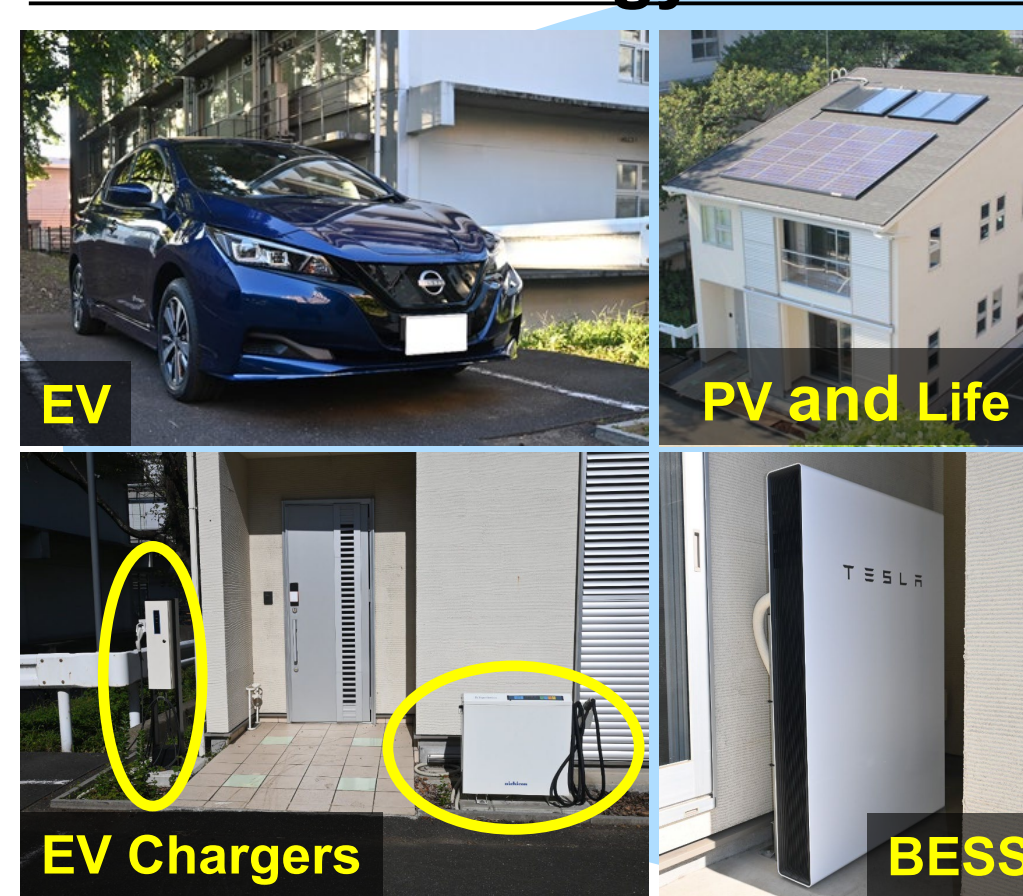
The design of a sustainable society through the integration of materials engineering and energy engineering

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.

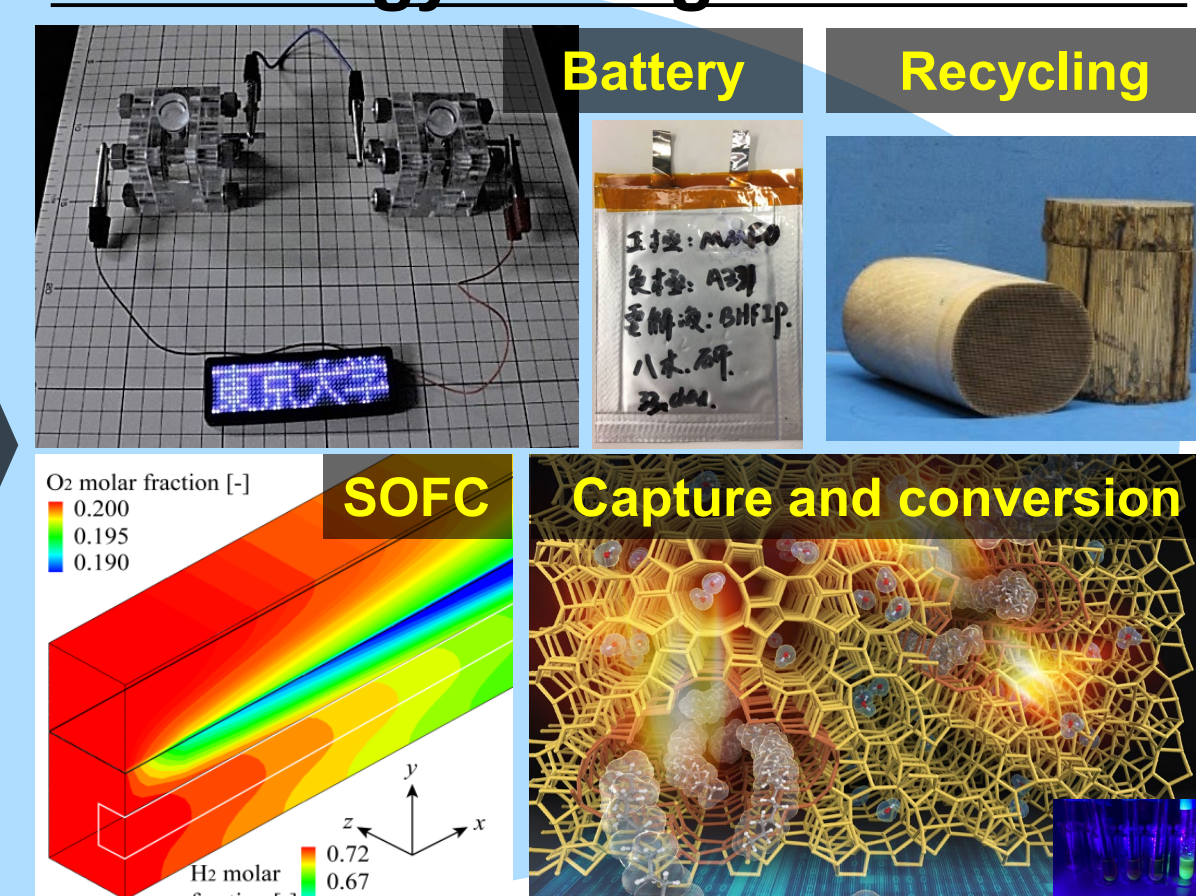
In the new center established in April 2022, we focus on the developments of new material processes for carbon neutrality and new technologies for the production and utilization of clean energy. Furthermore, we promote investigations on optimizing the entire system from supply, final use to recycling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



Research on Connected Distributed Energy Resources



Materials Science for Recycling and Energy Storage/Conversion



* 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

Deputy Director



Shunsuke Yagi
Professor



Keiichi Edagawa
Professor



Yusuke Sunada
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



Ryoza Ooka
Professor



Yumiko Iwafune
Professor*



Kazuhiko Ogimoto
Project Professor*



Hiroyuki Baba
Project Associate
Professor*



Masaki Imanaka
Project Lecturer*