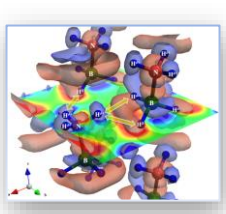
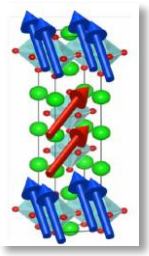
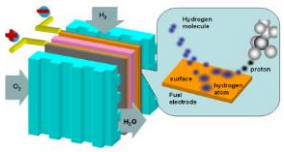
3rd Core Realization of New Generation Functional Materials

Tamio OGUCHI (Chair of the 3rd Core)
Professor, The Institute of Scientific and Industrial Research
Condensed Matter Theory, First-Principles Electronic Structure Calculation,
Spin-Orbit Driven Properties, Transition-Metal Oxides, X-Ray Absorption Spectroscopy,
Secondary Batteries, Spintronics, Ferroelectrics, Materials Informatics

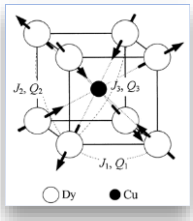
Hideaki KASAI
President, National Institute of Technology (Akashi College)
Condensed Matter Physics at the Nanoscale Electric properties of carbon nanotubes (CNTs),
Hydrogen-surface reaction dynamics, Spintronics nanomaterials and nanodevice design



Atom scale reactions in Fuel cell

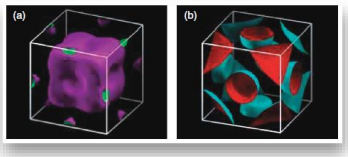
Toshihiro TANAKA
Professor, Department of Materials and Manufacturing Science, Graduate School of Engineering
Physical Chemistry of Materials, Surface Science and Technology of Materials
Design of Materials Processing

Takeshi FUKUDA
Professor, Department of Sustainable Energy and Environmental Engineering,
Graduate School of Engineering
Advanced plasma engineering, Quantum energy engineering

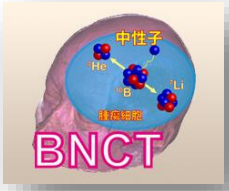


Kazuto YAMAUCHI
Professor, Department of Precision Science & Technology, Graduate School of Engineering
Ultraprecision machining, Surface characterization,
Surface figure testing, X-ray Optics, X-ray nanoscopy /spectroscopy

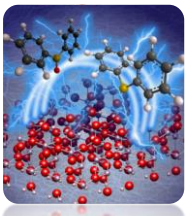
Michio OKADA
Professor, Institute for Radiation Sciences and Department of Chemistry, Graduate School of Science
Surface chemistry, Surface reaction dynamics, Oriented molecular beams,
Low-energy ion beams



Isao MURATA
Professor, Division of Sustainable Energy and Environmental Engineering,
Graduate School of Engineering
Neutronics, Nuclear medicine, Radiation application

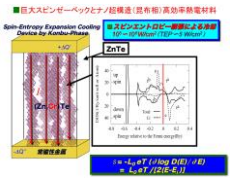


Takanori KITADA
Professor, Division of Sustainable Energy and Environmental Engineering, Graduate School of Engineering
Reactor Physics, Nuclear Data



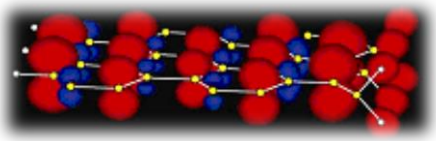
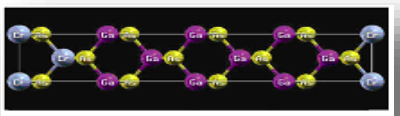
Hiromi YAMASHITA
Professor, Division of Materials and Manufacturing Science, Graduate School of Engineering
Catalysis, Photocatalysis, Nanostructured Catalysts, Plasmonic Catalysts, Nanoporous Materials

Wilson Agerico DIÑO
Associate Professor, Department of Applied Physics, Graduate School of Engineering
Dynamical Quantum Processes, Surface Reactions/Excitations,
Many Body Effects, Cond. Matt. Phy. , Comp. Mat. /Devices/Proc. Design,
Bioinspiration/Biomimetics, Complexity/Emergence, Energy, Hydrogen



Yoshinari KAMAKURA
Associate Professor, Department of Electrical, Electronic and Information Engineering,
Graduate School of Engineering
Process and device simulation, Modeling of device characteristics and reliability

Takashi FUKUDA
Associate Professor, Division of Materials and Manufacturing Science,
Graduate School of Engineering
Solid-state physics, Crystallography, Metallography



Hiroshi KATAYAMA-YOSHIDA
Senior Research Fellow (Professor), Center for Spintronics ResearchNetwork(CSRN),
Graduate School of Engineering, The University of Tokyo
Materials Design, Condensed Matter Theory, Computational Nano-Materials Design
Ab initio molecular dynamics excitation-induced atomic migration,
Valence control and materials design of wide band-gap semiconductors,
Materials design of high efficient photovoltaic solar-cells,
Semiconductor spintronics, Computational nano-materials design