

教員紹介 / Teaching Staff

| 職位 / Title | 氏名 / Name | 学位 / Education | 研究内容 / Research |
|---------------------|---------------------|-------------------------------|--|
| Professor | SATO Yoshiyuki | Doctor of Engineering | We are conducting researches on plasticization of polymers using supercritical fluid and on equilibrium and transport properties of gas-expanded liquids composed of polymer solutions. These are related to the development of energy saving processes and environmentally friendly processes. |
| Professor | ANAZAWA Masahiro | Doctor of Science | The concern about the effect of human activity on ecosystems is growing today. Ecosystems are very complex systems consisting of many biological species. It is critical to understand mechanisms that retain biodiversity and stability of ecological communities and ecosystems. Through mathematical models and computer simulations, I explore fundamental properties of ecological communities and ecosystems. |
| Professor | UCHIDA Miho | Doctor of Engineering | We perform research on how to assess environmental risks, such as the effects of chemical substances on the basis of their physico-chemical properties. We are creating chemical exposure assessment methods that make use of environmental models and monitoring data obtained from various environmental measurement technologies. |
| Professor | KATO Zenta | Doctor of Engineering | In order to supply abundant renewable energy and to avoid global warming, we are proposing global CO ₂ recycling. The global CO ₂ recycling consists of electricity generation by solar cells in the deserts, hydrogen production by seawater electrolysis and methane production by the reaction of hydrogen with carbon dioxide at the nearby desert coasts, and methane combustion and carbon dioxide recovery in energy consuming districts. For global CO ₂ recycling, we have researched oxygen evolution anodes for seawater electrolysis and catalysis for CO ₂ methanation. |
| Professor | MARUO YAMADA Yasuko | Doctor of Engineering | We investigate on nano-technology and its application to CO ₂ photochemical conversion and simple analysis method of chemical materials. Nanotechnology is the key technology for achieving sustainable society. Our research focuses on especially three fields as followings. (1) CO ₂ photoreduction catalyst including nanoparticles. (2) Simple and easy analysis method of volatile organic compounds using a combination of nanoporous material and chemical reaction. (3) Application of our developed analytical chips for environmental measurement and environmental evaluation. |
| Professor | YAMADA Kazuhiro | Doctor of Engineering | The main themes are as follows, 1) Study of management of aquatic ecosystems by ecological engineering ex. Study of effect of reed cutting on reed biomass and reed warbler 2) Study of efficient use of biomass ex. Study of improvement of harvey acid soil using marine wastes 3) Proposal of programs and teaching materials on environmental education for aquatic ecosystems ex. Study of water pollution and purification on environmental education |
| Associate Professor | SANO Tetsuya | Doctor of Environment Science | Renewable energy: sustainable use of forest biomass for energy and recycling the residue from biomass energy plant. Vegetation and soil science: evaluation of site quality on land ecosystems for conservation and sustainable management. |
| Associate Professor | TADA Mika | Doctor of Engineering | Reduction and oxidation (redox) are extremely important for life support. I have studied redox pathways related to free radical or reactive oxygen species (ROS) generations, oxidative stress, and anti-oxidative functions in vivo. In our latest studies, biological defense mechanisms by blood cells or by natural pigments have been investigated through redox reactions. |