

Technological Directory - Graduate School and Faculty of Engineering (2020)

Department of Applied Chemistry

Discipline	Field	Expertise	Keyword 1	Keyword 2	Keyword 3	Open to consultations on	Lab	Researcher	Related researchers
Chemistry	Basic chemistry, coordination chemistry, materials chemistry, science education	Inorganic chemistry, organic chemistry, synthetic chemistry	Organometallic chemistry	Crystalline materials	Fine chemicals	General synthesis and supramolecular chemistry of organic, inorganic and polymer compounds	Synthetic Chemistry Field; Coordination Chemistry	Ryoki NOMURA, Professor	Osamu SHIMOMURA, Associate Professor Atsushi OHTAKA, Associate Professor
Chemistry	Materials chemistry	Polymer and textile materials	Physical properties of polymer and textile materials	Complex materials	Functional polymer materials	Polymer composites and adhesives that display high mechanical strength, high impact resistance and toughness and high performance PSAs	Advanced Polymer Materials Field; Composite Materials	Yoshinobu NAKAMURA, Professor	Syuji FUJII, Professor Tomoyasu HIRAI, Associate Professor
Chemistry	Materials chemistry	Nanomaterials, functional materials	Nanoparticles	Carbon materials	Composite materials	Nanomaterials: preparation and applications of metallic nanoparticles, carbon materials: preparation and applications of electric double-layer capacitors, biomimetic materials: structure and function of insect	Inorganic Materials Chemistry Field; Nano Materials	Ichiro TANAHASHI, Professor	
Chemistry	Basic chemistry, complex chemistry	Organic chemistry, synthetic chemistry	Synthetic organic chemistry	Fine chemicals	Environmental benign synthetic reactions	Synthesis and applications of organic peroxides/organic synthesis reactions in water/synthetic reactions based on oleochemistry (including biodiesel fuel)	Materials and Life Chemistry Field; Synthesis of Materials with Special Functions	Araki MASUYAMA, Professor	Shoji KOBAYASHI, Associate Professor
Chemistry	Basic chemistry	Functional material chemistry	Molecular devices	Molecular recognition	Supramolecules	Development of molecular device elements, creation and applications of supramolecular nanostructures	Organic Functional Chemistry Field; Supramolecules	Masahiro MURAOKA, Professor	Michihisa MURATA, Associate Professor
Chemistry	Basic chemistry/ Analytical Chemistry/ Recognition chemistry	Molecular recognition chemistry/functional material chemistry	Chemical sensor	Optical characteristics	Relaxation time analysis	Design, synthesis and optical characteristics of ionic and molecular recognition chemical compounds / analysis of composite materials or plastics	Molecular Recognition Chemistry Field; Recognition Chemistry and Physics Analysis	Takayo MORIUCHI, Professor	Keiichi FUJIMORI, Associate Professor
Chemistry	Materials chemistry	Functional materials chemistry	Polymer material synthesis	Surface, interface	Multifunctional nanomaterials	Synthesis, characterization and application of functional polymer particles	Advanced Polymer Materials Field; Advanced Particulate Materials	Syuji FUJII, Professor	Yoshinobu NAKAMURA, Professor Tomoyasu HIRAI, Associate Professor
Chemistry	Complex chemistry	Polymer chemistry	Inorganic layer compound	Epoxy resin	Latent catalyst	Synthesis and application of layered inorganic compound for organic synthesis	Synthetic Chemistry Field; Organic Polymer	Osamu SHIMOMURA, Associate Professor	Ryoki NOMURA, Professor Atsushi OHTAKA, Associate Professor

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Chemistry	Complex chemistry	Analytical chemistry	Environmental chemistry	Analytical chemistry	Chemiluminescence	Analysis of environmental pollutants using chemiluminescence	Molecular Recognition Chemistry Lab; Environmental Analysis	Keiichi FUJIMORI, Associate Professor	Takayo MORIUCHI, Professor
Chemistry	Materials chemistry	Inorganic industrial materials	Visible light reactive photocatalysts	Optoelectro chemistry	Removal of volatile organic compounds by decomposition	Photocatalytic reactions/fuel cell evaluation and structural analysis	Inorganic Materials Chemistry Field; Photochemical Energy	Shinya HIGASHIMOTO, Associate Professor	
Chemistry	Complex chemistry	Synthetic chemistry	Catalytic chemistry	Organometallic complexes	Selective synthesis and reactions	Synthesis of organometallic complexes and metal nanoparticles / organic reactions in water	Synthetic Chemistry Field; Catalytic Organic Chemistry	Atsushi OHTAKA, Associate Professor	Ryoki NOMURA, Professor Osamu SHIMOMURA, Associate Professor
Chemistry	Complex chemistry	Synthetic chemistry	Natural products	Organic synthesis	Bioactive molecules	Synthesis of bioactive natural products / Organic reactions with green solvents	Materials and Life Chemistry Field; Natural Product Chemistry	Shoji KOBAYASHI, Associate Professor	Araki MASUYAMA, Professor
Chemistry	Organic chemistry	Physical organic chemistry	Materials for energy conversion	Nanocarbon chemistry	Organic electronics materials	Design, synthesis, and properties of organic functional materials	Organic Functional Chemistry Field; Materials Chemistry for Energy Conversion	Michihisa MURATA, Associate Professor	Masahiro MURAOKA, Professor
Chemistry	Materials chemistry	Polymer chemistry	Polymer Synthesis	Functional materials	Surface and interface	Synthesis of polymeric materials and characterization of its molecular aggregation structure	Advanced Polymer Materials Field; Creation of Functional Materials	Tomoyasu HIRAI, Associate Professor	Yoshinobu NAKAMURA, Professor Syuji FUJII, Professor
Chemistry	Materials chemistry	Solid State Chemistry, Solid State Ionics	Super ionic Conductors	Energy storage and convention materials	Material investigation	Investigation of new ionic conductors / Material design for energy storage and conversion systems such as batteries	Inorganic Materials Chemistry Lab; Functional Ceramics for Energy conversion	Yasuaki MATSUDA, Lecturer	