Division of Material Chemistry	Research field	Organic Chemistry	Lab. ID MC04
Laboratory web site	http://chem.s.kanazawa-u.ac.jp/org/index.html		

Research subjects

Our laboratory is based on organic synthetic chemistry with the goal of contributing to the life sciences. We engage in "MONOZUKURI" at the molecular level, developing new reactions and molecules to advance drug discovery, materials science, and biotechnology.
In particular, we focus on the development of environmentally friendly synthetic methods and the creation of molecular tools to elucidate and control biological functions. In addition, we challenge ourselves to explore unknown chemical phenomena to expand the possibilities of organic chemistry. We value the spirit of curiosity – the drive to discover something truly amazing – and continually strive to create new value through the fusion of life sciences and chemistry.

Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

Our research is based on four main topics: 'catalytic asymmetric reactions, development of novel reactions, creation of low molecular weight gelators, and development of molecular probes'. Through cutting-edge research in organic chemistry, we aim to enhance students' independent thinking, experimental skills, and academic communication skills. In particular, we emphasize the cultivation of the ability to propose research questions and solve them experimentally and logically, fostering individuals who can drive innovative research. Our mentoring approach combines individual research guidance with group discussions, encouraging knowledge sharing and teamwork to facilitate collective growth.
- Weekly research progress meetings: Students present their research progress and receive feedback from faculty and peers to refine their research direction.
- Weekly Journal Club: Students present organic chemistry-related papers to stay abreast of advances in the field and develop critical reading skills.
- Tri-Weekly Reading Sessions: Students read and discuss the latest scientific papers to strengthen their English skills and scientific knowledge.

Daily life in the laboratory, etc.

In our laboratory, research activities begin at 9 a.m., and to maintain focus, experiments are generally not conducted late into the night. We encourage the effective use of daytime hours to conduct research in a planned and efficient manner.
Each member is provided with a dedicated experimental bench and a desk for desk work, ensuring ample research space and a comfortable environment for focused study. We actively support presentations at national and international conferences and manuscript writing, helping students develop presentation skills and the ability to structure their research effectively. In addition, we aim to develop researchers with a broad perspective through the sharing of research findings. To promote a balanced and fulfilling research life, we regularly hold social and networking events to strengthen communication within the lab.

Message or comments by the laboratory faculty staffs

"No success without failure." – This is an especially important concept in organic chemistry research. When developing new reactions or attempting to synthesize unknown molecules, things will not always go as planned and unexpected results are inevitable. However, it is in these "failures" that the keys to success are hidden. When an experiment does not go well, the cause is thoroughly analyzed and the next step is considered. This continuous process of trial and refinement eventually leads to major discoveries and breakthroughs. The key is not to fear failure, but to embrace it as a valuable learning opportunity.
Research takes time and effort, but true "success" can only be found through repeated trial and error. We are here to fully support your challenges. Let's explore new possibilities in organic chemistry together!

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