

演題：**Adaptive Molecular Crystals: From Mechanical Flexibility to Self-Healing**

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場所：フロンティア応用科学研究棟セミナー室2

共催：北海道大学化学反応創成研究拠点 (WPI-ICReDD)

要旨：

Crystalline materials, while vital for high-performance engineering, often suffer from brittleness, limiting their use in flexible devices and soft robotics. Recent advances in crystal engineering have enabled adaptive crystals that respond to stimuli like stress, light, or heat with unique behaviors such as bending, twisting, or jumping. Traditionally, self-healing was limited to soft, amorphous materials and relied on chemical processes over extended timescales. Recently, we introduced a novel self-healing mechanism in piezoelectric organic crystals, achieving ultrafast, autonomous, diffusion-less repair. This talk explores adaptive crystalline materials with self-healing and their potential applications in future technologies.

連絡先：工学研究院応用化学部門 伊藤 肇（内線：6561）