New Chemical Materials for Actuating and Transmitting Mechanisms

-For the Forthcoming Future Illuminated by Chemistry -

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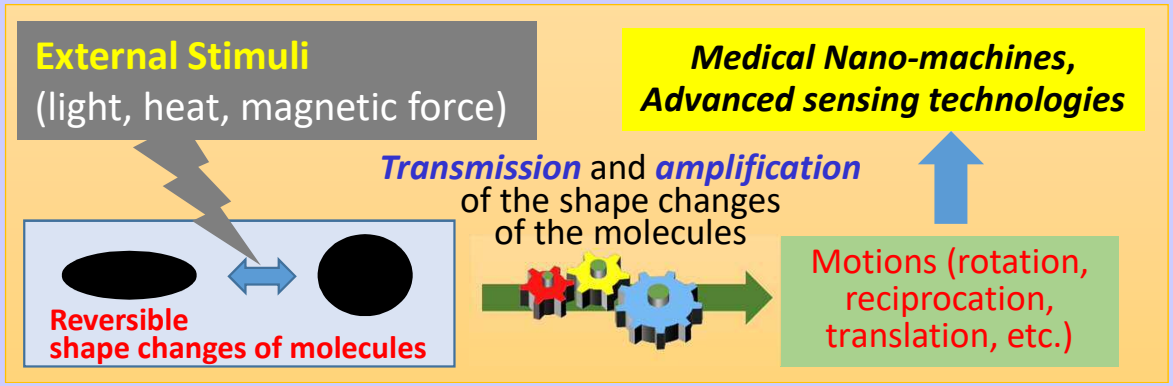
Research Area

1. Development of new systems for energy production, energy transformation, and energy storage
2. Development of molecules and molecular assemblies whose shapes can be changed upon external stimuli
3. Syntheses of molecular nano-parts with unique molecular shapes
4. Construction of systems for transmitting and amplifying shape changes of molecules
5. Biomimetic designs of molecules
6. Material designs based on mechanics
7. Simulations of motions
8. Deepening Excited-State Chemistry



Recent Activities

- Pyrene Magic: Chiroptical Enciphering and Deciphering 1,3-Dioxolane Bearing Two Wirepullings to Drive Two Remote Pyrenes. ChemComm. 2015, 51, 8237.
- Non-classical Circularly Polarized Luminescence of Organic and Organometallic Luminophores. ChemLett., 2021, 50, 1131.
- Red-Green-Blue-Yellow (RGBY) Magnetic Circularly Polarized Electroluminescence from Iridium(III)-Magnetic Circularly Polarized Organic Light-Emitting Diodes. Org Electron., 2023, 119, 106814.