HOUJOU LAB.

Designing Organic Crystals

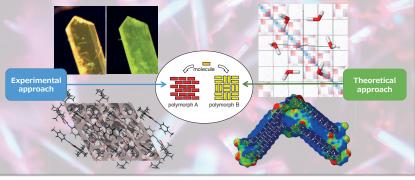


Department of Materials and Environmental Science

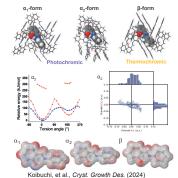
Molecular Integrated System Engineering Department of Chemistry and Biotechnology, Graduate School of Engineering https://www.iis.u-tokyo.ac.jp/~houjou/hjlab_wiki/

Functions of Molecular Arrangement

Polymorphism, a phenomenon that a single molecule crystallizes differently, has an impact on the materials' function, hence it is associated with pharmaceutics, food science, dyes and pigments, and organic electronics. We are working on crystal engineering problems through experimental and theoretical approaches.



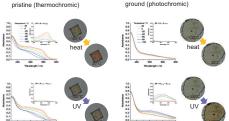
Quantum chemical simulation of crystalline environment explains chromic functions



A molecular crystal found to convert from thermoresponsive to photo-responsive by mechanical stimuli



ground (photochromic)



Omasa, et al., Cryst. Eng. Comm. (2025)