

# Houjou LAB.

## [Working a ray of light]

Department of Material and Environmental Science

[http://www.iis.u-tokyo.ac.jp/~houjou/hjlab\\_wiki/](http://www.iis.u-tokyo.ac.jp/~houjou/hjlab_wiki/)

Molecular Integrated System Engineering

Department of Chemistry and Biotechnology

## Working a ray of light

Working a ray of light with molecular integration — Absorption, Emission, Polarization

Organic molecules interact with UV-Vis light, and exhibit such functions as absorption and emission. Precise arrangement of the photo-functional molecules leads to materials with various polarization properties.

- ◆ Anisotropic arrangement of dye-conjugated polynuclear complexes for dichroic emission
- ◆ Anisotropic arrangement of hydrogen-bonding complexes for dichroic absorption
- ◆ Theoretical evaluation of intermolecular forces for THz-spectral simulation

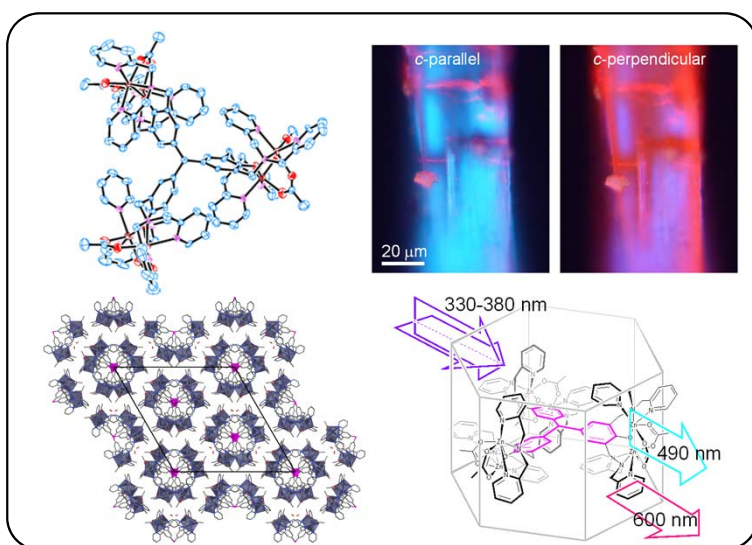


Fig. 1 Crystal structure and dichroic emission of TPM-ZN6

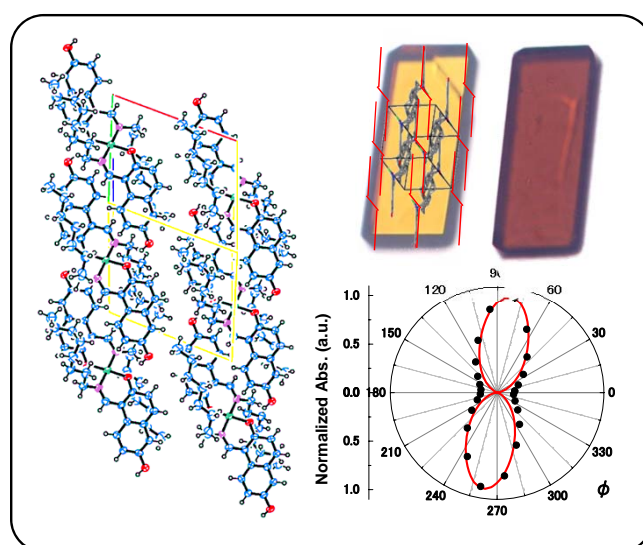


Fig. 2 Crystal structure and dichroic absorption of C8-NI

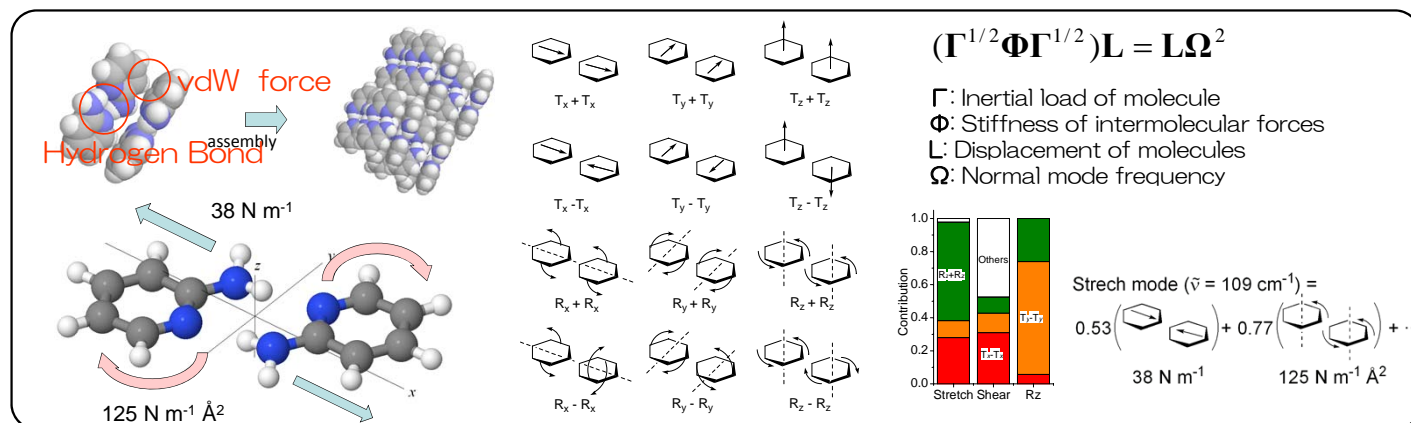


Fig. 3 Coarse-graining analysis of intermolecular vibrations