

HOUJOU LAB.

[Functional Organic Materials]

Department of Material and Environmental Science

http://www.iis.u-tokyo.ac.jp/~houjou/hjlab_wiki/

Molecular Integrated System Engineering

Department of
Chemistry and
Biotechnology

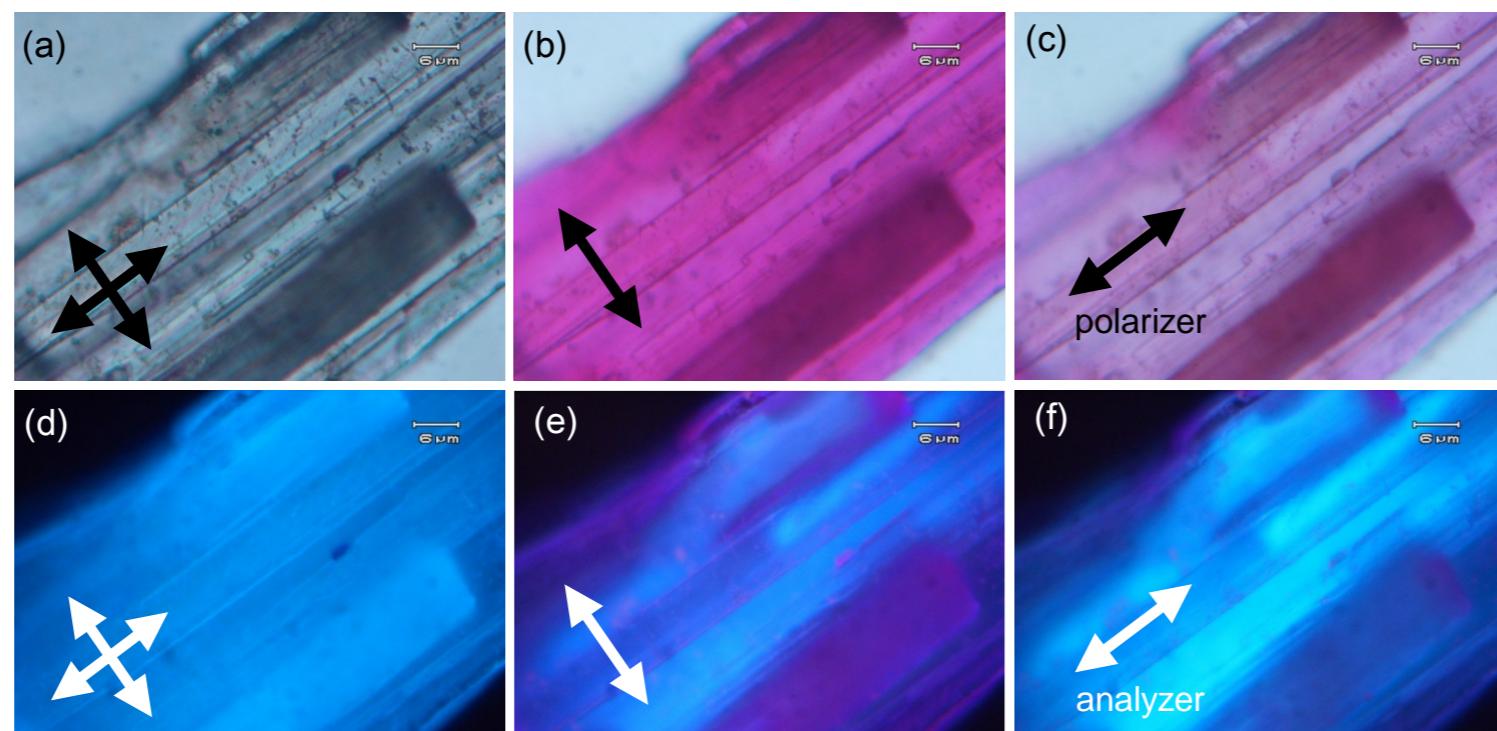
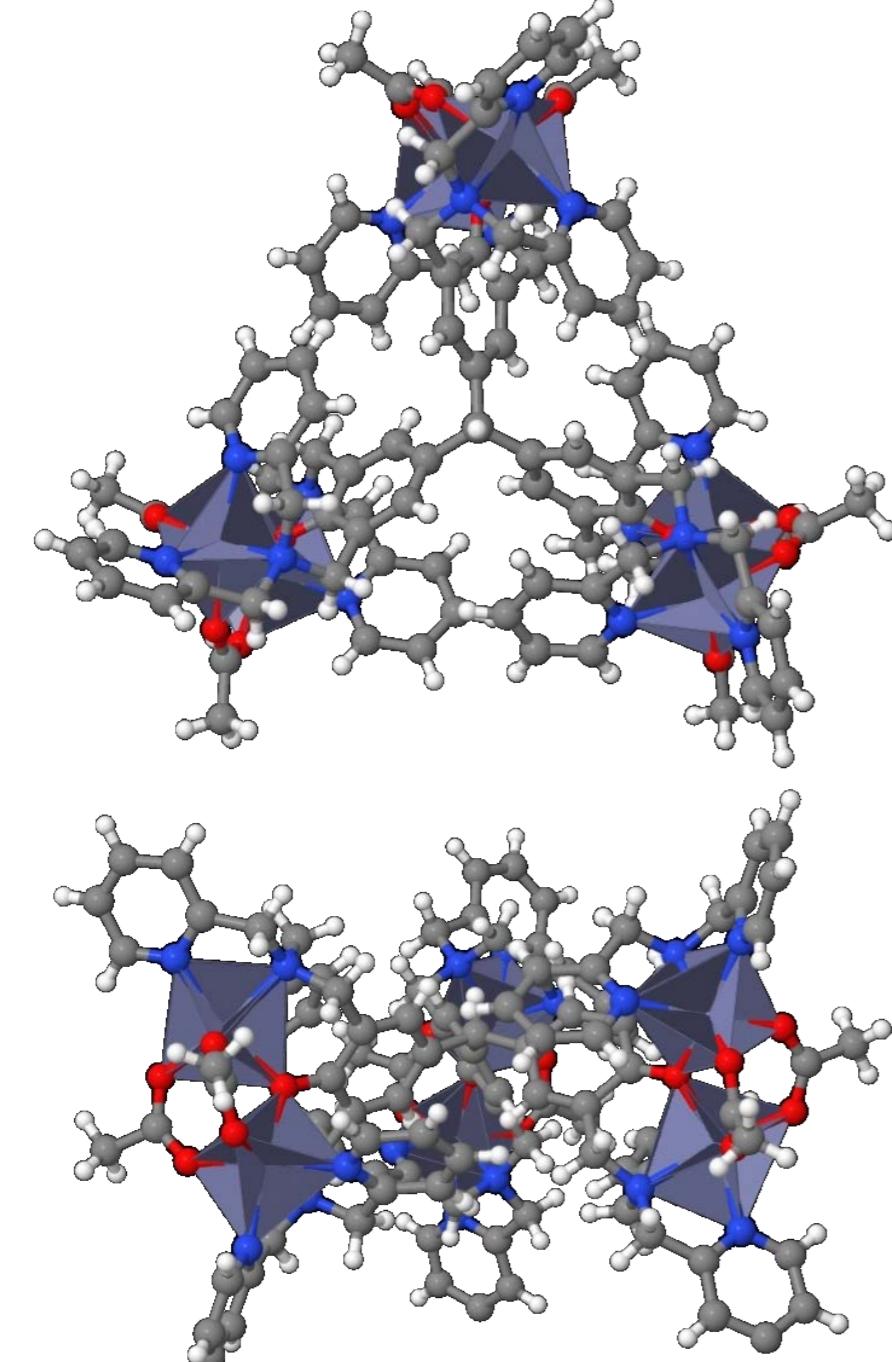
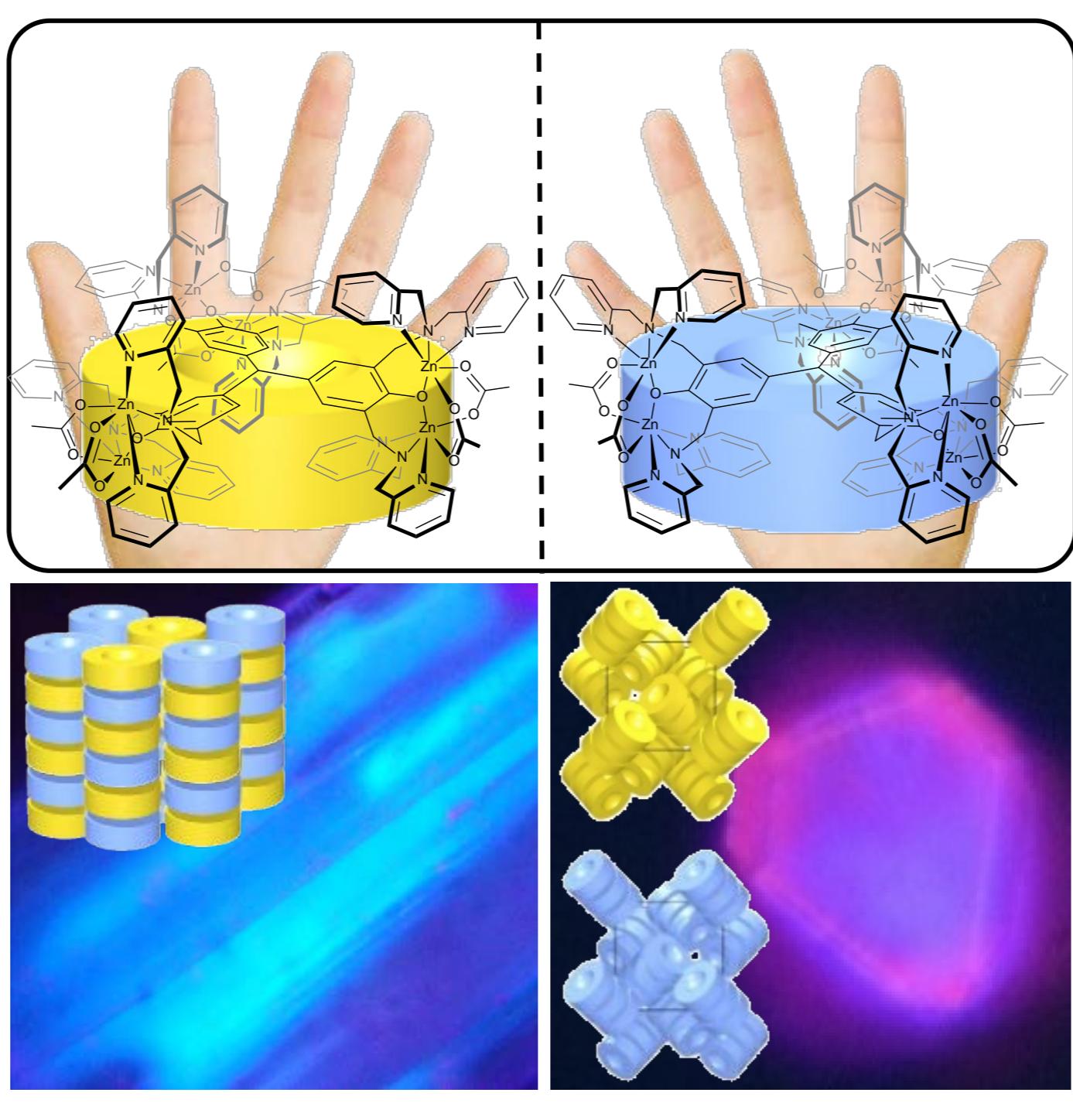
Functional Organic Crystals

Functions arising from molecular arrangement

Our research aims for creating new functional materials originating not only in molecular structure, but also in molecular arrangement in organic crystal.

Dichroic Emission

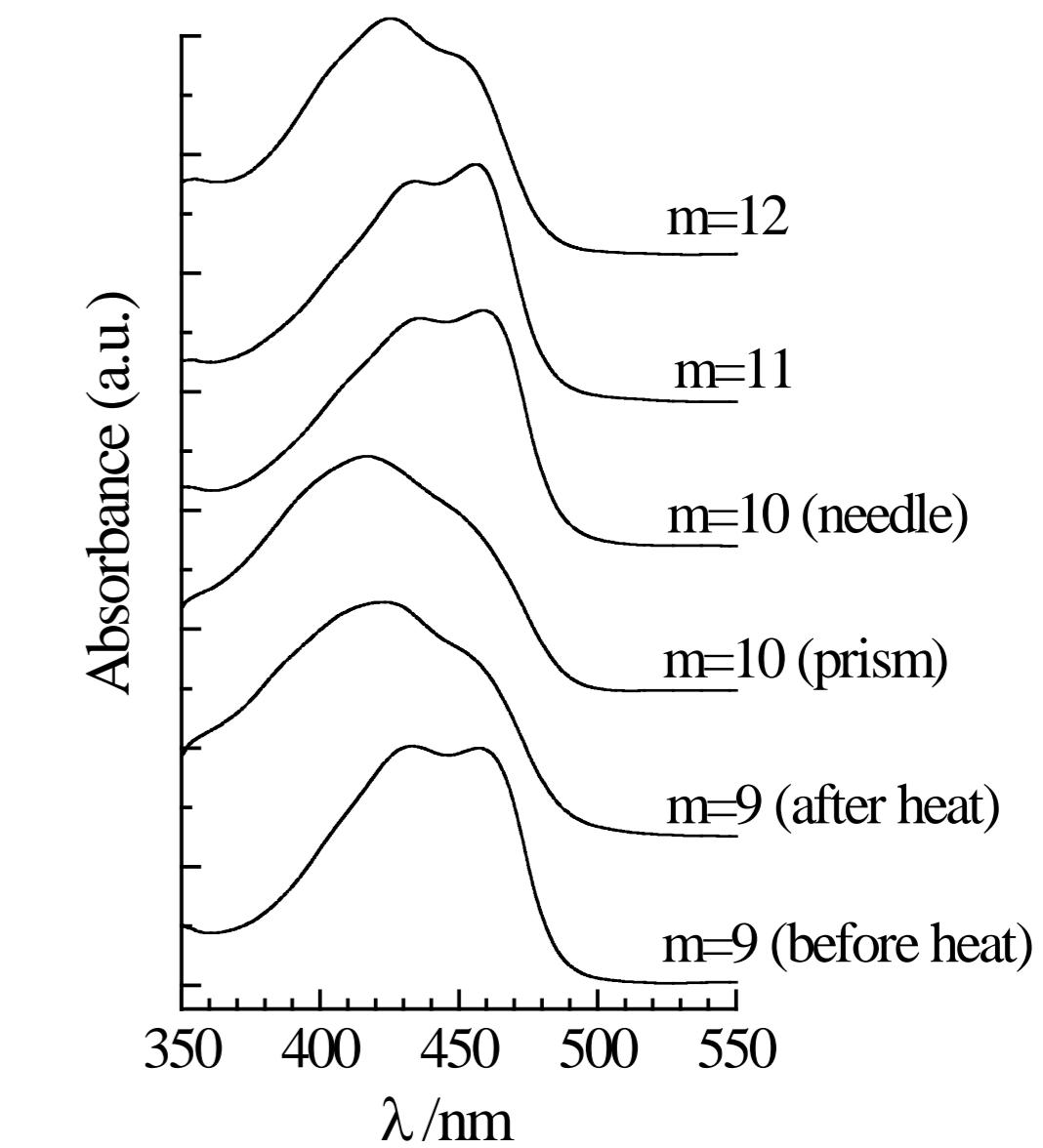
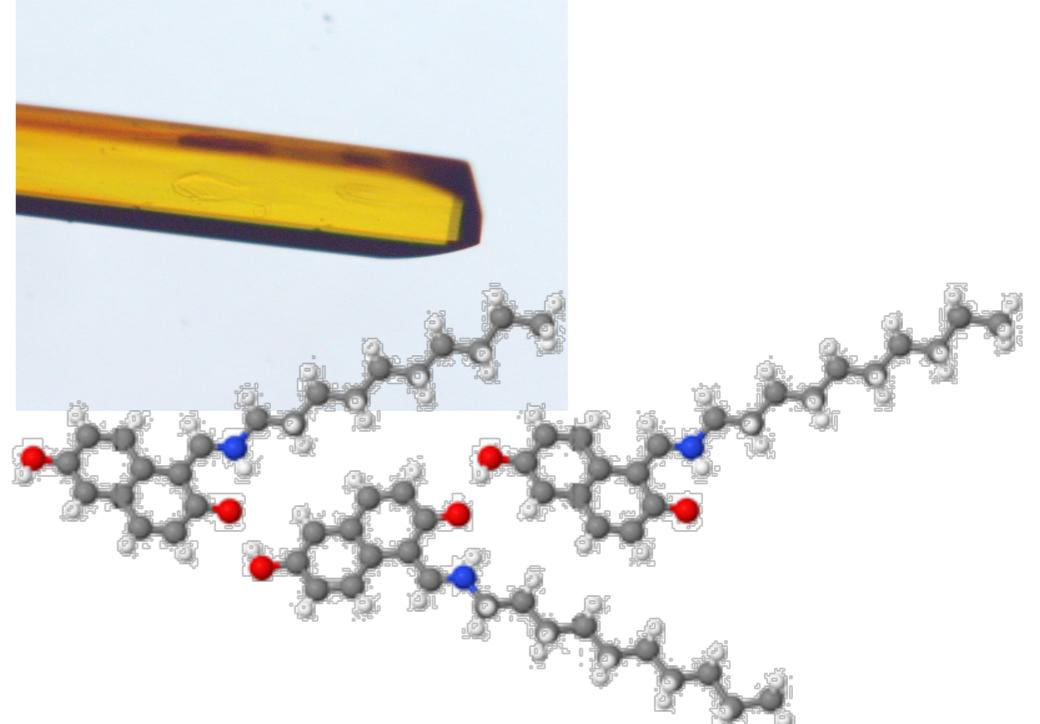
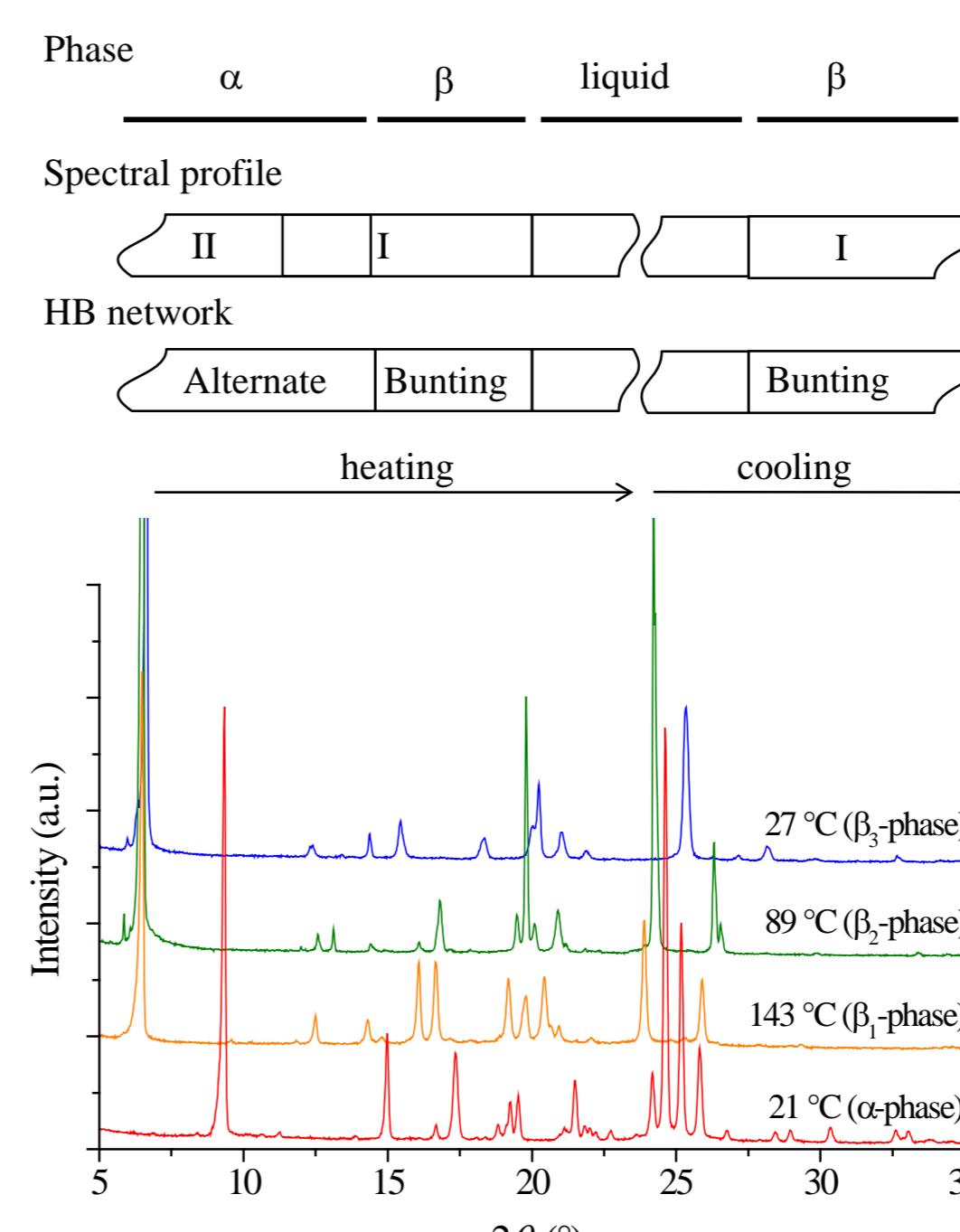
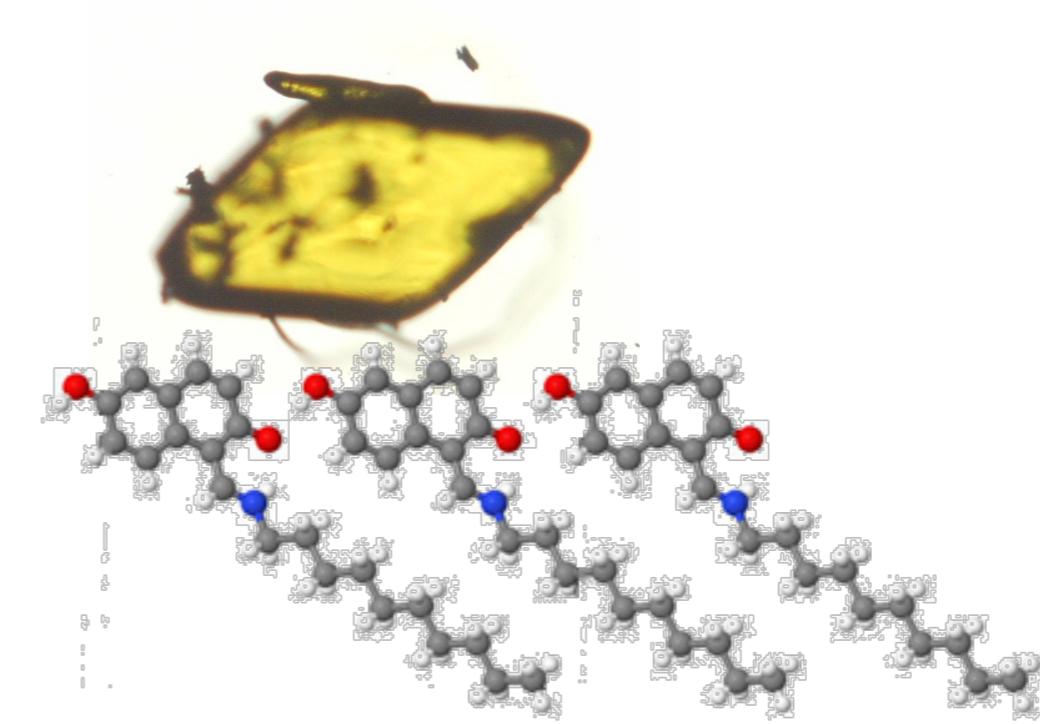
330-380 nm
Energy Transfer
490 nm
600 nm



H. Houjou, et al., *Chem. Eur. J.* (2011).
S. Takeda, et al., *Bull. Chem. Soc. Jpn.* (2015).

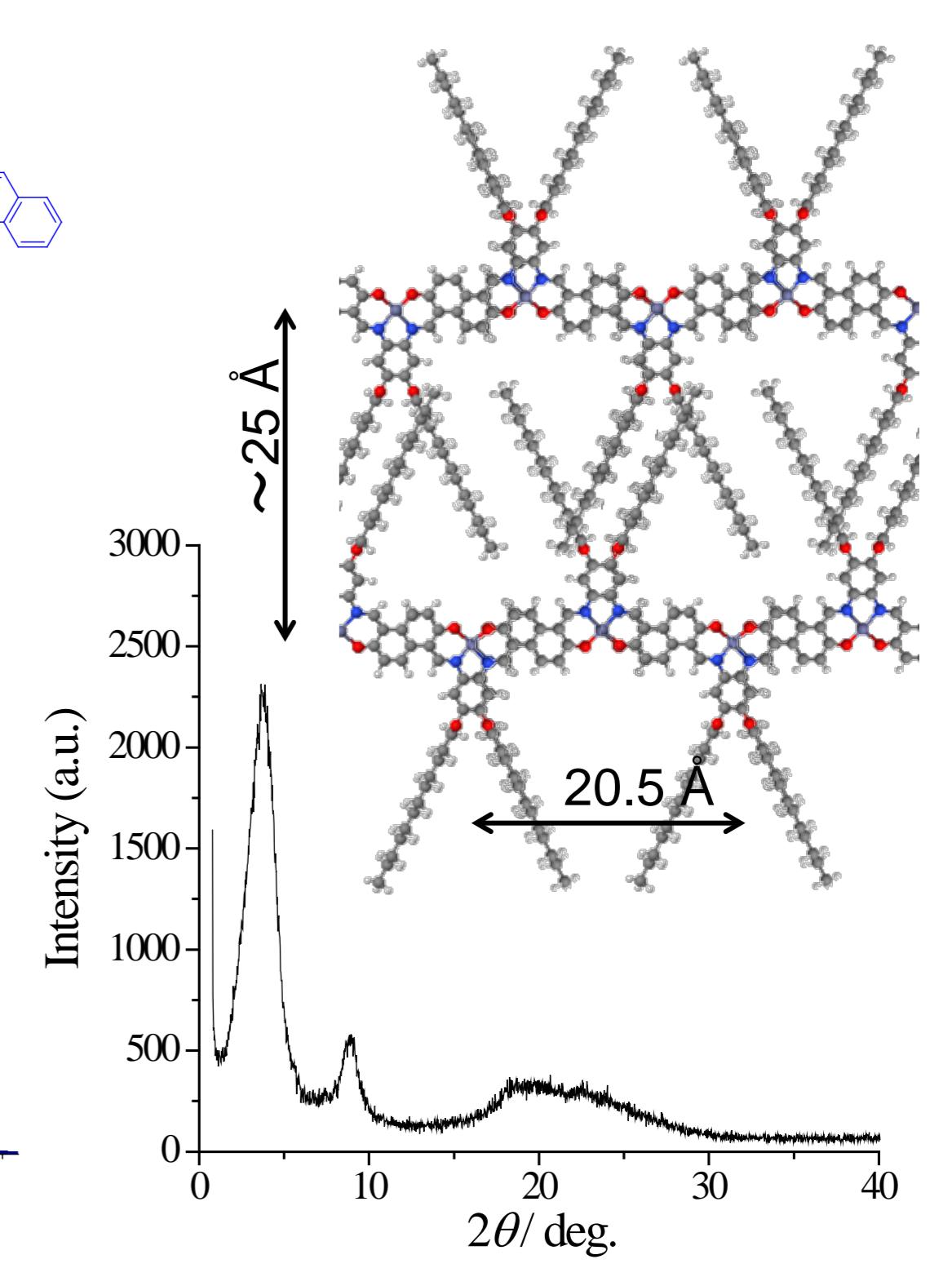
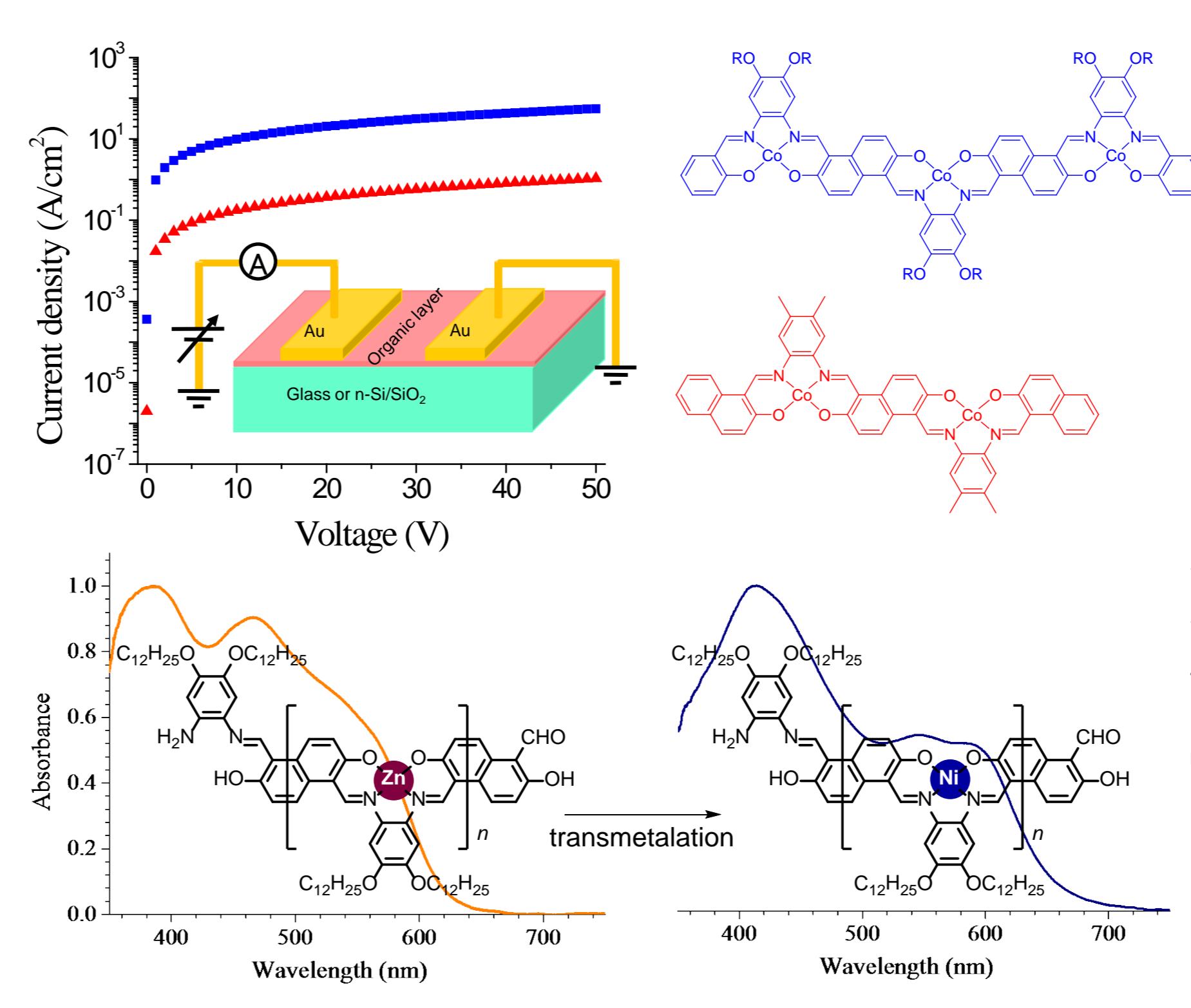
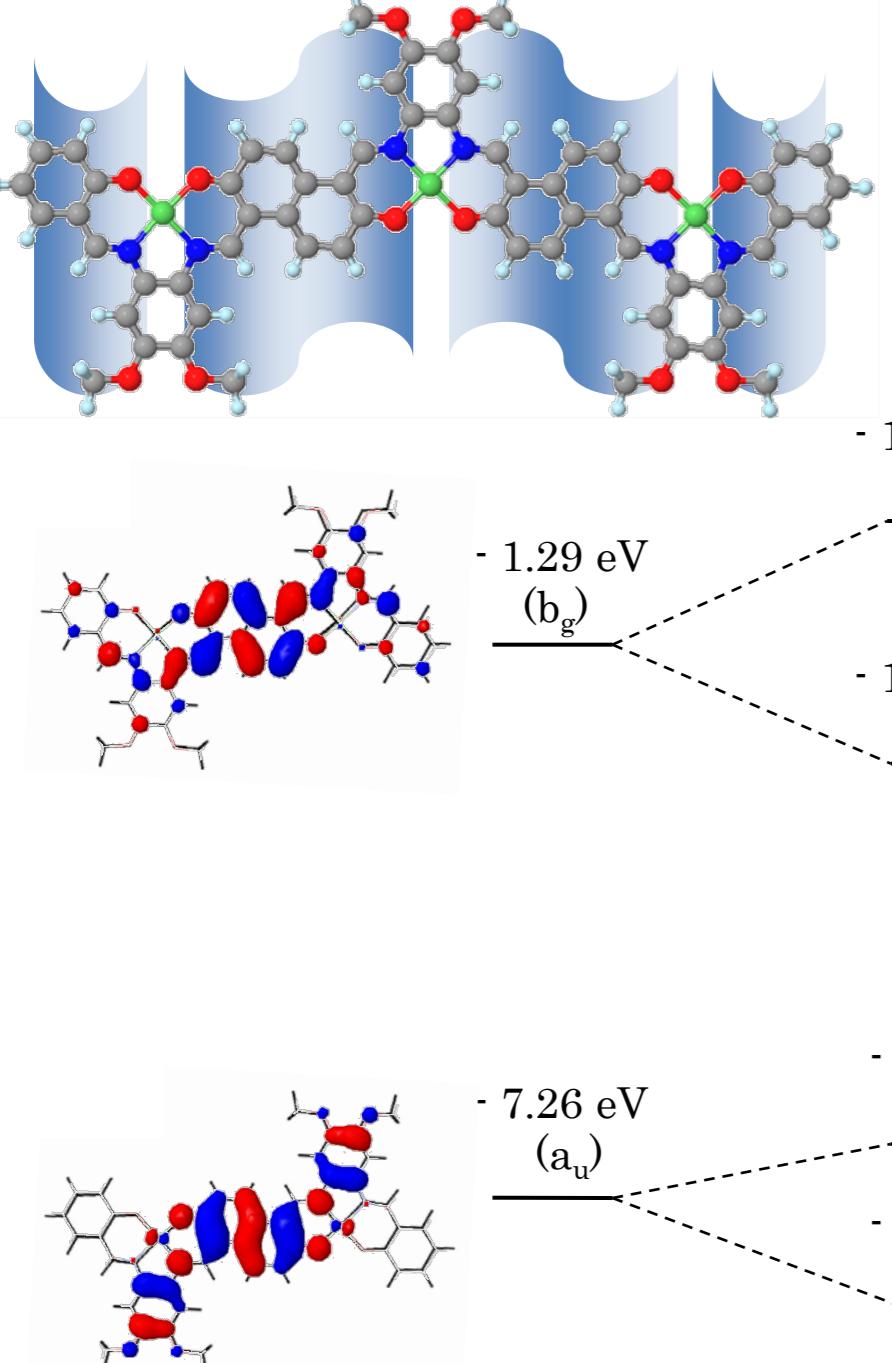
Polymorph and Spectral Change

Phase
 α β liquid β



S. Hara, et al., *Cryst. Growth. Des.* (2011).
S. Hara, et al., *J. Phys. Chem. A* (2014).

π -Conjugated Metallocopolymers



H. Houjou, et al., *Inorg. Chem.* (2011); K. Yagi, et al., *Macromol. Rapid Commun.* (2012).
H. Houjou, et al., *Org. Electronics* (2013); H. Houjou, et al., *J. Inorg. Organomet. Polym. Mater.* (2015).