

Diffusion dynamics of wave-packet and charge localized/delocalized in conjugation molecular materials

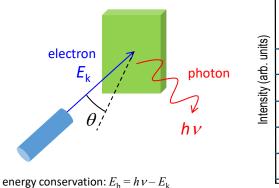
Principal investigator: Hiroyuki Yoshida (Chiba Univ)

Our Mission: Observation of condensed conjugation

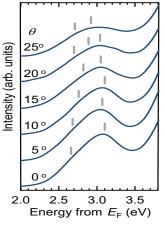
Aims of A03-3

- Direct observation of conduction band structure using angle-resolved low-energy inverse photoelectron spectroscopy (AR-LEIPS)
- Relationship between localization/delocalization of charge carriers and wave-packet diffusion dynamics

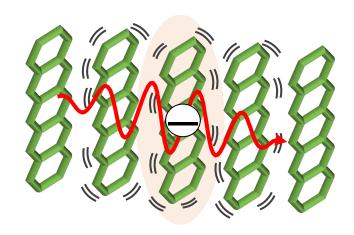
Observation of conduction band structure



momentum conservation: $k_{II} = (2m_0 E_{\rm k})^{1/2}/\hbar \sin \theta$



Diffusion of wave-packet



angle-resolved low-energy photoelectron spectroscopy

localization/delocalization of charge carriers