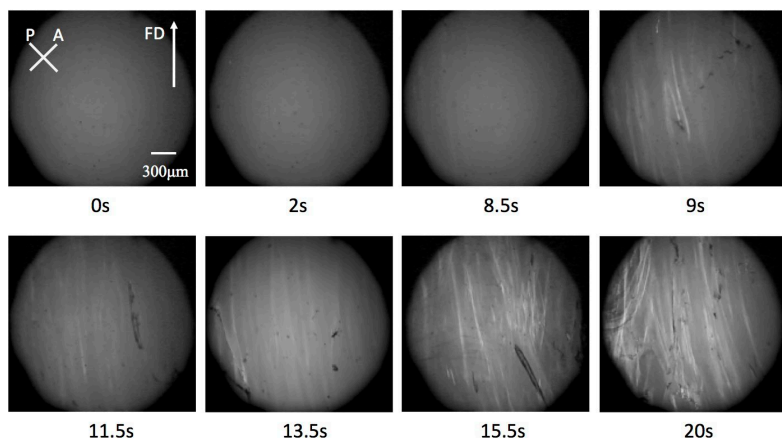


Improvement of Polymers' Properties with Precise Structure Analysis

Professor, Go Matsuba

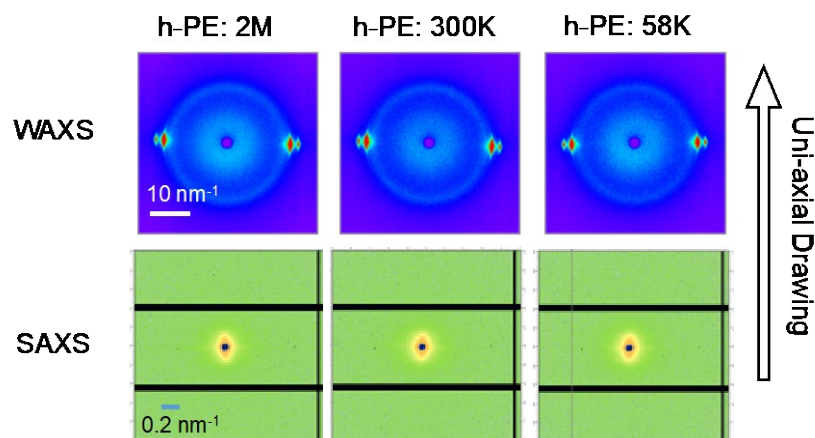
Control of Polymer Crystals

Oriented structure with polarized optical micrographs



nano-metered structure analysis

Crystal structural analysis with in-situ X-ray scattering



Content:

Our group carries out the precise analysis of “hierarchic” polymer structure with wide spatial and time scale to control/improve the polymer properties. We used synchrotron x-ray scattering, neutron scattering, optical/electrical micrograph, DSC and/or FT-IR techniques, viscoelastic measurements. The precise analysis of polymer structure could make polymer properties controlling from nanometer to micron. Especially, we performed on “in-situ” scattering measurements in order to the polymer structural formation process, and then we could improve higher performance, property and strengthening of polymers.

Appeal Points:

We are actively engaged in industry-academic research projects involving our master and undergraduate students' research. Our strength lies in the analysis of not only polymers, but also various materials such as food science and cellulose.

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Research Interest : Polymer Physics, Polymer Properties, Precise Analysis

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