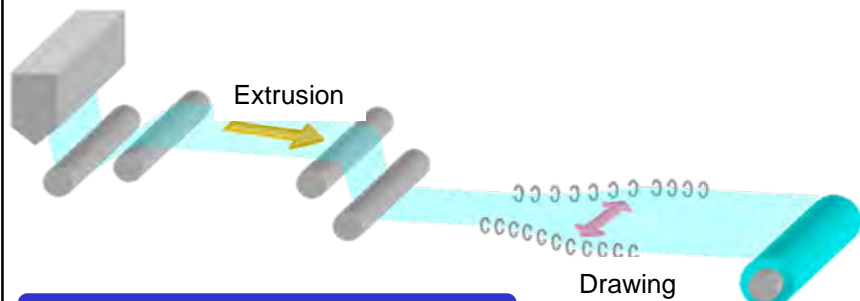


# Structural Development and Mechanism Analysis of Plastic Packaging Material

Associate Professor Miyata Ken

## Processing of Packaging Film



## Sealing for Packaging Film



Heat Sealing



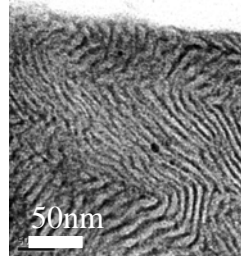
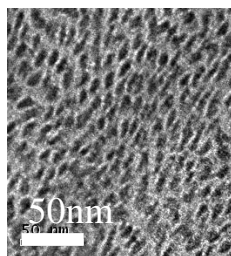
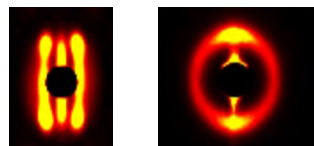
Ultrasonic Sealing



Laser Welding

## Structural Study of Polymer Film

X-ray scattering images  
and transmission electron  
microscopic images



## Content:

Plastic packaging is one of polymers close to our life. PET drink containers and packaging pouch for processing food are typical products. As social problems microplastics remained in the ocean and charging regulation for plastic bags in Japan are well known generally.

We focus on plastic packaging as a wide target for research work. Material design for packaging film and film processing are important research projects. Sealing studies applying heat and ultrasonic are also important research fields. We also study diffusion behavior of molecular and ion inside of polymers.

## Appealing point:

We will study plastic packaging with wide viewpoint. Not only physical, chemical and mechanical study but also social, economic, environmental and cultural viewpoints are important to proceed our research work.

We welcome collaboration research works with companies and overseas universities and institutes.

Yamagata University Graduate School of Organic Materials Science

Research Interest : Polymer Processing

Structural development and properties of polymer

Plastic packaging system

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