

# YOKOI LAB.

[Ultimate Injection Molding Technology and Pulp Injection Molding]

Department of Mechanical and Biofunctional Systems

Polymer Processing

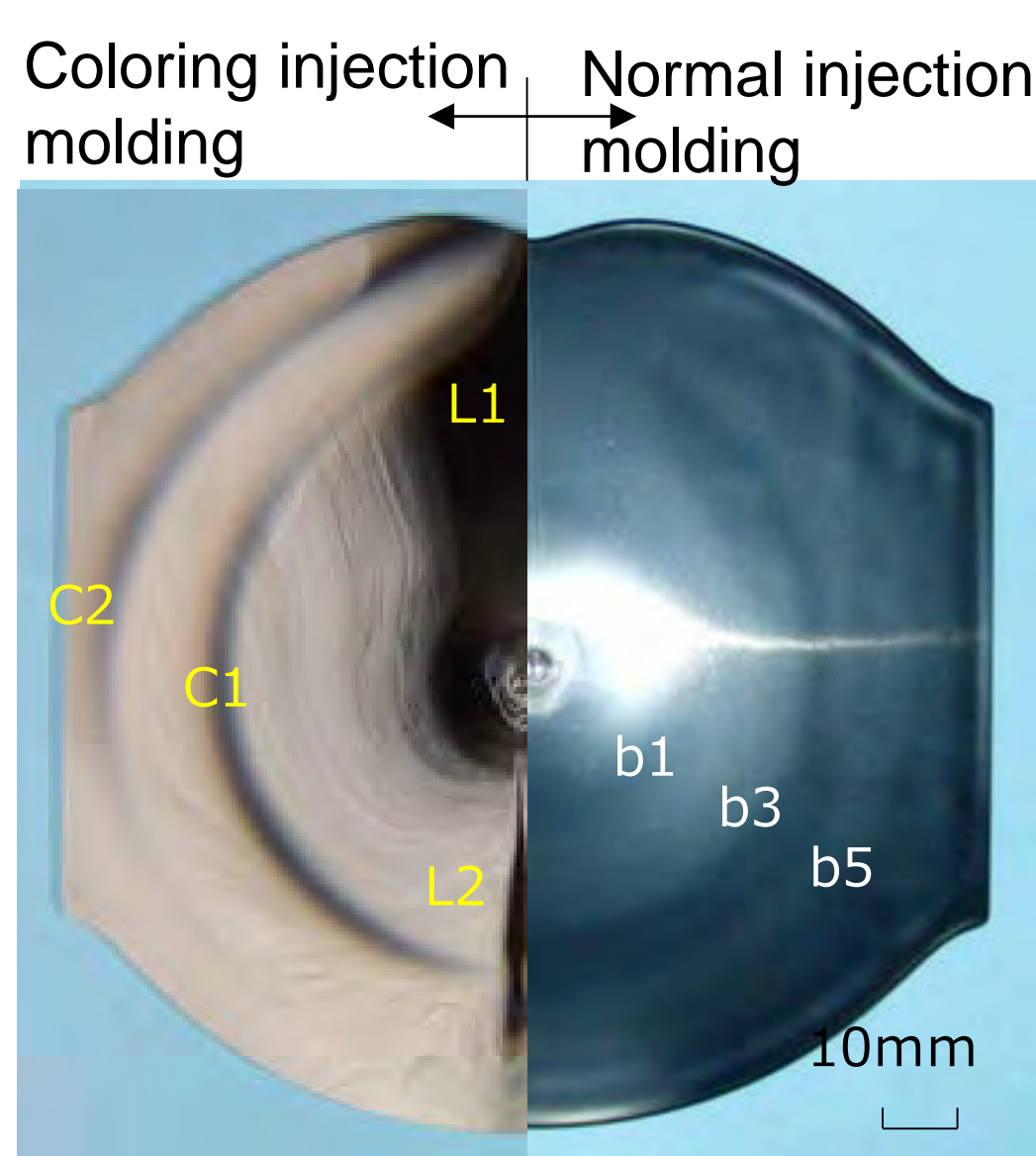
Precision engineering department

<http://www.iis.u-tokyo.ac.jp/~hiyokoi/>

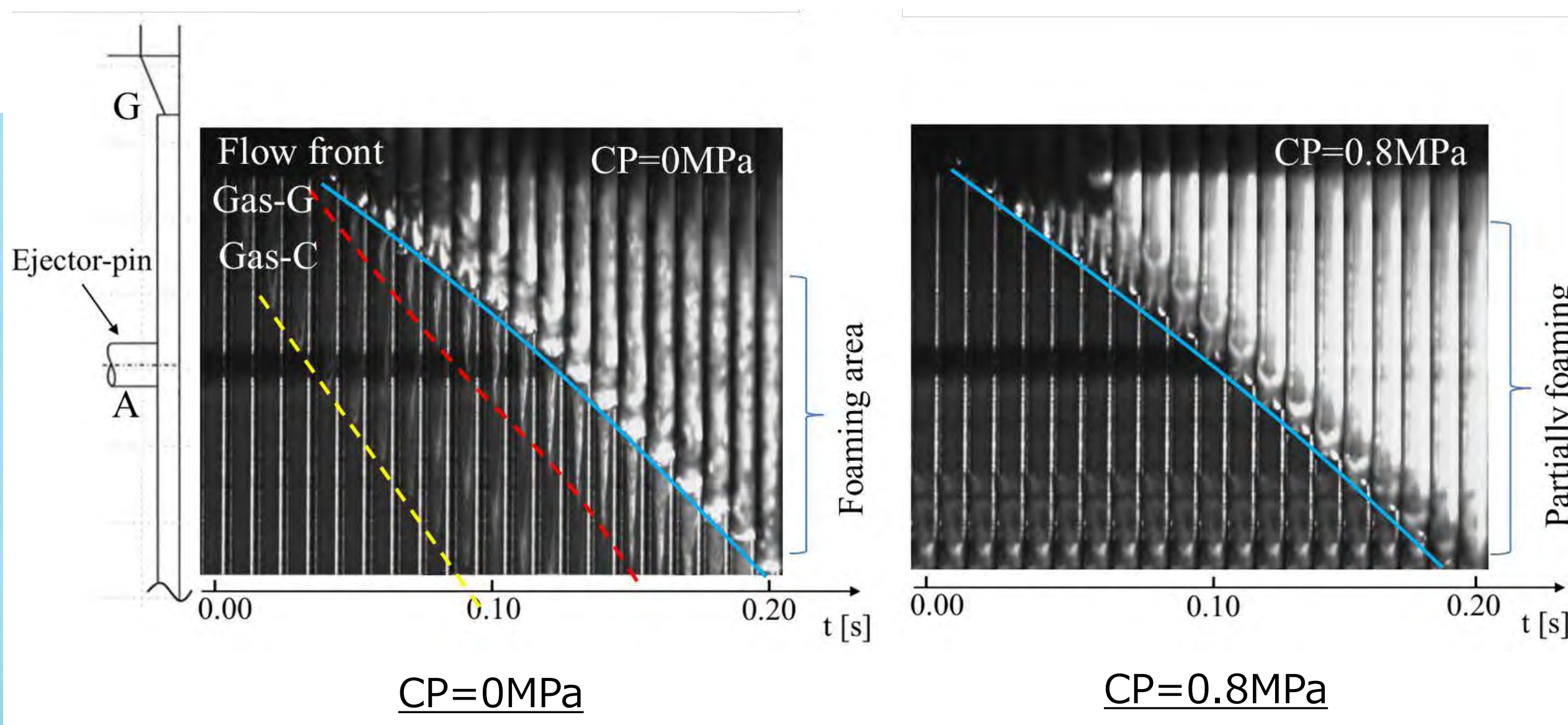
## Recent Topics on Visualization and In-process Measurement Technologies for Injection Molding

The Yokoi Laboratory is conducting the following projects; “Ultimate Injection Molding Technology” and “Pulp Injection Molding (PIM)”. Visualization themes and in-process measurement technologies are introduced through the demonstration of recent analytical results and video visualization images. Development of PIM samples is also reported using typical molded samples on display.

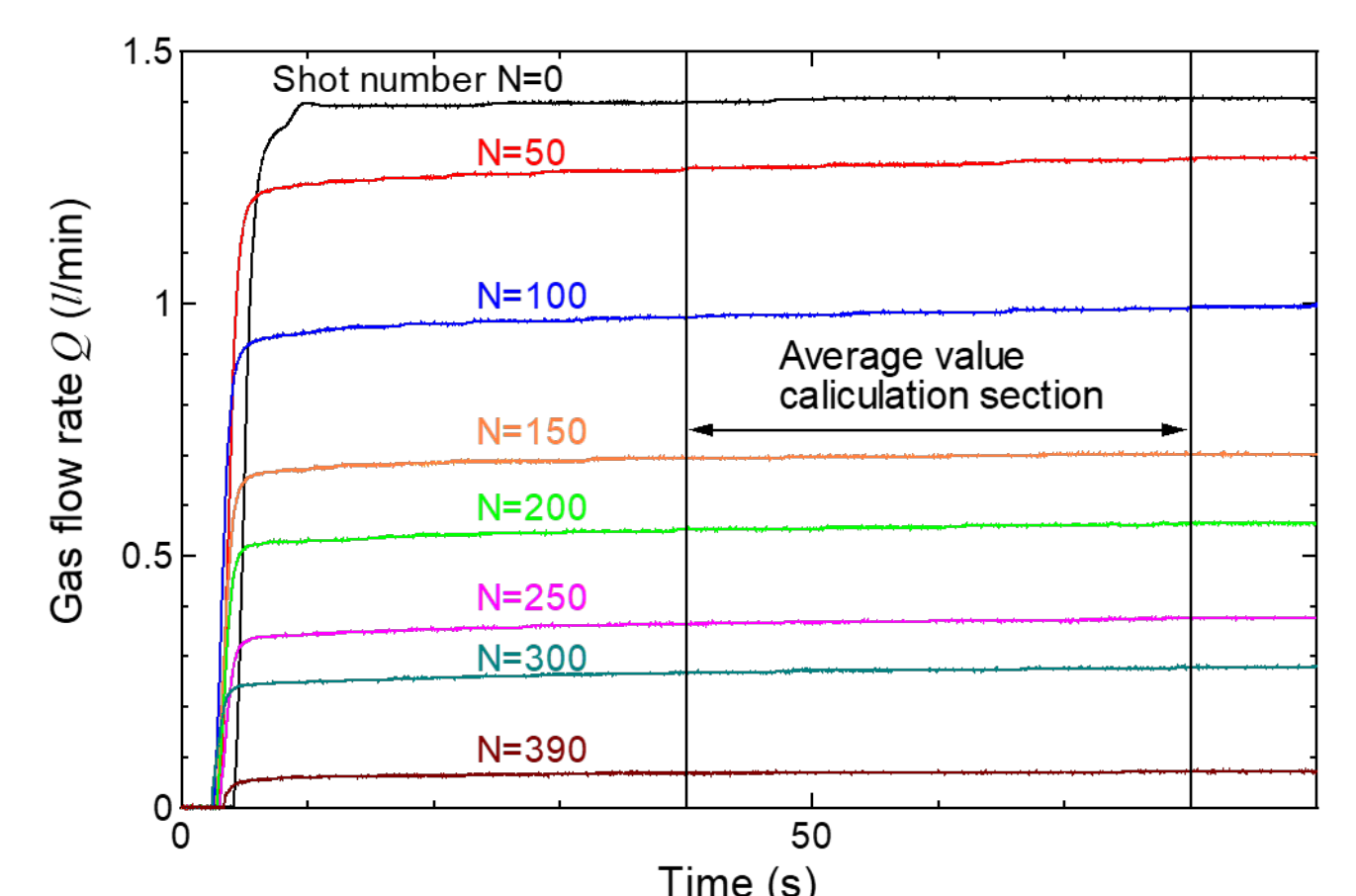
- ◆ Analysis of Concentric Flow Mark Occurrence Phenomena in Injection Molding Using Hot Runner System
- ◆ Visualization Analysis of Reduction Effects of Bubble Breakage and Gas Generation at Flow Front by Low Counter Pressure Injection Molding
- ◆ Measurement of Gas-vent Clogging Ratio Using Evaluation Mold of Gas-vent Performance
- ◆ Evaluation of Change of Gas-vent Performance with Time in Continuous Molding
- ◆ Development of Mold for Evaluating Fiber Disintegration/Dispersibility in Injected Melts in Long-Fiber Reinforced Resin Injection Molding
- ◆ New Application Fields of Pulp Injection Molding Technology



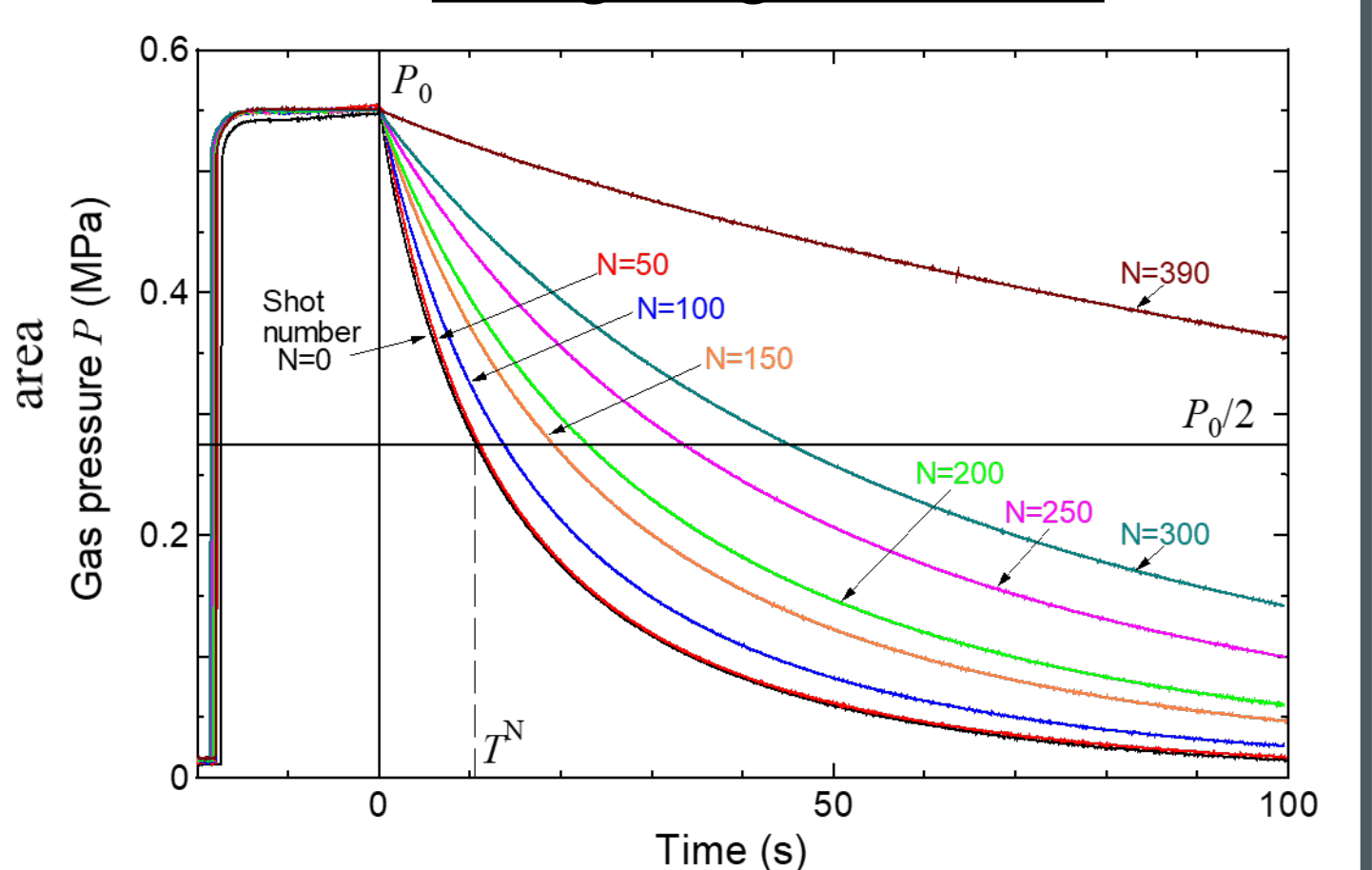
**Concentric Flow Mark in Injection Molding Using Hot Runner System**



**Reduction Effects of Bubble Breakage and Gas Generation at Flow Front by Low Counter Pressure Injection Molding**

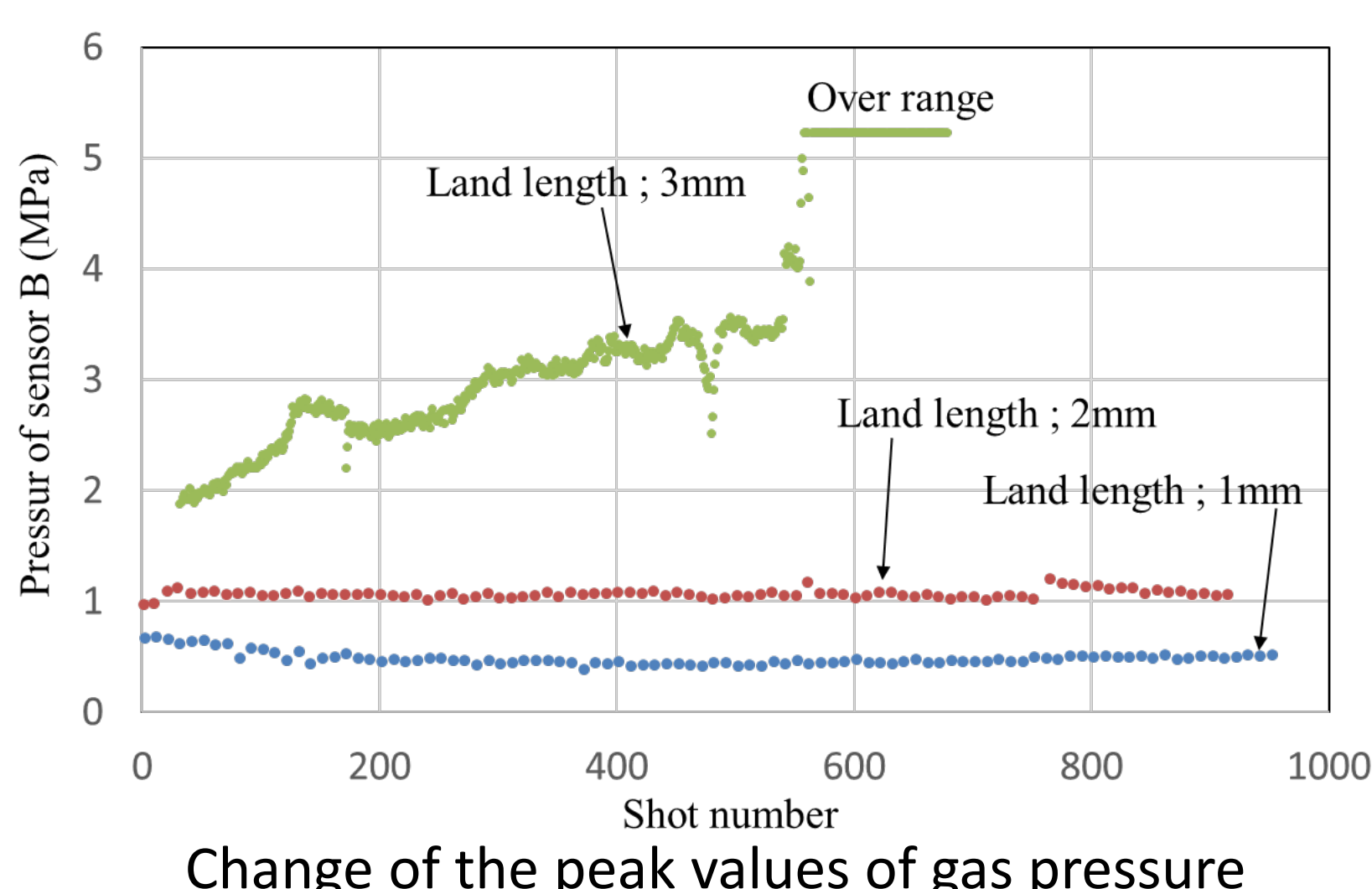


**Change of gas flow rate**



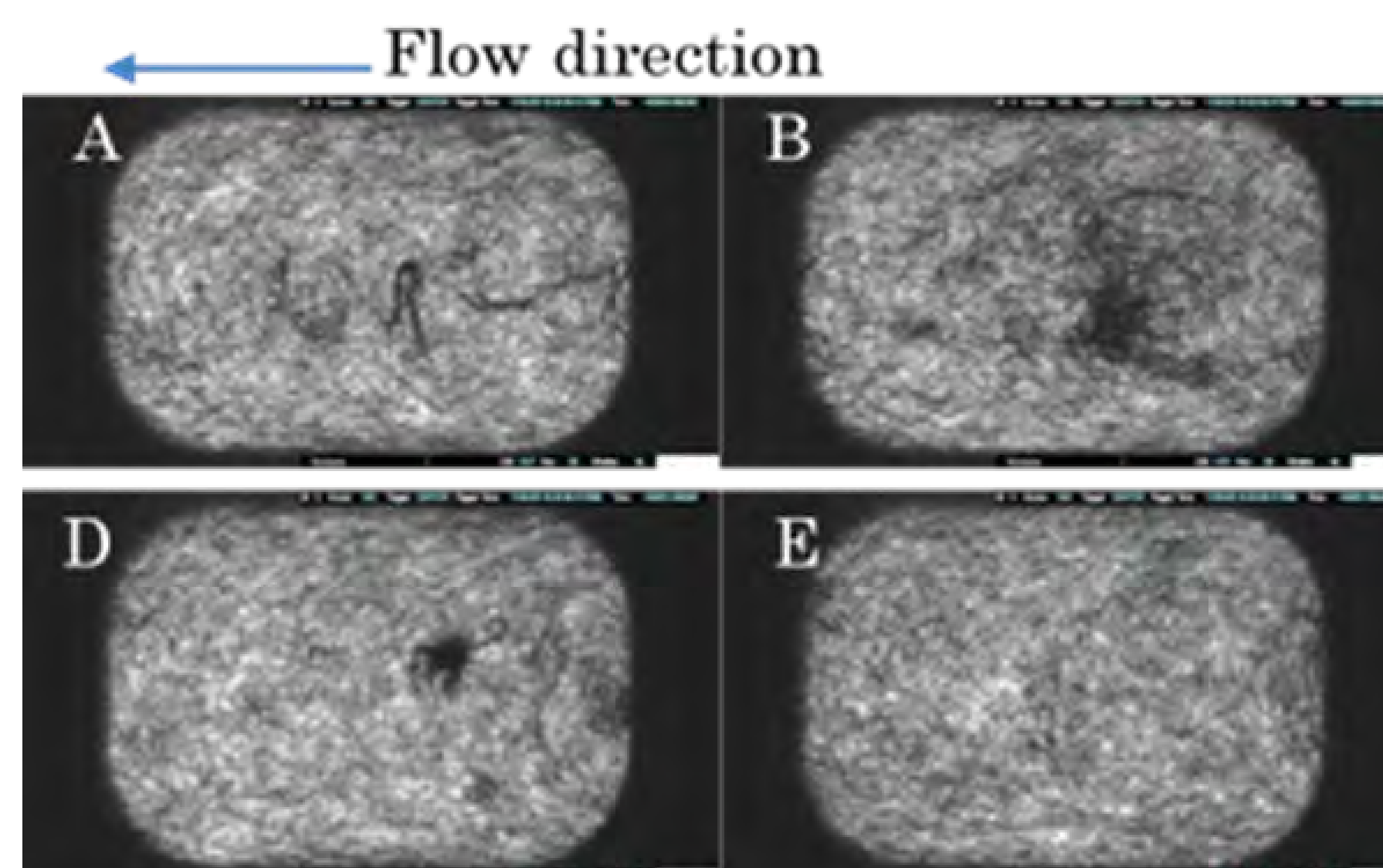
**Change of gas pressure curves**

**Measurement of Gas-vent Clogging Ratio Using Evaluation Mold of Gas-vent Performance**



**Change of the peak values of gas pressure**

**Evaluation of Change of Gas-vent Performance with Time in Continuous Molding**



**Evaluation Images of Disintegrated Long Carbon Fiber Bundles in the Injected Melts**



**New Application Fields of Pulp Injection Molding Technology**