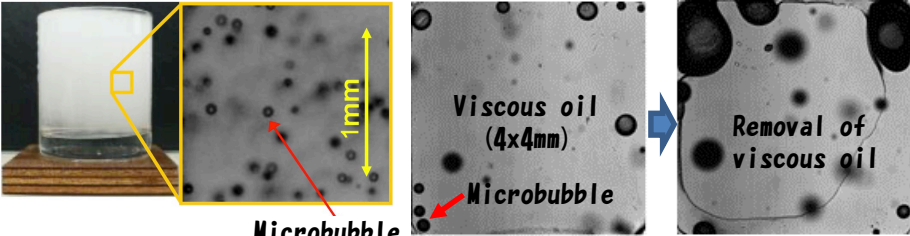


Micro-scale Multiphase Flows



Removal of viscous oil on channel wall due to microbubble



Generation of armored bubble High-speed images CFD
Experiment and CFD of microchannel flow

Multiphase Flows in Energy - Environmental systems

Bubbly flows in column

Simulation Experiment

Water Surfactant solution Slurry

Inclusion effects on bubbly flow Bubbles with membrane

CFD in bubble column

Thermal Hydraulics for Safety Design

Swirling annular flow Swirler Gas-liquid separation Flow in rod bundle

(b) 0T 0.25T 0.5T 0.75T 1.0T

Bubbly flow in vertical pipe with horizontal oscillation

Counter-current flow limitation

Two-phase flow in curved pipe

Modeling of bubbles and drop

Surfactant adsorption on bubble

Drag - Lift coefficient models

CO₂ bubble dissolution

Velocity distribution of contaminated drop

Exp. CFD

Lift Drag

