

# “Dynamic Interaction between a Millimeter-Sized Bubble and Surface Microbubbles in Water”

The coalescence between microbubbles and millimeter-sized bubbles is an elementary process in various industrial applications such as froth flotation and wastewater treatment. In this work, we performed simultaneous measurements of the interaction force and spatial thin-film thickness during the collision between a millimeter-sized bubble and surface microbubbles. Results suggest that the non-symmetric drainage process, rather than the rupture thickness, contributes to the scattering of the experimental coalescence time between two fast-colliding air bubbles, and that smaller surface bubbles are more effective for attachment onto a large bubble.

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Dr. Liu is a leading authority on interfacial science and water chemistry in minerals processing and oil sands extraction. Dr. Liu’s research continues to stimulate scientific discoveries and develop vital technologies that address the economic and environmental challenges faced by Canadian industry. He brings valuable industry experience into university teaching and research. As clean energy plays an increasingly important role in global development, Dr. Liu’s teaching, research, and development of new technology is of vital importance to sustainable development in Alberta and across Canada.

4:10 p.m.

Wednesday 14 November 2018

1230 WEB, 72 Central Campus Dr

Free and open to the public