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Experimental Study on Effect of Surface Vibration on Micro Textured Surfaces with Hydrophobic and Hydrophilic Materials

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Highlights:

- Micro-textured surfaces with hydrophobic and hydrophilic materials were fabricated to understand the effects of their unique surface properties on droplet shedding behavior.
- The natural resonance frequencies of droplets with different volumes on the micro-textured surfaces with hydrophobic and hydrophilic materials were studied.
- The effects of surface vibrations on droplet sliding on the micro-textured surfaces with hydrophobic and hydrophilic materials were firstly investigated through experimentation.
- The findings are useful to design an anti-liquid or enhanced condensation device.

ABSTRACT

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