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**Enhanced speed of a falling sphere in pseudo-plastic fluid with ultrasound irradiation** MINORU IWAMURO, TOMOAKI WATAMURA, KAZUYASU SUGIYAMA, Osaka Univ — We experimentally investigated the effect of ultrasound irradiation on a falling sphere in pseudo-plastic fluid. The falling velocity is measured via an image processing technique. We performed experiments with parametrizing sphere diameter, fluid properties, ultrasound intensity, and its frequency. We found that the falling speed is enhanced by ultrasound irradiation, and the speeding-up in the stronger pseudo-plastic fluid is much greater than that in the weaker one. We conclude that the speeding-up ratio is relevant to the ratio of the viscosity and length scales involved in the system.

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