Supporting Information

On-Chip Magnetometer for Characterization of Superparamagnetic Nanoparticles

Kun Woo Kim¹, Venu Reddy¹, Sri Ramulu Torati¹, XingHao Hu¹, Adarsh Sandhu²*, CheolGi Kim¹*

¹Department of Emerging Materials Science, Daegu Gyeongbuk Institute of Science and Technology (DGIST), Daegu, 711-873, Republic of Korea.

²Electronics-Inspired Interdisciplinary Research Institute (EIIRIS), Toyohashi University of Technology, Hibarigaoka, Tempaku-cho, Toyohashi, 441-8580, Japan

*Corresponding authors:

E-mail address: sandhu@eiiris.tut.ac.jp, cgkim@digst.ac.kr
**Fig. S1** Experimental set up for measurement of oscillating droplet.
Fig. S2 Change in PHR signals of droplet by application of in-plane magnetic field.
Fig. S3 (a) VSM measurement and (b) SQUID measurement for 35 pL sample volume.
Fig. S4 Microscopic images of droplets with (a) 1 % and (b) 100 % ferrofluid concentrations