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**Droplet manipulation using light-induced thermal flows on an amorphous silicon thin film** HORIM LEE, JIN SUNG YOON, KWAN HY-OUNG KANG, Department of Mechanical Engineering, POSTECH — We present a droplet-manipulation method using light-induced thermal flows in oils. The flows are originated from Marangoni and buoyancy effects due to temperature gradient, generated by the adsorption of light in an amorphous silicon thin film. The effects of the types and thickness of the oil on the flows are explored experimentally and numerically. Using this method, we can manipulate a droplet including cells in an extremely simple system without the damage on cell viability.

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