

## Supporting Information

**TITLE:** Light-induced displacement of a microbead through the thermal expansion of liquid crystal

**AUTHORS:** Y. Takenaka<sup>a,b</sup> and T. Yamamoto<sup>a</sup>

**AUTHORS' AFFILIATIONS:** <sup>a</sup>Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki 305-8565, Japan,  
<sup>b</sup>PRESTO, JST, Kawaguchi, Saitama 332-0012, Japan.

### CONTENTS:

- Displacement of a microbead in cell D by the irradiation of infra-red laser
- Focus shift of microbeads

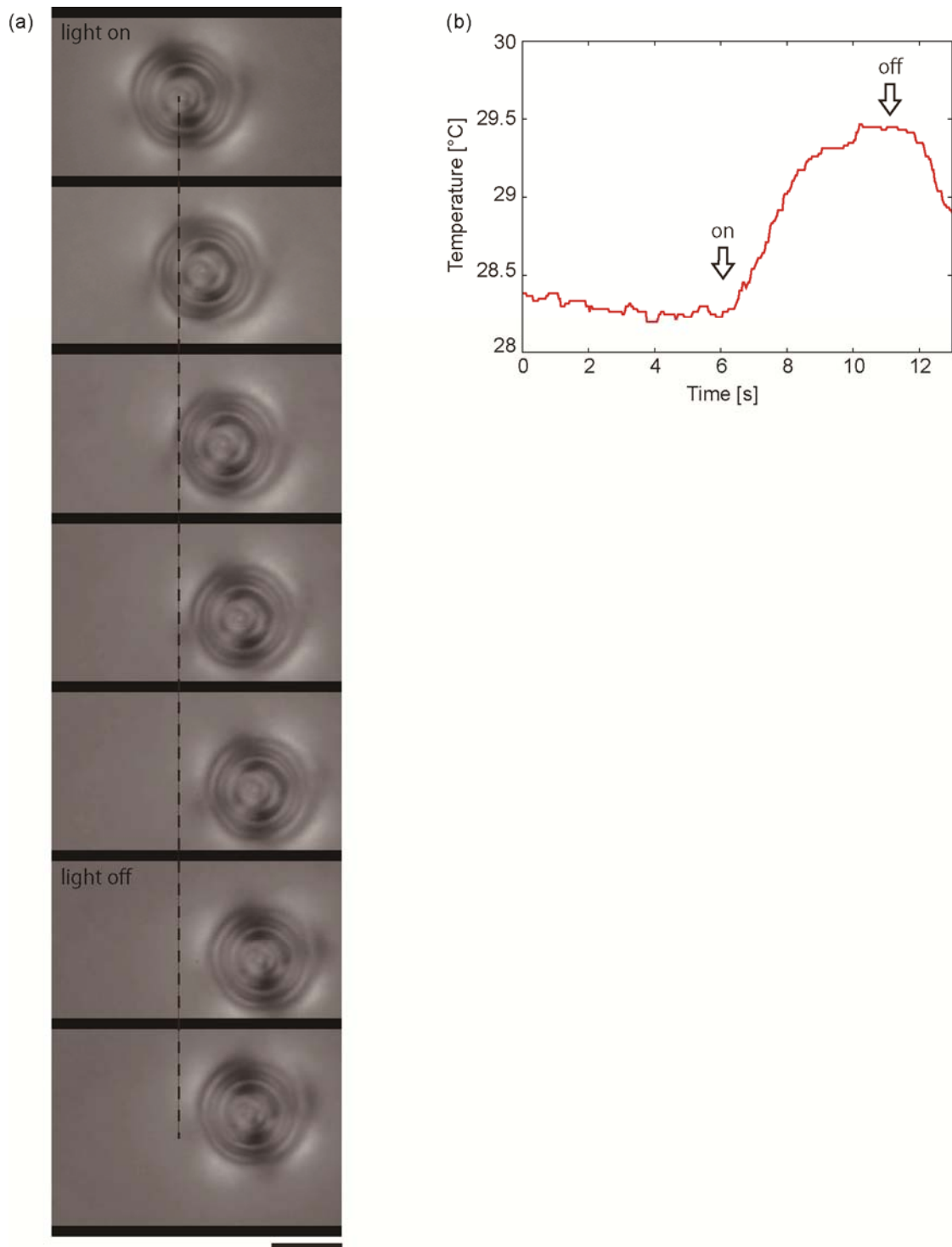


Figure S1 Displacement of a microbead in cell D by the irradiation of infra-red laser (a) and the change in the temperature of cell surface (b). Scale bar is 10  $\mu\text{m}$ .

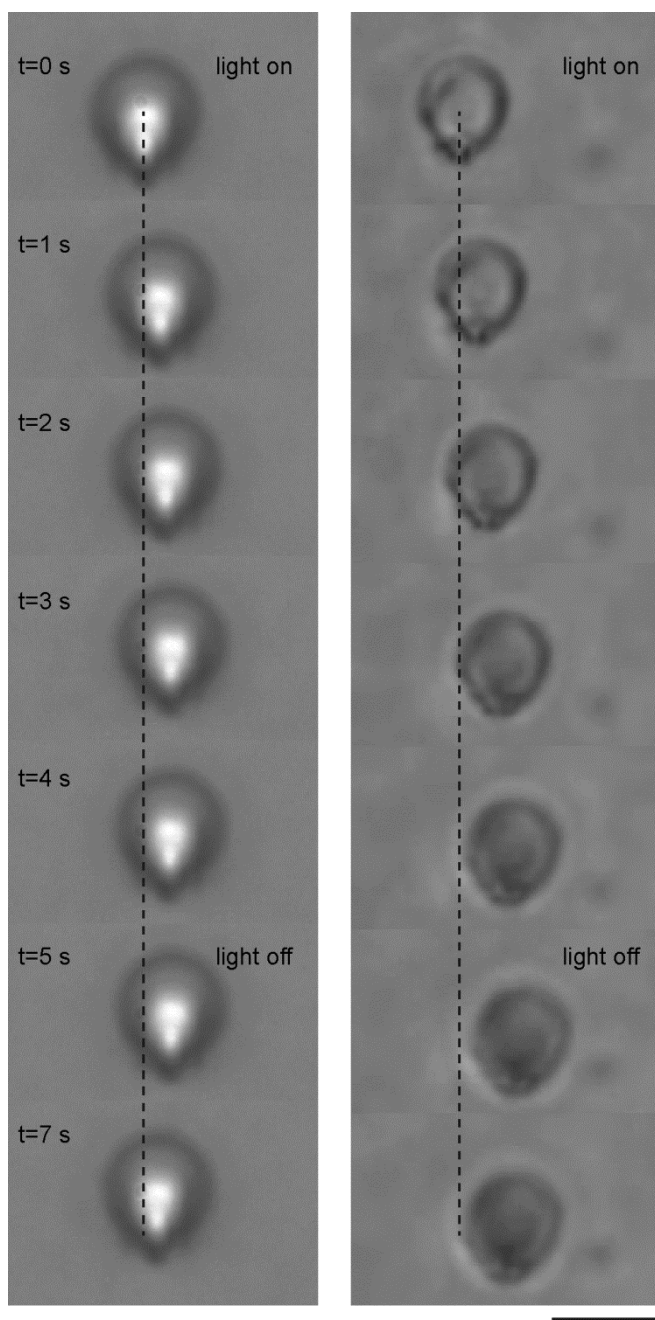


Figure S2 Focus shift of microbeads. The displacement of each microbead is different because of the difference in the intensity of light. As shown in figure 3 in the manuscript, the moving distance depends on the intensity of light. Scale bar is  $10\ \mu\text{m}$ .