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Supplementary Information for

Light fueled mixing in open surface droplet microfluidics for rapid probe preparation

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■ Fig. S1

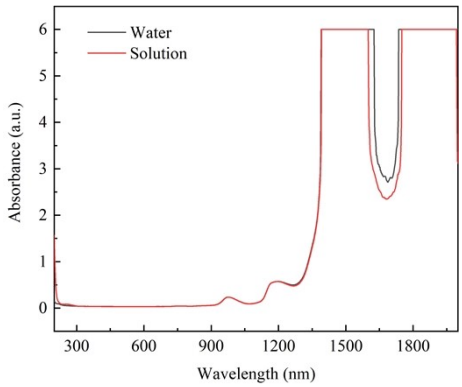

Fig. S1 UV-Vis-IR absorbance spectra of pure water and dynabeads-contained solution in a wavelength range of 200-2000 nm.

■ Fig. S2

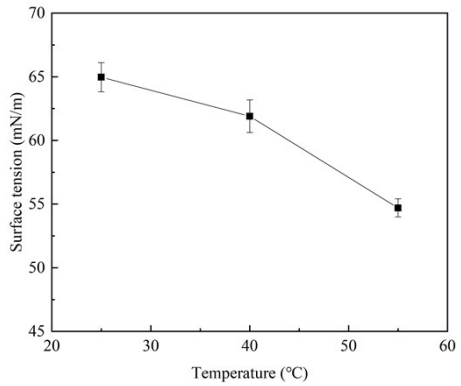

Fig. S2 Variation in surface tension of dynabeads-contained solution with temperature.

■ Table 1

Table 1 Values of parameters

Parameter	Symbol	Value
density	ρ	1058.44 $kg \cdot m^{-3}$
acceleration of gravity	g	9.8 $m \cdot s^{-2}$
thermal expansion coefficient	β	4×10^{-4} K^{-1}
characteristic length	L	1.44×10^{-3} m
temperature difference	$\Delta T max$	32 K
thermal diffusivity	α	1.44×10^{-7} $m^2 \cdot s^{-1}$
kinematic viscosity	ν	5.67×10^{-6} $m^2 \cdot s^{-1}$
temperature coefficient of surface tension	γ	3.42×10^{-4} $N \cdot m^{-1} \cdot K^{-1}$
Ra number	$Ramax = g\beta L^3 \Delta T / \alpha\nu$	459
Ma number	$Ma = \gamma L \Delta T / \alpha\rho\nu$	18236
Ratio of *Ra* to *Ma*	$\chi max = Ra/Ma$	0.025