



Fig. S6 Oil droplet electrically driven by L-DEPOE³ on SLS. The bottom flat substrate with two electrodes in a standard L-DEPOE configuration is replaced by SLS with the discrete configuration. When the external capacitor C switches to the left side, the electrostatic force moves the oil droplet to the right side.

To model the droplet motion on SLS,³ the CAH on the flat substrate is replaced with the effective CAH of SLS. The major parameters for the simulation are shown as following.

Table S6. Simulation parameters for droplet transport on SLS by L-DEPOE.

External capacitance C (pF)	Relay resistance R (M Ω)	Viscosity μ (cSt)	Liquid resistivity (G $\Omega \cdot m$)	electret surface voltage(mC/m ²)	Electret thickness (μm)	gap height (μm)	Contact line friction factor ζ
5	400	10	100	1.4	20	150	6