Electronic Supplementary Material (ESI) for Lab on a Chip. This journal is © The Royal Society of Chemistry 2015

Supplementary material description

Video 1

- "SAW-based water atomization using an on-chip SU-8 microchannel"
- Aerosol plume with low opening angle and a height of approximately 50 mm formed by SAW-based water atomization.
- Keywords: SAW, surface acoustic wave, atomization, fluid, microchannel, SU-8, chip

Video 2

- "SAW-based water atomization during laser diffraction measurement; top view"
- Slightly tilted top view on experimental setup during water atomization showing conductor plates, SAW chip with two opposing IDTs and the SU-8 block connected via silicone tubing and steel capillary to the syringe pump (pump not shown); Laser diffractometer measurement spot (red) visible
- Keywords: SAW, surface acoustic wave, atomization, fluid, microchannel, SU-8, chip, laser diffractometer

Video 3

- "SAW-based water atomization during laser diffraction measurement; side view"
- Aerosol plume with low opening angle; Variations in the aerosol shape caused by ambient air fluctuation; Laser diffractometer measurement spot (red) visible
- Keywords: SAW, surface acoustic wave, atomization, fluid, microchannel, SU-8, chip, laser diffractometer

Video 4

- "SAW-based water atomization: Magnification of the channel outlet and the atomization zone"
- Magnification showing the laterally separated zones of fluid supply and atomization, the interconnecting fluid thin film and the aerosol mist.
- Keywords: SAW, surface acoustic wave, atomization, fluid, microchannel, SU-8, chip