

**Apparatus and method for dispensing particles in free-flying drops aligned
using an acoustic field**

Abstract

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An apparatus for dispensing particles in free-flying liquid drops includes a fluid chamber fluidically coupled to a nozzle, a sound source configured to generate, in the fluid chamber, an acoustic field by which particles in a liquid in the fluid chamber may be aligned in an arrangement, and a drop-on-demand mechanism configured to, at a
10 selected point in time, selectively dispense from the nozzle an individual liquid drop containing one or several particles.

FIG.1