

Impacting water drop onto micropores

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ABSTRACT

When water drop is impinged onto micropores, microdrops can be generated as a result of the water penetration through micropores. Here, we present how the penetration dynamics can be changed depending on surface wettability of the micropores and the impact velocity. Also, we demonstrate that it is possible to generate a single microdrop with a given diameter reproducibly under certain impact conditions. Furthermore, we show that the droplet charge can also be controlled by modifying the surface coating of micropores, which is relevant to liquid drop based energy harvester.

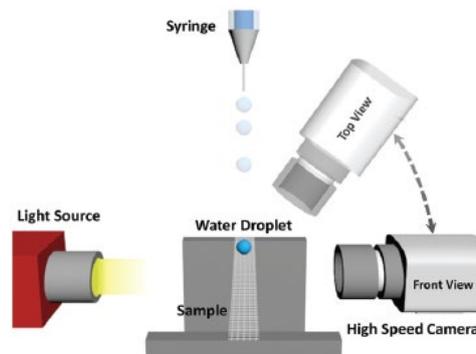


Fig. 1 Schematic of water drop impact on micropore

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