

# Microdrops in Microfluidic: Estimation of Geometrical Form

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**Abstract:** Manipulation of small-sized liquid quantities is one of the key issues in technology, biology, chemistry and medicine. Where the increased surface-to-volume ratio making surface effects more dominant [42], which allows to reduce time of reaction and economies the costs of manufacturing products. The microdrop is a typical example of a small-sized liquid quantity; that can be considered as samples, reagents and supplementary indicator to approach us in the direction of reaction and the state of microdrop. The creation of reproducible in stable geometrical form of microdrop makes a critical step during the manufacturing of microdrop. Pressure based manufacturing of microdrop nowadays a common way to create reproducible and stable small-sized drops. Many geometrical form of microdrop can be generated in different techniques. Proofed that microdevices based on pressure based manufacturing of microdrops has already been successfully implemented. This paper serves as a review of the most important contributions, in the development of the creation of reproducible and stable microdrops in the past decades. Besides serving as a reference for researchers in this area, this paper is also a resource for everybody who wants to identify the easiest way to precise microdrops geometrical form for a particular application by simple analysis.

**Keywords :** form, microdrop, description and theoretical analysis.