

# PHD NOTES



# REVIEW

## Paper 1 Optimization of Device Geometry in Single-Plate DMF

Abdelgawad et al. (2009)

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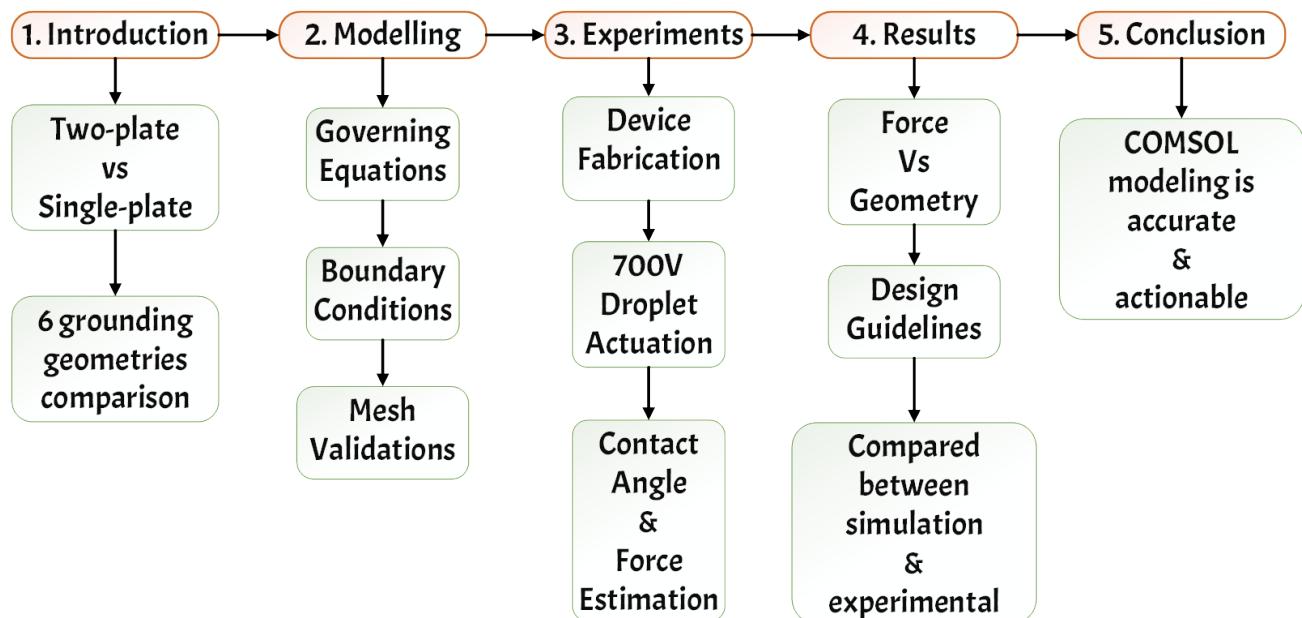
1.1 Paper Overview

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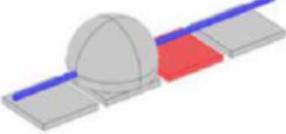
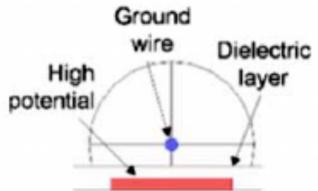
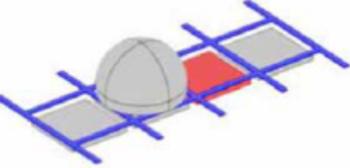
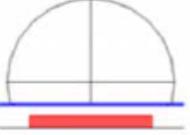
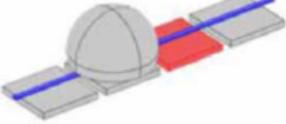
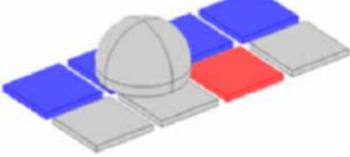
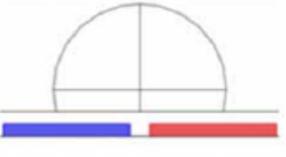
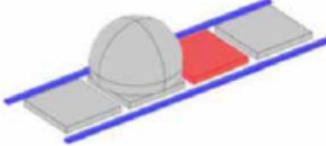
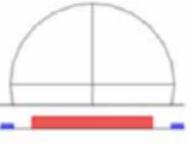
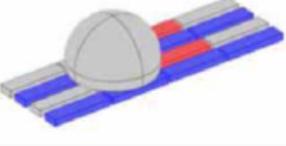
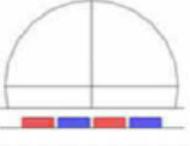
# OPTIMIZATION OF DEVICE GEOMETRY IN SINGLE-PLATE DIGITAL MICROFLUIDICS

Abdelgawad et al. (2009)

## 1.1 Paper Overview



**Figure 1.1** Paper workflow

Design	Description	3D view	Side view
Fouillet and Achard	Ground potential connected to a wire passing through droplet.		
Fair et al.	Ground potential connected to a mesh of wires surrounding the actuation electrodes on top of the dielectric coating		
Cooney et al.	Ground potential connected to a wire positioned on top of the dielectric coating in the middle of actuation electrodes.		
Abdelgawad et al.	Ground potential connected to a line of electrodes parallel to actuation electrodes.		
Paik et al.	Ground potential connected to two wires on both sides of actuation electrodes underneath the dielectric coating.		
Yi and Kim	Ground potential connected to a line of electrodes parallel to the actuation ones underneath the dielectric coating.		

**Figure 1.2** Grounding geometries comparison