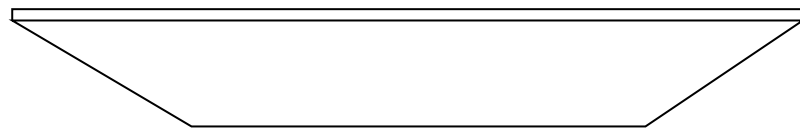
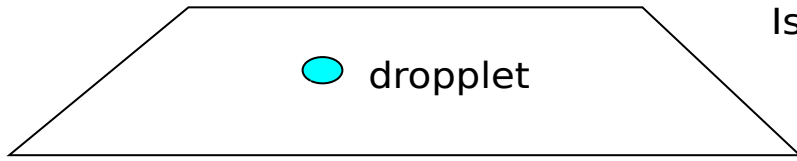


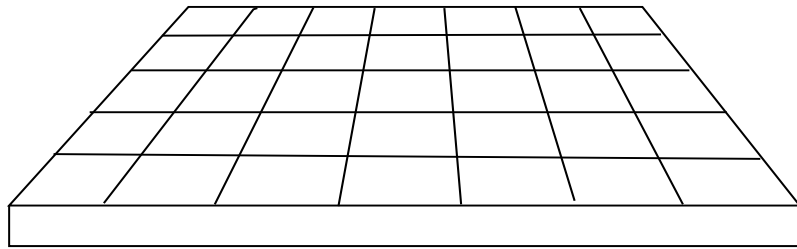
# EWOD - Electrowetting on Dielectric



Top cover glass  
conductive with ITO  
with hydrophobic surface

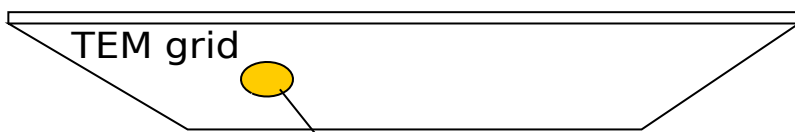


Isolating Foil  
or Coating  
with hydrophobic surface  
= Dielectric

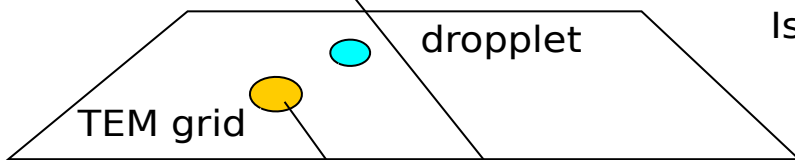


Electrode Array

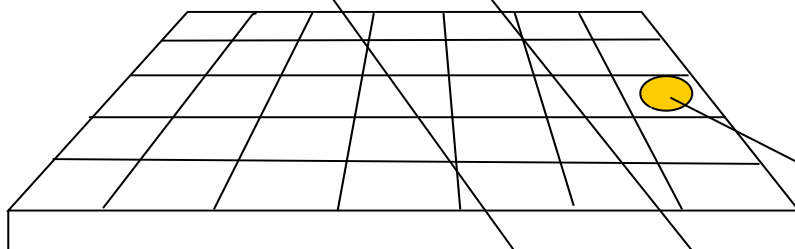
## TEM grid preparation using EWOD - Possible configurations



Top cover glass  
conductive with ITO  
with hydrophobic surface



Isolating Foil  
or Coating  
with hydrophobic surface  
= Dielectric



Electrode Array

isolated hydrophobic TEM  
directly on/as electrode

hydrophobic TEM grid attached  
to conductive glass layer

hydrophobic TEM grid sitting  
on hydrophobic layer

Thickness of Nickel grids is typically  $35\mu\text{m} \pm 5\mu\text{m}$ .  
Thickness of Mo grids is typically  $25\mu\text{m} - 50\mu\text{m}$ .

Hydrophobic TEM grids are functionalized with alkyl chains ( $n=8$ ) to create a hydrophobic surface with a contact angle  $>100^\circ$ .