

# SUBSTRATE TINNING ANALYSIS

# Substrate thinning in a BBI context

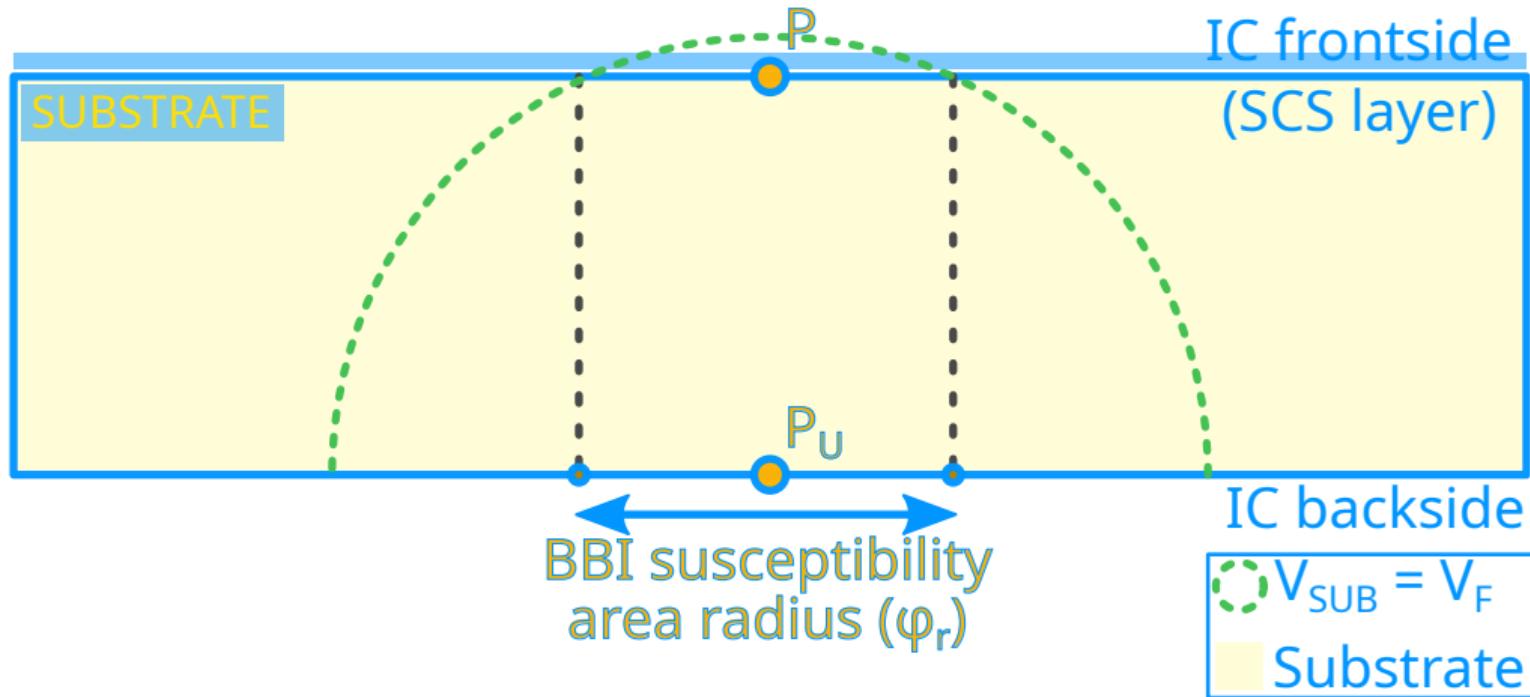
In Laser Fault Injection, substrate thinning has been proven useful  
Is it the case concerning BBI?

Section agenda:

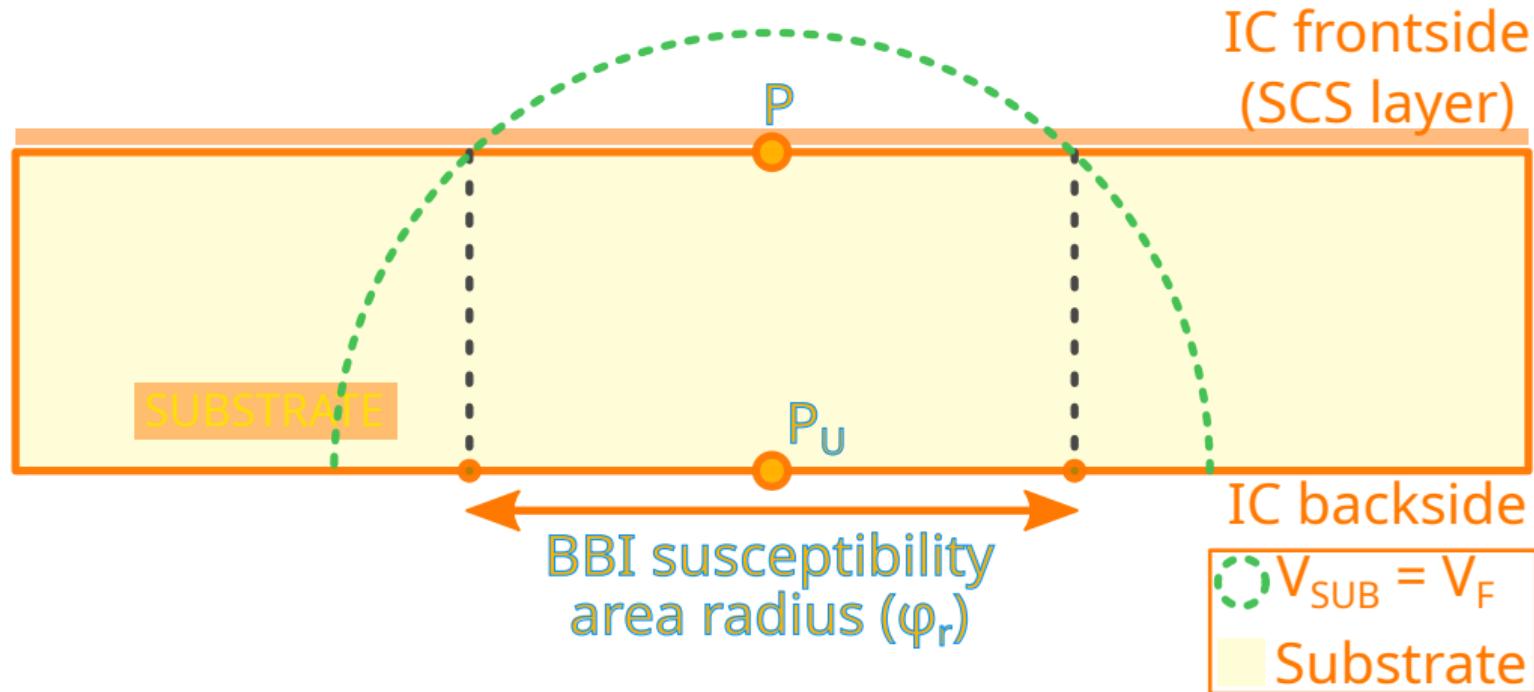
- Geometric approach
- Electrical simulation approach
- Experimental validation

## Geometric approach

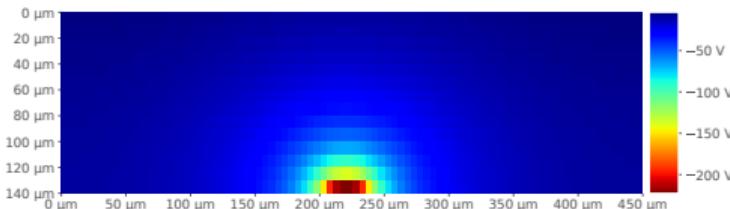
## Geometric approach



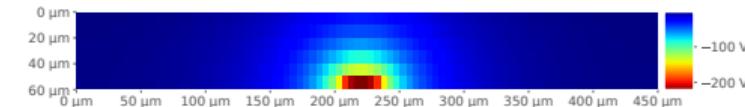
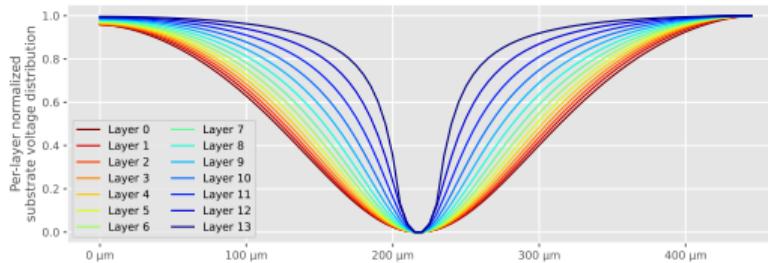
## Geometric approach



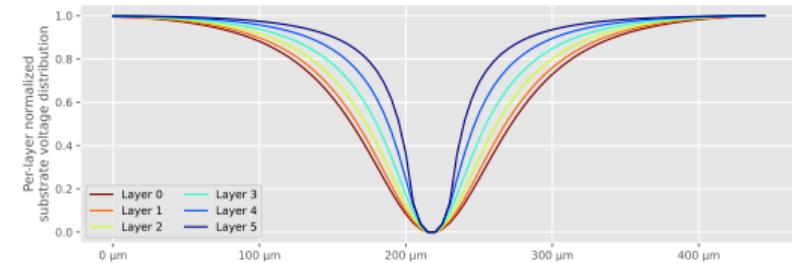
## Simulation approach



The higher the layer number, the closer to the probe.  
The lower the normalized value, the higher the concentration.



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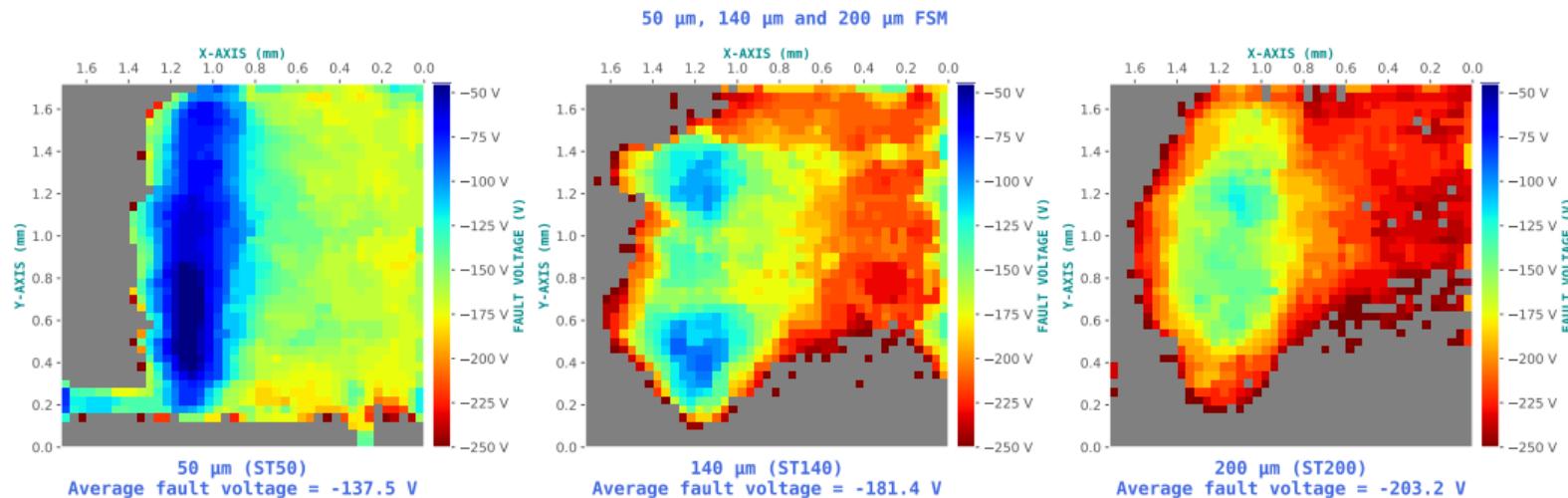


## A few words on substrate thinning techniques

AJOUTER IMAGES APPAREILS AMINCISSEMENT ET EXPLICATIONS

# Substrate thinning in practice

## Fault susceptibility maps



# Substrate thinning in practice

## Susceptibility area spreading

