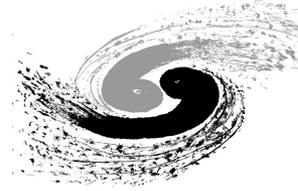


# Sensor Simulation Update



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2019/03/07

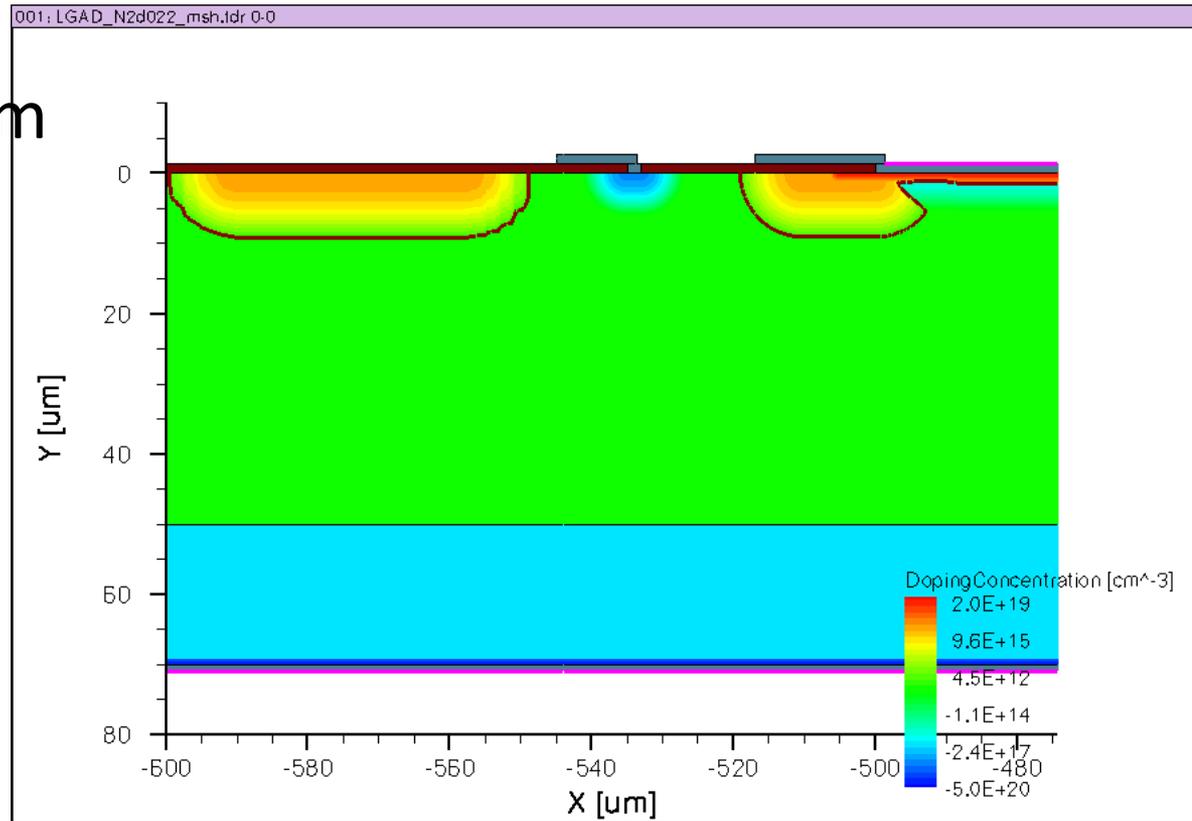


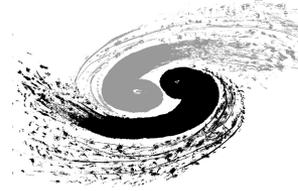
# Field Ring Simulation

Field ring from  
533.67 $\mu\text{m}$  to 545 $\mu\text{m}$

BDV = -432V

Gain = 7.1



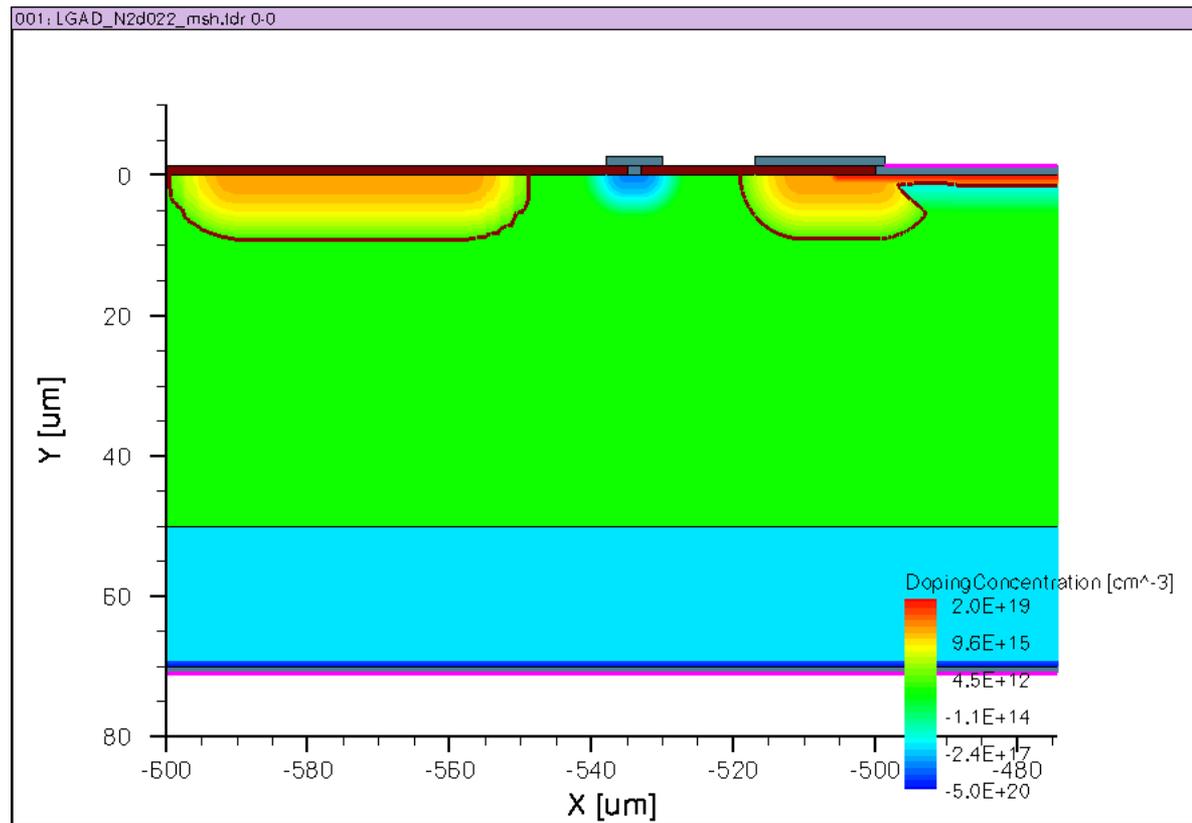


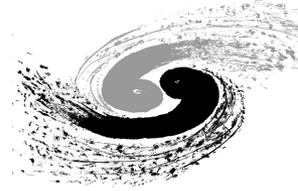
# Field Ring Simulation

Field ring from  
530 $\mu\text{m}$  to 538 $\mu\text{m}$

BDV = -427V

Gain simulate  
didn't converge





# HPK Wafer 8 Doping Profile

What's the doping profile we can know from this plot?

What's the meaning of depth?

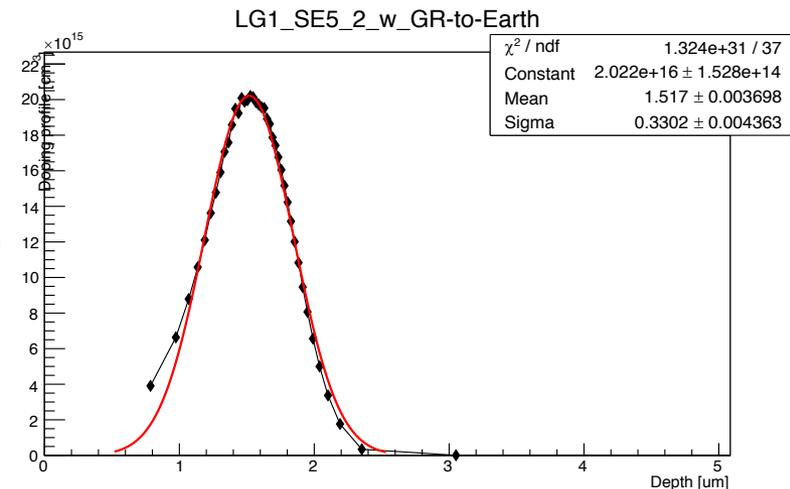
Which type of concentration? N or P?

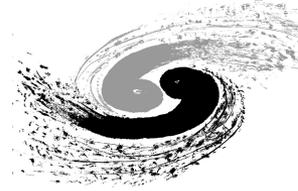
We change to their doping:

BDV = -421V, Gain@-320V = 1.6

Much worse than our doping

BDV = -410V, Gain@-320V = 10.45





# Summary

1. Field ring from  $530\mu\text{m}$  to  $538\mu\text{m}$  shows worse effect.
2. Lack of understanding of calculating doping profile from CV measurement.
3. Meeting in USTC need a topic.

# Thanks for your listening!



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