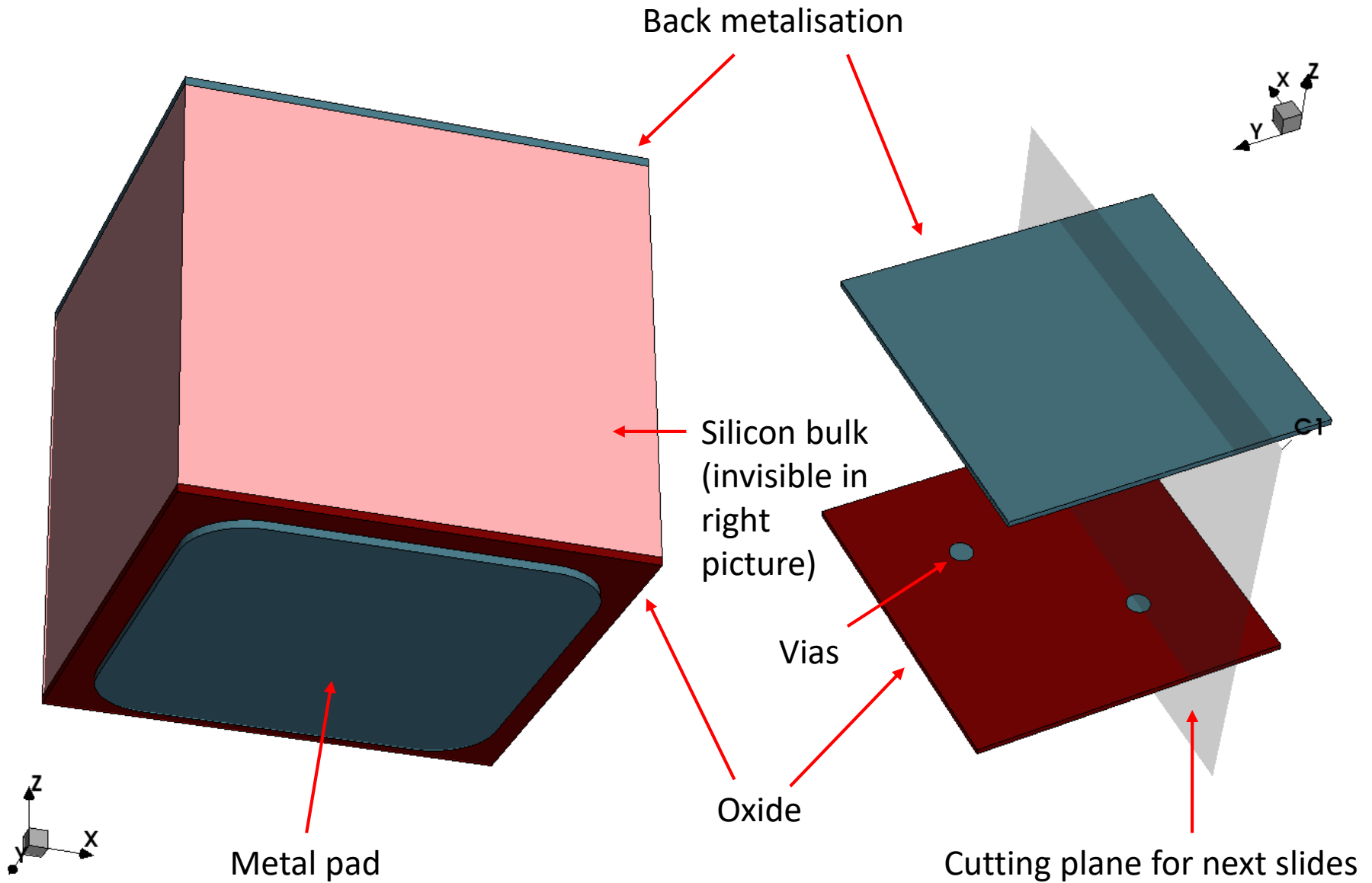
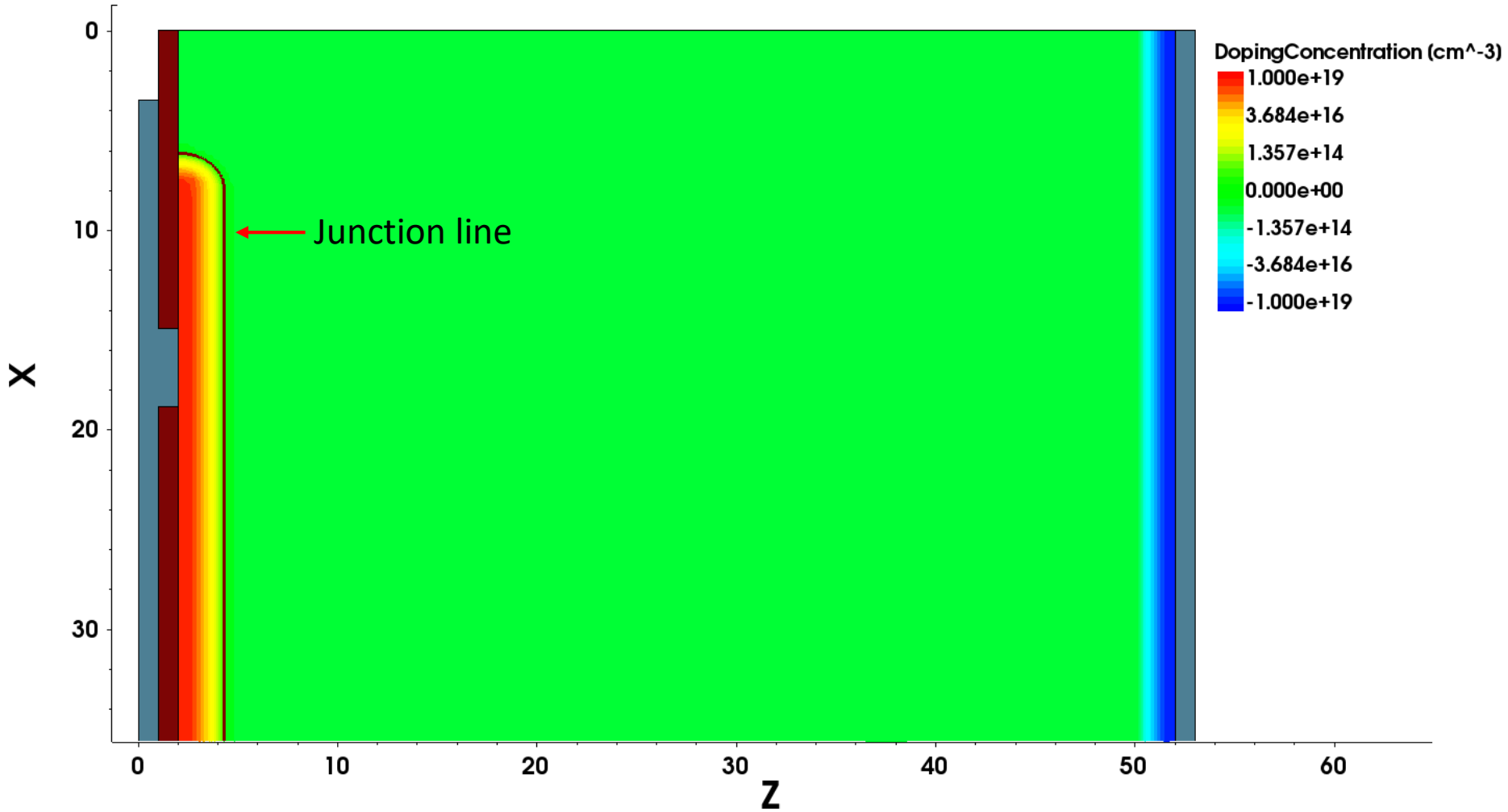


# TCAD model of thin planar sensor



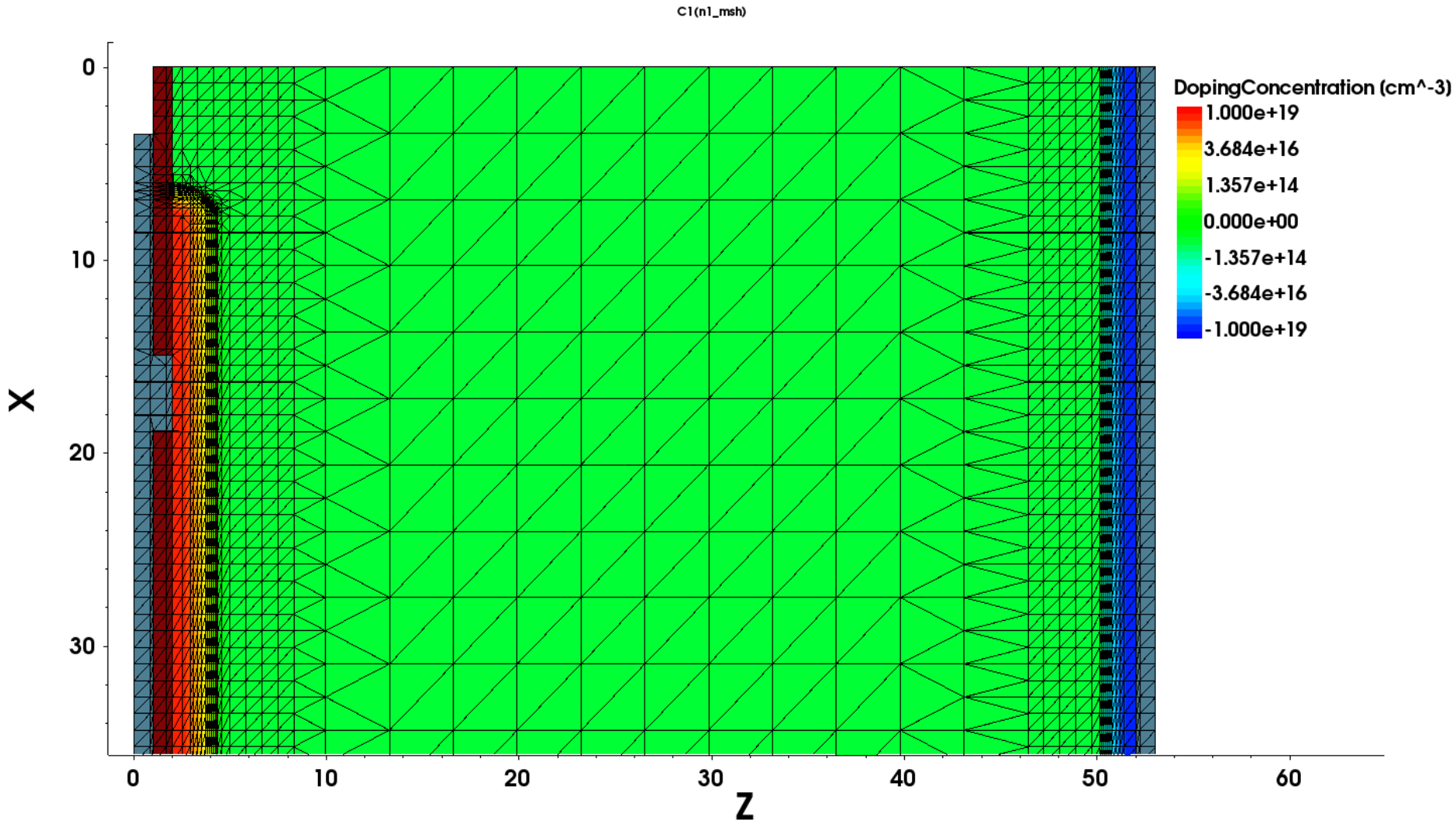
# TCAD model of thin planar sensor

## Doping profile at the cutting plane

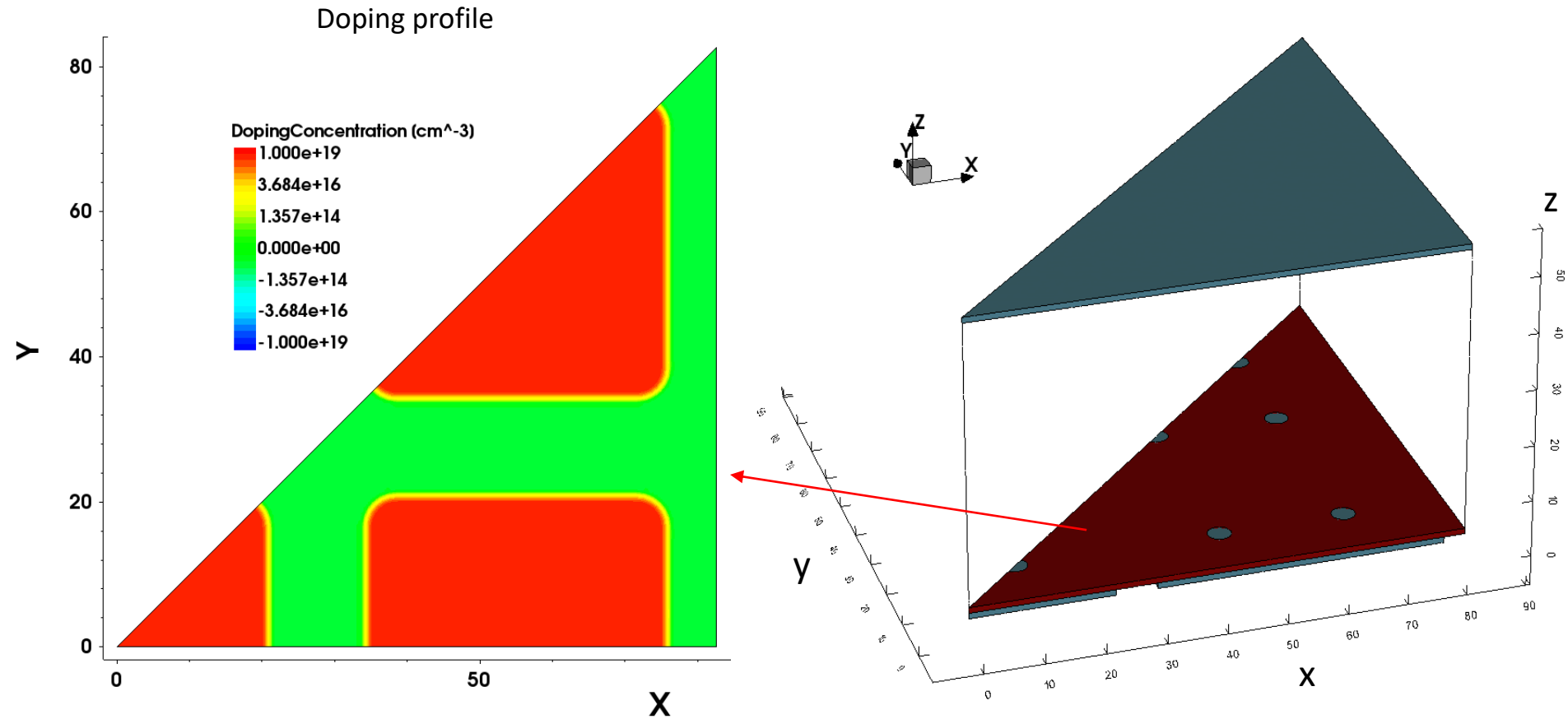


# TCAD model of thin planar sensor

- Meshing for single pixel cell takes about 10 minutes
- Meshing for 3x3 pixels takes more than 17 hours (killed the process)

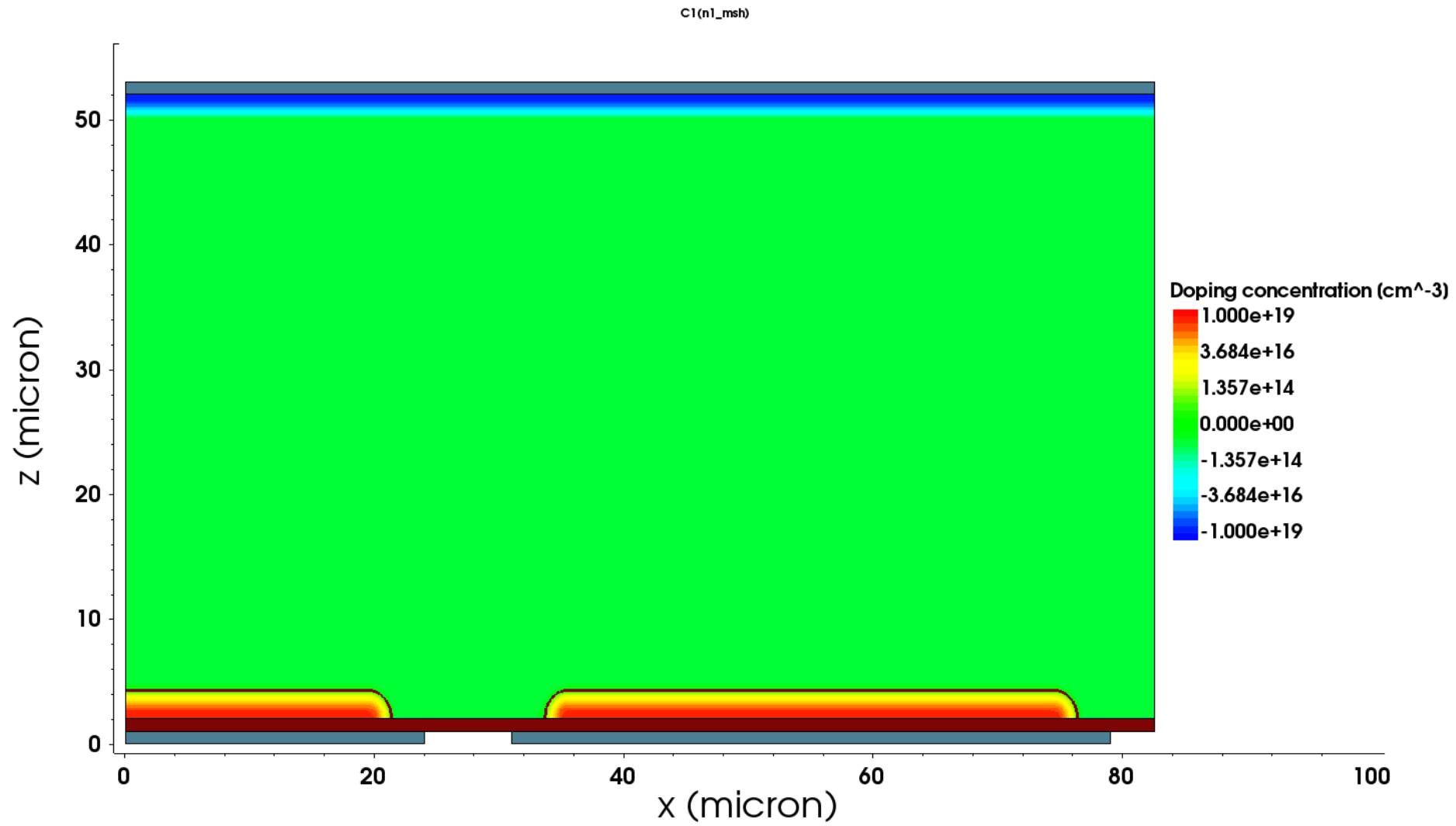


# Simplified model exploiting symmetry

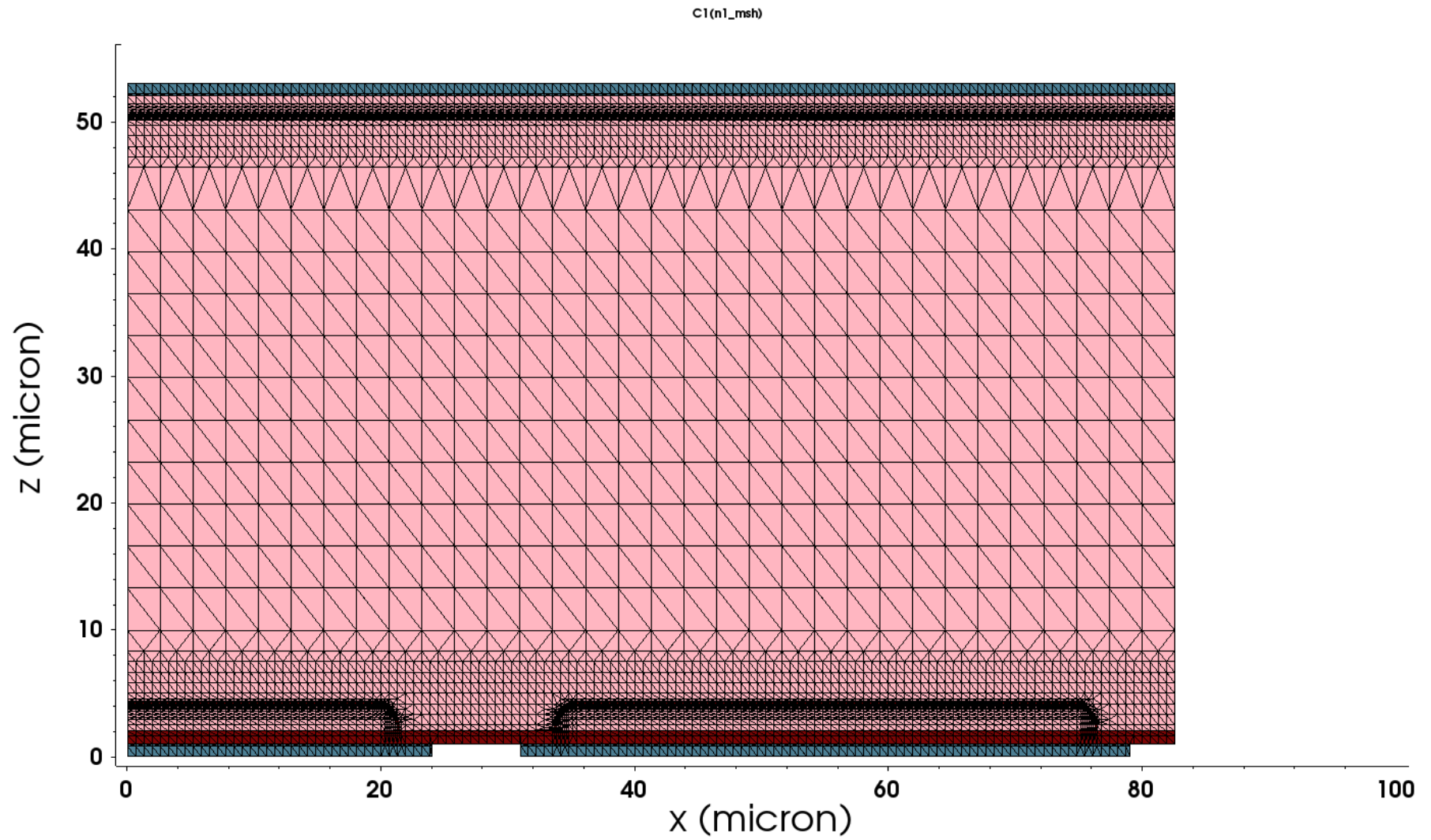


- Mirror boundary condition ( $\vec{E} \cdot \hat{n} = 0$ ) at  $y = 0$ ,  $x = 82,5 \mu\text{m}$ , and  $x = y$ .

# Doping profile at $y = 0$



# Mesh elements at $y = 0$



- Meshing takes  $\sim 15$  minutes