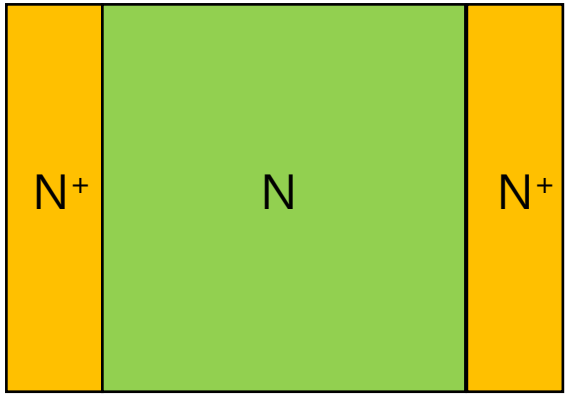
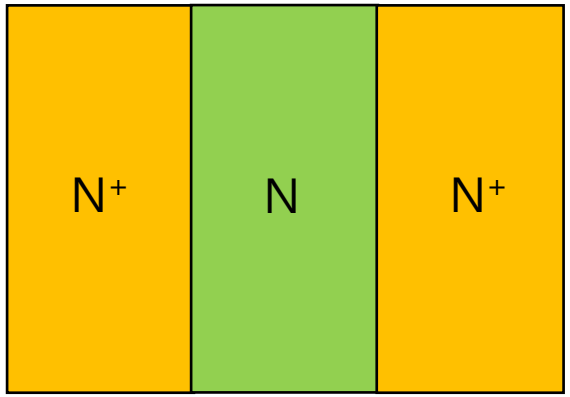
Long version



Highly doped = 5 x 10^{17} cm^{-3}
Lowly doped = 2 x 10^{15} cm^{-3}

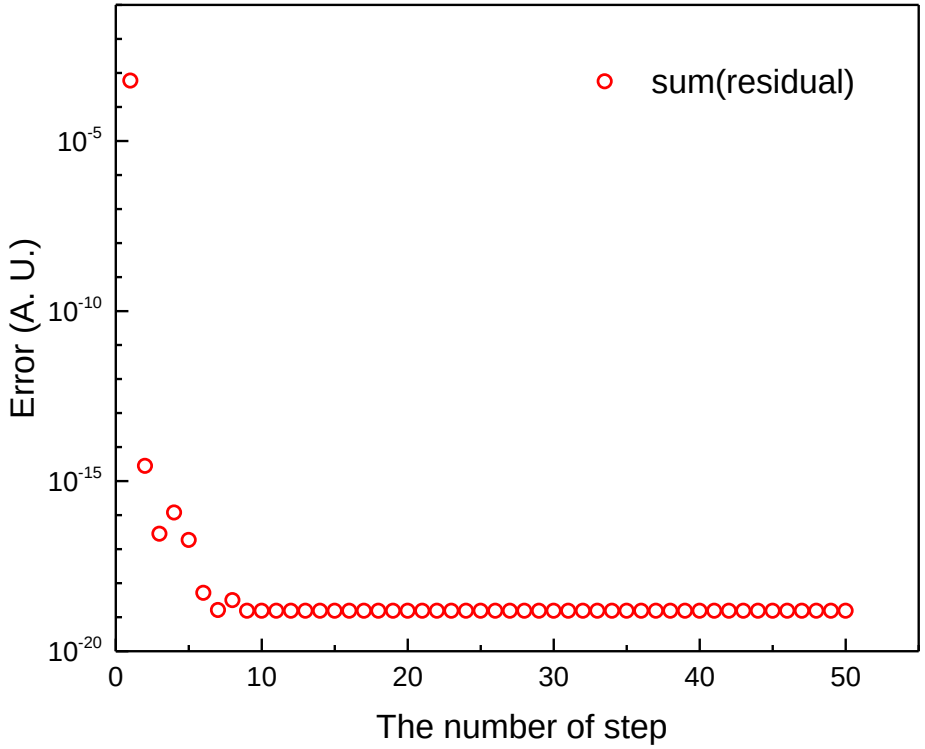
Short version



Highly doped = 5 x 10^{19} cm^{-3}
Lowly doped = 2 x 10^{17} cm^{-3}

Solver

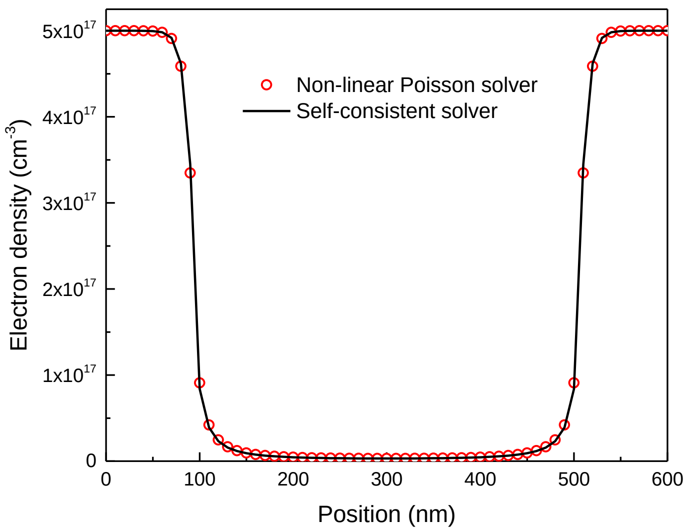
- Non-linear Poisson solver
- Self-consistent solver (Poisson solver + continuity solver)

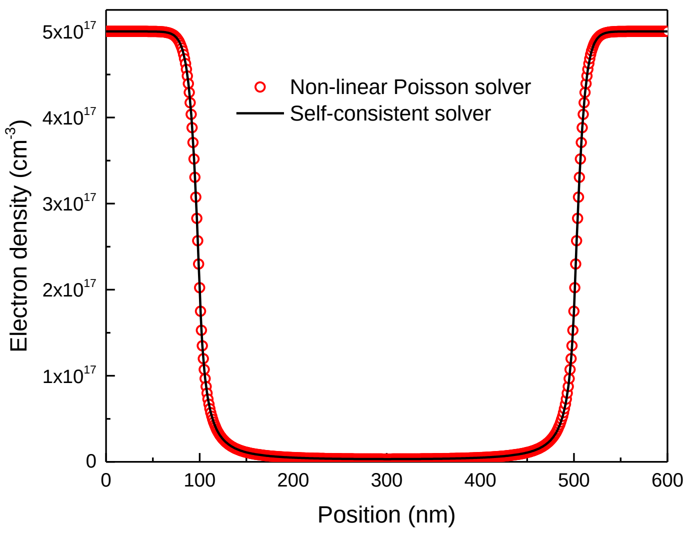


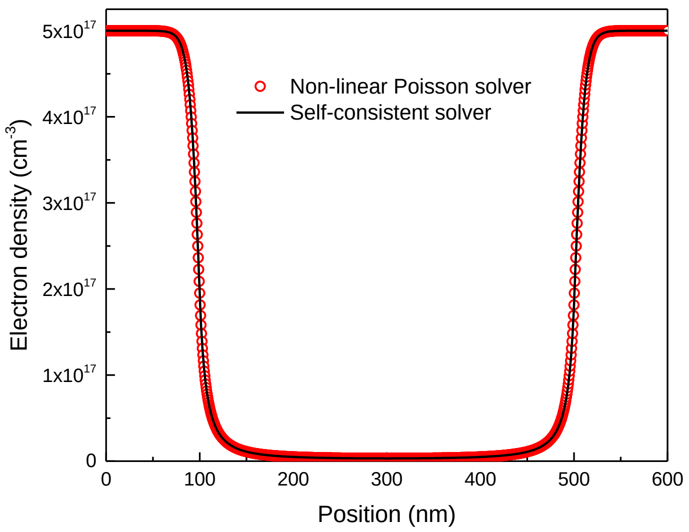
Error = the sum of residual value

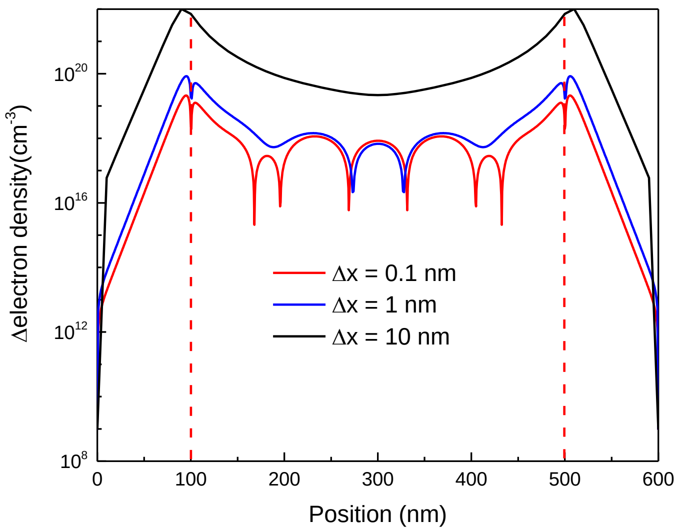
- It is verified that the sum of residual value is converged
- Error is not significantly changed over 10 steps. In this simulation, the number of newton step is 10.

Long version



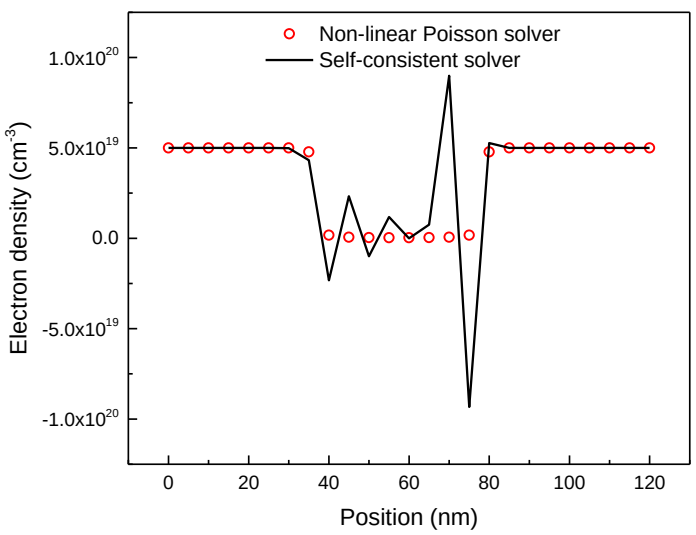


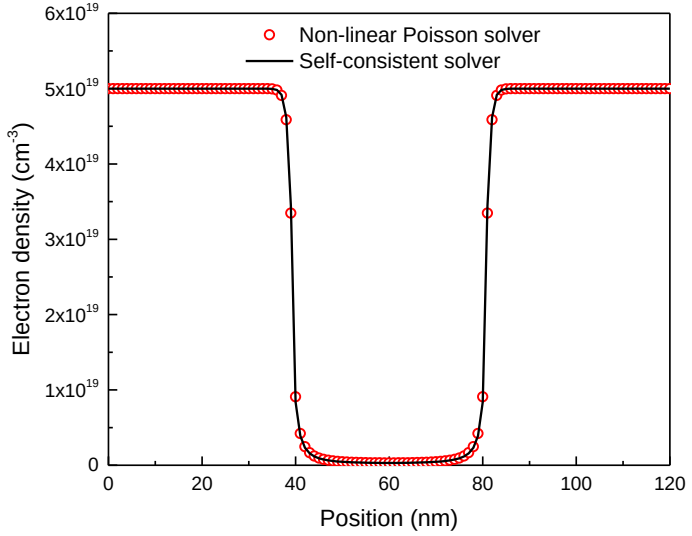


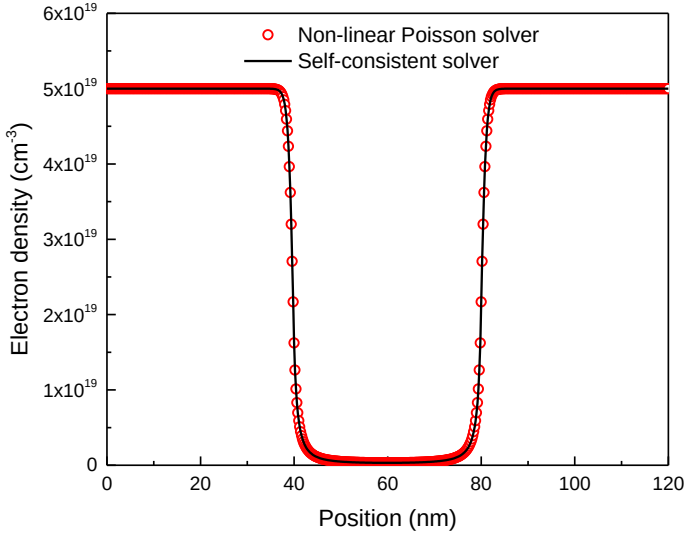


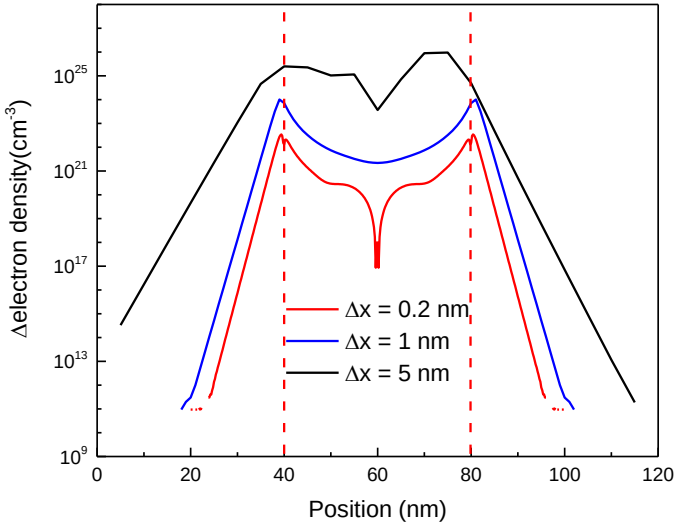
- Two solvers return similar results.
- The difference between two solvers are maximum at the boundary.

Short version









- In the case of del x = 5 nm, self-consistent solver cannot work.
- It also be observed that the difference is maximum at boundary.