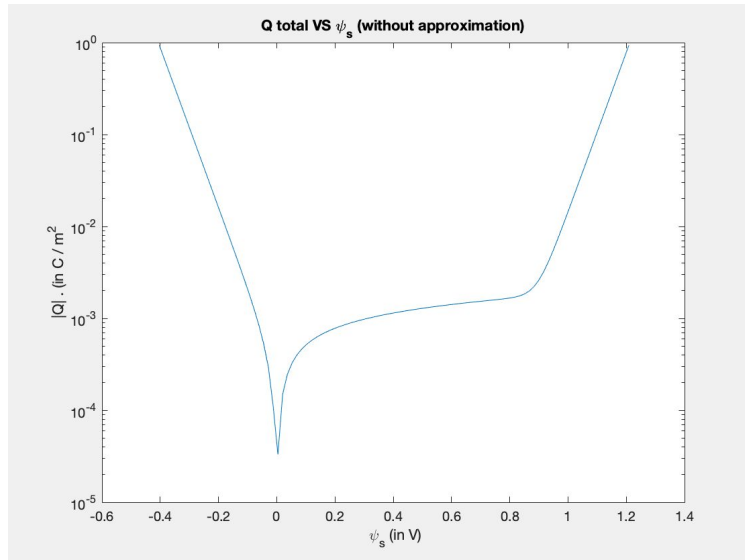


Physics of Transistors

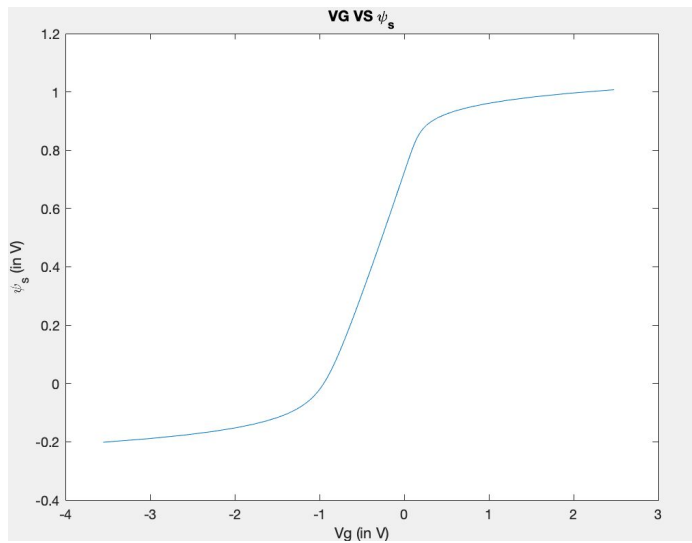
Devesh Kumar 16D070044

Assignment 1

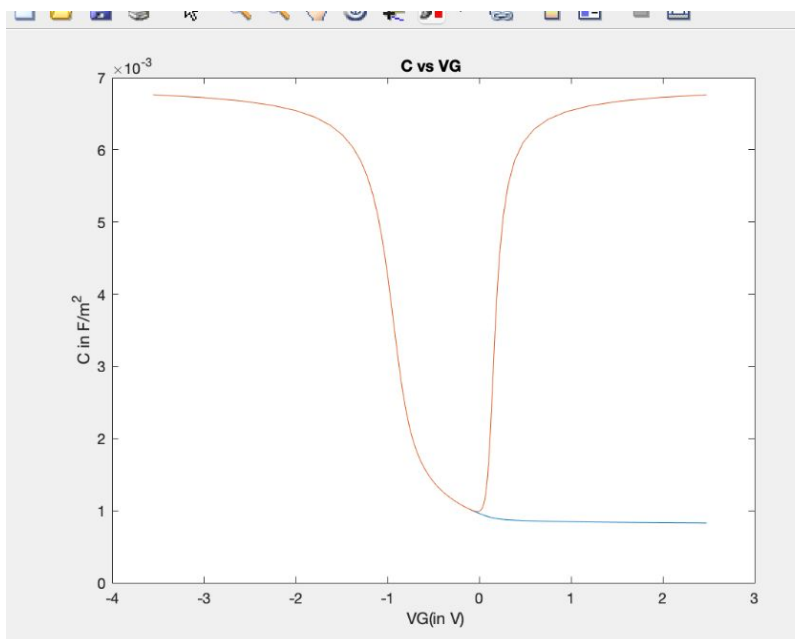
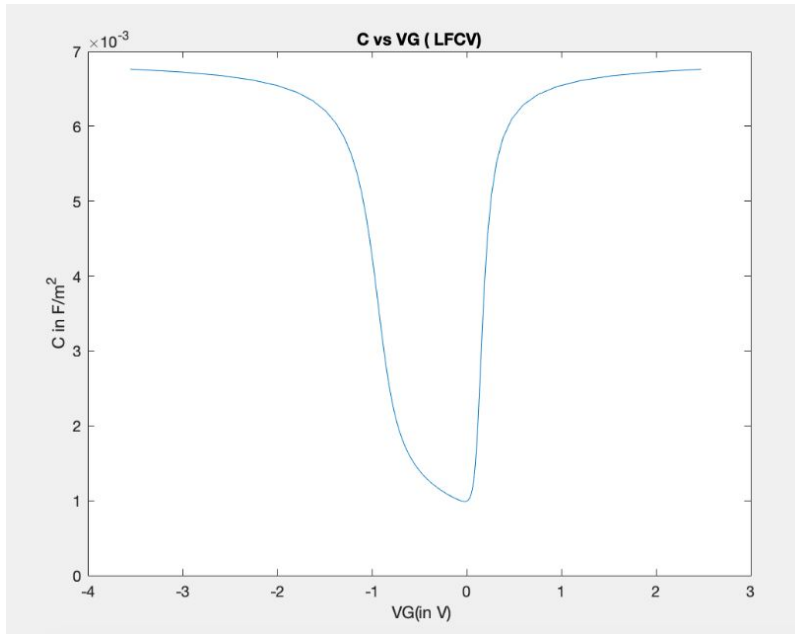
Q1

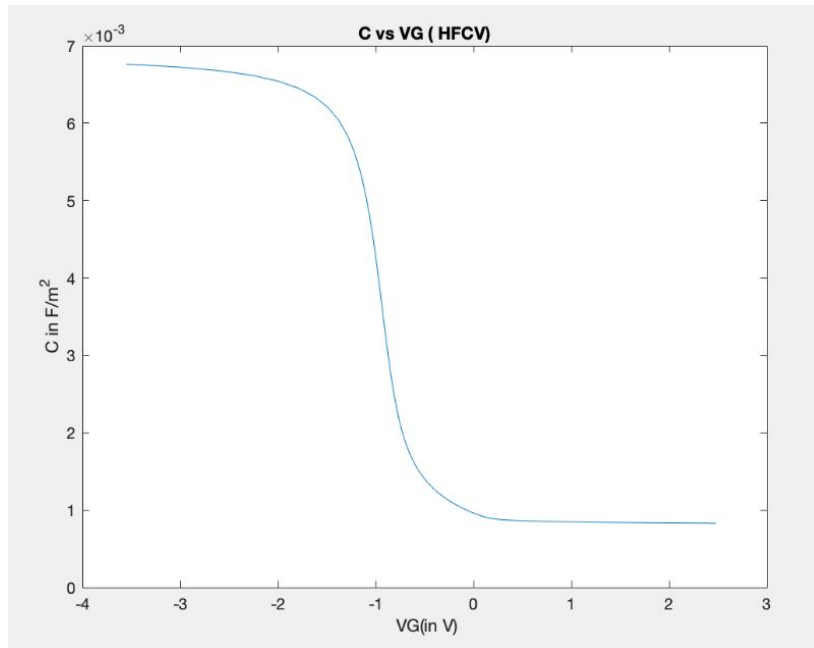


Q2

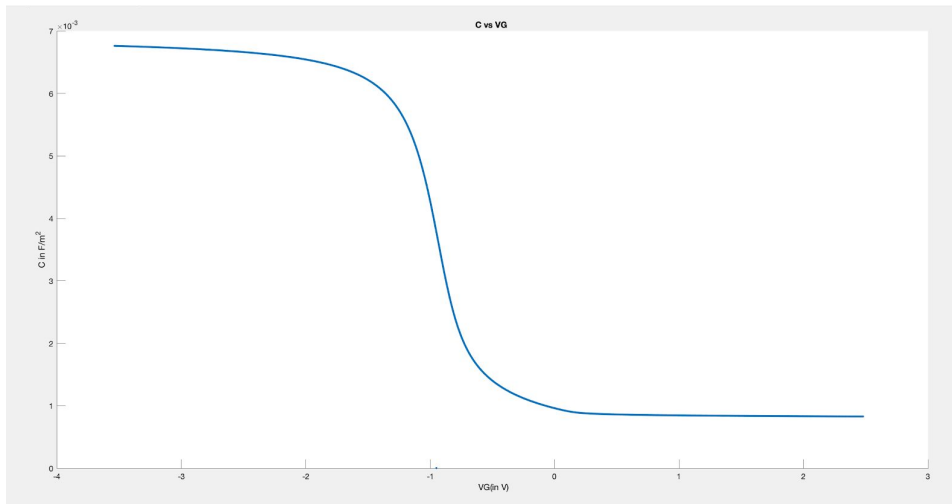
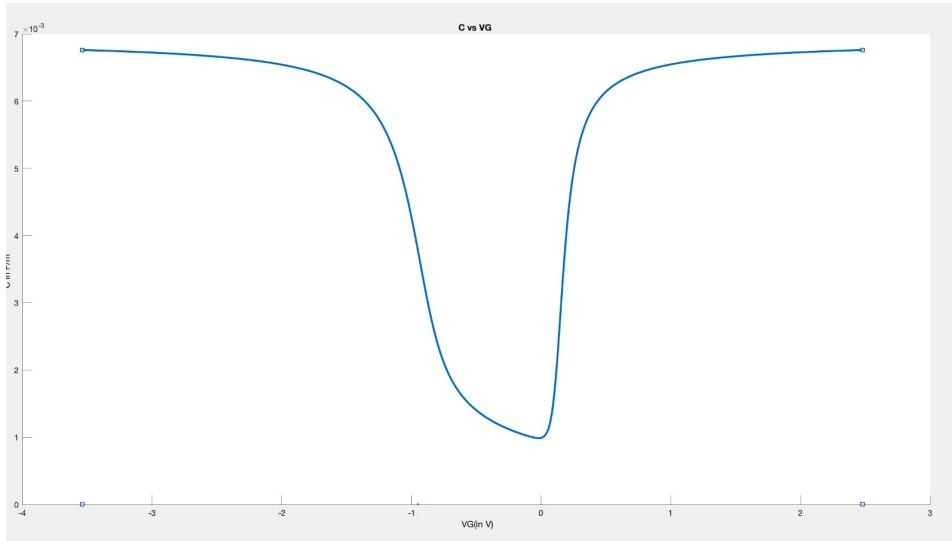


Q3 Manual differentiation

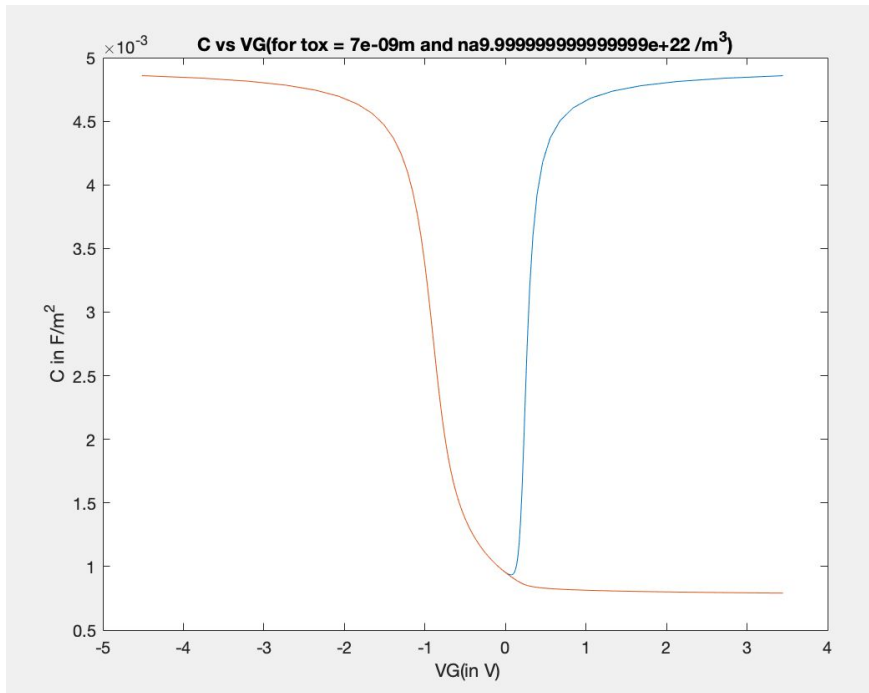
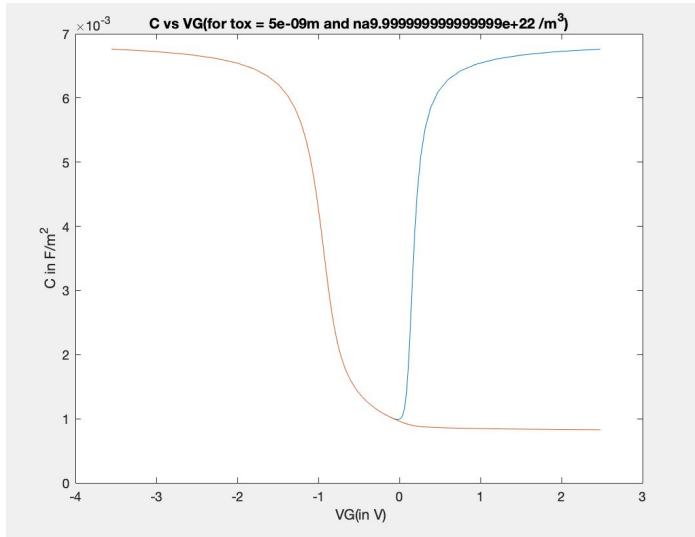


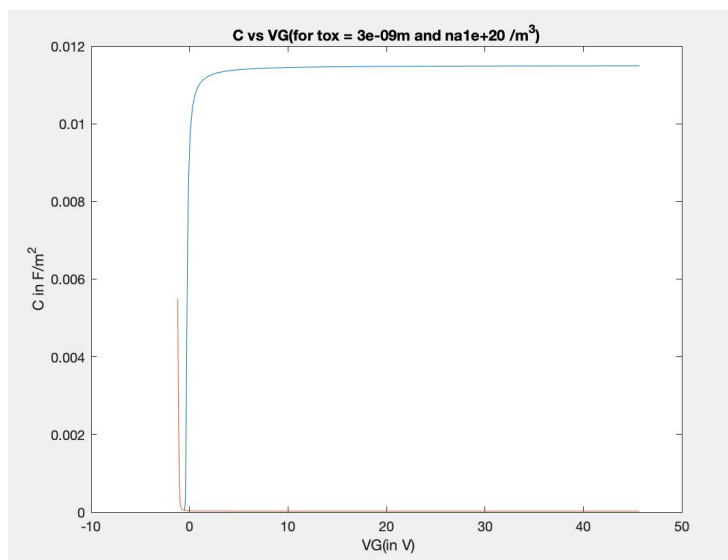
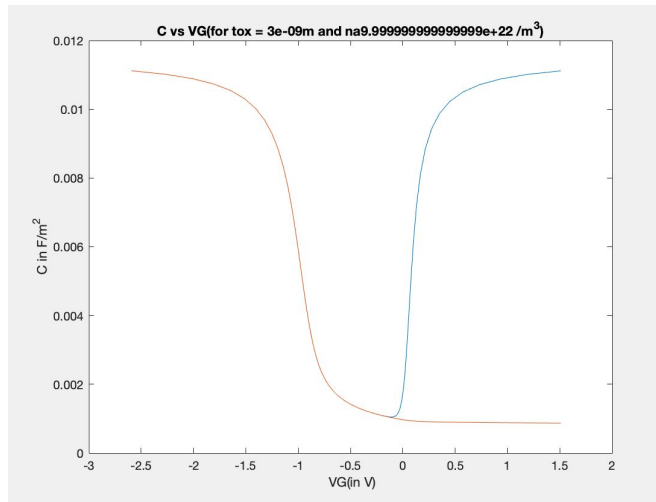


Numerical differentiation

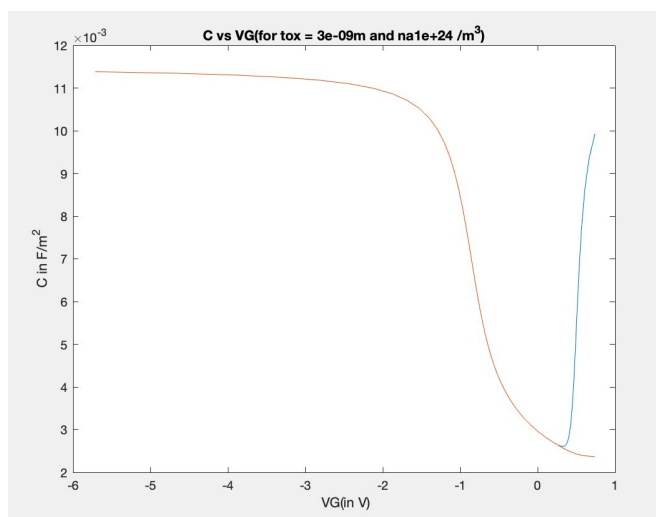
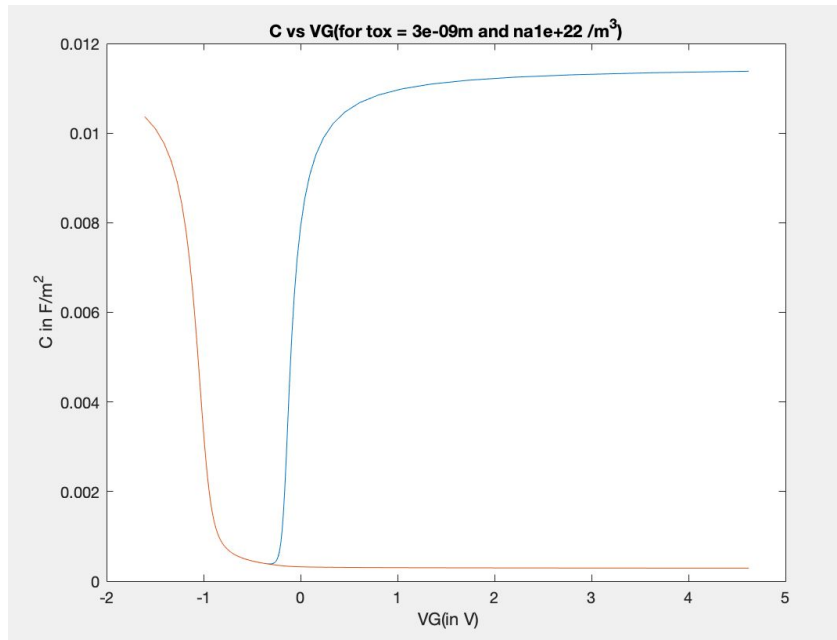


Q4

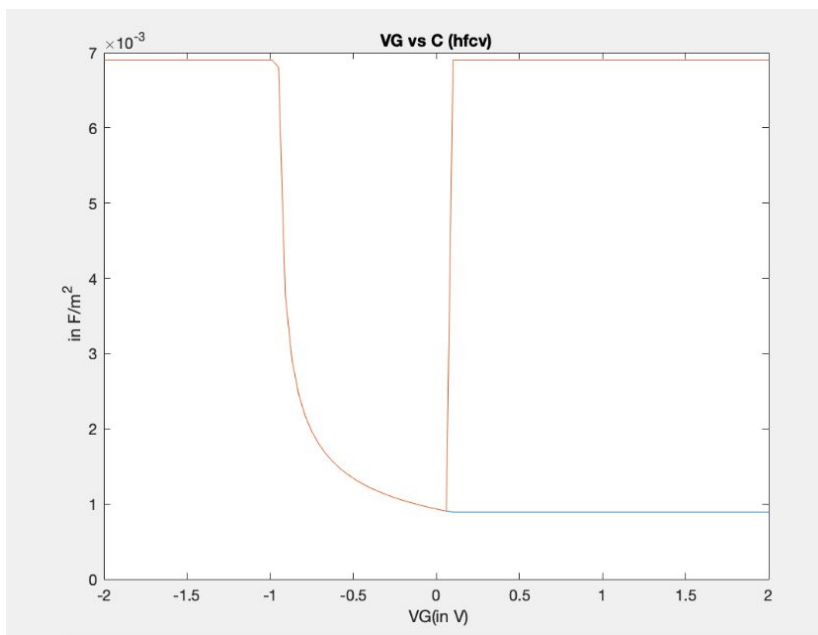
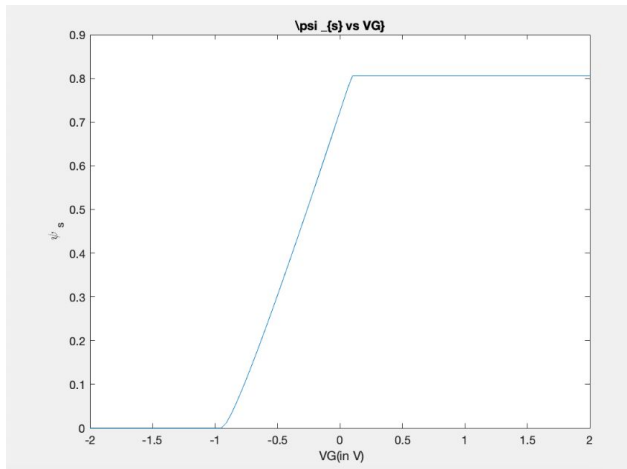


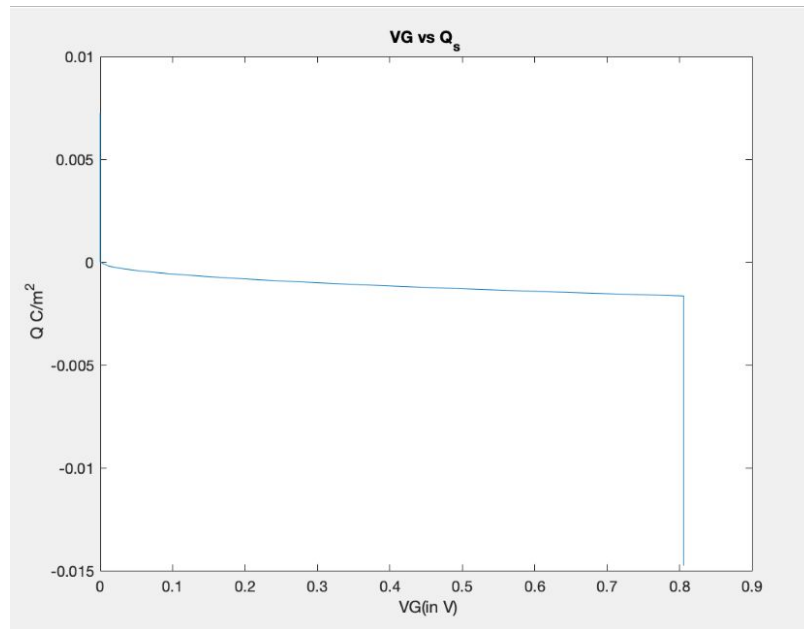


The graph looks wired due to the scale of VG

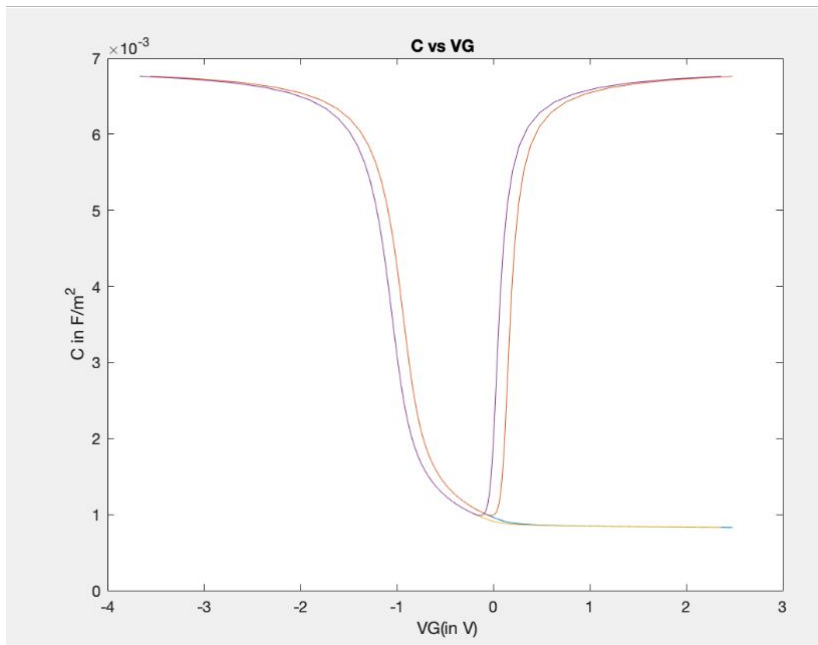
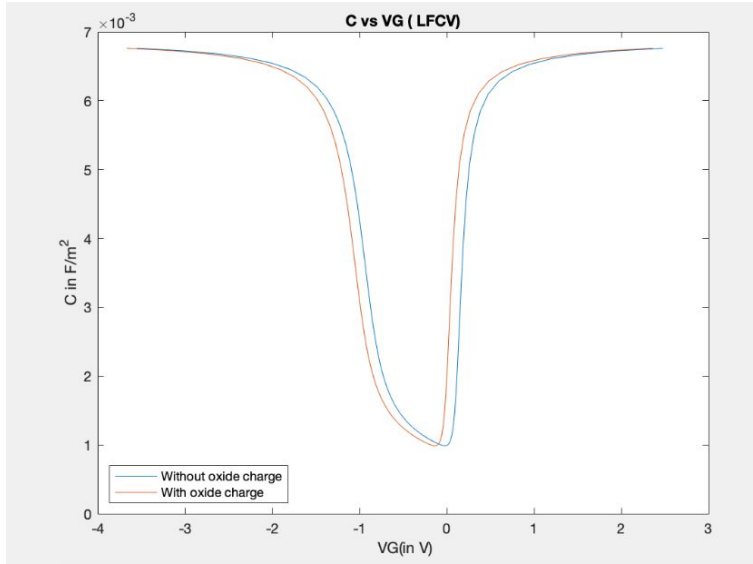


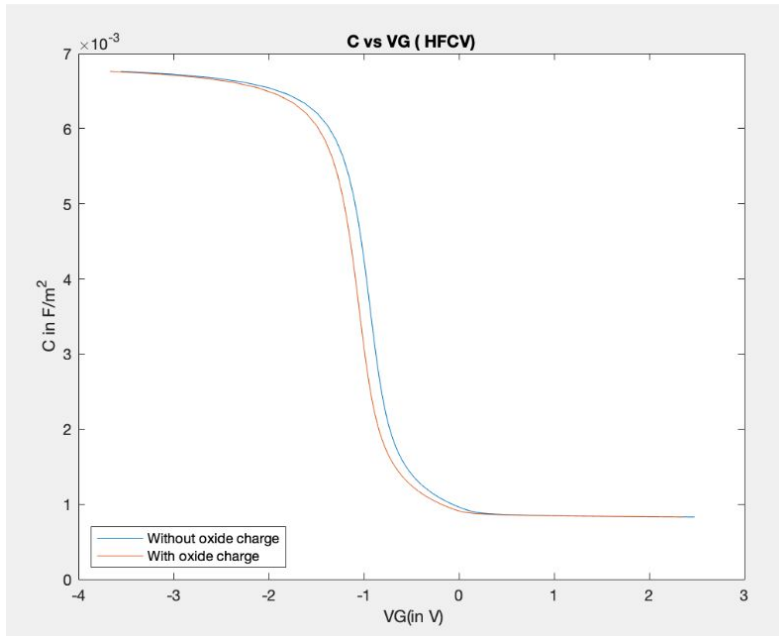
Q5



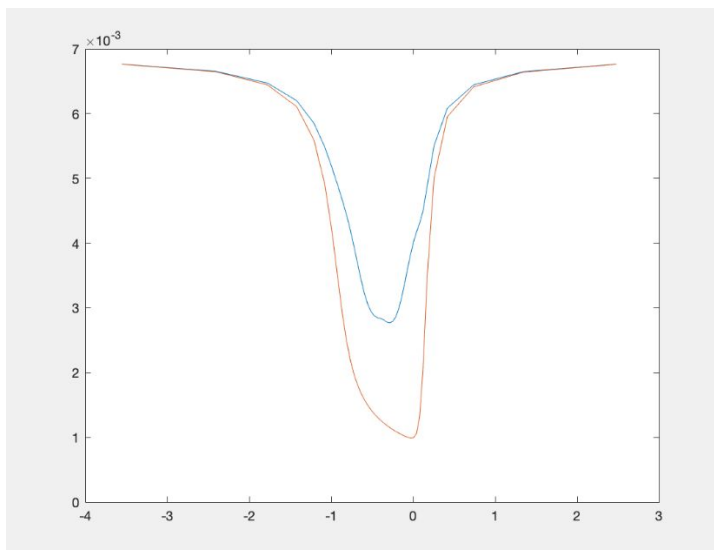


Q6





Q7



Red is the ideal case blue is with DIT

The dit model version taught does not apply for hFcv measurement