%nc-is doping concentration

nc=logspace(14,20);

un=(5.1e18+92\*nc.^0.91)./(3.75e15+nc.^0.91);

up=(2.90e15+47.7\*nc.^0.76)./(5.86e12+nc.^0.76);

semilogx(nc,un,'k',nc,up,'b')

text(8.0e16,1000,'Electron Mobility')

text(5.0e14,560,'Hole Mobility')

title('Mobility versus Doping')

xlabel('Doping Concentration in cm-3')

ylabel('Bulk Mobility(cm2/v.s)')