

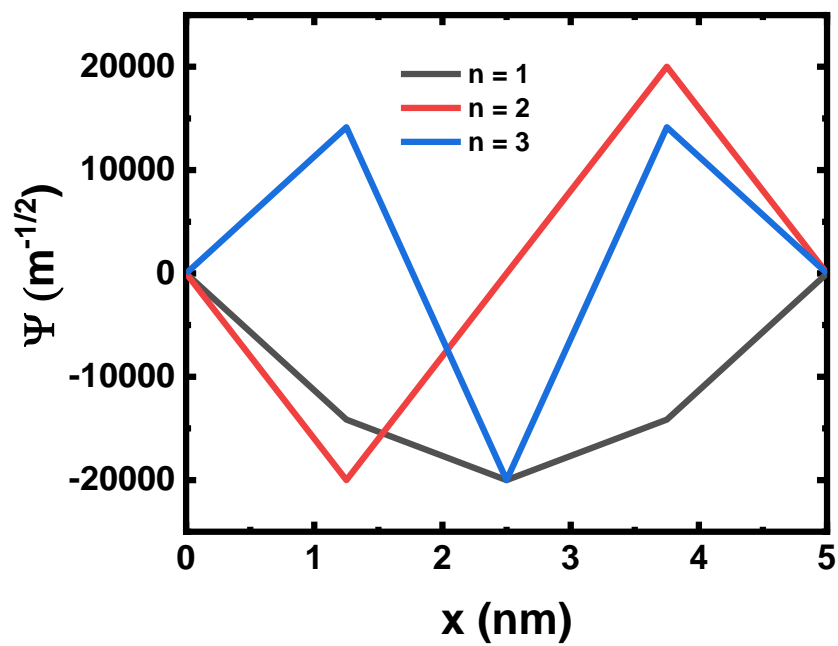
1D Infinite Potential Well

20184002 In Ki Kim

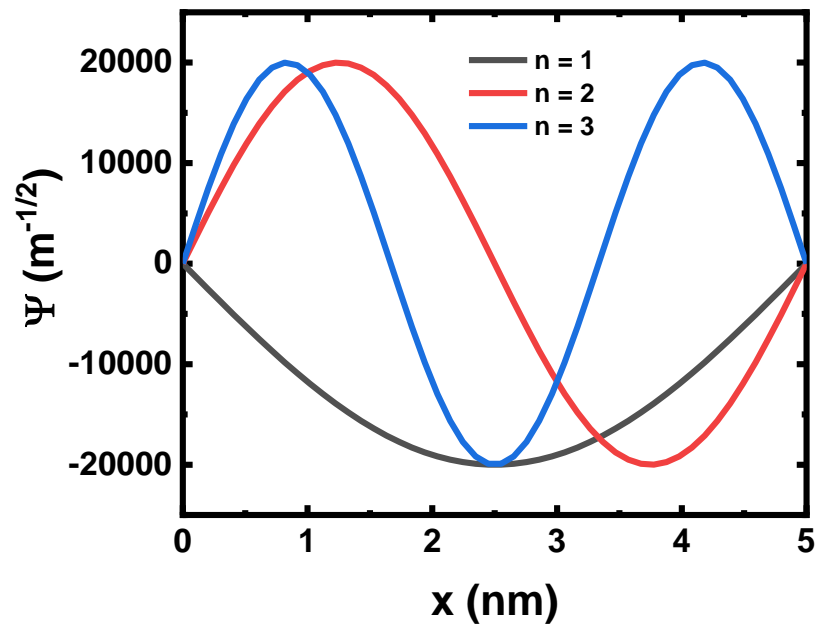
2020.09.08

Wave function & Probability Function

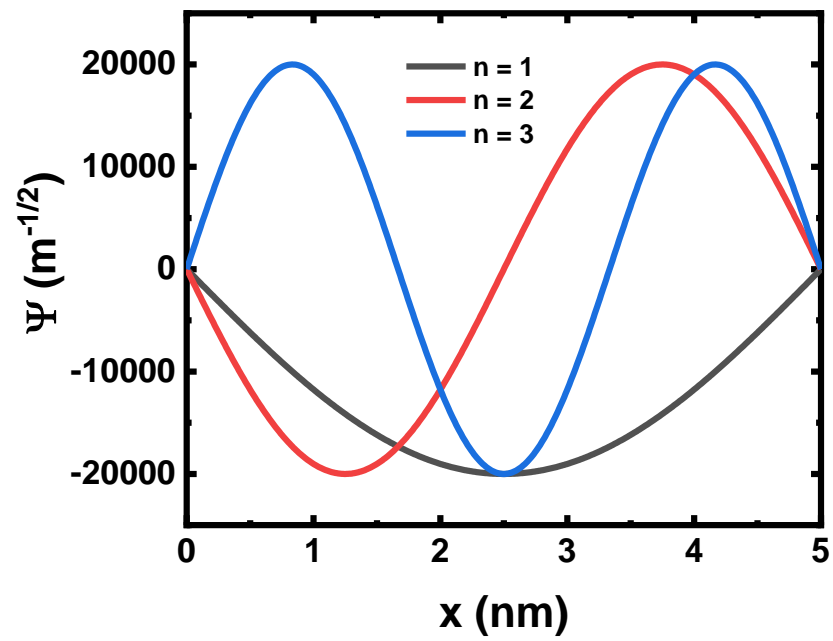
■ Wave function for 3 lowest energy level (discretization number $N = 5$)



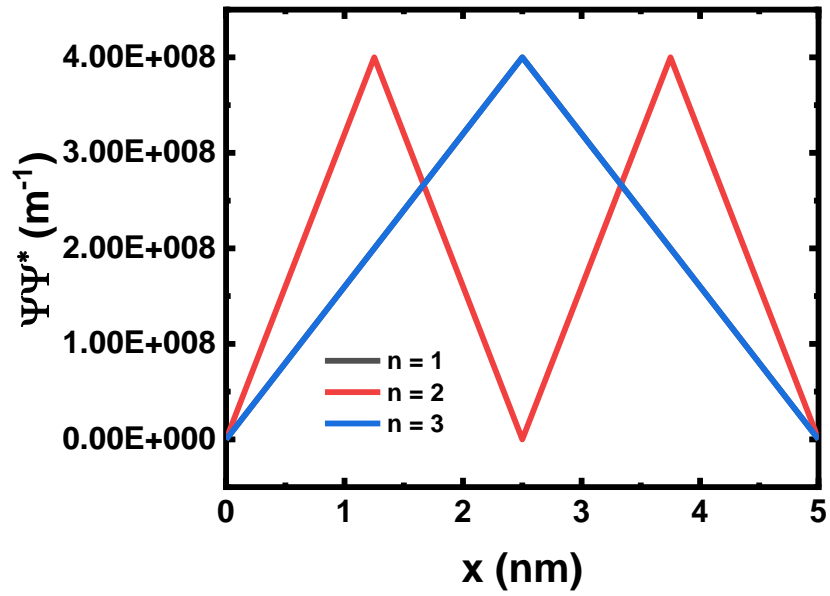
■ Wave function for 3 lowest energy level (discretization number $N = 50$)



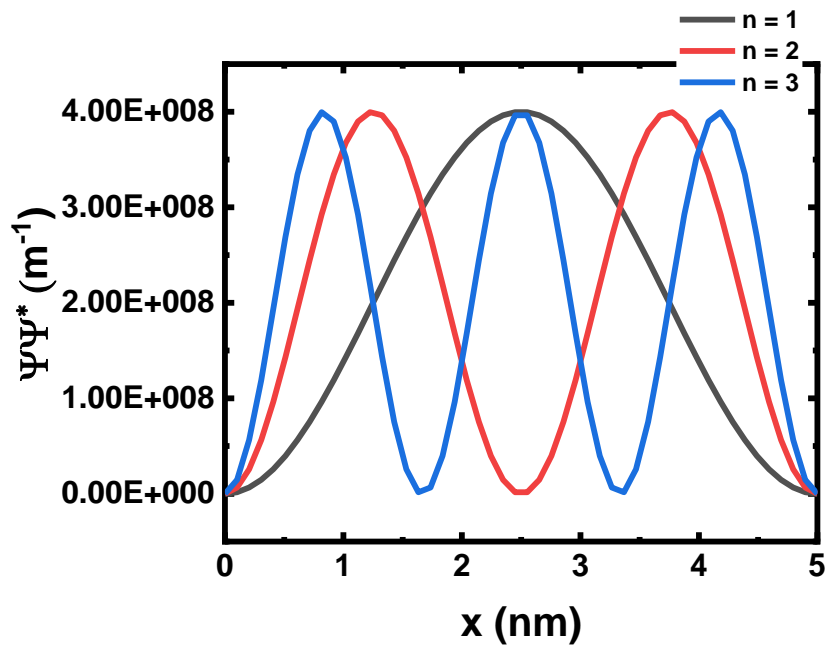
■ Wave function for 3 lowest energy level (discretization number $N = 500$)



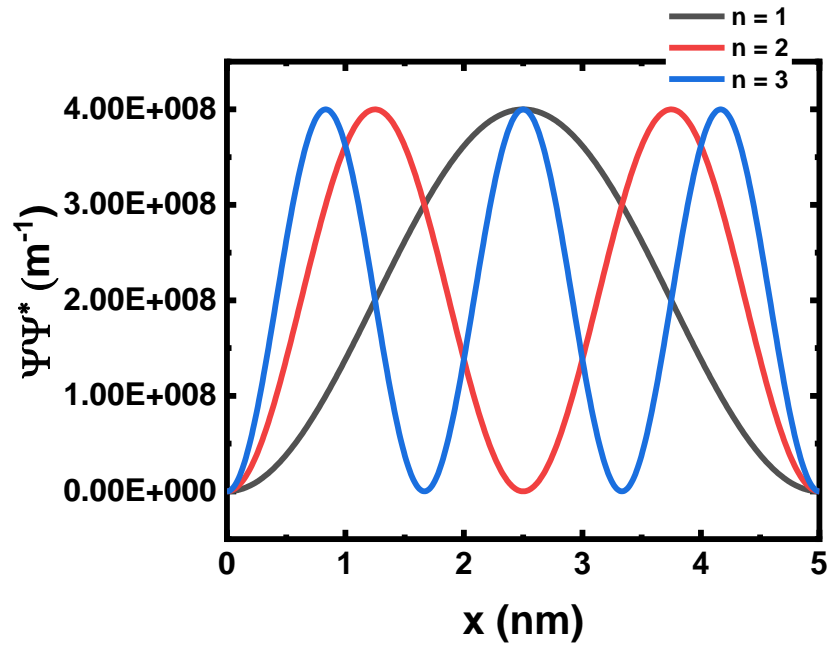
- Probability function for 3 lowest energy level (discretization number $N = 5$)



- Probability function for 3 lowest energy level (discretization number $N = 50$)



- Probability function for 3 lowest energy level (discretization number $N = 500$)



Energy Level

- Analytic, numerical energy level & error rate table

n	Analytical energy level (eV)	Numerical energy level (eV) (N=5)	Error rate (%)	Numerical energy level (eV) (N=50)	Error rate (%)	Numerical energy level (eV) (N=500)	Error rate (%)
1	0.07945	0.075447	5.04	0.079421	0.03	0.079448	0.0003
2	0.31779	0.257592	18.94	0.317356	0.14	0.317787	0.0013
3	0.71503	0.439737	38.5	0.712829	0.31	0.715009	0.0029