

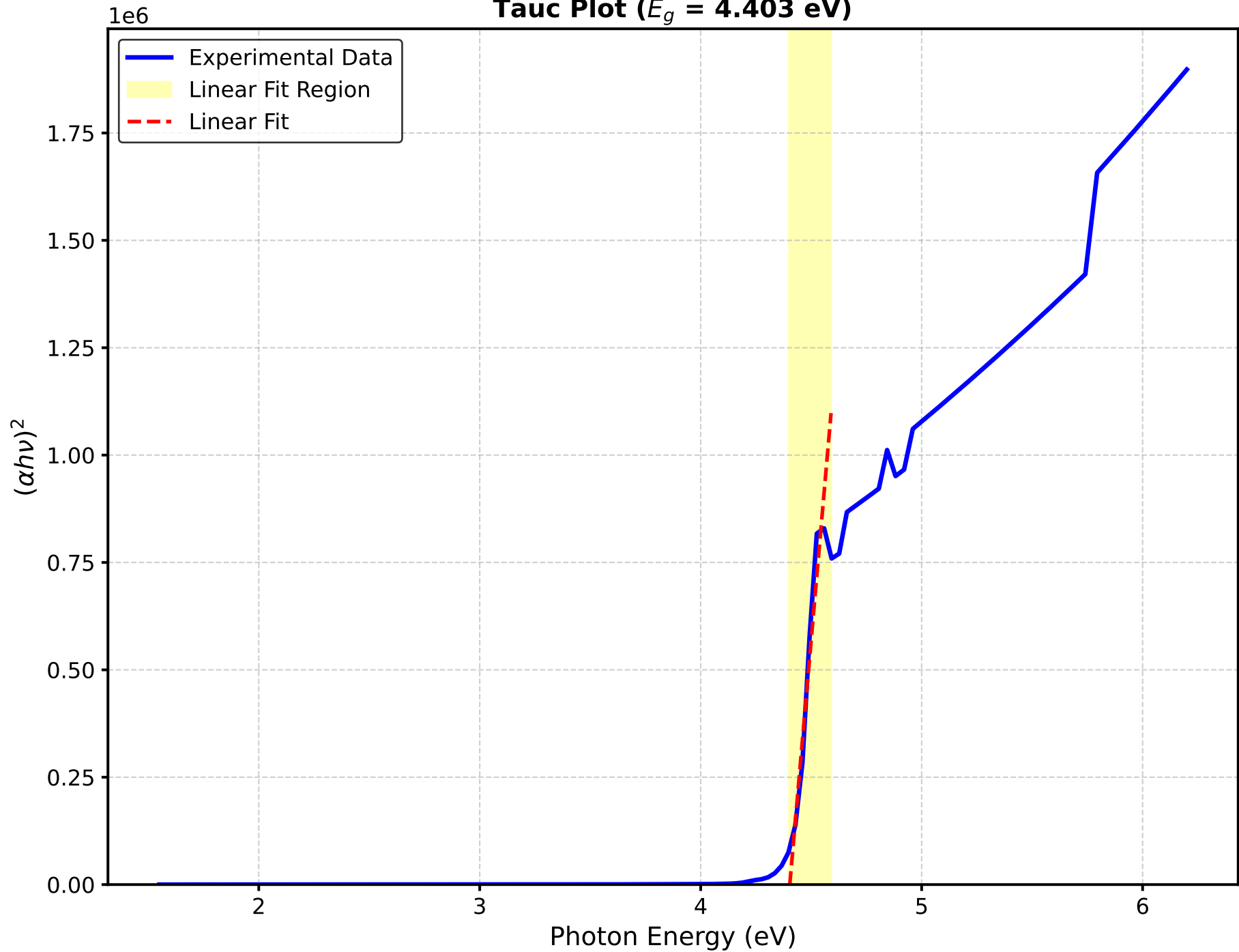
OPTICAL PROPERTIES ANALYSIS REPORT

Generated on: 2026-05-20 08:25

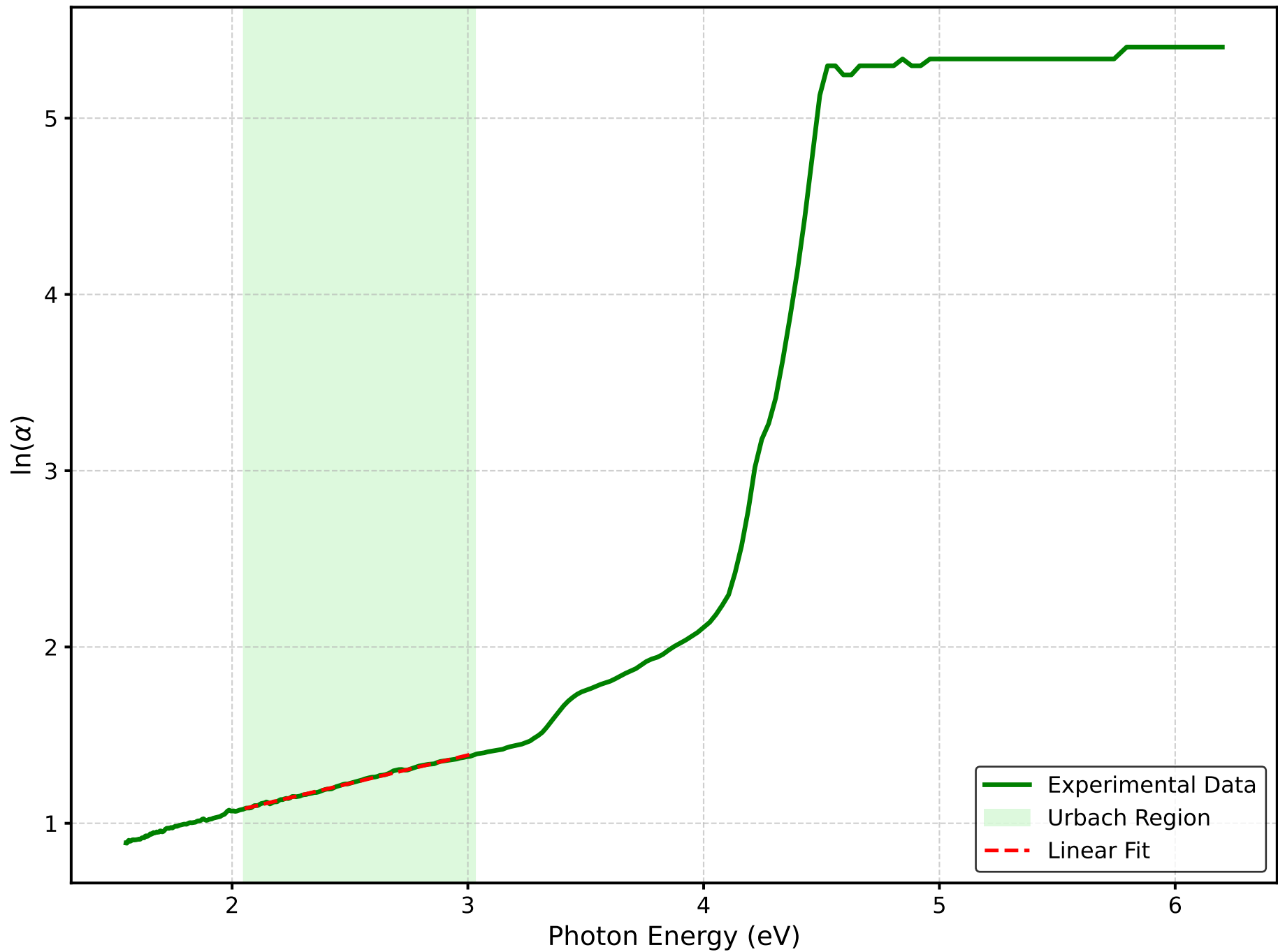
Automated UV-Vis Data Processing via Python

| Parameter | Calculated Value | Unit | R-squared |
|---------------------------------------|------------------|------|-----------|
| Optical Band Gap (E_g) | 4.4032 | eV | 0.9424 |
| Urbach Energy (E_u) | 3126.94 | meV | 0.9976 |
| Avg Refractive Index (n) | 1.8950 | - | - |
| Avg Optical Conductivity (σ) | 1.1552e+11 | S/cm | - |

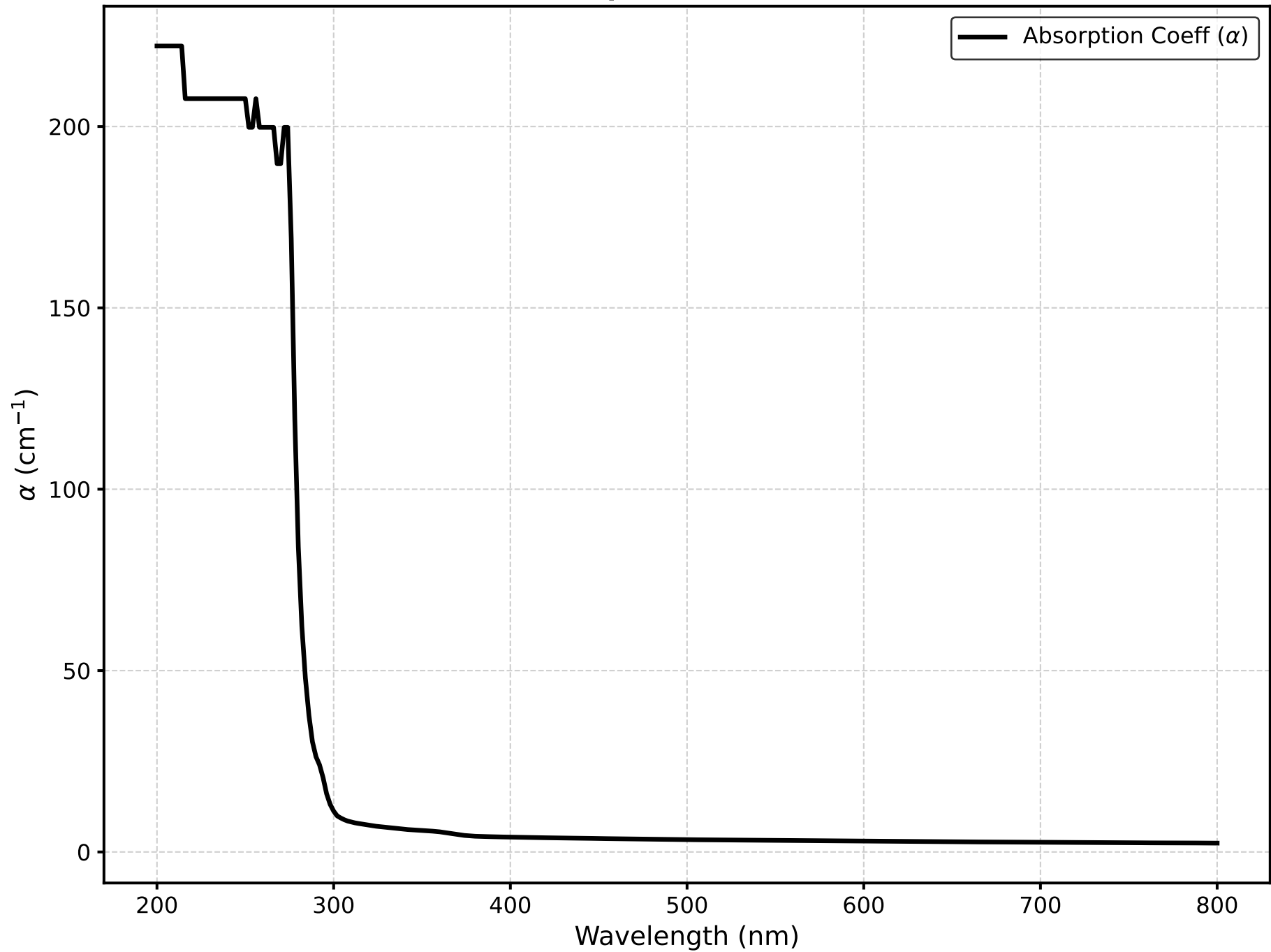
Tauc Plot ($E_g = 4.403$ eV)



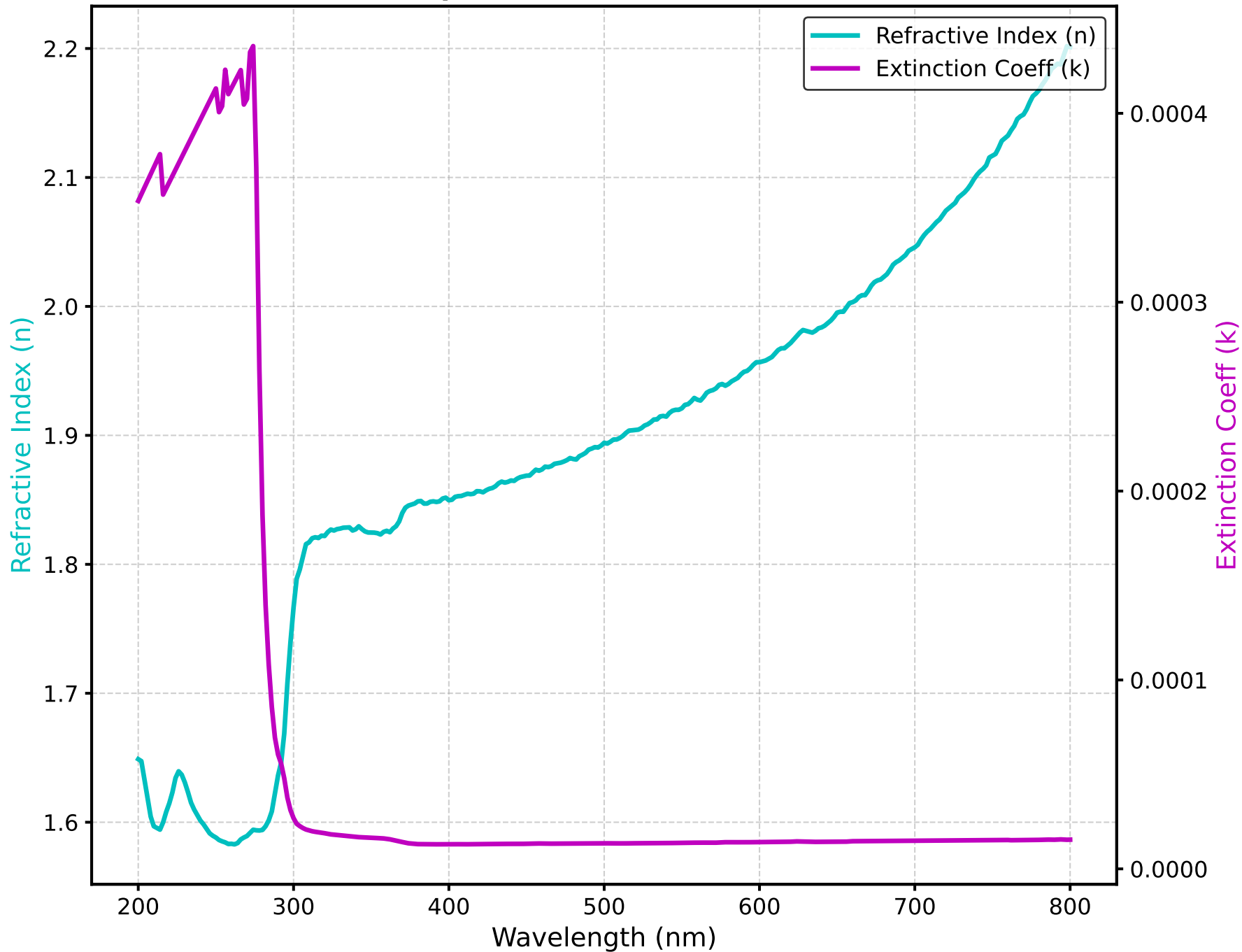
Urbach Tail ($E_u = 3126.9$ meV)



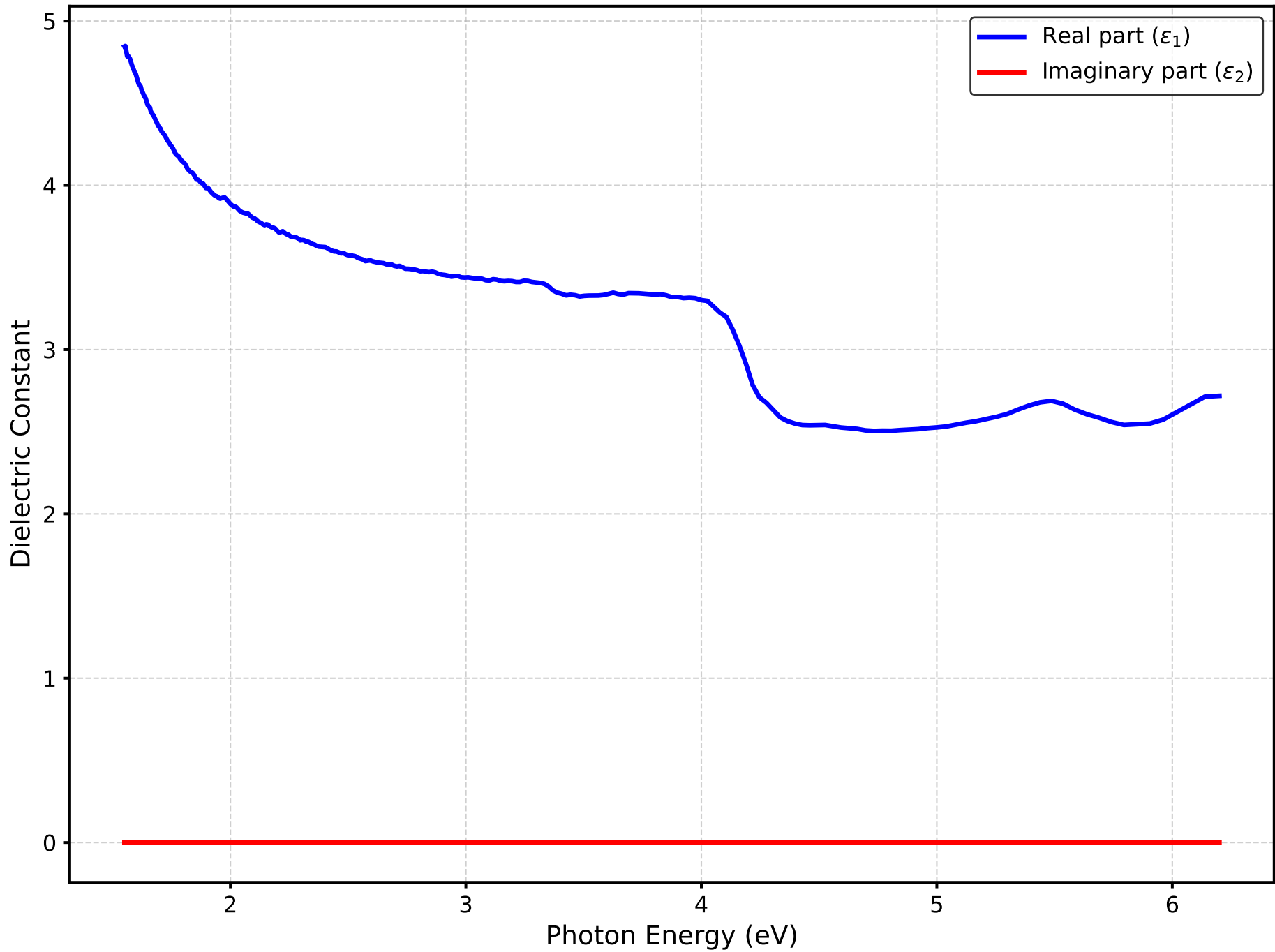
Absorption Coefficient



Optical Constants (n & k)



Dielectric Function



Raw Optical Spectra (T & R)

