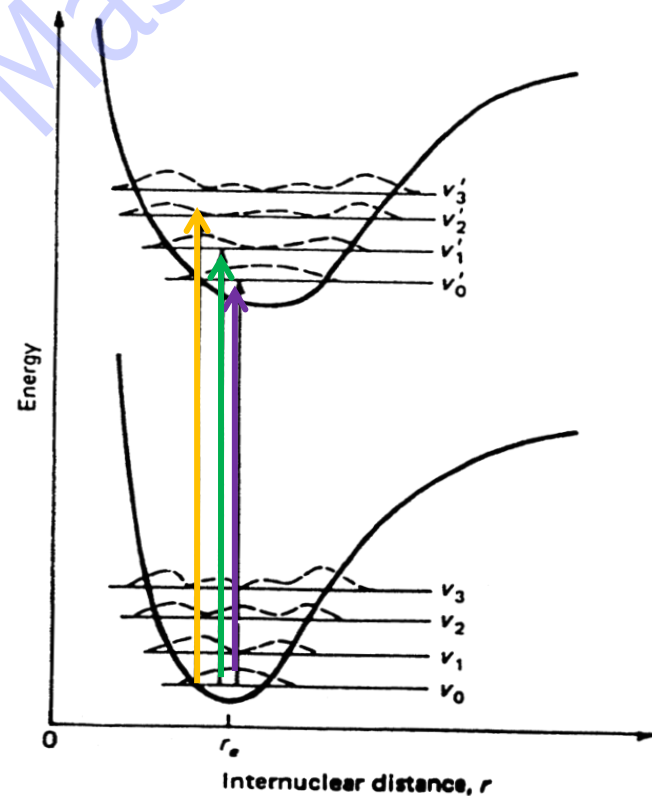
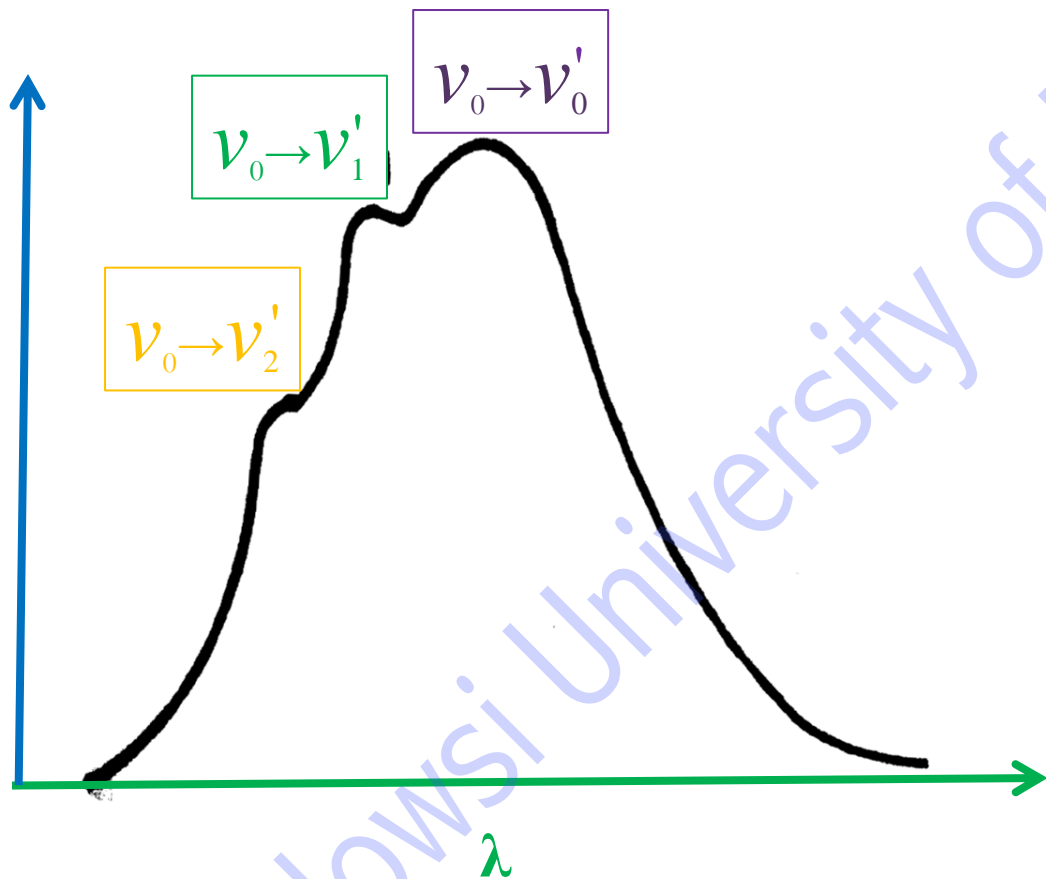


Spectroscopy in Inorganic Chemistry

Electronic Absorption Spectroscopy

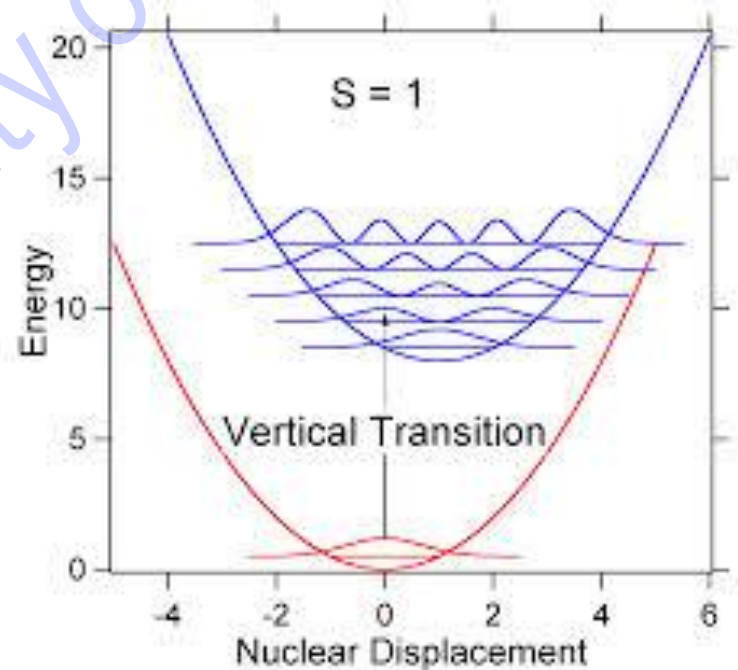
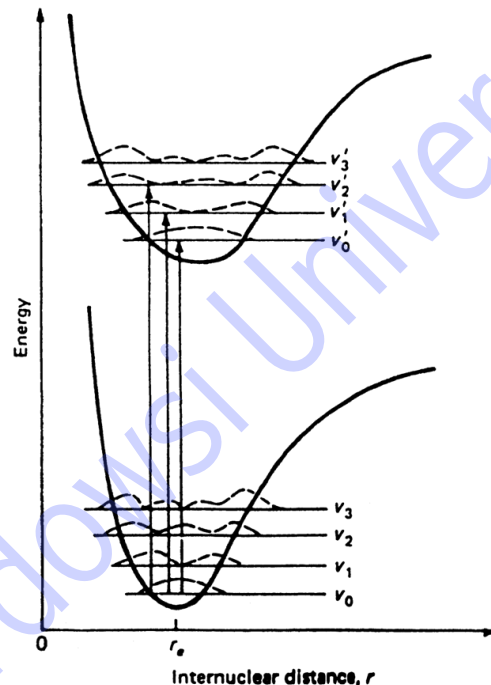
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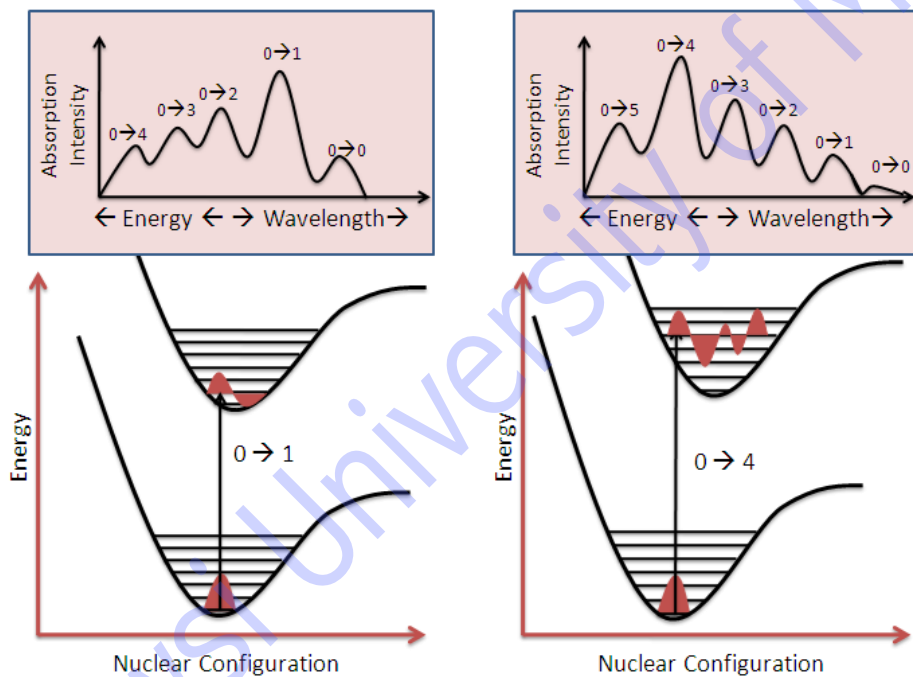


Relationship of potential energy curves to electronic spectra

- Electronic transition occur about 10^{-15} sec
- Franck-Condon Principle



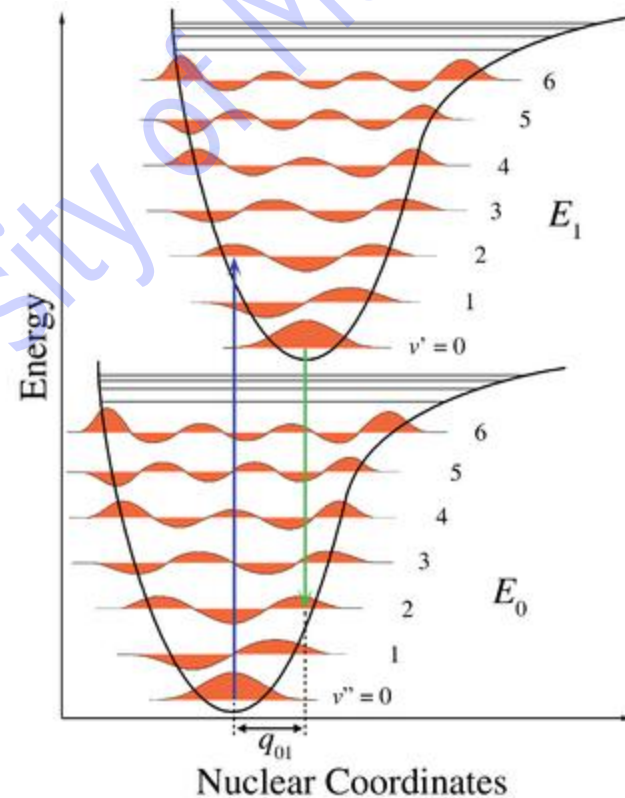
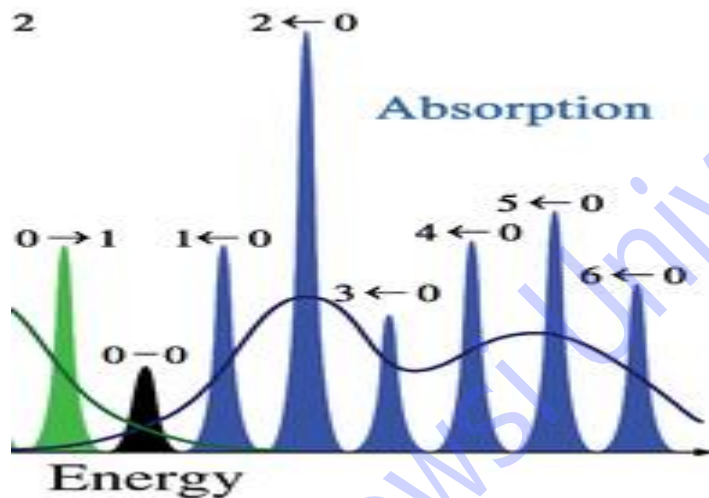
Relationship of potential energy curves to electronic spectra



The Photochemistry Portal
photochemistry.wordpress.com

Relationship of potential energy curves to electronic spectra

- Franck-Condon Principle



Relationship of potential energy curves to electronic spectra

- Franck-Condon Principle

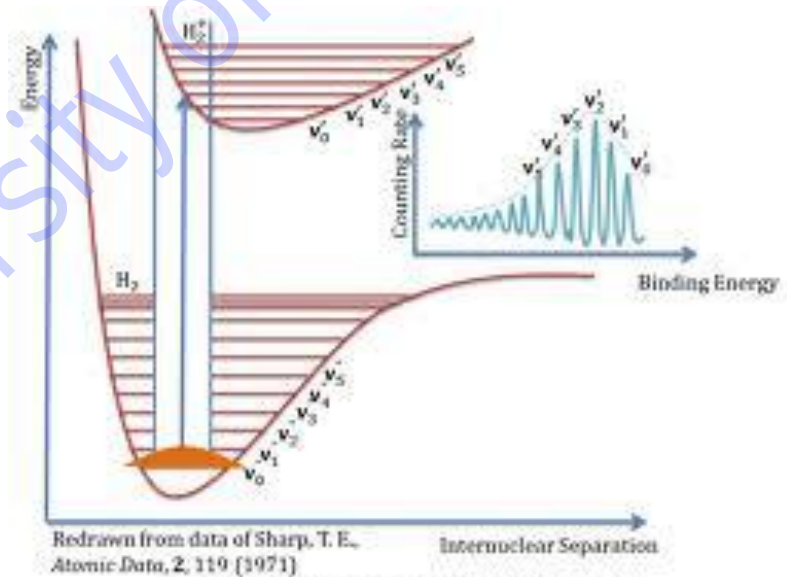
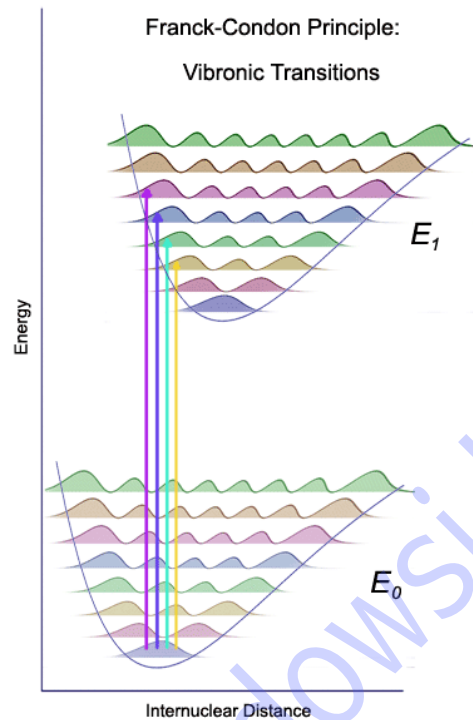
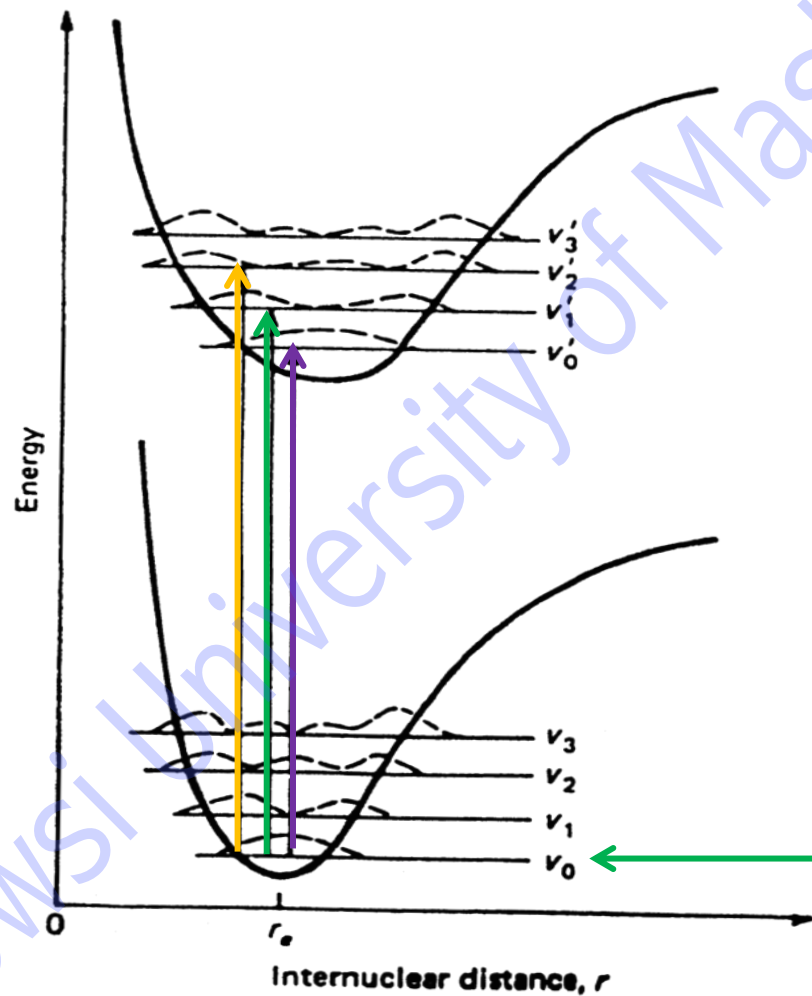
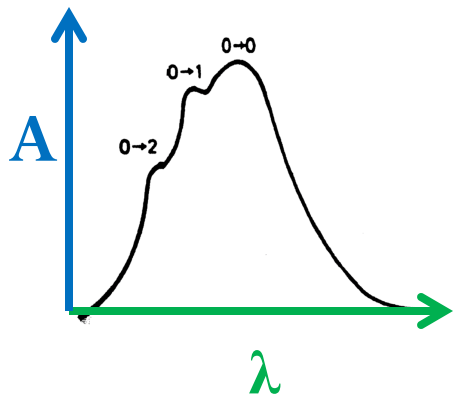
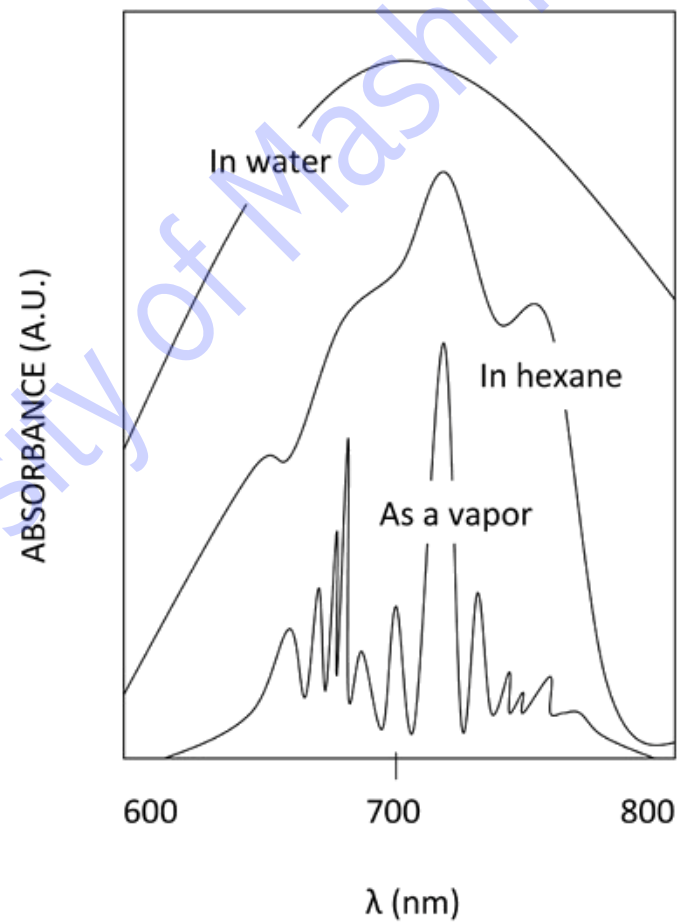
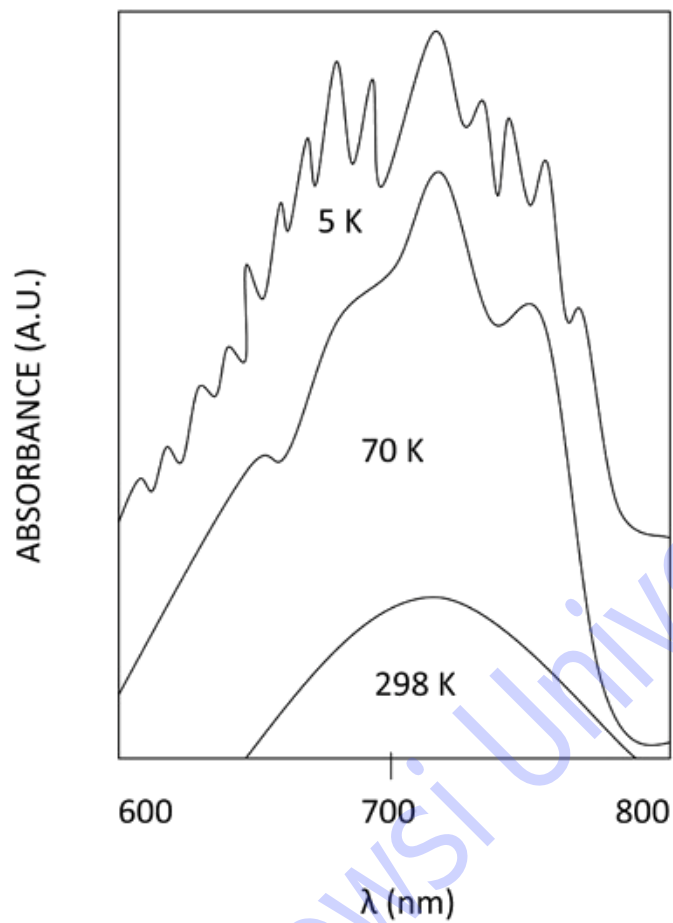


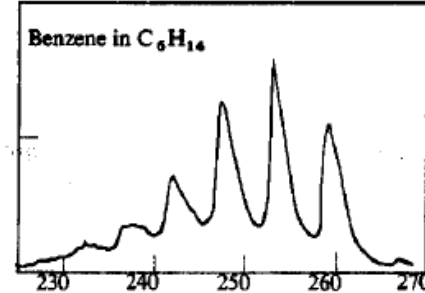
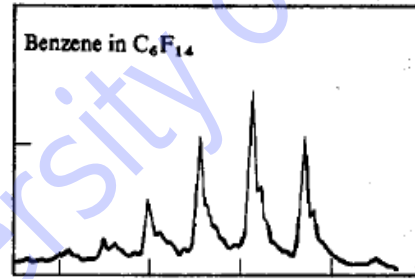
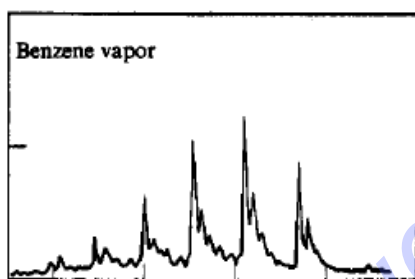
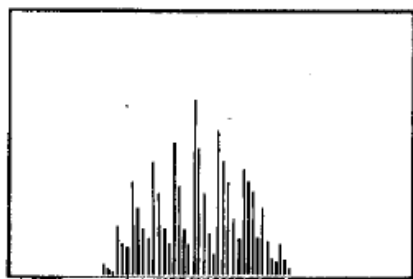
Fig 3 Photoelectron spectrum of the ionization of H_2



- $v_0 \rightarrow v'_2$
- $v_0 \rightarrow v'_1$
- $v_0 \rightarrow v'_0$

Maximum population





- Electronic transition energy

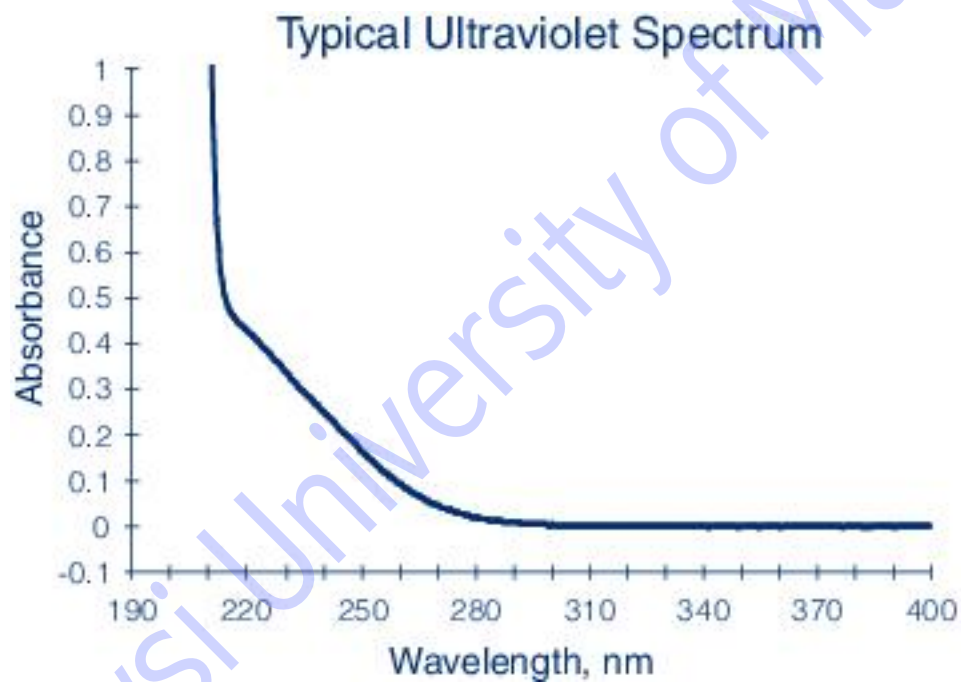
Near IR

Vis

UV

Far UV

Solvent cutoff



THF

The Electromagnetic Spectrum

