Hi Class,

Notes for Immunology ( Sonali ma’am) – Ppts and the other documents have been uploaded.

Spectroscopy –

**David Sheehan** ( A complete reference for Chromatography, Spectroscopy and Electrophoresis since y’all have all of these topics as per your syllabus)

**PDF – Reference\_PDF\_Selective\_Only** – Use this pdf as a reference for selective topics. Specially for transition states of UV/Vis Spectroscopy

**Online References for Spectroscopy (Topic Wise):**

**3.1 – UV/Vis**

<https://www.technologynetworks.com/analysis/articles/uv-vis-spectroscopy-principle-strengths-and-limitations-and-applications-349865>

<https://microbenotes.com/uv-spectroscopy-principle-instrumentation-applications/>

**Uv-Vis Transition State PDF** – For transition States notes.

**3.2 – Turbidimetry and Nephelometry**

<https://www.pharmatutor.org/articles/a-note-on-nephelo-turbidimetric-analysis>

<https://www.environmentalpollution.in/pollution/regulation-and-monitoring/nephelometry-and-turbidimetry-principle-theory-and-techniques/1880>

<https://gpatindia.com/nephelometry-turbidimetry-instrumentation-principal-mcq-with-answers/>

**3.3 – X-ray (XRD only)**

Wilson Walker – PDF – Spectroscopy Book

<https://www.vedantu.com/physics/x-ray-diffraction>

<https://www.scimed.co.uk/education/what-is-x-ray-diffraction-xrd/>

<https://web.pdx.edu/~pmoeck/phy381/Topic5a-XRD.pdf> ( A reference select out which we’ve discussed in class)

3.4 – Infra red and Raman

**Infra Red:**

<https://microbenotes.com/infrared-ir-spectroscopy/>

<https://microbiologynote.com/infrared-ir-spectroscopy-principle-instrumentation-application/>

<https://byjus.com/chemistry/infrared-spectroscopy/>

**Raman:**

<https://byjus.com/physics/raman-scattering/>

<https://www.lkouniv.ac.in/site/writereaddata/siteContent/202003281454236324abhinav_Raman_Spectroscopy2.pdf>

<https://sci.tanta.edu.eg/files/Raman%20spectroscopy%20BSc-Lect-4.pdf>

<https://en.wikipedia.org/wiki/Raman_spectroscopy>

3.5 – NMR

**Use Wilson Walker and Sheehan**

<https://microbenotes.com/nuclear-magnetic-resonance-nmr-spectroscopy/>

<https://www.vedantu.com/chemistry/nmr-spectroscopy>

<http://www.nou.ac.in/econtent/Msc%20Chemistry%20Paper%20IX/MSc%20Chemistry%20Paper-IX%20Unit-5.pdf> (Difficult one, be careful, but super informative)

3.6 – Spectro fluorimetry

<http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/S000002BI/P001354/M021514/ET/1501756853ET.pdf>

<https://www.onlinebiologynotes.com/fluorimetry-principle-and-applications/>

<https://conductscience.com/fluorescence-spectrophotometry-principles-and-applications/>

3.7 – Circular Dichroism

**Book - Sheehan and Wilson**

<https://chem.libretexts.org/Bookshelves/Physical_and_Theoretical_Chemistry_Textbook_Maps/Supplemental_Modules_(Physical_and_Theoretical_Chemistry)/Spectroscopy/Electronic_Spectroscopy/Circular_Dichroism#:~:text=Circular%20Dichroism%20(CD)%20is%20an,of%20the%20circularly%20polarized%20light>.

<https://en.wikipedia.org/wiki/Circular_dichroism>

<https://www.cryst.bbk.ac.uk/PPS2/course/section8/ss-960531_21.html>