Raman's Spectroscopy.

- discovered by CV Raman
- spectroscopic technique used to observe vibrational rotational and other low frequency modes in the system.
- when a radiation passes through a transparent medium the species present scatter a fraction of beam in all directions.
- Ramans spectroscopy is based on scattering.
- Most of the radiation is elastically scattered called as rayleigh scattering.
- A small portion is in elastically scattered called as Raman stokes and Anti stokes portion.
- In Ramans spectroscopy we are particularly focusing on stokes and Anto stokes portion.
- spectrum is measured with laser liner as reference.
- peak positions determined by vibrational energy associated with the bonds in the molecular sam

Instrumentation:

Laser → sample → spectrum/radiation → computer.

uses of Ramans spectroscopy

- tiniest chemical composition of ink could be found.
- subtle batch difference in ink could be found.

Advantages:

① sample preparation not required.

② it is a non destructive technique.