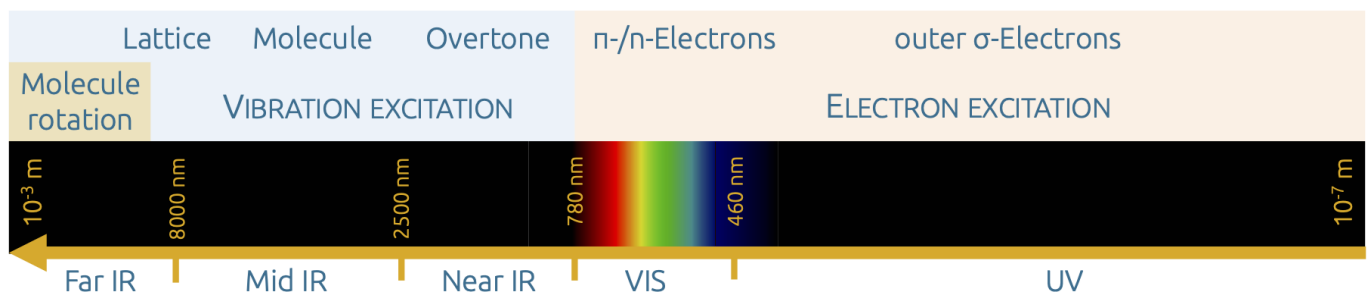


# Optical Spectroscopy

Optical spectroscopy' refers to vibrational spectroscopy and electron excitation spectroscopy. They can be performed using typical optical components such as mirrors, lenses, gratings and prisms. Optical spectroscopy includes the techniques of:

- Infrared spectroscopy (IR)
- RAMAN spectroscopy (RAMAN)
- Spectroscopy in the visible and ultraviolet spectral range (UV, VIS)
- Optical fluorescence spectroscopy (Fluo)

Vibrational spectroscopy includes the techniques of IR and RAMAN spectroscopy, while electron excitation spectroscopy includes UV-VIS and fluorescence spectroscopy.



## *Overview of the spectral range of optical spectroscopy, its classification and types of excitation*

The type of spectroscopy in which matter is externally excited by electromagnetic radiation in the measured spectral range is called absorption spectroscopy. If external excitation by electromagnetic radiation can be completely omitted, this is referred to as emission spectroscopy. An example of this is the emission measurement of LEDs, whose emission spectrum is generated by electrical excitation.

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