

Summary of optical spectroscopy methods

The choice of an optical spectroscopy technique, the measurement setup and the recording of the spectra must be carefully considered, and the following overviews are intended to provide an initial starting point.

	Electron excitation		Vibrational spectroscopy		
	UV/VIS	Fluorescence	NIR	MIR	RAMAN
Signal	Absorption	Emission	Absorption	Absorption	Scattering
Excitation	Halogen, Deuterium (UV)	Discharge lamp, Laser	Halogen	Thermal emitter	Laser
Detector	Si	Si	InGaAs MCT	MCT	Si InGaAs
Sensitivity	high	high	mid	high	mid
Specifics	-	Detector 90° in direction of excitation	-	Special optical materials	longpass filter for excitation blocking
Imaging	simple	higher effort	simple	high effort	higher effort