

OSI 10

Optics of Surfaces and Interfaces

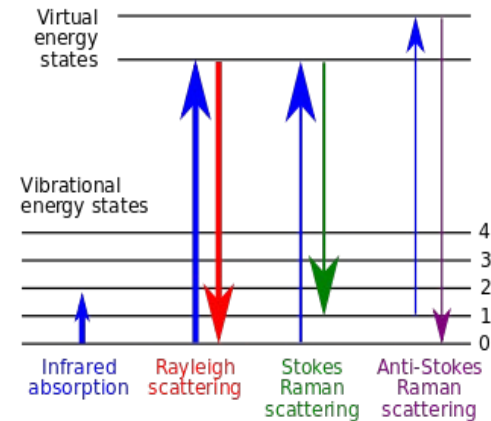
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Experiments :

RAS (reflectance anisotropy spectroscopy)

Raman spectroscopy : reconstructed surface

SERS (Surface-enhanced Raman scattering)
surface-sensitive technique that enhances Raman scattering by molecules adsorbed on rough metal surfaces



Second Harmonic Generation :

ZNO thin films, SiO films, Ge wafers, bulk GaAs (Aalborg, Denmark)

Phase sensitive SHG (Eindhoven, Netherlands)

SiO₂ membrane : EFISH (H. Stafast, Jena)

Defects characterization, Ligand-stabilized nanocrystals : SHG and Raman
Bitumen films (M. Downer, Austin)

Transient SHG for charge transfer at an interface (GaP/Si)

Monolayers of chiral molecules (J. F. McGilp)

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Theory :

GW organic molecular systems (X. Blase)

Plasmonic metal nano-particles (Mexico)

Adsorbates on semi-conductor or metal substrates (M. Rohlfing)

Spin and current injection (B. Mendoza+J. Sipe)

TiSe₂ phonon softening (L. Caramella)

Macroscopic optical response : meta-materials (L. Mochan, Mexico)

SHG : Gauge invariance (B. Mendoza)

Bulk dipole contribution? (Austria)