

Spectroscopy of single semiconductor nanocrystals

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- Short introduction to semiconductor nanocrystals
 - Size and shape control
 - Electronic and optical properties
 - Fluorescence spectra and fluorescence dynamics
- Instrumentation for single nanocrystal detection
 - Confocal microscopy
 - Lasers and detectors
 - Analysis methods
- Selected examples of single nanocrystal spectroscopy
 - Fluorescence blinking
 - Spectral diffusion
 - Fluorescence polarization anisotropy
 - Plasmon exciton coupling in hybrid systems