

# Circular Polarization of Photoluminescence Spectra of Individual CdSe Nanocrystals in an Applied Magnetic Field

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- We measure for the first time the circularly-polarized photoluminescence from *individual* colloidal semiconductor nanocrystals in an applied magnetic field.

- Spectra reveal a clear Zeeman splitting between the spin-up and spin-down band-edge exciton states, permitting a measurement of exciton g-factors at the single-nanocrystal level.

- The data also expose an anomalous polarization behavior arising in nanocrystals that possess an internal shape asymmetry.

