

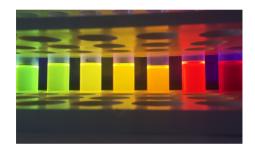
Copper Indium Disulfide/ Zinc Sulfide Quantum Dots

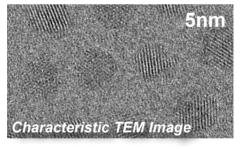


METALS ● INORGANICS ● ORGANOMETALLICS ● CATALYSTS ● LIGANDS ● NANOMATERIALS ● CUSTOM SYNTHESIS ● cGMP FACILITIES

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Copper Indium Disulfide/Zinc Sulfide Quantum Dots, QY >75% CAS# 927198-36-5; Available Unit Sizes: 50mg, 250mg			
Catalog #	Peak Emission	FWHM	
29-8500	550nm ± 10nm	115nm ± 20nm	
29-8510	590nm ± 10nm	120nm ± 20nm	
29-8520	630nm ± 10nm	125nm ± 20nm	
29-8530	680nm ± 10nm	130nm ± 20nm	
29-8540	800nm ± 10nm	180nm ± 20nm	
29-8550	950nm ± 10nm	330nm ±20nm	





ADVANTAGES OVER TRADITIONAL QDs

- ♦ Free of toxic heavy metals (e.g. Cd, Pb) or phosphines
- ♦ Made via safe and scalable non-injection synthesis
- ◆ Bright PL (up to >75% QY) tunable from 550 to 950nm
- ♦ Low self-absorption due to a large Stokes shift >300 meV
- ◆ Stable PL at elevated temperature in air, water, and various composites

USE & HANDLING RECOMMENDATIONS

Products are shipped in powder form, and are soluble in non-polar solvents (e.g., toluene, chloroform). Typical concentrations are ~5-200 mg/mL for most applications. The dots have been cleaned by dissolution/precipitation three times to form a dried powder. Suggested use within 12 months of receipt.

PRODUCT SPECIFICATIONS

QY	>75%
Material composition	CulnS ₂ /ZnS
Material Form	Powder
Compatible Solvents	Nonpolar solvents: toluene, chloroform
Particle Size	5-10nm

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Product Images & Spectra Graphs

Peak Emission: 550nm Peak Emission: 590nm Peak Emission: 630nm Energy, eV Energy, eV Energy, eV 2.8 2.6 2.8 2.6 3 2.8 2.6 2.4 QD-550 QD-630 QD-590 PL intensity, a.u. PL intensity, a.u. Absorption, a.u. Absorption, a.u. Absorption, a.u. 400 550 600 650 400 550 650 400 550 600 650 Wavelength, nm Wavelength, nm Wavelength, nm Peak Emission: 680nm Peak Emission: 800nm Peak Emission: 950nm Energy, eV Energy, eV Energy, eV 3 2.8 2.6 2.4 2.2 2.5 QD-680 QD-950 QD-800 PL intensity, a.u. PL intensity, a.u. Absorption, a.u. Absorption, a.u. Absorption, a.u.

400

550 600 650 700 750 800 850

Wavelength, nm

400 450 500

1000

1100

400

600 700

800

Wavelength, nm

900

1000

1100

900

800

Wavelength, nm