

**NS6130-02-254**

# Cadmium Sulfide Nanoparticles

## Quick Facts

|                   |   |                               |
|-------------------|---|-------------------------------|
| Product           | : | Cadmium Sulfide Nanoparticles |
| Stock No          | : | NS6130-02-254                 |
| CAS               | : | 1306-23-6                     |
| Molecular Formula | : | CdS                           |
| Form              | : | Powder                        |

**Purity**  
99.9%

## Technical Specification

| Molecular Weight | Density                | Melting Point | APS      |
|------------------|------------------------|---------------|----------|
| 144.47 g/mol     | 4.82 g/cm <sup>3</sup> | 1750 °C       | 90-100nm |

Cadmium sulfide quantum dots with unique optical properties are increasingly being used in optical switches, sensors, lasers and biomedical labeling. Many of these applications require a combination of the QDs with polymers. Accordingly, several liquid processing routes have been developed to synthesize CdS/polymer nanocomposite particles. These include immobilization of CdS nanoparticles into supports, attachment of end-functionalized polymers to the QD surface, and surface modification of QDs/polymers with polyelectrolytes and in situ monomer polymerization.

## Application

- ✓ Light dependent resistors/photo resistors for light sensors
- ✓ Chemical bath deposition, CBD
- ✓ Sol gel techniques
- ✓ MOCVD
- ✓ Sputtering
- ✓ Electrochemical deposition



**CdS**  
APS 90-100nm



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