

Technical Data Sheet

QDot™ InAs Quantum Dots

Introduction and product highlights

QDot™ InAs (Indium Arsenide) Quantum Dots absorb the light from high energy photons up to short wave infrared range. The absorption profiles can be tuned by changing nanoparticle sizes. This material has outstanding light absorption and photoelectrical properties, and is utilized for near-infrared (NIR) or short-wave infrared (SWIR) image sensors.

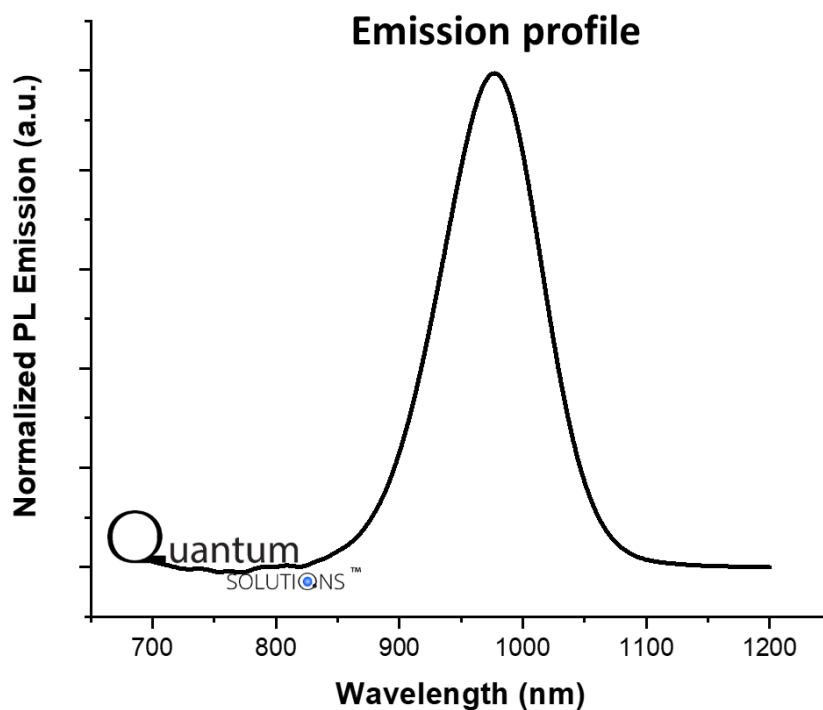
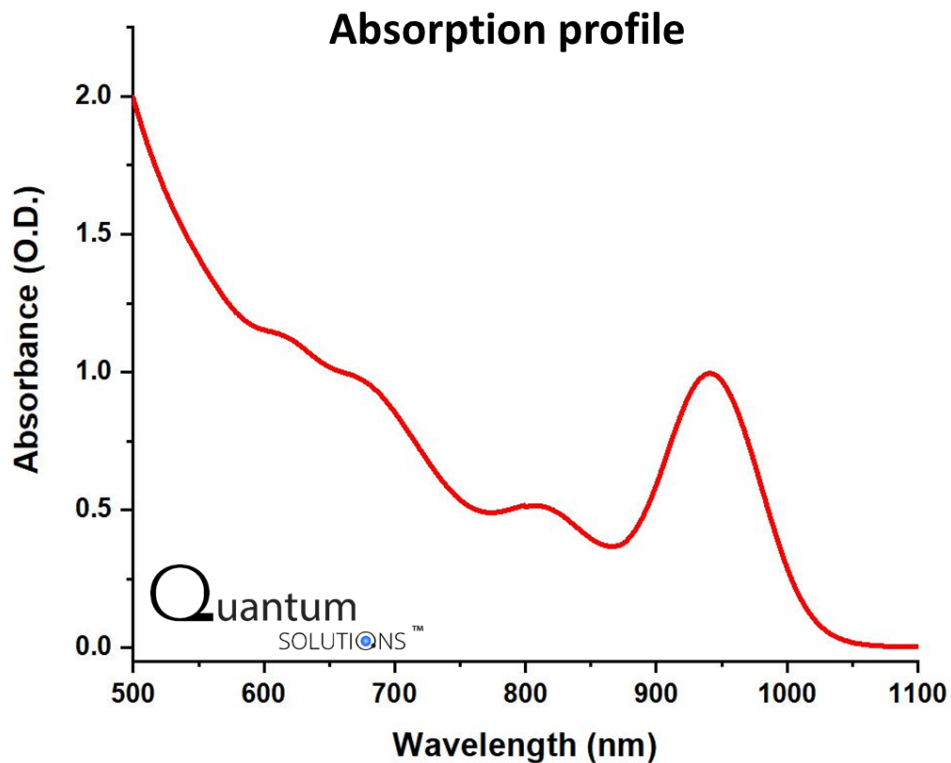
QDot™ InAs Quantum Dots have following advantages:

1. Development grade QDs to be used in near-infrared (NIR) or short-wave infrared (SWIR) image sensors
2. Lead free, RoHS compliant
3. Fast decay time

Table 1. Specification of QDot™ InAs Quantum Dots (development grade)

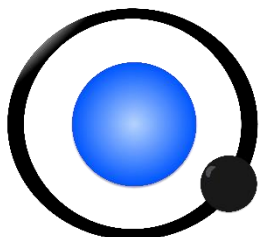
Catalogue Number	Absorption peak (Abs=1)	Particle size	FWHM of absorption (Abs=1)	Peak-to-valley ratio	Stokes shift	Capping ligand	Ligand concentration	Form available
QDot™ InAs-940-abs	940±20 nm	4 nm	< 120 nm	> 2	40 nm	Oleic acid	35-45 wt%	Octane: 10 or 50 mg/mL Toluene: 10 or 50 mg/mL

Optical profiles of QDot™ InAs Quantum Dots



Notes for handling

Shelf Life 12 months. Shipping temperature from 4-25 °C. Storage temperature from 4-25 °C. Store in DARK conditions, in original packaging or in airtight, sealed packaging inside a glovebox (under inert atmosphere). Repackage or dissolve in a glovebox only. Use anhydrous solvents only. Avoid contact with air.



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