

Technical Specification of Quantum Dots with Amine Group

Description: QSA is a group of water soluble CdSe/ZnS quantum dots with amphiphilic polymer and PEG coating. Their surface functional group is amine. The zeta potential of QSA is from -10mV to +10mV. The organic layers consist of a monolayer of oleic acid, a monolayer of amphiphilic polymer and a monolayer of PEG. The thickness of the total organic layers is about 6 nm. The hydrodynamic size of the nanocrystals is about 12-14 nm larger than their inorganic core size measured by TEM.

QSA is very stable in most buffer solutions in the pH range of 3-14.

The amine density of QSA is low due to the long PEG chain. During the conjugation process, please run Electrophoresis Gel to check the conjugation efficiency.

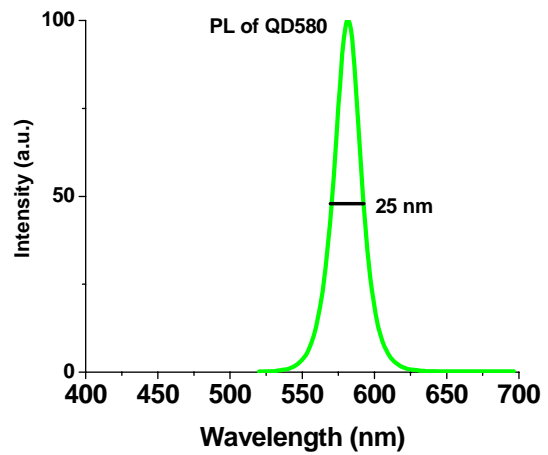
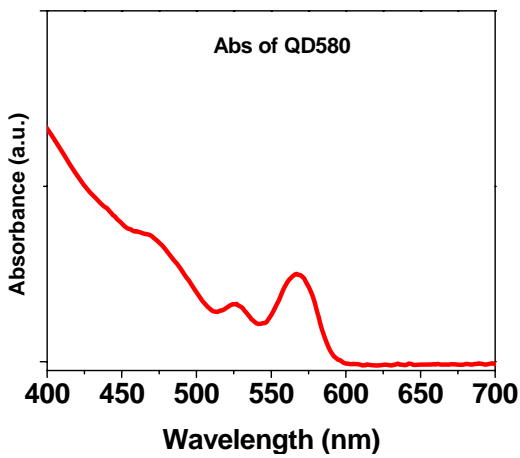
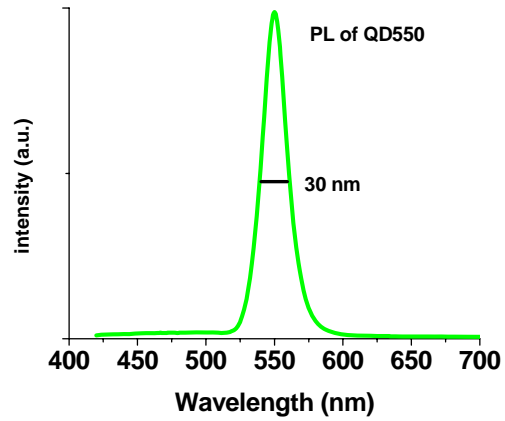
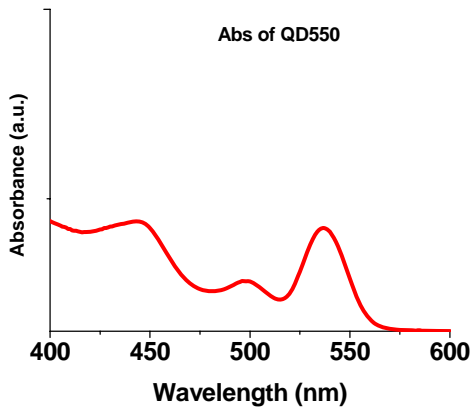
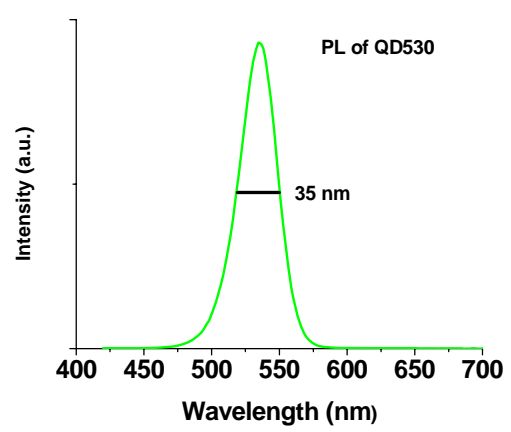
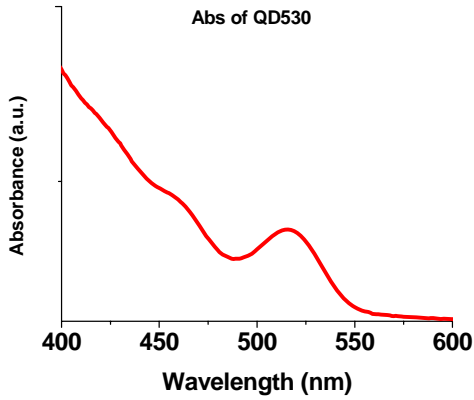
Catalog number:	QSA
Product name:	CdSe/ZnS core/shell QDs with amine surface group.
Solvent:	Borate (0.01M, pH 5.0)
Surface group:	Amine
Storage:	4°C; Do not freeze.
pH stability:	4-10
Buffer stability:	Borate, Tris, HEPES, PBS, MES, etc.
Shelf life:	6 months
Concentration:	8.0 uM

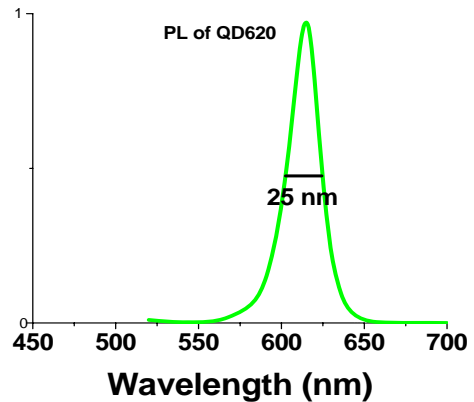
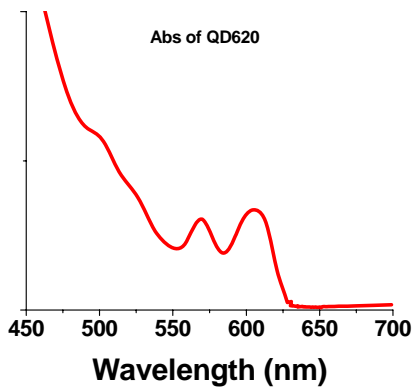
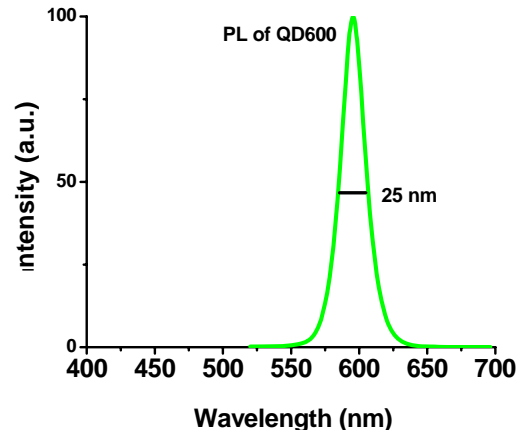
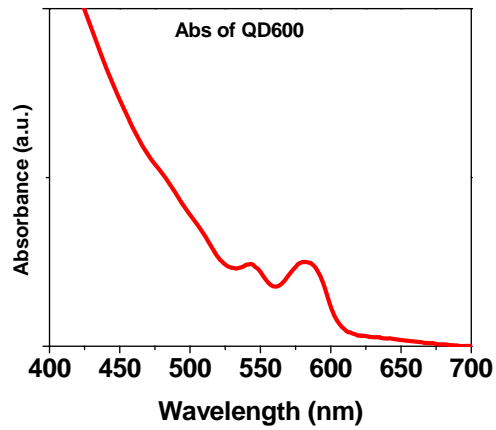
	QSA530	QSA550	QSA580	QSA600	QSA620
Emission Peak (nm)	530	550	580	600	620
Peak Tolerance (nm)	10	10	10	10	10
FWHM* (nm)	<35	<35	<25	<25	<25
Emission Efficiency**	>30%	>30%	>50%	>50%	>50%
Surface Coating	Polymer	Polymer	Polymer	Polymer	Polymer

*FWHM: Full Width of Half Maximum

**Emission efficiency was measured by integrating sphere.

Spectra:





For R&D only. Not intended for food, drug, household, agricultural, or cosmetic use.

Ocean NanoTech, LLC shall not be held liable for any damage resulting from handling or contact with the above product.