

Technical Specification of Quantum Dots with Amine Group

Description: QSA is a group of water soluble alloy CdSSe/ZnS or CdSe/ZnS core/shell quantum dots with amphiphilic polymer and PEG coating. The surface functional group is amine. The zeta potential of QSA is from -20mV to +10mV. The organic layers consist of a monolayer of oleic acid/octadecylamine, 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 QDs 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 5-10. The amine density of QSA is low due to the long PEG chain.

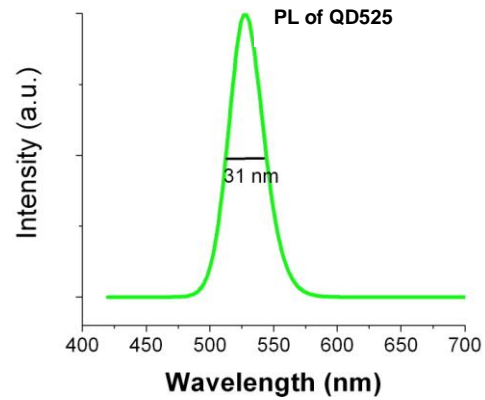
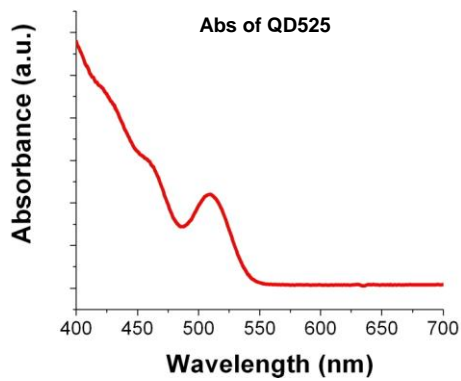
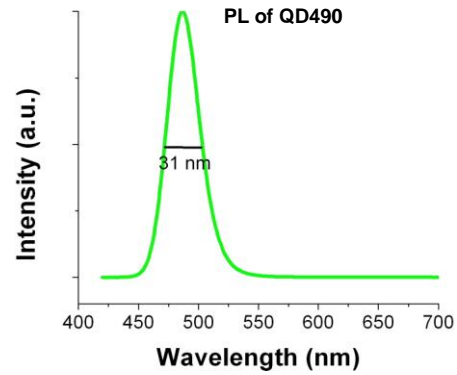
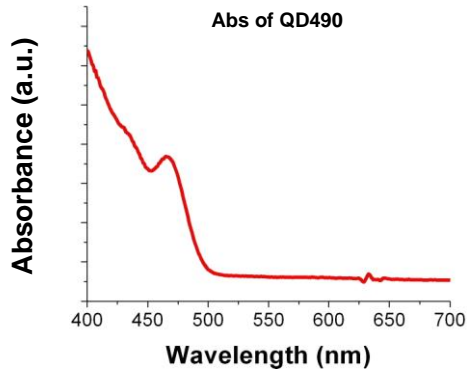
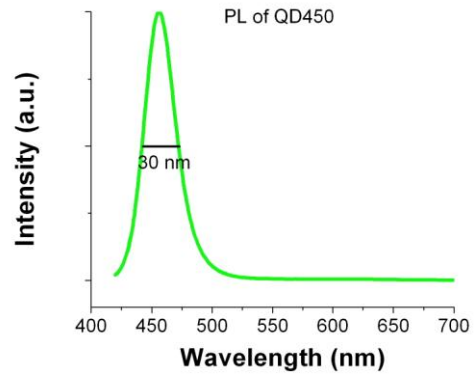
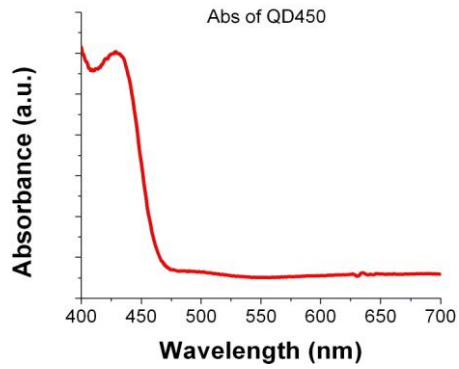
Catalog number: QSA
Product name: CdSSe/ZnS or CdSe/ZnS core/shell QDs with amine surface group.
Solvent: Borate (0.01M, pH 5.0)
Surface group: Amine
Storage: 4°C; Do not freeze.
pH stability: 5-10
Buffer stability: Borate, Tris, HEPES, PBS, MES, etc.
Shelf life: 6 months
Concentration: 8.0 uM

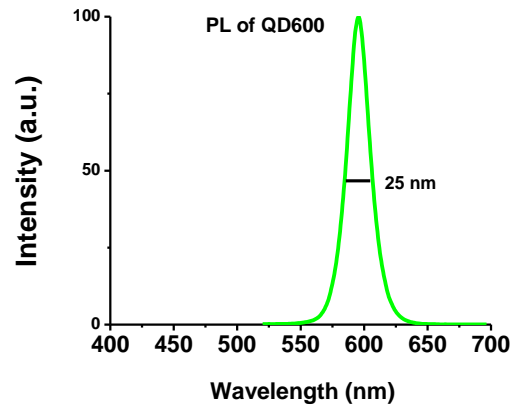
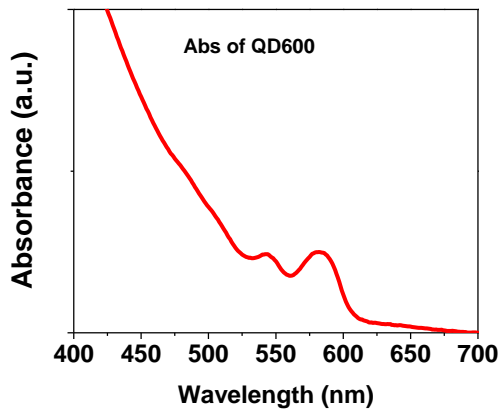
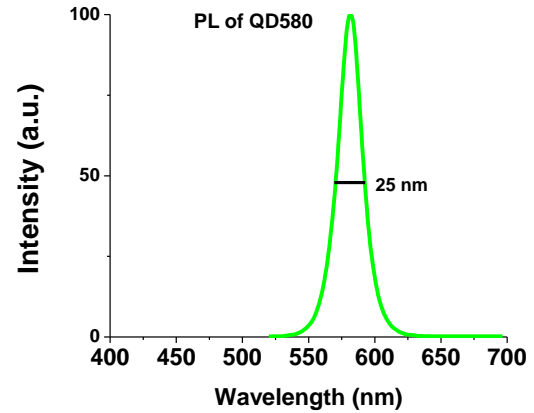
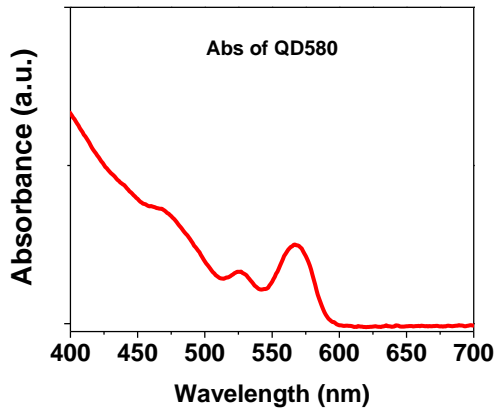
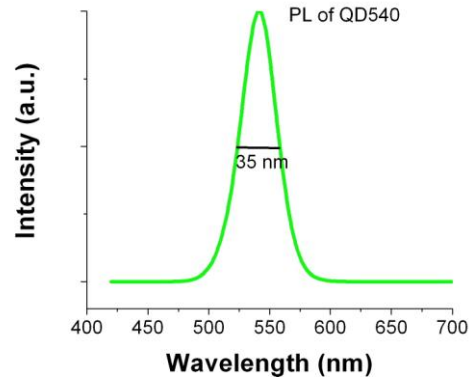
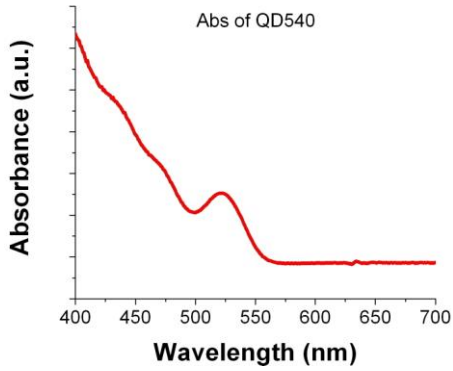
	QSA450	QSA490	QSA525	QSA540	QSA580	QSA600	QSA620	QSA645	QSA665
Emission (nm)	450	490	525	540	580	600	620	645	665
Peak Tolerance (nm)	10	10	10	10	10	10	10	10	10
FWHM (nm)*	<35	<35	<35	<35	<25	<25	<25	<35	<35
Emission Efficiency**	>50%	>50%	>50%	>50%	>50%	>50%	>50%	>50%	>50%
Surface Coating	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer	Polymer

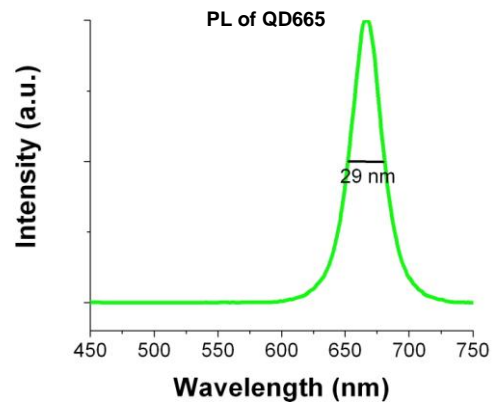
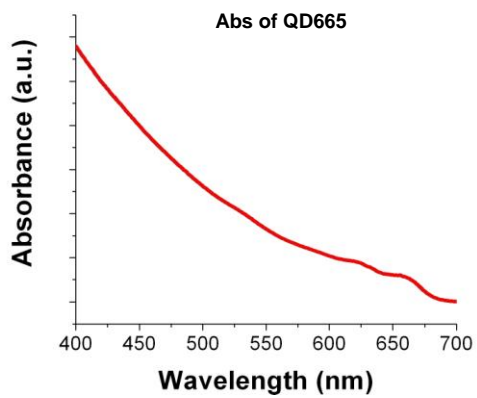
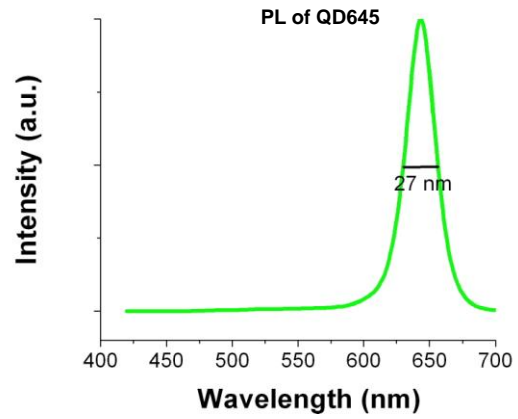
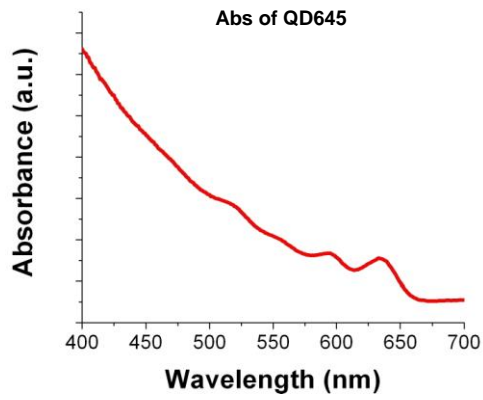
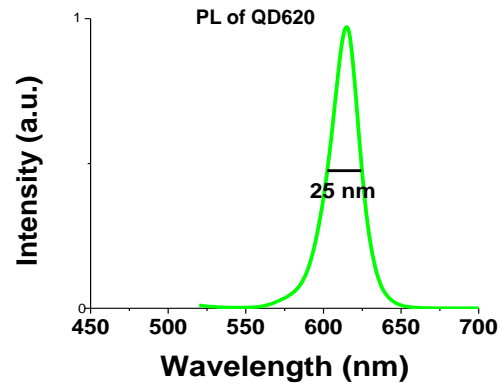
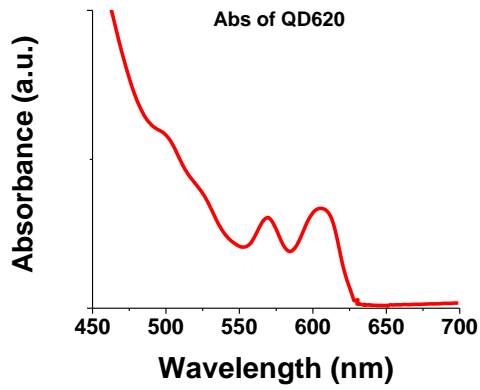
*FWMH: Full Width of Half Maximum:

**Emission efficiency was measured by integrating sphere.

Spectra:









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