

LyoF™ Quantum Dots with Carboxylic Acid Group ([Catalog # QYH](#))

Description: QYH is a group of water soluble alloy CdSSe/ZnS or CdSe/ZnS core/shell quantum dots with amphiphilic polymer coating in lyophilized solid form. QYH can be reconstituted in DI water or DMSO to any desired concentration so you can do your reaction in the solvent system of your choice.

The reactive group of QYH is carboxylic acid. The zeta potential of QYH is from -30mV to -50mV. Their organic layers consist of a monolayer of oleic acid/octadecylamine and a monolayer of amphiphilic polymer. The thickness of the total organic layers is about 4 nm. The hydrodynamic size of the QDs is about 8-10 nm larger than their inorganic core size measured by TEM.

Reconstituted QYH is very stable in most buffer solutions in the pH range of 5-10.

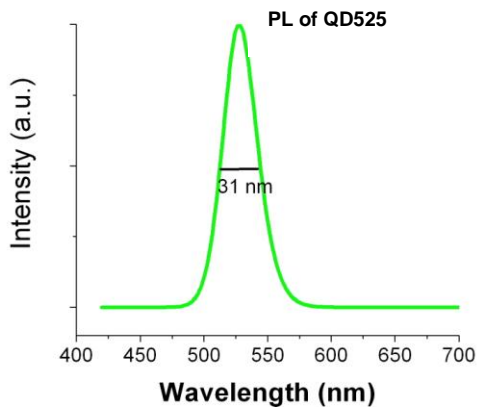
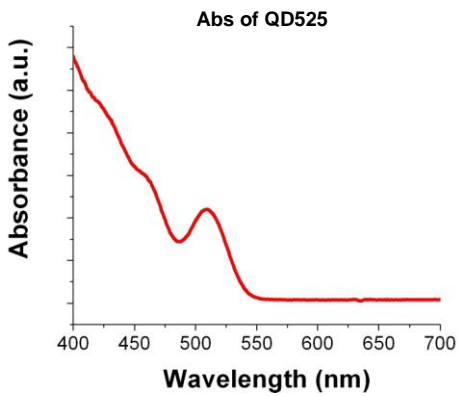
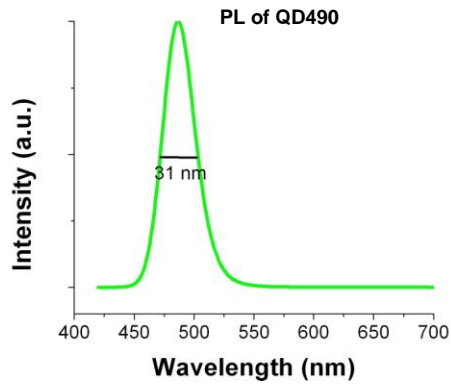
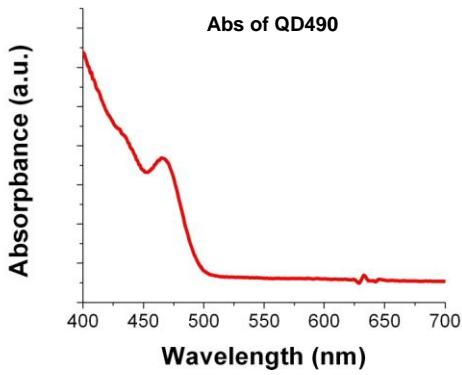
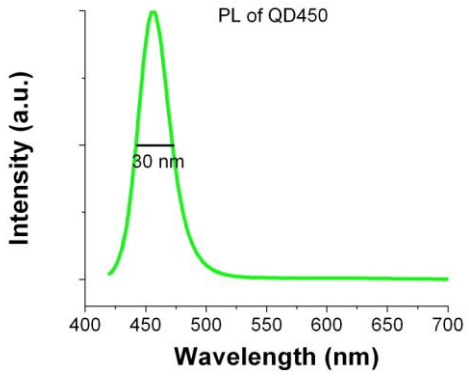
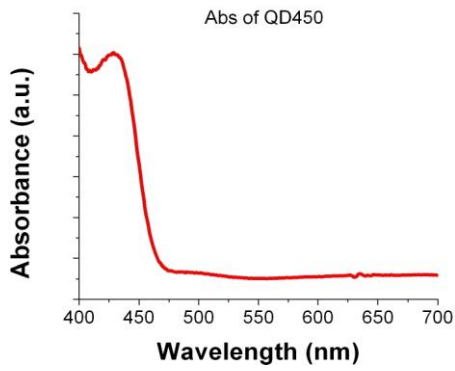
Catalog number:	QYH
Product name:	LyoF™ CdSSe/ZnS or CdSe/ZnS core/shell QDs with carboxylic acid group.
Physical appearance:	Color solid
Reactive group:	Carboxylic acid
Storage:	4-25°C
pH stability:	5-10
Buffer stability:	Borate, Tris, HEPES, PBS, MES, etc.
Reconstitution solvents:	DI H ₂ O or DMSO
Shelf life:	6 months. Use reconstituted samples within one week.
Amount:	1 nmole/vial
Other component:	Trehalose

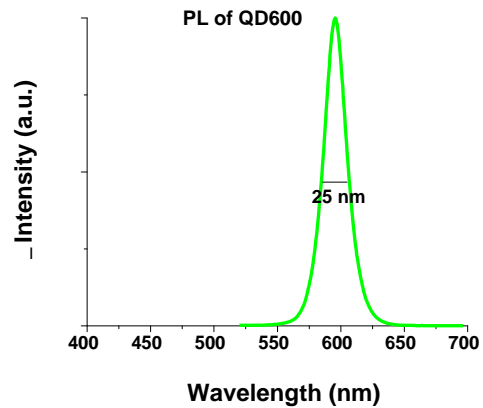
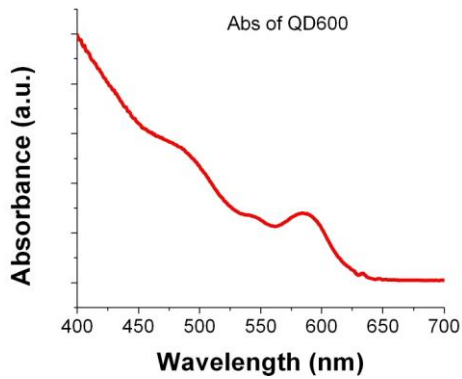
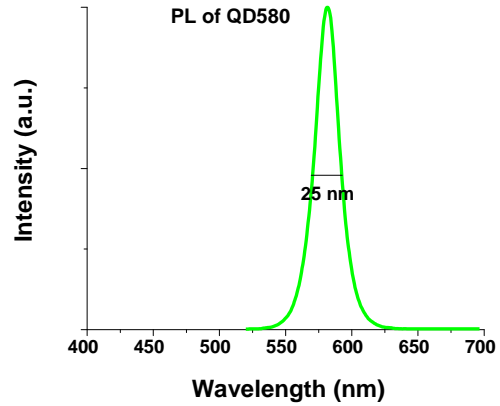
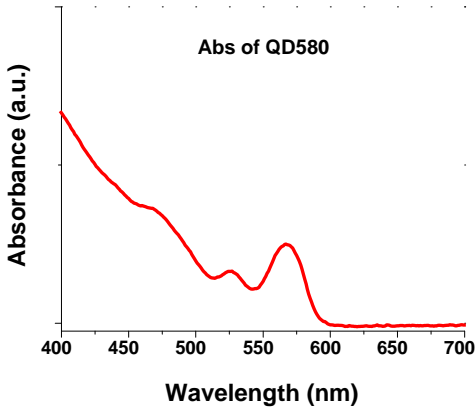
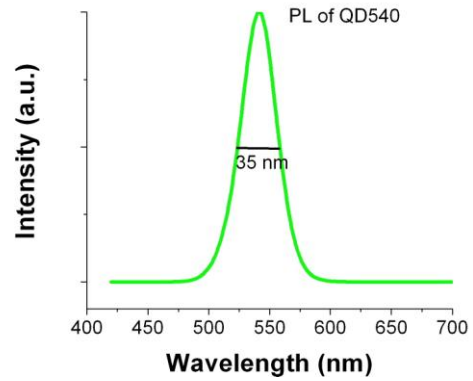
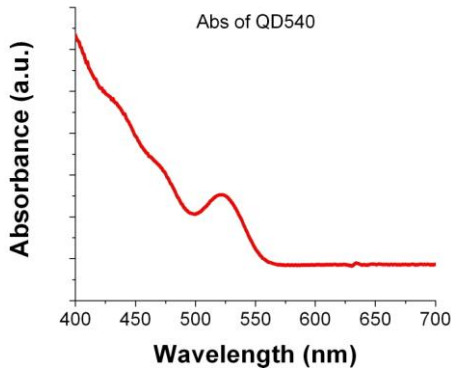
Emission wavelength (nm)	450	490	525	540	580	600	620	645	665
Emission tolerance (nm)	10	10	10	10	10	10	10	10	10
FWHM (nm)	<35	<35	<35	<35	<25	<25	<25	<35	<35
Quantum yield*	>50%	>50%	>50%	>50%	>50%	>50%	>50%	>50%	>50%
Structure	CdSSe/ ZnS/OA /APM	CdSSe/ ZnS/OA/ APM	CdSSe/ ZnS/OA/ APM	CdSSe/ ZnS/OA/ APM	CdSe/ ZnS/ODA/ APM	CdSe/ ZnS/ODA /APM	CdSe/ ZnS/ODA /APM	CdSSe/ ZnS/OA /APM	CdSSe/ ZnS/OA/ APM

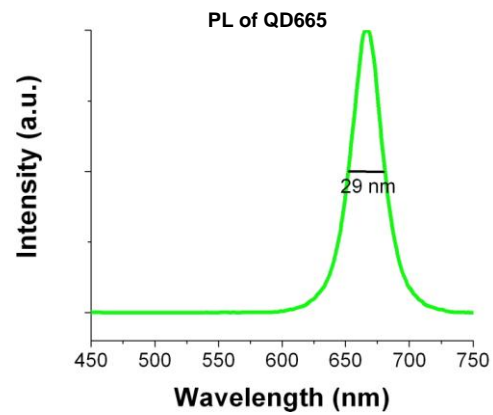
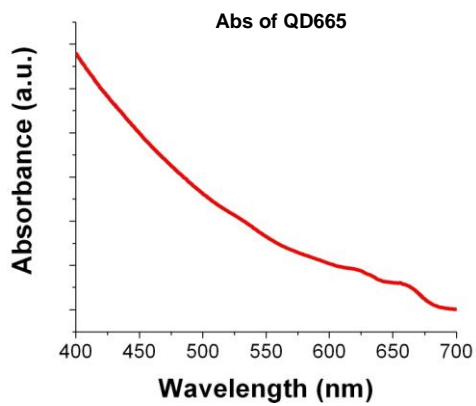
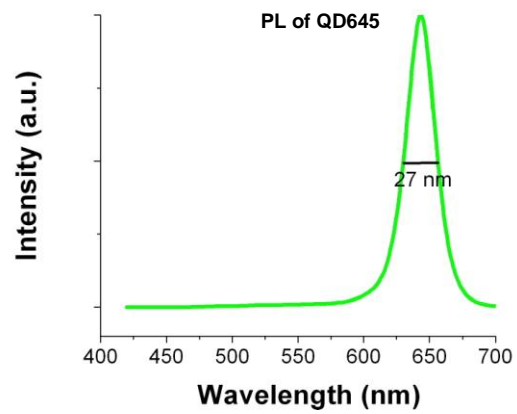
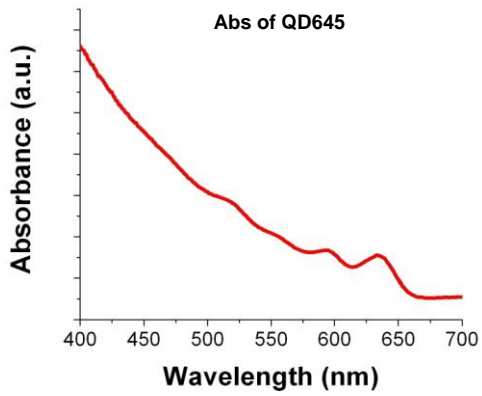
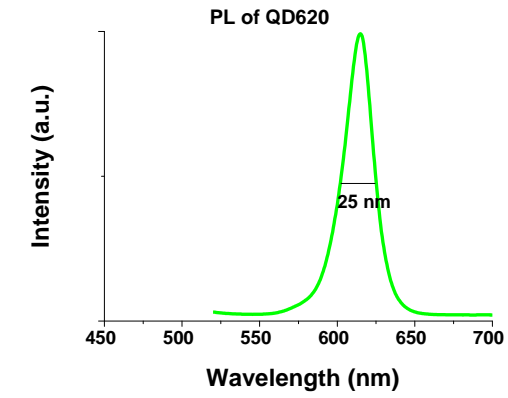
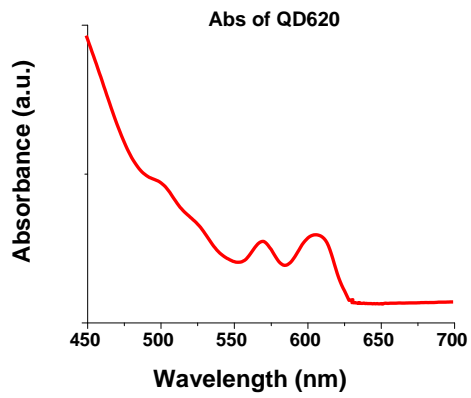
*Quantum yield was measured by integrating sphere method.

Abbreviations: FWHM, Full Width of Half Maximum; OA, oleic acid; ODA: octadecylamine; APM, amphiphilic polymer.

Spectra:









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