Technical Specification of Quantum Dots with Phenylboronic Acid

(Catalog # QBO)

Description: QBO is a group of water soluble CdSe/ZnS quantum dots with amphiphilic polymer coated with PEG and conjugated with phenylboronic acid (PBA). Their surface functional group is PBA. PBA forms favorable binding with sialic acid (SA) through common carbohydrates (mannose, glucose, galactose, and SA), which are found on the glycan structures of cell membrane surfaces, at the physiological pH of 7.4. Changes in SA expression are closely associated with various disease states such as cancer, cardiovascular and neurological diseases. QBO can specifically and efficiently label SA on living cells.

Catalog number: QBO

Product name: CdSe/ZnS core/shell QDs with amine surface group.

Solvent: Borate (0.02M, pH 7.4)

Surface group: PBA

Storage: 4°C; Do not freeze.

Shelf life: 3 months

	QBO530	QBO550	QBO580	QBO600	QBO620
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

***FWMH: Full Width at Half Maximum**

****Emission efficiency was measured by integrating sphere.**

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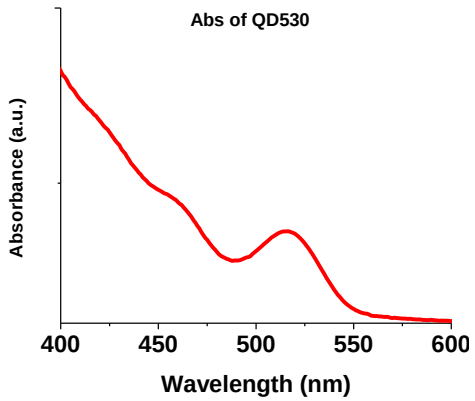
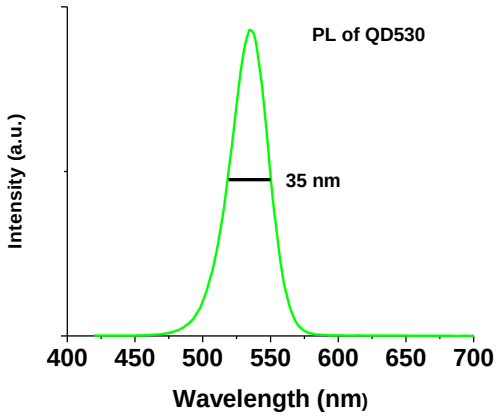
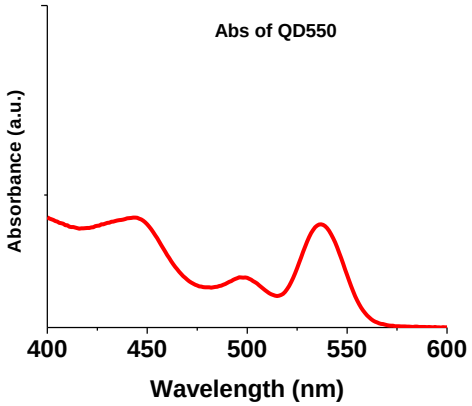
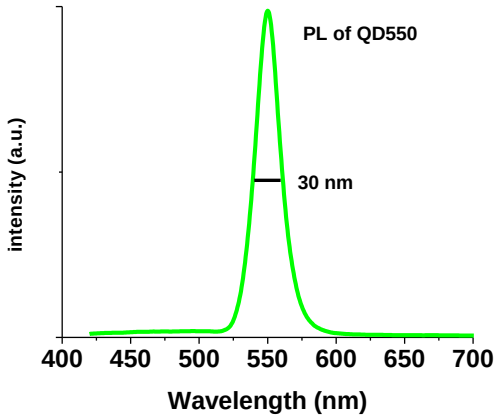
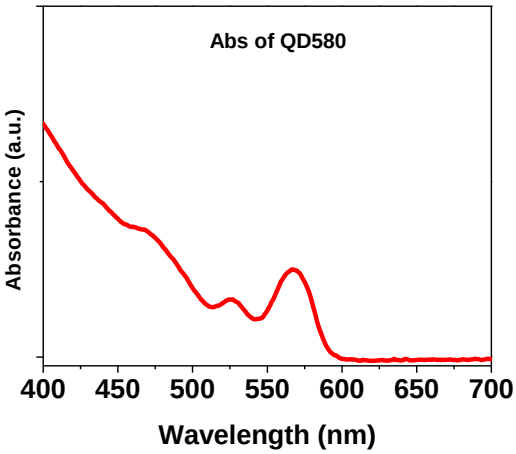
Spectra:

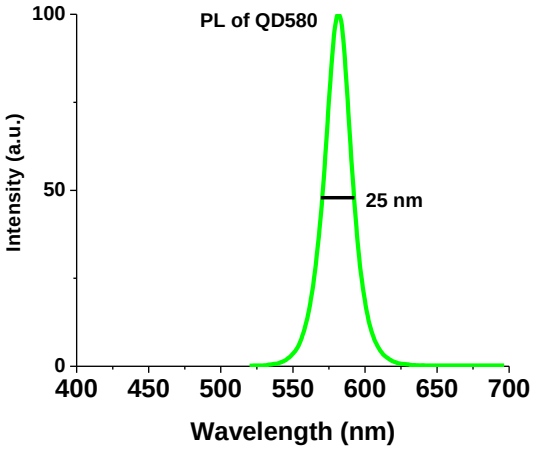












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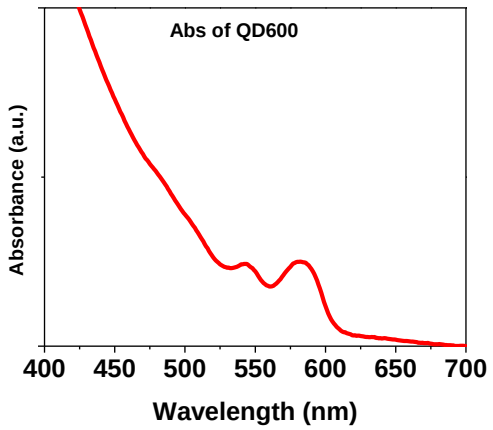

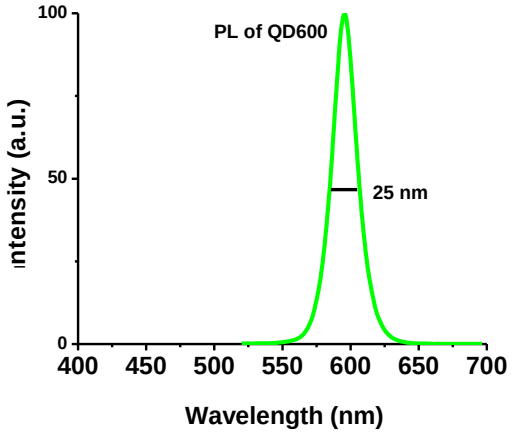

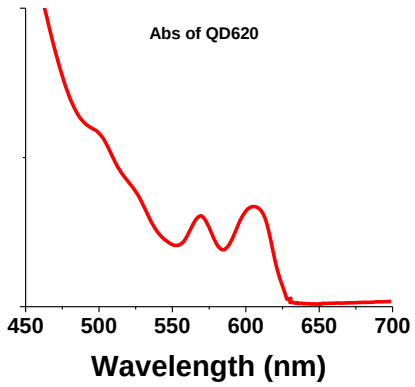

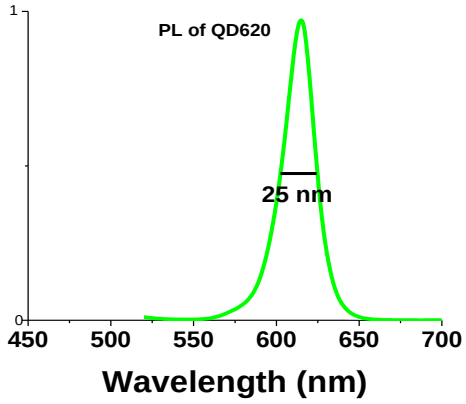

For R&D only. Not intended for food, drug, household, agricultural, or cosmetic use.

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

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