

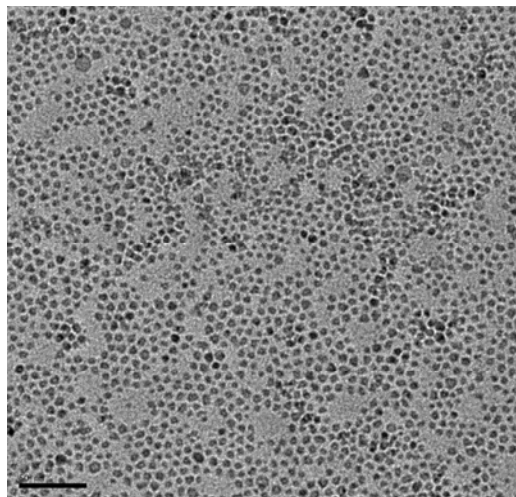
## Technical Specification of Iron Oxide Nanocrystals with Oleic Acid Coating

**Description:** SOR is organic soluble iron oxide nanocrystals. The iron oxide nanocrystals synthesized in organic solvent at high temperature have uniform size and high crystallization. The particle size can be easily tuned by changing the reaction temperature and ligand concentration. SOR can be dispersed in most organic solvents such as toluene or chloroform. Their surface ligand is oleic acid.

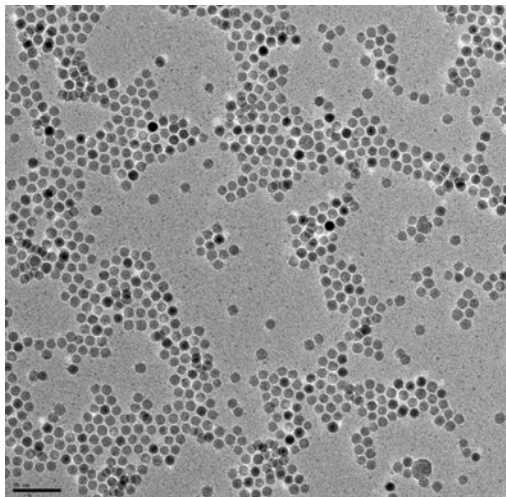
**Catalog number:** SOR  
**Product name:** Iron oxide nanocrystals in with oleic acid coating.  
**Solvent:** Chloroform  
**Storage:** 4-25°C; Do not freeze.  
**Shelf life:** 6 months

<b>IO size (nm):</b>	5	10	15	20	25	30	40	50
<b>Size tolerance (nm):</b>	2.5	2.5	2.5	2.5	2.5	2.5	5	5
<b>Size distribution:</b>	<10%	<5%	<5%	<5%	<5%	<5%	<10%	<10%
<b>Molar concentration (uM) of 5 mg/mL (Fe):</b>	34.5	4.3	1.25	0.55	0.27	0.16	0.066	0.034
<b>Structure:</b>	Maghemite		Magnetite					
<b>Chemical Formula:</b>	Fe <sub>2</sub> O <sub>3</sub>		Fe <sub>3</sub> O <sub>4</sub>					

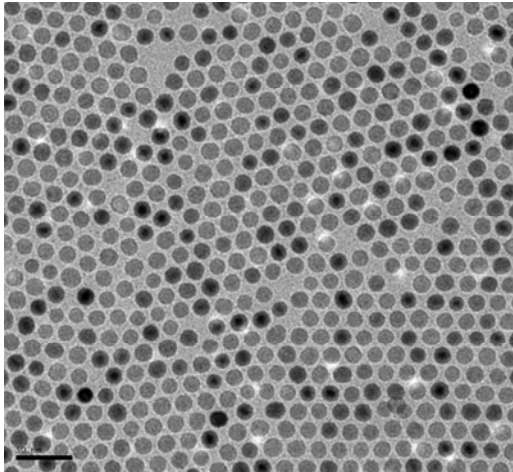
TEM image of 5 nm IO nanocrystals



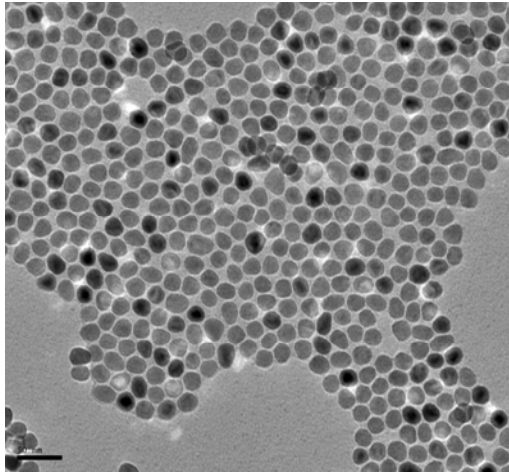
TEM image of 10 nm IO nanocrystals



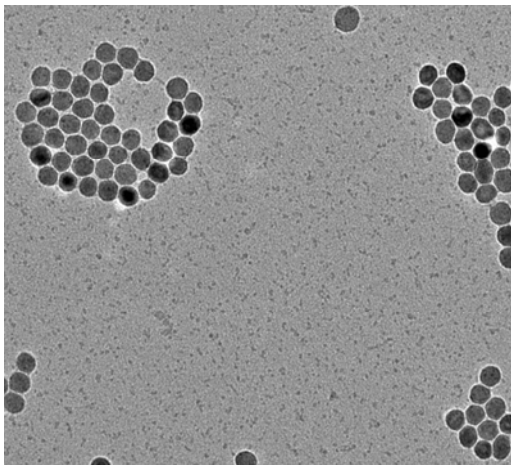
**TEM image of 15 nm IO nanocrystals**



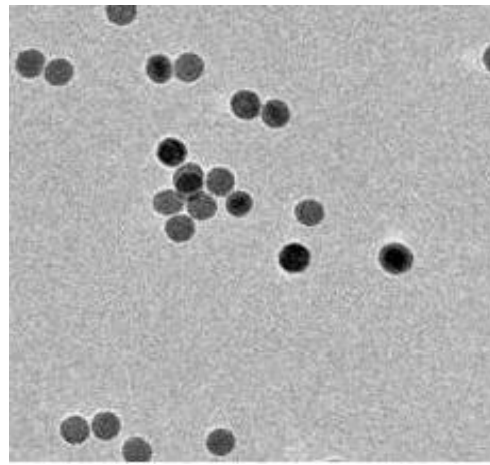
**TEM image of 20 nm IO nanocrystals**



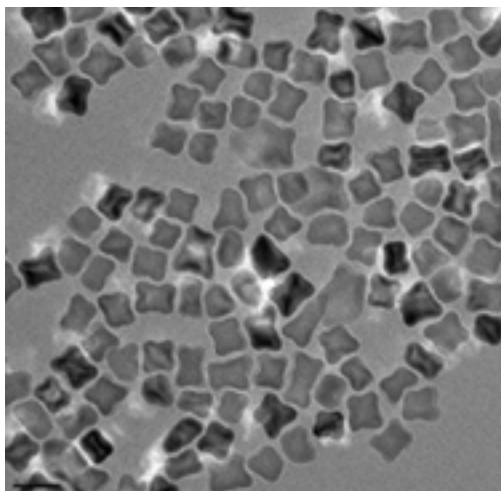
**TEM image of 25 nm IO nanocrystals**



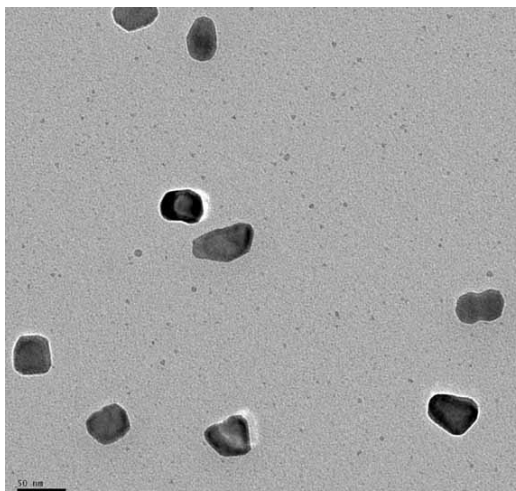
**TEM image of 30 nm IO nanocrystals**



**TEM image of 40nm IO nanocrystals**



**TEM image of 50nm IO nanocrystals**





**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.**