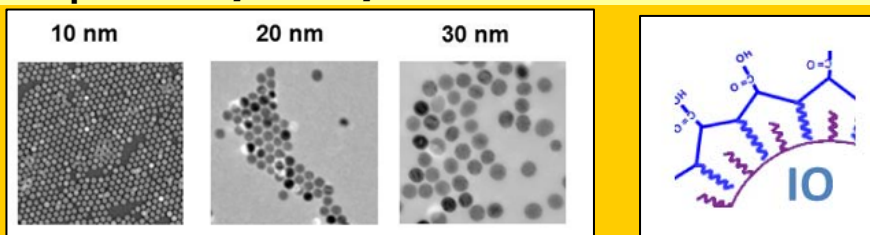


# STREM Functionalized Iron Oxide Nanoparticles

metals · inorganics · organometallics · catalysts · ligands · custom synthesis · cGMP facilities · nanomaterials

## Iron oxide nanoparticles [1309-37-1]



Catalog #	Catalog Size	in water, with carboxylic acid surface functional group*	in water, with amine surface functional group+	in water, with PEG#	Organic solvent-dispersible (in chloroform)	Size (nm)	Overall thickness of organic layers	Zeta potential	Hydrodynamic Size*
26-2705	10mg 50mg	X				10nm	4nm	-30mV to -50mV	8-10 nm
26-2707	10mg 50mg	X				20nm	4nm	-30mV to -50mV	8-10 nm
26-2709	10mg 50mg	X				30nm	4nm	-30mV to -50mV	8-10 nm
26-2711	5mg 25mg		X			10nm	6 nm	-10mv to +10mV	12-14 nm
26-2713	5mg 25mg		X			20nm	6 nm	-10mv to +10mV	12-14 nm
26-2715	5mg 25mg		X			30nm	6 nm	-10mv to +10mV	12-14 nm
26-2722	5mg 25mg			X		10nm	~6nm	-10mv to 0	12-14nm
26-2724	5mg 25mg			X		20nm	~6nm	-10mv to 0	12-14nm
26-2726	5mg 25mg			X		30nm	~6nm	-10mv to 0	12-14nm
26-2728	50mg 500mg				X	10nm	~6 nm	-10mv to 0	12-14 nm
26-2730	50mg 500mg				X	20nm	~6 nm	-10mv to 0	12-14 nm
26-2732	50mg 500mg				X	30nm	~6 nm	-10mv to 0	12-14 nm

\* Larger than their inorganic core size measured by TEM

• The organic layers consist of a monolayer of oleic acid and a monolayer of amphiphilic polymer. Very stable in most buffer solutions in the pH range of 4-10. Solution can survive autoclaving process (121°C for 30 minutes).

+ The organic layers consist of a monolayer of oleic acid and a monolayer of amphiphilic polymer. Very stable in most buffer solutions in the pH range of 4-10. Solution can survive autoclaving process (121°C for 30 minutes). Light precipitation may occur during storage. Check expiration date before conjugation. The amine density is low due to the long PEG chain. Can be conjugated to carbonyl or thio-containing molecules.

# The colloidal stability is exceptionally high. Stable in most buffer solutions in the pH range of 4-10. Solution can survive autoclaving process (121°C for 30 minutes).

### References:

1. *Clinical Cancer Research*, **2009**, 15, 4722.
2. *Gastroenterology*, **2009**, 136, 1514.
3. *Small*, **2009**, 5, 235.
4. *The Analysis*, **2008**, 133, 154.
5. *The Journal of Physical Chemistry C*, **2008**, 112, 8127.
6. *International Journal of Nanomedicine*, **2008**, 3, 311.
7. *Journal of Biomedical Nanotechnology*, **2008**, 4, 439.

Visit [www.strem.com](http://www.strem.com) for new product information and searchable catalog.

**Strem Chemicals, Inc.**  
7 Mulliken Way  
Newburyport, MA 01950-4098  
U.S.A.  
Tel.: (978) 499-1600  
Fax: (978) 465-3104  
Email: [info@strem.com](mailto:info@strem.com)

**Strem Chemicals, Inc.**  
15, rue de l'Atome  
Zone Industrielle  
67800 BISCHHEIM France  
Tel.: (33) 03 88 62 52 60  
Fax: (33) 03 88 62 26 81  
Email: [info.europe@strem.com](mailto:info.europe@strem.com)

**Strem Chemicals, Inc.**  
Postfach 1215  
77672 KEHL  
Germany  
Telefon: 0 78 51/ 7 58 79  
Email: [info.europe@strem.com](mailto:info.europe@strem.com)

**Strem Chemicals UK**  
41 Hills Road  
Cambridge  
England CB2 1NT  
Tel.: 0845 643 7263  
Fax: 0845 643 7362  
Email: [enquiries@strem.co.uk](mailto:enquiries@strem.co.uk)