

Materials List for:

Visible-light Induced Reduction of Graphene Oxide Using Plasmonic Nanoparticle

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Materials

Name	Company	Catalog Number	Comments
Cy3 modifeid ssDNA	IDT(Iowa, USA)		HPLC purified by IDT
Gold nanoparticles (30 nm)	Ted Pella, Inc(Redding, CA, USA).	15706-20	colloidal solution
4-(2-hydroxyethyl)-1-piperazineethane sulfonic acid (HEPES) (99.5%)	Sigma-Aldrich (St. Louis, MO, USA)	7365-45-9	
Gold(III) Chloride Hydrate (99.999%)	Sigma-Aldrich (St. Louis, MO, USA)	27988-77-8	strongly hygroscopic
Sodium Borohydride (99.99%)	Sigma-Aldrich (St. Louis, MO, USA)	16940-66-2	
Hexadecyltrimethylammonium bromide (≥99%)	Sigma-Aldrich (St. Louis, MO, USA)	57-09-0	
L-Ascorbic Acid(≥99.0%)	Sigma-Aldrich (St. Louis, MO, USA)	50-81-7	
Sodium Chloride (99.5%)	Sigma-Aldrich (St. Louis, MO, USA)	7647-14-5	
Silver Nitrate (≥99.0%)	Sigma-Aldrich (St. Louis, MO, USA)	7761-88-8	
Graphite	Sigma-Aldrich (St. Louis, MO, USA)	7782-42-5	
Sulfuric acid	Sigma-Aldrich (St. Louis, MO, USA)	7664-93-9	
Phophoric acid	Sigma-Aldrich (St. Louis, MO, USA)	7664-38-2	
Potassium permanganate	Sigma-Aldrich (St. Louis, MO, USA)	7722-64-7	
Hydrogen peroxide	JUNSEI	23150-0350	
Ammonium hydroxide	Sigma-Aldrich (St. Louis, MO, USA)	1336-21-6	
Xe-lamp	Cermax, Waltham, USA		
NIR Laser	Class-IV, Sanctity Laser, Shanghai, China		6W (output power)
UV-Vis spectrophotometer	S-3100, SINCO, South Korea		
Transmission Electron Microscopy	H-7650, Hitachi, Japan		
Spectro Fluorometer	Jasco FP-6500, Tokyo, Japan		
X-ray Photoelectron Spectrometer	AXIS–NOVA, KRATOS Inc., UK		