Mostafa A El-Sayed

List of Publications by Citations

190 papers	56,492 citations	76 h-index	192 g-index
192 ext. papers	61,106 ext. citations	8.7 avg, IF	8.26 L-index

#	Paper	IF	Citations
190	Cancer cell imaging and photothermal therapy in the near-infrared region by using gold nanorods. *Journal of the American Chemical Society*, **2006**, 128, 2115-20	16.4	4444
189	Preparation and Growth Mechanism of Gold Nanorods (NRs) Using Seed-Mediated Growth Method. *Chemistry of Materials*, **2003**, 15, 1957-1962	9.6	4068
188	Calculated absorption and scattering properties of gold nanoparticles of different size, shape, and composition: applications in biological imaging and biomedicine. *Journal of Physical Chemistry B*, **2006**, 110, 7238-48	3.4	3334
187	Noble metals on the nanoscale: optical and photothermal properties and some applications in imaging, sensing, biology, and medicine. *Accounts of Chemical Research*, **2008**, 41, 1578-86	24.3	3252
186	Spectral Properties and Relaxation Dynamics of Surface Plasmon Electronic Oscillations in Gold and Silver Nanodots and Nanorods. *Journal of Physical Chemistry B*, **1999**, 103, 8410-8426	3.4	3183
185	Why gold nanoparticles are more precious than pretty gold: noble metal surface plasmon resonance and its enhancement of the radiative and nonradiative properties of nanocrystals of different shapes. *Chemical Society Reviews*, **2006**, 35, 209-17	58.5	2539
184	Some interesting properties of metals confined in time and nanometer space of different shapes. *Accounts of Chemical Research*, **2001**, 34, 257-64	24.3	2447
183	The golden age: gold nanoparticles for biomedicine. *Chemical Society Reviews*, **2012**, 41, 2740-79	58.5	2437
182	Size and Temperature Dependence of the Plasmon Absorption of Colloidal Gold Nanoparticles. *Journal of Physical Chemistry B*, **1999**, 103, 4212-4217	3.4	2085
181	Shape and size dependence of radiative, non-radiative and photothermal properties of gold nanocrystals. *International Reviews in Physical Chemistry*, **2000**, 19, 409-453	7	1790
180	Plasmonic photothermal therapy (PPTT) using gold nanoparticles. *Lasers in Medical Science*, **2008**, 23, 217-28	3.1	1648
179	Surface plasmon resonance scattering and absorption of anti-EGFR antibody conjugated gold nanoparticles in cancer diagnostics: applications in oral cancer. *Nano Letters*, **2005**, 5, 829-34	11.5	1614
178	Gold and silver nanoparticles in sensing and imaging: sensitivity of plasmon response to size, shape, and metal composition. *Journal of Physical Chemistry B*, **2006**, 110, 19220-5	3.4	1583
177	Gold nanorods: from synthesis and properties to biological and biomedical applications. *Advanced Materials*, **2009**, 21, 4880-4910	24	1473
176	On the Universal Scaling Behavior of the Distance Decay of Plasmon Coupling in Metal Nanoparticle Pairs: A Plasmon Ruler Equation. *Nano Letters*, **2007**, 7, 2080-2088	11.5	1240
175	Gold nanoparticles: Optical properties and implementations in cancer diagnosis and photothermal therapy. *Journal of Advanced Research*, **2010**, 1, 13-28	13	1217
174	Review of Some Interesting Surface Plasmon Resonance-enhanced Properties of Noble Metal Nanoparticles and Their Applications to Biosystems. *Plasmonics*, **2007**, 2, 107-118	2.4	973

173	Gold nanorod assisted near-infrared plasmonic photothermal therapy (PPTT) of squamous cell carcinoma in mice. *Cancer Letters*, **2008**, 269, 57-66	9.9	925
172	Small is different: shape-, size-, and composition-dependent properties of some colloidal semiconductor nanocrystals. *Accounts of Chemical Research*, **2004**, 37, 326-33	24.3	803
171	Evidence for Bilayer Assembly of Cationic Surfactants on the Surface of Gold Nanorods. *Langmuir*, **2001**, 17, 6368-6374	4	724
170	Plasmonic coupling in noble metal nanostructures. *Chemical Physics Letters*, **2010**, 487, 153-164	2.5	688
169	Nuclear targeting of gold nanoparticles in cancer cells induces DNA damage, causing cytokinesis arrest and apoptosis. *Journal of the American Chemical Society*, **2010**, 132, 1517-9	16.4	544
168	Visible to Infrared Luminescence from a 28-Atom Gold Cluster. *Journal of Physical Chemistry B*, **2002**, 106, 3410-3415	3.4	503
167	Beating cancer in multiple ways using nanogold. *Chemical Society Reviews*, **2011**, 40, 3391-404	58.5	499
166	Dependence of the enhanced optical scattering efficiency relative to that of absorption for gold metal nanorods on aspect ratio, size, end-cap shape, and medium refractive index. *Journal of Physical Chemistry B*, **2005**, 109, 20331-8	3.4	497
165	Kinetically Controlled Growth and Shape Formation Mechanism of Platinum Nanoparticles. *Journal of Physical Chemistry B*, **1998**, 102, 3316-3320	3.4	420
164	Suzuki cross-coupling reactions catalyzed by palladium nanoparticles in aqueous solution. *Organic Letters*, **2000**, 2, 2385-8	6.2	409
163	The Effect of Stabilizers on the Catalytic Activity and Stability of Pd Colloidal Nanoparticles in the Suzuki Reactions in Aqueous Solution *Journal of Physical Chemistry B*, **2001**, 105, 8938-8943	3.4	406
162	Surface-Enhanced Raman Scattering Studies on Aggregated Gold Nanorods *Journal of Physical Chemistry A*, **2003**, 107, 3372-3378	2.8	401
161	Size Effects of PVPPd Nanoparticles on the Catalytic Suzuki Reactions in Aqueous Solution. *Langmuir*, **2002**, 18, 4921-4925	4	386
160	Picosecond Dynamics of Colloidal Gold Nanoparticles. *The Journal of Physical Chemistry*, **1996**, 100, 8053-8056		309
159	Peptide-conjugated gold nanorods for nuclear targeting. *Bioconjugate Chemistry*, **2007**, 18, 1490-7	6.3	299
158	Enhancing the rate of electrochemical nitrogen reduction reaction for ammonia synthesis under ambient conditions using hollow gold nanocages. *Nano Energy*, **2018**, 49, 316-323	17.1	270
157	Plasmonic photo-thermal therapy (PPTT)Peer review under responsibility of Alexandria University Faculty of MedicineView all notes. *Alexandria Journal of Medicine*, **2011**, 47, 1-9	0.7	265
156	How Does a Gold Nanorod Melt?#. *Journal of Physical Chemistry B*, **2000**, 104, 7867-7870	3.4	264

155	Shape Transformation and Surface Melting of Cubic and Tetrahedral Platinum Nanocrystals. *Journal of Physical Chemistry B*, **1998**, 102, 6145-6151	3.4	264
154	The most effective gold nanorod size for plasmonic photothermal therapy: theory and in vitro experiments. *Journal of Physical Chemistry B*, **2014**, 118, 1319-26	3.4	262
153	Thermal Reshaping of Gold Nanorods in Micelles. *Journal of Physical Chemistry B*, **1998**, 102, 9370-9374	3.4	259
152	Electrically tunable plasmonic behavior of nanocube-polymer nanomaterials induced by a redox-active electrochromic polymer. *ACS Nano*, **2014**, 8, 6182-92	16.7	241
151	The potential use of the enhanced nonlinear properties of gold nanospheres in photothermal cancer therapy. *Lasers in Surgery and Medicine*, **2007**, 39, 747-53	3.6	219
150	Remote triggered release of doxorubicin in tumors by synergistic application of thermosensitive liposomes and gold nanorods. *ACS Nano*, **2011**, 5, 4919-26	16.7	202
149	Synthesis and optical properties of small Au nanorods using a seedless growth technique. *Langmuir*, **2012**, 28, 9807-15	4	182
148	On the use of plasmonic nanoparticle pairs as a plasmon ruler: the dependence of the near-field dipole plasmon coupling on nanoparticle size and shape. *Journal of Physical Chemistry A*, **2009**, 113, 1946-53	2.8	182
147	Efficacy, long-term toxicity, and mechanistic studies of gold nanorods photothermal therapy of cancer in xenograft mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E3110-E3118	11.5	176
146	Effect of Nanocatalysis in Colloidal Solution on the Tetrahedral and Cubic Nanoparticle SHAPE: Electron-Transfer Reaction Catalyzed by Platinum Nanoparticles. *Journal of Physical Chemistry B*, **2004**, 108, 5726-5733	3.4	162
145	Surface Plasmon Resonance Sensitivity of Metal Nanostructures: Physical Basis and Universal Scaling in Metal Nanoshells. *Journal of Physical Chemistry C*, **2007**, 111, 17451-17454	3.8	157
144	Gold-Nanoparticle-Assisted Plasmonic Photothermal Therapy Advances Toward Clinical Application. *Journal of Physical Chemistry C*, **2019**, 123, 15375-15393	3.8	154
143	Photoexcited Surface Frustrated Lewis Pairs for Heterogeneous Photocatalytic CO2 Reduction. *Journal of the American Chemical Society*, **2016**, 138, 1206-14	16.4	154
142	Gold nanoparticles in biological optical imaging. *Nano Today*, **2019**, 24, 120-140	17.9	154
141	A Real-Time Surface Enhanced Raman Spectroscopy Study of Plasmonic Photothermal Cell Death Using Targeted Gold Nanoparticles. *Journal of the American Chemical Society*, **2016**, 138, 1258-64	16.4	152
140	Platinum-Coated Gold Nanorods: Efficient Reactive Oxygen Scavengers That Prevent Oxidative Damage toward Healthy, Untreated Cells during Plasmonic Photothermal Therapy. *ACS Nano*, **2017**, 11, 579-586	16.7	151
139	Probing the Charge Storage Mechanism of a Pseudocapacitive MnO2 Electrode Using in Operando Raman Spectroscopy. *Chemistry of Materials*, **2015**, 27, 6608-6619	9.6	141
138	Effect of Catalytic Activity on the Metallic Nanoparticle Size Distribution: Electron-Transfer Reaction between Fe(CN)6 and Thiosulfate Ions Catalyzed by PVP-Platinum Nanoparticles. *Journal of Physical Chemistry B*, **2003**, 107, 12416-12424	3.4	140

137	Effect of the dielectric constant of the surrounding medium and the substrate on the surface plasmon resonance spectrum and sensitivity factors of highly symmetric systems: silver nanocubes. *Journal of the American Chemical Society*, **2012**, 134, 6434-42	16.4	129
136	Targeting heat shock protein 70 using gold nanorods enhances cancer cell apoptosis in low dose plasmonic photothermal therapy. *Biomaterials*, **2016**, 102, 1-8	15.6	128
135	Some Aspects of Colloidal Nanoparticle Stability, Catalytic Activity, and Recycling Potential. *Topics in Catalysis*, **2008**, 47, 15-21	2.3	127
134	Relative Enhancement of Ultrafast Emission in Gold Nanorods. *Journal of Physical Chemistry B*, **2003**, 107, 3101-3104	3.4	126
133	Hollow and Solid Metallic Nanoparticles in Sensing and in Nanocatalysis. *Chemistry of Materials*, **2014**, 26, 44-58	9.6	124
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125	Plasmonic gold nanoparticles: Optical manipulation, imaging, drug delivery and therapy. *Journal of Controlled Release*, **2019**, 311-312, 170-189	11.7	102
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123	Assemblies of silver nanocubes for highly sensitive SERS chemical vapor detection. *Journal of Materials Chemistry A*, **2013**, 1, 2777	13	89
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116	Variation of the Thickness and Number of Wells in the CdS/HgS/CdS Quantum Dot Quantum Well System *Journal of Physical Chemistry A*, **2001**, 105, 5548-5551	2.8	79
115	Electrochemical Synthesis of Ammonia from N and HO under Ambient Conditions Using Pore-Size-Controlled Hollow Gold Nanocatalysts with Tunable Plasmonic Properties. *Journal of Physical Chemistry Letters*, **2018**, 9, 5160-5166	6.4	78
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106	FTIR Study of the Adsorption of the Capping Material to Different Platinum Nanoparticle Shapes. *Journal of Physical Chemistry A*, **2003**, 107, 8371-8375	2.8	59
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