

Alexander O Govorov

List of Publications by Citations

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221
papers

18,959
citations

67
h-index

134
g-index

245
ext. papers

21,634
ext. citations

10.5
avg, IF

7.2
L-index

#	Paper	IF	Citations
221	DNA-based self-assembly of chiral plasmonic nanostructures with tailored optical response. <i>Nature</i> , 2012 , 483, 311-4	50.4	1549
220	Generating heat with metal nanoparticles. <i>Nano Today</i> , 2007 , 2, 30-38	17.9	987
219	Gold nanoparticle ensembles as heaters and actuators: melting and collective plasmon resonances. <i>Nanoscale Research Letters</i> , 2006 , 1, 84-90	5	493
218	Experimental and theoretical studies of light-to-heat conversion and collective heating effects in metal nanoparticle solutions. <i>Nano Letters</i> , 2009 , 9, 1139-46	11.5	483
217	Reconfigurable 3D plasmonic metamolecules. <i>Nature Materials</i> , 2014 , 13, 862-6	27	477
216	Theory of circular dichroism of nanomaterials comprising chiral molecules and nanocrystals: plasmon enhancement, dipole interactions, and dielectric effects. <i>Nano Letters</i> , 2010 , 10, 1374-82	11.5	449
215	Exciton-Plasmon Interaction and Hybrid Excitons in Semiconductor-Metal Nanoparticle Assemblies. <i>Nano Letters</i> , 2006 , 6, 984-994	11.5	446
214	Semiconductor-metal nanoparticle molecules: hybrid excitons and the nonlinear fano effect. <i>Physical Review Letters</i> , 2006 , 97, 146804	7.4	430
213	Theory of Photoinjection of Hot Plasmonic Carriers from Metal Nanostructures into Semiconductors and Surface Molecules. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 16616-16631	3.8	412
212	Plasmonic circular dichroism of chiral metal nanoparticle assemblies. <i>Nano Letters</i> , 2010 , 10, 2580-7	11.5	384
211	Circularly polarized light detection with hot electrons in chiral plasmonic metamaterials. <i>Nature Communications</i> , 2015 , 6, 8379	17.4	378
210	Bioconjugates of CdTe Nanowires and Au Nanoparticles: Plasmon-Exciton Interactions, Luminescence Enhancement, and Collective Effects. <i>Nano Letters</i> , 2004 , 4, 2323-2330	11.5	338
209	Exciton-plasmon interactions in molecular spring assemblies of nanowires and wavelength-based protein detection. <i>Nature Materials</i> , 2007 , 6, 291-5	27	296
208	Plasmonic circular dichroism of Peptide-functionalized gold nanoparticles. <i>Nano Letters</i> , 2011 , 11, 701-5	11.5	291
207	Chirality and chiroptical effects in inorganic nanocrystal systems with plasmon and exciton resonances. <i>Chemical Society Reviews</i> , 2013 , 42, 7028-41	58.5	265
206	What's so Hot about Electrons in Metal Nanoparticles?. <i>ACS Energy Letters</i> , 2017 , 2, 1641-1653	20.1	256
205	Chiral plasmonic DNA nanostructures with switchable circular dichroism. <i>Nature Communications</i> , 2013 , 4, 2948	17.4	236

204	Broadband Metamaterial Absorbers. <i>Advanced Optical Materials</i> , 2019 , 7, 1800995	8.1	236
203	Theroptical properties of gold nanoparticles embedded in ice: characterization of heat generation and melting. <i>Nano Letters</i> , 2006 , 6, 783-8	11.5	234
202	Harvesting Lost Photons: Plasmon and Upconversion Enhanced Broadband Photocatalytic Activity in Core@Shell Microspheres Based on Lanthanide-Doped NaYF ₄ , TiO ₂ , and Au. <i>Advanced Functional Materials</i> , 2015 , 25, 2950-2960	15.6	231
201	Photogeneration of hot plasmonic electrons with metal nanocrystals: Quantum description and potential applications. <i>Nano Today</i> , 2014 , 9, 85-101	17.9	227
200	Theory of plasmon-enhanced Förster energy transfer in optically excited semiconductor and metal nanoparticles. <i>Physical Review B</i> , 2007 , 76,	3.3	220
199	Plexciton dynamics: exciton-plasmon coupling in a J-aggregate-Au nanoshell complex provides a mechanism for nonlinearity. <i>Nano Letters</i> , 2011 , 11, 1556-60	11.5	219
198	A light-driven three-dimensional plasmonic nanosystem that translates molecular motion into reversible chiroptical function. <i>Nature Communications</i> , 2016 , 7, 10591	17.4	207
197	Anomalous ultrafast dynamics of hot plasmonic electrons in nanostructures with hot spots. <i>Nature Nanotechnology</i> , 2015 , 10, 770-4	28.7	206
196	Hybrid structures composed of photosynthetic system and metal nanoparticles: plasmon enhancement effect. <i>Nano Letters</i> , 2007 , 7, 620-5	11.5	206
195	Coherent control of tunneling in a quantum dot molecule. <i>Physical Review B</i> , 2004 , 69,	3.3	202
194	Chiral nanoparticle assemblies: circular dichroism, plasmonic interactions, and exciton effects. <i>Journal of Materials Chemistry</i> , 2011 , 21, 16806		201
193	Optical properties of coupled metal-semiconductor and metal-molecule nanocrystal complexes: Role of multipole effects. <i>Physical Review B</i> , 2008 , 77,	3.3	182
192	Picosecond energy transfer and multiexciton transfer outpaces Auger recombination in binary CdSe nanoplatelet solids. <i>Nature Materials</i> , 2015 , 14, 484-9	27	181
191	Plasmon-Induced Circular Dichroism of a Chiral Molecule in the Vicinity of Metal Nanocrystals. Application to Various Geometries. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 7914-7923	3.8	170
190	The nonlinear Fano effect. <i>Nature</i> , 2008 , 451, 311-4	50.4	167
189	Amplification of chiroptical activity of chiral biomolecules by surface plasmons. <i>Nano Letters</i> , 2013 , 13, 1203-9	11.5	166
188	Nanoparticle assemblies with molecular springs: a nanoscale thermometer. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 7439-42	16.4	163
187	Understanding Hot-Electron Generation and Plasmon Relaxation in Metal Nanocrystals: Quantum and Classical Mechanisms. <i>ACS Photonics</i> , 2017 , 4, 2759-2781	6.3	157

186	Induced chirality through electromagnetic coupling between chiral molecular layers and plasmonic nanostructures. <i>Nano Letters</i> , 2012 , 12, 977-83	11.5	156
185	Boosting Hot Electron-Driven Photocatalysis through Anisotropic Plasmonic Nanoparticles with Hot Spots in Au@TiO ₂ Nanoarchitectures. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11690-11699	3.8	151
184	Optical Generation of Hot Plasmonic Carriers in Metal Nanocrystals: The Effects of Shape and Field Enhancement. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 7606-7614	3.8	149
183	Broadband Hot-Electron Collection for Solar Water Splitting with Plasmonic Titanium Nitride. <i>Advanced Optical Materials</i> , 2017 , 5, 1601031	8.1	147
182	Bioconjugated superstructures of CdTe nanowires and nanoparticles: multistep cascade Förster resonance energy transfer and energy channeling. <i>Nano Letters</i> , 2005 , 5, 2063-9	11.5	146
181	Discrete nanocubes as plasmonic reporters of molecular chirality. <i>Nano Letters</i> , 2013 , 13, 3145-51	11.5	139
180	Enantioselective control of lattice and shape chirality in inorganic nanostructures using chiral biomolecules. <i>Nature Communications</i> , 2014 , 5, 4302	17.4	138
179	Chiral nanocrystals: plasmonic spectra and circular dichroism. <i>Nano Letters</i> , 2012 , 12, 3283-9	11.5	136
178	Metal-enhanced fluorescence of chlorophylls in single light-harvesting complexes. <i>Nano Letters</i> , 2008 , 8, 558-64	11.5	135
177	Theory of chiral plasmonic nanostructures comprising metal nanocrystals and chiral molecular media. <i>ChemPhysChem</i> , 2012 , 13, 2551-60	3.2	124
176	Giant circular dichroism of a molecule in a region of strong plasmon resonances between two neighboring gold nanocrystals. <i>Physical Review B</i> , 2013 , 87,	3.3	117
175	Near Infrared, Highly Efficient Luminescent Solar Concentrators. <i>Advanced Energy Materials</i> , 2016 , 6, 1501913	21.8	115
174	Powering the programmed nanostructure and function of gold nanoparticles with catenated DNA machines. <i>Nature Communications</i> , 2013 , 4, 2000	17.4	113
173	Plasmonic chiroptical response of silver nanoparticles interacting with chiral supramolecular assemblies. <i>Journal of the American Chemical Society</i> , 2012 , 134, 17807-13	16.4	112
172	Helical Metal Nanoparticle Assemblies with Defects: Plasmonic Chirality and Circular Dichroism. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 13254-13261	3.8	112
171	Hybridization of electronic states in quantum dots through photon emission. <i>Nature</i> , 2004 , 427, 135-8	50.4	109
170	Bioconjugated Ag nanoparticles and CdTe nanowires: metamaterials with field-enhanced light absorption. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 4819-23	16.4	108
169	Chiral plasmonic nanostructures on achiral nanopillars. <i>Nano Letters</i> , 2013 , 13, 5277-83	11.5	107

168	Broad band enhancement of light absorption in photosystem I by metal nanoparticle antennas. <i>Nano Letters</i> , 2010 , 10, 2069-74	11.5	106
167	DNA-Guided Plasmonic Helix with Switchable Chirality. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11763-11770	16.4	103
166	Enantioselective synthesis of intrinsically chiral mercury sulfide nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 1275-9	16.4	94
165	Hierarchical synthesis of non-centrosymmetric hybrid nanostructures and enabled plasmon-driven photocatalysis. <i>Nature Communications</i> , 2014 , 5, 4792	17.4	93
164	Optical properties of a semiconductor quantum dot with a single magnetic impurity: photoinduced spin orientation. <i>Physical Review B</i> , 2005 , 71,	3.3	92
163	DNA-assembled nanoparticle rings exhibit electric and magnetic resonances at visible frequencies. <i>Nano Letters</i> , 2015 , 15, 1368-73	11.5	91
162	3D plasmonic chiral colloids. <i>Nanoscale</i> , 2014 , 6, 2077-81	7.7	89
161	Chiroplasmonic DNA-based nanostructures. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	88
160	Amplified Generation of Hot Electrons and Quantum Surface Effects in Nanoparticle Dimers with Plasmonic Hot Spots. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 19329-19339	3.8	81
159	Quantum theory of the nonlinear Fano effect in hybrid metal-semiconductor nanostructures: The case of strong nonlinearity. <i>Physical Review B</i> , 2011 , 84,	3.3	79
158	Fractal nanoparticle plasmonics: the Cayley tree. <i>ACS Nano</i> , 2015 , 9, 3284-92	16.7	75
157	Hot spot-mediated non-dissipative and ultrafast plasmon passage. <i>Nature Physics</i> , 2017 , 13, 761-765	16.2	74
156	Plasmon-induced CD response of oligonucleotide-conjugated metal nanoparticles. <i>Chemical Communications</i> , 2011 , 47, 7383-5	5.8	74
155	Near-Infrared, Heavy Metal-Free Colloidal Giant Core/Shell Quantum Dots. <i>Advanced Energy Materials</i> , 2018 , 8, 1701432	21.8	68
154	Determining Plasmonic Hot Electrons and Photothermal Effects during H ₂ Evolution with TiNBt Nanohybrids. <i>ACS Catalysis</i> , 2020 , 10, 5261-5271	13.1	66
153	Effects of Plasmonic Metal Core -Dielectric Shell Nanoparticles on the Broadband Light Absorption Enhancement in Thin Film Solar Cells. <i>Scientific Reports</i> , 2017 , 7, 7696	4.9	66
152	Nanoparticle Assemblies with Molecular Springs: A Nanoscale Thermometer. <i>Angewandte Chemie</i> , 2005 , 117, 7605-7608	3.6	66
151	Circular Dichroism of Chiral Molecules in DNA-Assembled Plasmonic Hotspots. <i>ACS Nano</i> , 2018 , 12, 9110-9115	15.7	66

150	Optical Properties of Chiral Plasmonic Tetramers: Circular Dichroism and Multipole Effects. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 14770-14777	3.8	65
149	The fast and the furious: Ultrafast hot electrons in plasmonic metastructures. Size and structure matter. <i>Nano Today</i> , 2019 , 27, 120-145	17.9	63
148	Optical Aharonov-Bohm effect in stacked type-II quantum dots. <i>Physical Review B</i> , 2007 , 76,	3.3	63
147	Chiral Plasmonic Nanostructures Enabled by Bottom-Up Approaches. <i>Annual Review of Physical Chemistry</i> , 2019 , 70, 275-299	15.7	61
146	Photothermal Circular Dichroism Induced by Plasmon Resonances in Chiral Metamaterial Absorbers and Bolometers. <i>Nano Letters</i> , 2018 , 18, 2001-2008	11.5	61
145	Broadband efficiency enhancement in quantum dot solar cells coupled with multispiked plasmonic nanostars. <i>Nano Energy</i> , 2015 , 13, 827-835	17.1	60
144	Confinement and interaction of single indirect excitons in a voltage-controlled trap formed inside double InGaAs quantum Wells. <i>Physical Review Letters</i> , 2013 , 110, 127403	7.4	59
143	Excitonics of semiconductor quantum dots and wires for lighting and displays. <i>Laser and Photonics Reviews</i> , 2014 , 8, 73-93	8.3	58
142	Plasmonic Nanostars with Hot Spots for Efficient Generation of Hot Electrons under Solar Illumination. <i>Advanced Optical Materials</i> , 2017 , 5,	8.1	58
141	Electronic Structure of the Plasmons in Metal Nanocrystals: Fundamental Limitations for the Energy Efficiency of Hot Electron Generation. <i>ACS Energy Letters</i> , 2019 , 4, 2552-2568	20.1	57
140	Impurity effects on the Aharonov-Bohm optical signatures of neutral quantum-ring magnetoexcitons. <i>Physical Review B</i> , 2004 , 70,	3.3	57
139	Kinetic Density Functional Theory for Plasmonic Nanostructures: Breaking of the Plasmon Peak in the Quantum Regime and Generation of Hot Electrons. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 6181-6194	28.8	55
138	Cooperative expression of atomic chirality in inorganic nanostructures. <i>Nature Communications</i> , 2017 , 8, 14312	17.4	54
137	Theory of Quantum Plasmon Resonances in Doped Semiconductor Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16035-16042	3.8	54
136	Photostimulated Au Nanoheaters in Polymer and Biological Media: Characterization of Mechanical Destruction and Boiling. <i>Advanced Functional Materials</i> , 2012 , 22, 294-303	15.6	53
135	Exciton energy transfer between nanoparticles and nanowires. <i>Physical Review B</i> , 2008 , 78,	3.3	53
134	Spectrally Resolved Ultrafast Exciton Transfer in Mixed Perovskite Quantum Wells. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 419-426	6.4	53
133	Photoactivated biotemplated nanoparticles as an enzyme mimic. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 5335-9	16.4	52

132	Spin-Förster transfer in optically excited quantum dots. <i>Physical Review B</i> , 2005 , 71,	3.3	51
131	Chiral Plasmonic Nanocrystals for Generation of Hot Electrons: Toward Polarization-Sensitive Photochemistry. <i>Nano Letters</i> , 2019 , 19, 1395-1407	11.5	50
130	Localization of Excess Temperature Using Plasmonic Hot Spots in Metal Nanostructures: Combining Nano-Optical Antennas with the Fano Effect. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 13215-13226	3.8	50
129	Plasmonic Chirality and Circular Dichroism in Bioassembled and Nonbiological Systems: Theoretical Background and Recent Progress. <i>Advanced Materials</i> , 2020 , 32, e1801790	24	50
128	Towards enhancing photocatalytic hydrogen generation: Which is more important, alloy synergistic effect or plasmonic effect?. <i>Applied Catalysis B: Environmental</i> , 2018 , 221, 77-85	21.8	49
127	Optoelectronic Properties in Near-Infrared Colloidal Heterostructured Pyramidal "Giant" Core/Shell Quantum Dots. <i>Advanced Science</i> , 2018 , 5, 1800656	13.6	49
126	Many-body exciton states in self-assembled quantum dots coupled to a Fermi sea. <i>Nature Physics</i> , 2010 , 6, 534-538	16.2	47
125	Tunable Nonthermal Distribution of Hot Electrons in a Semiconductor Injected from a Plasmonic Gold Nanostructure. <i>ACS Nano</i> , 2018 , 12, 7117-7126	16.7	47
124	Comparison of vapor formation of water at the solid/water interface to colloidal solutions using optically excited gold nanostructures. <i>ACS Nano</i> , 2014 , 8, 1439-48	16.7	46
123	Generalized Theory of Förster-Type Nonradiative Energy Transfer in Nanostructures with Mixed Dimensionality. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 10203-10212	3.8	46
122	Enhanced Luminescence, Collective Heating, and Nanothermometry in an Ensemble System Composed of Lanthanide-Doped Upconverting Nanoparticles and Gold Nanorods. <i>Advanced Optical Materials</i> , 2015 , 3, 1606-1613	8.1	44
121	Metamaterial perfect absorber with unabated size-independent absorption. <i>Optics Express</i> , 2018 , 26, 20471-20480	3.3	42
120	Determination of hot carrier energy distributions from inversion of ultrafast pump-probe reflectivity measurements. <i>Nature Communications</i> , 2018 , 9, 1853	17.4	42
119	Superchiral Plasmonic Phase Sensitivity for Fingerprinting of Protein Interface Structure. <i>ACS Nano</i> , 2017 , 11, 12049-12056	16.7	42
118	Enhanced generation and anisotropic Coulomb scattering of hot electrons in an ultra-broadband plasmonic nanopatch metasurface. <i>Nature Communications</i> , 2017 , 8, 986	17.4	41
117	DNA Scaffolds for the Dictated Assembly of Left-/Right-Handed Plasmonic Au NP Helices with Programmed Chiro-Optical Properties. <i>Journal of the American Chemical Society</i> , 2016 , 138, 9895-901	16.4	40
116	Chiroptical Activity in Silver Chocolate Nanostructures Induced by the Formation of Nanoparticle Assemblies. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 22240-22244	3.8	39
115	Optical Characterization of Bio-assembled Hybrid Nanostructures. <i>Supramolecular Chemistry</i> , 2006 , 18, 415-421	1.8	37

114	Multipole and multimode engineering in Mie resonance-based metastructures. <i>Nanophotonics</i> , 2020 , 9, 1115-1137	6.3	37
113	Hot plasmonic electrons for generation of enhanced photocurrent in gold-TiO ₂ nanocomposites. <i>Nanoscale Research Letters</i> , 2015 , 10, 38	5	35
112	Generation of Hot Electrons with Chiral Metamaterial Perfect Absorbers: Giant Optical Chirality for Polarization-Sensitive Photochemistry. <i>ACS Photonics</i> , 2019 , 6, 3241-3252	6.3	35
111	Resonant excitation and imaging of nonequilibrium exciton spins in single core-shell GaAs-AlGaAs nanowires. <i>Nano Letters</i> , 2007 , 7, 588-95	11.5	35
110	Hydrodynamic effects in interacting Fermi electron jets. <i>Physical Review Letters</i> , 2004 , 92, 026803	7.4	33
109	Controlling Metamaterial Transparency with Superchiral Fields. <i>ACS Photonics</i> , 2018 , 5, 535-543	6.3	33
108	Chiral Assembly of Gold-Silver Core-Shell Plasmonic Nanorods on DNA Origami with Strong Optical Activity. <i>ACS Nano</i> , 2020 , 14, 7454-7461	16.7	32
107	Semiconductor-metal nanoparticle molecules in a magnetic field: Spin-plasmon and exciton-plasmon interactions. <i>Physical Review B</i> , 2010 , 82,	3.3	32
106	Spatial control of chemical processes on nanostructures through nano-localized water heating. <i>Nature Communications</i> , 2016 , 7, 10946	17.4	32
105	Laser streaming: Turning a laser beam into a flow of liquid. <i>Science Advances</i> , 2017 , 3, e1700555	14.3	31
104	Experimental and Theoretical Observation of Photothermal Chirality in Gold Nanoparticle Helicoids. <i>ACS Nano</i> , 2020 , 14, 4188-4195	16.7	31
103	Highly Efficient Copper Sulfide-Based Near-Infrared Photothermal Agents: Exploring the Limits of Macroscopic Heat Conversion. <i>Small</i> , 2018 , 14, e1803282	11	30
102	InGaAs and GaAs quantum dot solar cells grown by droplet epitaxy. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 161, 377-381	6.4	29
101	Enhanced Optical Properties of a Photosynthetic System Conjugated with Semiconductor Nanoparticles: The Role of Förster Transfer. <i>Advanced Materials</i> , 2008 , 20, 4330-4335	24	28
100	Identifying Performance-Limiting Deep Traps in Ta ₃ N ₅ for Solar Water Splitting. <i>ACS Catalysis</i> , 2020 , 10, 10316-10324	13.1	28
99	Hot Electrons Generated in Chiral Plasmonic Nanocrystals as a Mechanism for Surface Photochemistry and Chiral Growth. <i>Journal of the American Chemical Society</i> , 2020 , 142, 4193-4205	16.4	27
98	Aluminum Nanoparticles with Hot Spots for Plasmon-Induced Circular Dichroism of Chiral Molecules in the UV Spectral Interval. <i>Advanced Optical Materials</i> , 2017 , 5, 1700069	8.1	26
97	Multitask deep-learning-based design of chiral plasmonic metamaterials. <i>Photonics Research</i> , 2020 , 8, 1213	6	26

96	Efficiency of Hot-Electron Generation in Plasmonic Nanocrystals with Complex Shapes: Surface-Induced Scattering, Hot Spots, and Interband Transitions. <i>ACS Photonics</i> , 2020 , 7, 2807-2824	6.3	26
95	Förster-Type Nonradiative Energy Transfer for Assemblies of Arrayed Nanostructures: Confinement Dimension vs Stacking Dimension. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 4951-4958	3.8	25
94	Measurement of coherent tunneling between InGaAs quantum wells and InAs quantum dots using photoluminescence spectroscopy. <i>Physical Review B</i> , 2010 , 82,	3.3	25
93	Optical Emission and Energy Transfer in Nanoparticle-Nanorod Assemblies: Potential Energy Pump System for Negative Refractive Index Materials. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 18314-18320	3.8	25
92	Thermo-optical Responses of Nanoparticles: Melting of Ice and Nanocalorimetry Approach. <i>Journal of Electronic Materials</i> , 2007 , 36, 1587-1593	1.9	25
91	Plasmonic Glasses and Films Based on Alternative Inexpensive Materials for Blocking Infrared Radiation. <i>Nano Letters</i> , 2018 , 18, 3147-3156	11.5	24
90	Orientation-Sensitive Peptide-Induced Plasmonic Circular Dichroism in Silver Nanocubes. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 12751-12756	3.8	24
89	Optophotonics with coupled quantum dots. <i>Nature Communications</i> , 2014 , 5, 3299	17.4	23
88	Cation exchange synthesis and optoelectronic properties of type II CdTe/Cu ₂ Te nano-heterostructures. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 3189	7.1	23
87	Intensifying Heat Using MOF-Isolated Graphene for Solar-Driven Seawater Desalination at 98% Solar-to-Thermal Efficiency. <i>Advanced Functional Materials</i> , 2021 , 31, 2008904	15.6	23
86	Kondo excitons in self-assembled quantum dots. <i>Physical Review B</i> , 2003 , 67,	3.3	21
85	Long- and short-ranged chiral interactions in DNA-assembled plasmonic chains. <i>Nature Communications</i> , 2021 , 12, 2025	17.4	21
84	DNA-Enabled Chiral Gold Nanoparticle-Chromophore Hybrid Structure with Resonant Plasmon-Exciton Coupling Gives Unusual and Strong Circular Dichroism. <i>Journal of the American Chemical Society</i> , 2019 , 141, 19336-19341	16.4	20
83	Spin-dependent transport of electrons in the presence of a smooth lateral potential and spin-orbit interaction. <i>Physical Review B</i> , 2004 , 70,	3.3	20
82	Charged donors in quantum dots: Finite difference and fractional dimensions results. <i>Physical Review B</i> , 2004 , 69,	3.3	20
81	Photophysical Effects behind the Efficiency of Hot Electron Injection in Plasmon-Assisted Catalysis: The Joint Role of Morphology and Composition. <i>ACS Energy Letters</i> , 2020 , 5, 395-402	20.1	20
80	Broadband Absorbing Exciton-Plasmon Metafluids with Narrow Transparency Windows. <i>Nano Letters</i> , 2016 , 16, 1472-7	11.5	19
79	Size-dependent longitudinal plasmon resonance wavelength and extraordinary scattering properties of Au nanobipyramids. <i>Nanotechnology</i> , 2018 , 29, 355402	3.4	19

78	Plasmon-induced Purcell effect in InN/In metal-semiconductor nanocomposites. <i>Physical Review B</i> , 2010 , 82,	3.3	19
77	Distance Dependence of Förster Resonance Energy Transfer Rates in 2D Perovskite Quantum Wells via Control of Organic Spacer Length. <i>Journal of the American Chemical Society</i> , 2021 , 143, 4244-4252	16.4	19
76	Traveling Hot Spots in Plasmonic Photocatalysis: Manipulating Interparticle Spacing for Real-Time Control of Electron Injection. <i>ChemCatChem</i> , 2018 , 10, 1561-1565	5.2	18
75	Bioconjugated Ag Nanoparticles and CdTe Nanowires: Metamaterials with Field-Enhanced Light Absorption. <i>Angewandte Chemie</i> , 2006 , 118, 4937-4941	3.6	18
74	Engineering plasmonic hot carrier dynamics toward efficient photodetection. <i>Applied Physics Reviews</i> , 2021 , 8, 021305	17.3	18
73	Generation of hot electrons in nanostructures incorporating conventional and unconventional plasmonic materials. <i>Faraday Discussions</i> , 2019 , 214, 199-213	3.6	17
72	Enantioselective Synthesis of Intrinsically Chiral Mercury Sulfide Nanocrystals. <i>Angewandte Chemie</i> , 2013 , 125, 1313-1317	3.6	17
71	Broadband mid-infrared perfect absorber using fractal Gosper curve. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 105106	3	17
70	Planar hot-electron photodetector utilizing high refractive index MoS ₂ in Fabry-Pérot perfect absorber. <i>Nanotechnology</i> , 2020 , 31, 274001	3.4	16
69	Coherent Aharonov-Bohm oscillations in type-II (Zn,Mn)Te/ZnSe quantum dots. <i>Physical Review B</i> , 2008 , 77,	3.3	16
68	Gold-implanted plasmonic quartz plate as a launch pad for laser-driven photoacoustic microfluidic pumps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 6580-6585	11.5	15
67	Terahertz Thermometry: Combining Hyperspectral Imaging and Temperature Mapping at Terahertz Frequencies. <i>Laser and Photonics Reviews</i> , 2017 , 11, 1600342	8.3	15
66	Gap-plasmon enhanced water splitting with ultrathin hematite films: the role of plasmonic-based light trapping and hot electrons. <i>Faraday Discussions</i> , 2019 , 214, 283-295	3.6	14
65	Comparing Photoelectrochemical Methanol Oxidation Mechanisms for Gold versus Titanium Nitride Nanoparticles Dispersed in TiO ₂ Matrix. <i>Journal of the Electrochemical Society</i> , 2019 , 166, H485-H493	3.9	14
64	Plasmonic Metamaterials and Nanocomposites with the Narrow Transparency Window Effect in Broad Extinction Spectra. <i>ACS Photonics</i> , 2014 , 1, 822-832	6.3	14
63	Mid-infrared Plasmonic Circular Dichroism Generated by Graphene Nanodisk Assemblies. <i>Nano Letters</i> , 2017 , 17, 5099-5105	11.5	14
62	Multidimensional nanoscopic chiroptics. <i>Nature Reviews Physics</i> ,	23.6	14
61	Broadband Tamm plasmon-enhanced planar hot-electron photodetector. <i>Nanoscale</i> , 2020 , 12, 23945-23952	3.5	14

60	Quantifying the photothermal conversion efficiency of plasmonic nanoparticles by means of terahertz radiation. <i>APL Photonics</i> , 2019 , 4, 126106	5.2	14
59	Thermomechanical control of electronic coupling in quantum dot solids. <i>Journal of Applied Physics</i> , 2010 , 107, 123516	2.5	13
58	Manipulating the Optoelectronic Properties of Quasi-type II CuInS/CdS Core/Shell Quantum Dots for Photoelectrochemical Cell Applications. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 36277-36286	8.5	13
57	Fabrication of Anisotropic Silver Nanoplatelets on the Surface of TiO ₂ Fibers for Enhanced Photocatalysis of a Chemical Warfare Agent Simulant, Methyl Paraoxon. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 19579-19587	3.8	12
56	Long-Range Plasmon-Assisted Chiral Interactions in Nanocrystal Assemblies. <i>ACS Photonics</i> , 2019 , 6, 7496-7506	7.56	12
55	Time-Resolved Temperature-Jump Measurements and Theoretical Simulations of Nanoscale Heat Transfer Using NaYF ₄ :Yb ³⁺ :Er ³⁺ Upconverting Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 3770-3780	3.8	11
54	Rational design of colloidal core/shell quantum dots for optoelectronic applications. <i>Journal of Electronic Science and Technology</i> , 2020 , 18, 100018	2.6	11
53	Strong Quantum Confinement Effects and Chiral Excitons in Bio-Inspired ZnO/Amino Acid Cocrystals. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 6348-6356	3.8	11
52	Electronic states in a magnetic quantum-dot molecule: Instabilities and spontaneous symmetry breaking. <i>Physical Review B</i> , 2007 , 76,	3.3	11
51	Dark exciton decay dynamics of a semiconductor quantum dot. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005 , 202, 2591-2597	1.6	11
50	Solvent Effect in Dynamic Superstructures from Au Nanoparticles and CdTe Nanowires: Experimental Observation and Theoretical Description. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 1404-1410	3.8	10
49	Temporal plasmonics: Fano and Rabi regimes in the time domain in metal nanostructures. <i>Nanophotonics</i> , 2020 , 9, 3587-3595	6.3	10
48	Near-Infrared Plasmonic Copper Nanocups Fabricated by Template-Assisted Magnetron Sputtering. <i>ACS Photonics</i> , 2017 , 4, 2881-2890	6.3	9
47	Simple and Complex Metafluids and Metastructures with Sharp Spectral Features in a Broad Extinction Spectrum: Particle-Particle Interactions and Testing the Limits of the Beer-Lambert Law. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 2987-2997	3.8	8
46	Holstein polarons in a strong electric field: Delocalized and stretched states. <i>Physical Review B</i> , 2002 , 66,	3.3	7
45	Ultrastable Plasmonic Cu-Based Core-Shell Nanoparticles. <i>Chemistry of Materials</i> , 2021 , 33, 695-705	9.6	7
44	Chiral Photomelting of DNA-Nanocrystal Assemblies Utilizing Plasmonic Photoheating. <i>Nano Letters</i> , 2021 , 21, 7298-7308	11.5	7
43	Chiroptical activity in colloidal quantum dots coated with achiral ligands. <i>Optics Express</i> , 2016 , 24, A65-73	7.3	6

42	Thermal Effects of Colloidal Suspensions of Au Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1172, 60		6
41	Fluorescent Quantum Dots as Artificial Antennas for Enhanced Light Harvesting and Energy Transfer to Photosynthetic Reaction Centers. <i>Angewandte Chemie</i> , 2010 , 122, 7375-7379	3.6	6
40	Chiral Restructuring of Peptide Enantiomers on Gold Nanomaterials. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 2612-2620	5.5	6
39	Hybrid Plasmonic-Aerogel Materials as Optical Superheaters with Engineered Resonances. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 1696-1702	16.4	6
38	Quantum Dots: Near-Infrared, Heavy Metal-Free Colloidal Giant Core/Shell Quantum Dots (Adv. Energy Mater. 2/2018). <i>Advanced Energy Materials</i> , 2018 , 8, 1870010	21.8	5
37	Terahertz three-dimensional monitoring of nanoparticle-assisted laser tissue soldering. <i>Biomedical Optics Express</i> , 2020 , 11, 2254-2267	3.5	5
36	Hybrid Plasmonic Aerogel Materials as Optical Superheaters with Engineered Resonances. <i>Angewandte Chemie</i> , 2020 , 132, 1713-1719	3.6	5
35	Nanolayered Tamm Plasmon-Based Multicolor Hot Electron Photodetection for O- and C-Band Telecommunication. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 639-650	4	5
34	Chiral Optofluidics with a Plasmonic Metasurface Using the Photothermal Effect. <i>ACS Nano</i> , 2021 , 15, 16357-16367	16.7	5
33	Magnetic properties of charged excitons in self-assembled quantum dots. <i>Physica Status Solidi (B): Basic Research</i> , 2003 , 238, 293-296	1.3	4
32	Chiral Generation of Hot Carriers for Polarization-Sensitive Plasmonic Photocatalysis.. <i>Journal of the American Chemical Society</i> , 2022 ,	16.4	4
31	Local Growth Mediated by Plasmonic Hot Carriers: Chirality from Achiral Nanocrystals Using Circularly Polarized Light. <i>Nano Letters</i> , 2021 ,	11.5	4
30	Hot Electron Generation through Near-Field Excitation of Plasmonic Nanoresonators. <i>ACS Photonics</i> , 2021 , 8, 1243-1250	6.3	4
29	Nanoantenna-Enhanced Light-Emitting Diodes: Fundamental and Recent Progress. <i>Laser and Photonics Reviews</i> , 2021 , 15, 2000367	8.3	4
28	Plasmonic hot-electron photodetection with quasi-bound states in the continuum and guided resonances. <i>Nanophotonics</i> , 2021 ,	6.3	4
27	Visible Light-Induced Reactivity of Plasmonic Gold Nanoparticles Incorporated into TiO ₂ Matrix towards 2-Chloroethyl Ethyl Sulfide. <i>Crystals</i> , 2021 , 11, 659	2.3	4
26	Photothermal Effect of Plasmonic Nanoparticles and Related Bioapplications 2012 , 455-475		3
25	Modelling of photo-thermal control of biological cellular oscillators. <i>European Physical Journal: Special Topics</i> , 2013 , 222, 2697-2704	2.3	3

24	Spin polarized photocurrent from a single quantum dot. <i>AIP Conference Proceedings</i> , 2005 ,	0	3
23	Photoelectrochemical Methanol Oxidation Under Visible and UV Excitation of TiO ₂ -Supported TiN and ZrN Plasmonic Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 016503	3.9	3
22	Visible light driven oxidation of harmful 2-Chloroethyl ethyl sulfide using SiO ₂ -TiO ₂ composite particles and air. <i>Colloids and Interface Science Communications</i> , 2021 , 41, 100362	5.4	3
21	Heat Conversion: Highly Efficient Copper Sulfide-Based Near-Infrared Photothermal Agents: Exploring the Limits of Macroscopic Heat Conversion (Small 49/2018). <i>Small</i> , 2018 , 14, 1870238	11	3
20	Broadband thin-film and metamaterial absorbers using refractory vanadium nitride and their thermal stability. <i>Optics Express</i> , 2021 , 29, 33456-33466	3.3	3
19	Upcycling of biomass waste into photothermal superhydrophobic coating for efficient anti-icing and deicing. <i>Materials Today Physics</i> , 2022 , 100683	8	3
18	Engineering Strongly Chiral Plasmonic Lattices with Achiral Unit Cells for Sensing and Photodetection. <i>Advanced Optical Materials</i> , 2101943	8.1	3
17	Ultraflexible Photothermal Superhydrophobic Coating with Multifunctional Applications Based on Plasmonic TiN Nanoparticles. <i>Advanced Optical Materials</i> , 2200168	8.1	3
16	Solar-Energy Harvesting: Broadband Hot-Electron Collection for Solar Water Splitting with Plasmonic Titanium Nitride (Advanced Optical Materials 15/2017). <i>Advanced Optical Materials</i> , 2017 , 5,	8.1	2
15	Thermo-Optical Properties of Nanoparticles and Nanoparticle Complexes Embedded in Ice: Characterization of Heat Generation and Actuation of Larger-Scale Effects. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 964, 1		2
14	DNA-Assembled Chiral Satellite-Core Nanoparticle Superstructures: Two-State Chiral Interactions from Dynamic and Static Conformations. <i>Nano Letters</i> ,	11.5	2
13	Plasmon induced modifications of the Förster energy transfer in reconstituted peridinin-chlorophyll-protein photosynthetic complex. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1286, 24		1
12	Assembly of Nanomaterials using Polymers and Biomaterials: Sensing and Electronic Applications. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 901, 1		1
11	Charged Excitons in Self-assembled Quantum Dots. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 737, 75		1
10	Kondo-excitons and Auger processes in self-assembled quantum dots. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 737, 86		1
9	Mie Sensing with Neural Networks: Recognition of Nano-Object Parameters, the Invisibility Point, and Restricted Models. <i>Advanced Theory and Simulations</i> , 2100369	3.5	1
8	Hotspot-mediated non-dissipative and ultrafast plasmon passage		1
7	Theory of Photo-Thermal Effects for Plasmonic Nanocrystals and Assemblies. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2019 , 5-22	0.4	1

- 6 Rational synthesis of novel "giant" CuInTeSe/CdS core/shell quantum dots for optoelectronics. *Nanoscale*, **2021**, 13, 15301-15310 7.7 1
- 5 Plasmonic Nanocrystals with Complex Shapes for Photocatalysis and Growth: Contrasting Anisotropic Hot-Electron Generation with the Photothermal Effect. *Advanced Optical Materials*, 2102663^{8.1} 1
- 4 Thermal Transport Properties of Nanostructures Immobilized Substrates. *Materials Research Society Symposia Proceedings*, **2009**, 1172, 7
- 3 Metal-Enhanced Fluorescence of Chlorophylls in Single Light-Harvesting Complexes. *Materials Research Society Symposia Proceedings*, **2009**, 1208, 1
- 2 Electronic quantum dot states induced through photon emission. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 2079-2093
- 1 Theory of Plasmonic Excitations **2021**, 1-35