Eduardo A Coronado

List of Publications by Year
in descending order

79 papers	11,287 citations	279487 23 h-index	76769 74 g-index
81 all docs	81 docs citations	81 times ranked	14949 citing authors

#	Article	IF	Citations
1	The Optical Properties of Metal Nanoparticles:â€‰ The Influence of Size, Shape, and Dielectric Environment. Journal of Physical Chemistry B, 2003, 107, 668-677.	1.2	9,036
2	Surface plasmon broadening for arbitrary shape nanoparticles: A geometrical probability approach. Journal of Chemical Physics, 2003, 119, 3926-3934.	1.2	395
3	3D imaging of nanomaterials by discrete tomography. Ultramicroscopy, 2009, 109, 730-740.	0.8	255
4	Optical properties of metallic nanoparticles: manipulating light, heat and forces at the nanoscale. Nanoscale, 2011, 3, 4042.	2.8	228
5	Plasmon Coupling in Silver Nanosphere Pairs. Journal of Physical Chemistry C, 2010, 114, 3918-3923.	1.5	101
6	Resonance Conditions for Multipole Plasmon Excitations in Noble Metal Nanorods. Journal of Physical Chemistry C, 2007, 111, 16796-16801.	1.5	84
7	Cluster Size Effects in the Surface-Enhanced Raman Scattering Response of Ag and Au Nanoparticle Aggregates: Experimental and Theoretical Insight. Journal of Physical Chemistry C, 2013, 117, 23090-23107.	1.5	82
8	Silver oxide particles/silver nanoparticles interconversion: susceptibility of forward/backward reactions to the chemical environment at room temperature. RSC Advances, 2012, 2, 2923.	1.7	78
9	Nonadiabatic photodissociation dynamics ofICNin the Ãƒ continuum: A semiclassical initial value representation study. Journal of Chemical Physics, 2000, 112, 5566-5575.	1.2	65
10	Using Highly Accurate 3D Nanometrology to Model the Optical Properties of Highly Irregular Nanoparticles: A Powerful Tool for Rational Design of Plasmonic Devices. Nano Letters, 2010, 10, 2097-2104.	4.5	54
11	Plasmonic Nanoantennas: Angular Scattering Properties of Multipole Resonances in Noble Metal Nanorods. Journal of Physical Chemistry C, 2008, 112, 9586-9594.	1.5	49
12	Rational Design of Plasmonic Nanostructures for Biomolecular Detection: Interplay between Theory and Experiments. ACS Nano, 2012, 6, 3441-3452.	7.3	47
13	On the Far Field Optical Properties of Agâ^'Au Nanosphere Pairs. Journal of Physical Chemistry C, 2010, 114, 16278-16284.	1.5	46
14	Near Field Enhancement in Ag Au Nanospheres Heterodimers. Journal of Physical Chemistry C, 2011, 115, 15908-15914.	1.5	44
15	Near-Field Enhancement of Multipole Plasmon Resonances in Ag and Au Nanowires. Journal of Physical Chemistry A, 2009, 113, 4489-4497.	1.1	43
16	Ultrafast non-adiabatic dynamics of systems with multiple surface crossings: a test of the Meyerâ€“Miller Hamiltonian with semiclassical initial value representation methods. Chemical Physics Letters, 2001, 349, 521-529.	1.2	36
17	When Nanoparticle Size and Molecular Geometry Matter: Analyzing the Degree of Surface Functionalization of Gold Nanoparticles with Sulfur Heterocyclic Compounds. Journal of Physical Chemistry C, 2012, 116, 6520-6529.	1.5	35
18	Hydroquinone Synthesis of Silver Nanoparticles: A Simple Model Reaction To Understand the Factors That Determine Their Nucleation and Growth. Crystal Growth and Design, 2008, 8, 1377-1383.	1.4	31

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19	Quantitative Understanding of the Optical Properties of a Single, Complex-Shaped Gold Nanoparticle from Experiment and Theory. ACS Nano, 2014, 8, 4395-4402.	7.3	31
20	Chemical and Electrochemical Oxidation of Silicon Surfaces Functionalized with APTES: The Role of Surface Roughness in the AuNPs Anchoring Kinetics. Journal of Physical Chemistry C, 2013, 117, 11317-11327.	1.5	30
21	Toward the Design of Highly Stable Small Colloidal SERS Substrates with Supramolecular Hostâ€“Guest Interactions for Ultrasensitive Detection. Journal of Physical Chemistry C, 2015, 119, 8876-8888.	1.5	30
22	Silver nanoparticles from leafy green extract of Belgian endive (Cichorium intybus L. var. sativus): Biosynthesis, characterization, and antibacterial activity. Materials Letters, 2017, 197, 98-101.	1.3	25
23	Enhancement and Confinement Analysis of The Electromagnetic Fields Inside Hot Spots. Journal of Physical Chemistry C, 2009, 113, 6315-6319.	1.5	24
24	Plasmonic Interactions: From Molecular Plasmonics and Fano Resonances to Ferroplasmons. ACS Nano, 2014, 8, 9723-9728.	7.3	24
25	Size Optimization of Iron Oxide@Noble Metal Coreâ€“Shell Nanohybrids for Photothermal Applications. Journal of Physical Chemistry C, 2016, 120, 5630-5639.	1.5	24
26	Quantum dynamical simulations of local field enhancement in metal nanoparticles. Journal of Physics Condensed Matter, 2013, 25, 125304.	0.7	23
27	High performance preconcentration of inorganic Se species by dispersive micro-solid phase extraction with a nanosilica-ionic liquid hybrid material. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 138, 23-30.	1.5	20
28	Colloidal gold clusters formation and chemometrics for direct SERS determination of bioanalytes in complex media. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 224, 117380.	2.0	20
29	Buffering plasmons in nanoparticle waveguides at the virtual-localized transition. Physical Review B, 2010, 82, .	1.1	19
30	Spaser and Optical Amplification Conditions in Gold-Coated Active Nanoparticles. Journal of Physical Chemistry C, 2016, 120, 24941-24949.	1.5	18
31	Identification, Localization, and Quantification of Neuronal Cell Membrane Receptors with Plasmonic Probes: Role of Protein Kinase D1 in Their Distribution. ACS Nano, 2014, 8, 8942-8958.	7.3	17
32	Synthesis of Ag@ZnO coreâ€“shell hybrid nanostructures: an optical approach to reveal the growth mechanism. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	16
33	Exploring the benefits of electron tomography to characterize the precise morphology of coreâ€“shell Au@Ag nanoparticles and its implications on their plasmonic properties. Nanoscale, 2014, 6, 12696-12702.	2.8	16
34	Colloidal SERS Substrate for the Ultrasensitive Detection of Biotinylated Antibodies Based on Near-Field Gradient within the Gap of Au Nanoparticle Dimers. Journal of Physical Chemistry C, 2019, 123, 23577-23585.	1.5	16
35	Some New Classical and Semiclassical Models for Describing Tunneling Processes with Real-Valued Classical Trajectoriesâ€. Journal of Physical Chemistry B, 2001, 105, 6574-6578.	1.2	14
36	Nanoparticleâ€“cell interactions induced apoptosis: a case study with nanoconjugated epidermal growth factor. Nanoscale, 2018, 10, 6712-6723.	2.8	14

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37	Enzyme-Free Immunoassay Using Silver Nanoparticles for Detection of Gliadin at Ultralow Concentrations. ACS Omega, 2018, 3, 2340-2350.	1.6	12
38	A New Figure of Merit to Assess the SERS Enhancement Factor of Colloidal Gold Nanoparticle Aggregates. Journal of Physical Chemistry C, 2021, 125, 4056-4065.	1.5	12
39	Preparation of controlled gold nanoparticle aggregates using a dendronization strategy. Journal of Colloid and Interface Science, 2012, 384, 10-21.	5.0	10
40	Plasmon enhanced light absorption in aluminium@Hematite core shell hybrid nanocylinders: the critical role of length. RSC Advances, 2017, 7, 2857-2868.	1.7	10
41	Trajectory Calculations of Intermolecular Energy Transfer in H2O + Ar Collisions. Journal of Physical Chemistry A, 1999, 103, 5409-5415.	1.1	9
42	The Structure, Energy, Confinement, and Enhancement of Hot Spots between Two Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 7744-7750.	1.5	9
43	Gold nucleation inhibition by halide ions: a basis for a seed-mediated approach. RSC Advances, 2015, 5, 19329-19336.	1.7	9
44	Design of a novel plasmonic nanoconjugated analytical tool for ultrasensitive antigen quantification. Nanoscale, 2016, 8, 17169-17180.	2.8	9
45	Optical Properties of Silica-Coated Au Nanorods: Correlating Theory and Experiments for Determining the Shell Porosity. Journal of Physical Chemistry C, 2021, 125, 15516-15526.	1.5	9
46	Dependence of the collisional relaxation of highly vibrationally excited polyatomic molecules on the population distribution function. Chemical Physics Letters, 1994, 227, 164-169.	1.2	8
47	Collisional Relaxation of Highly Vibrationally Excitedcis-ClFCCFCl Prepared by Multiphoton Excitation. Journal of Physical Chemistry A, 1997, 101, 9603-9609.	1.1	8
48	Keys for Designing Hematite/Plasmonic Metal Hybrid Nanostructures with Enhanced Photoactive Properties. Journal of Physical Chemistry C, 2018, 122, 4589-4599.	1.5	8
49	Evolution of the moments and transition probability models in energy transfer processes. Chemical Physics Letters, 1996, 257, 674-680.	1.2	7
50	Second virial coefficients of water beyond the conventional first-order quantum correction. Chemical Physics Letters, 2005, 405, 203-207.	1.2	7
51	Tailoring Optical Fields Emitted by Subwavelength Nanometric Sources. Plasmonics, 2014, 9, 925-934.	1.8	6
52	Near-Field Enhancement Contribution to the Photoactivity in Magnetiteâ€“Gold Hybrid Nanostructures. Journal of Physical Chemistry C, 2019, 123, 29891-29899.	1.5	6
53	Understanding the Behavior of New Plasmonic Probes with Sub-Nanometric Resolution in Field Enhanced Scanning Optical Microscopy. Journal of Physical Chemistry C, 2011, 115, 10455-10461.	1.5	4
54	Morphological evolution of noble metal nanoparticles in chloroform: mechanism of switching on/off by protic species. RSC Advances, 2015, 5, 100488-100497.	1.7	4

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55	Design of plasmonic probes through bioconjugation and their applications in biomedicine. , 2016, , 131-161.		4
56	Gold decoration of silica by decomposition of aqueous gold(<scp>iii</scp>) hydroxide at low temperatures. RSC Advances, 2018, 8, 19979-19989.	1.7	4
57	Dendritic Chemistry Applied to the Construction of Tailored Functional Nanomaterials: Synthesis and Characterization of Gold Nanoparticle-Cored Dendrimers (NCDs). Current Organic Chemistry, 2013, 17, 943-955.	0.9	4
58	Simple Approach to Assess the Maximum Hot Spot SERS Enhancement Factors in Colloidal Dispersions of Gold Nanoparticle Aggregates. Journal of Physical Chemistry C, 2022, 126, 10524-10533.	1.5	4
59	Fitting complex potential energy surfaces to simple model potentials: Application of the simplex-annealing method. Journal of Computational Chemistry, 2005, 26, 523-531.	1.5	3
60	Excitation-Transfer Plasmonic Nanosensors Based on Dynamical Phase Transitions. Journal of Physical Chemistry C, 2012, 116, 18937-18943.	1.5	3
61	Retrieving the spatial distribution of cavity modes in dielectric resonators by near-field imaging and electrodynamics simulations. Nanoscale, 2012, 4, 1620.	2.8	3
62	One-step/one-pot decoration of oxide microparticles with silver nanoparticles. Journal of Colloid and Interface Science, 2014, 428, 32-35.	5.0	3
63	Synthesis of gold nanoparticles using electron-donating dithiafulvene units. Tetrahedron Letters, 2015, 56, 4871-4876.	0.7	3
64	In Situ Preparation of Plasmonic Gold Nanoparticle-Supramolecular Hydrogel Nanocomposites with Tunable Optical Properties: Correlating Theory and Experiments. Journal of Physical Chemistry C, 2022, 126, 9979-9988.	1.5	3
65	Accounting for the dependence of P(Eâ€²,E) on the maximum impact parameter in classical trajectory calculations: Application to the H2Oâ€“H2O collisional relaxation. Journal of Chemical Physics, 2007, 127, 154305.	1.2	2
66	Ferroplasmons: Novel Plasmons in Metal-Ferromagnetic Bimetallic Nanostructures. Microscopy and Microanalysis, 2015, 21, 2381-2382.	0.2	2
67	Au@ZnO hybrid nanostructures: correlation between morphology and optical response. RSC Advances, 2015, 5, 56210-56218.	1.7	2
68	A Plasmonic Approach to Study Protein Interaction Kinetics through the Dimerization of Functionalized Ag Nanoparticles. Scientific Reports, 2019, 9, 13122.	1.6	2
69	IR laser photochemistry: Selective geometrical isomerization and collisional relaxation of cis-1,2-dichloro-1,2-difluoroethene. Journal of Photochemistry and Photobiology A: Chemistry, 1998, 114, 89-94.	2.0	1
70	Collisional relaxation of highly vibrationally excited CF2O prepared with different initial energies and distribution functions. Journal of Chemical Physics, 1999, 110, 1942-1948.	1.2	1
71	Building transition probabilities for any condition using reduced cumulative energy transfer functions in H2Oâ€“H2O collisions. Journal of Chemical Physics, 2007, 126, 124305.	1.2	1
72	3D characterization and metrology of nanostructures by electron tomography. Microscopy and Microanalysis, 2008, 14, 284-285.	0.2	1

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73	Remarkable effect of the dithiafulvene structures on their capacity as reducing agents: Influence of conjugated thiocarbonyl group. Applied Surface Science, 2019, 465, 1061-1065.	3.1	1
74	Triggering gold nanoparticles formation on a quartz surface by nanosecond pulsed laser irradiation. RSC Advances, 2021, 11, 22419-22425.	1.7	1
75	Plasmonic sensing through bioconjugation of Ag nanoparticles: Towards the development of immunoassays for ultralow quantification of antigens in colloidal dispersions. Advanced Materials Letters, 2018, 9, 456-461.	0.3	1
76	STEM electron tomography of gold nanostructures. , 2008, , 311-312.		1
77	Retrieving the spatial distribution of cavity modes in ZnO nanowires by near-field imaging and electrodynamics simulations. , 2013, , .		0
78	Detecting organic molecules using Au nanoparticle dimers with supramolecular interactions. , 2014, , .		0
79	Multiphoton geometrical isomerization of ClFC=CFCl. Selective purification of thetrans isomer. Journal of Chemical Sciences, 1991, 103, 455-457.	0.7	0