Francis P Zamborini

List of Publications by Year
in descending order

63 papers	4,272 citations	94433 37 h-index	118850 62 g-index
63 all docs	63 docs citations	63 times ranked	5236 citing authors

#	Article	IF	Citations
1	Chemical Detection by Analyte-Induced Change in Electrophoretic Deposition of Gold Nanoparticles. Journal of the Electrochemical Society, 2022, 169, 016504.	2.9	1
2	Reverse Size-Dependent Electrooxidation of Gold Nanoparticles Coated with Alkanethiol Self-Assembled Monolayers. Journal of Physical Chemistry C, 2021, 125, 2719-2728.	3.1	6
3	Effect of Metal Nanoparticle Aggregate Structure on the Thermodynamics of Oxidative Dissolution. Langmuir, 2021, 37, 7320-7327.	3.5	8
4	Electrooxidation, Size Stability, and Electrocatalytic Activity of 0.9â€…nm Diameter Gold Nanoclusters Coated with a Weak Stabilizer. ChemElectroChem, 2020, 7, 800-809.	3.4	9
5	A Tribute to Richardâ€…M. Crooks on the Occasion of His 65th Birthday. ChemElectroChem, 2020, 7, 1062-1066.	3.4	0
6	Reversing the Thermodynamics of Galvanic Replacement Reactions by Decreasing the Size of Gold Nanoparticles. Journal of the American Chemical Society, 2020, 142, 19268-19277.	13.7	20
7	Highly Active, Selective, and Recyclable Waterâ€Soluble Glutathioneâ€Stabilized Pd and Pdâ€Alloy Nanoparticle Catalysts in Biphasic Solvent. ChemCatChem, 2020, 12, 2253-2261.	3.7	6
8	Iodine activation: a general method for catalytic enhancement of thiolate monolayer-protected metal clusters. Nanoscale, 2020, 12, 12027-12037.	5.6	4
9	Size-Dependent Ripening of Gold Nanoparticles through Repetitive Electrochemical Surface Oxidation-Reduction Cycling. Journal of the Electrochemical Society, 2020, 167, 146503.	2.9	9
10	Effect of Size, Coverage, and Dispersity on the Potential-Controlled Ostwald Ripening of Metal Nanoparticles. Langmuir, 2019, 35, 16416-16426.	3.5	30
11	Impact of the Assembly Method on the Surface Area-to-Volume Ratio and Electrochemical Oxidation Potential of Metal Nanospheres. Journal of Physical Chemistry C, 2019, 123, 24304-24312.	3.1	18
12	Tunable Aminooxyâ€Functionalized Monolayerâ€Protected Gold Clusters for Nonpolar and Aqueous Oximation Reactions. Particle and Particle Systems Characterization, 2019, 36, 1900093.	2.3	8
13	Halide-Dependent Dealloying of Cu<i>_x</i>/Au<i>_y</i> Core/Shell Nanoparticles for Composition Analysis by Anodic Stripping Voltammetry. Journal of Physical Chemistry C, 2019, 123, 9496-9505.	3.1	14
14	Anodic stripping electrochemical analysis of metal nanoparticles. Current Opinion in Electrochemistry, 2019, 13, 147-156.	4.8	30
15	Size-Selective Electrophoretic Deposition of Gold Nanoparticles Mediated by Hydroquinone Oxidation. Langmuir, 2019, 35, 2137-2145.	3.5	17
16	Enhancing the Photovoltaic Performance of Dye-Sensitized Solar Cells with Rare-Earth Metal Oxide Nanoparticles. Journal of the Electrochemical Society, 2018, 165, H52-H56.	2.9	23
17	Size Stability Study of Catalytically Active Sub-2 nm Diameter Gold Nanoparticles Synthesized with Weak Stabilizers. Journal of the American Chemical Society, 2018, 140, 14126-14133.	13.7	39
18	Effect of Rare-Earth Metal Oxide Nanoparticles on the Conductivity of Nanocrystalline Titanium Dioxide: An Electrical and Electrochemical Approach. Journal of Physical Chemistry C, 2018, 122, 15090-15096.	3.1	14

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19	Size Determination of Metal Nanoparticles Based on Electrochemically Measured Surface-Area-to-Volume Ratios. Analytical Chemistry, 2018, 90, 9308-9314.	6.5	44
20	Aggregation-Dependent Oxidation of Metal Nanoparticles. Journal of the American Chemical Society, 2017, 139, 12895-12898.	13.7	54
21	Chemiresistor Arrays Prepared by Simple and Fast Vaporâ€Phase Thiol Placeâ€Exchange Functionalization of Gold Monolayerâ€Protected Cluster Films. ChemElectroChem, 2016, 3, 1230-1236.	3.4	5
22	Size-Dependent Electrophoretic Deposition of Catalytic Gold Nanoparticles. Journal of the American Chemical Society, 2016, 138, 15295-15298.	13.7	47
23	Increased efficiency of dye-sensitized solar cells by addition of rare earth oxide microparticles into a titania acceptor. Electrochimica Acta, 2016, 211, 918-925.	5.2	13
24	Surface Enhanced Raman Spectroscopy at Electrochemically Fabricated Silver Nanowire Junctions. Analytical Chemistry, 2016, 88, 675-681.	6.5	15
25	Regioselective Plasmonic Coupling in Metamolecular Analogs of Benzene Derivatives. Nano Letters, 2015, 15, 542-548.	9.1	15
26	One-to-One Correlation between Structure and Optical Response in a Heterogeneous Distribution of Plasmonic Constructs. Journal of Physical Chemistry C, 2015, 119, 24086-24094.	3.1	13
27	Surfactant-Assisted Voltage-Driven Silver Nanoparticle Chain Formation across Microelectrode Gaps in Air. ACS Nano, 2015, 9, 10278-10286.	14.6	7
28	Effect of Surface Charge and Electrode Material on the Size-Dependent Oxidation of Surface-Attached Metal Nanoparticles. Langmuir, 2014, 30, 13075-13084.	3.5	29
29	Chemiresistive metal-stabilized thiyl radical films as highly selective ethylene sensors. RSC Advances, 2014, 4, 46787-46790.	3.6	14
30	Covalent Modification of Photoanodes for Stable Dye-Sensitized Solar Cells. Langmuir, 2013, 29, 13582-13594.	3.5	25
31	Selectivity and Reactivity of Alkylamine- and Alkanethiolate-Stabilized Pd and PdAg Nanoparticles for Hydrogenation and Isomerization of Allyl Alcohol. ACS Catalysis, 2012, 2, 2602-2613.	11.2	48
32	Oxidation of Highly Unstable <4 nm Diameter Gold Nanoparticles 850 mV Negative of the Bulk Oxidation Potential. Journal of the American Chemical Society, 2012, 134, 5014-5017.	13.7	80
33	Chemiresistive Sensing with Chemically Modified Metal and Alloy Nanoparticles. Small, 2012, 8, 174-202.	10.0	127
34	Nanoparticles in Measurement Science. Analytical Chemistry, 2012, 84, 541-576.	6.5	185
35	Effect of Protein Binding Coverage, Location, and Distance on the Localized Surface Plasmon Resonance Response of Purified Au Nanoplates Grown Directly on Surfaces. Journal of Physical Chemistry C, 2011, 115, 7364-7371.	3.1	39
36	Hydrogen Reactivity of Palladium Nanoparticles Coated with Mixed Monolayers of Alkyl Thiols and Alkyl Amines for Sensing and Catalysis Applications. Journal of the American Chemical Society, 2011, 133, 4389-4397.	13.7	107

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37	Size-Dependent Electrochemical Oxidation of Silver Nanoparticles. Journal of the American Chemical Society, 2010, 132, 70-72.	13.7	299
38	Purification of Gold Nanoplates Grown Directly on Surfaces for Enhanced Localized Surface Plasmon Resonance Biosensing. ACS Nano, 2010, 4, 3633-3646.	14.6	79
39	Electrochemical Size Discrimination of Gold Nanoparticles Attached to Glass/Indiumâ^'Tin-Oxide Electrodes by Oxidation in Bromide-Containing Electrolyte. Analytical Chemistry, 2010, 82, 5844-5850.	6.5	102
40	Selective Attachment of Antibodies to the Edges of Gold Nanostructures for Enhanced Localized Surface Plasmon Resonance Biosensing. Journal of the American Chemical Society, 2009, 131, 11689-11691.	13.7	95
41	Reactivity of Hydrogen with Solid-State Films of Alkylamine- and Tetraoctylammonium Bromide-Stabilized Pd, PdAg, and PdAu Nanoparticles for Sensing and Catalysis Applications. Journal of the American Chemical Society, 2008, 130, 622-633.	13.7	75
42	Chemiresistive Sensing of Volatile Organic Compounds with Films of Surfactant-Stabilized Gold and Goldâ^'Silver Alloy Nanoparticles. ACS Nano, 2008, 2, 1543-1552.	14.6	85
43	Synthesis and Alignment of Silver Nanorods and Nanowires and the Formation of Pt, Pd, and Core/Shell Structures by Galvanic Exchange Directly on Surfaces. Langmuir, 2007, 23, 10357-10365.	3.5	58
44	The Synthesis and Fabrication of One-Dimensional Nanoscale Heterojunctions. Small, 2007, 3, 722-756.	10.0	273
45	Directing the Growth of Highly Aligned Gold Nanorods through a Surface Chemical Amidation Reaction. Journal of the American Chemical Society, 2006, 128, 5622-5623.	13.7	58
46	Chemiresistive Vapor Sensing with Microscale Films of Gold Monolayer Protected Clusters. Analytical Chemistry, 2006, 78, 753-761.	6.5	49
47	Synthesis of Gold Nanorod/Single-Wall Carbon Nanotube Heterojunctions Directly on Surfaces. Journal of the American Chemical Society, 2005, 127, 10822-10823.	13.7	62
48	Gold Nanorods Grown Directly on Surfaces from Microscale Patterns of Gold Seeds. Chemistry of Materials, 2005, 17, 3415-3420.	6.7	54
49	Synthesis and Manipulation of High Aspect Ratio Gold Nanorods Grown Directly on Surfaces. Langmuir, 2004, 20, 4322-4326.	3.5	88
50	Directly Monitoring the Growth of Gold Nanoparticle Seeds into Gold Nanorods. Langmuir, 2004, 20, 11301-11304.	3.5	78
51	Distance-dependent electron hopping conductivity and nanoscale lithography of chemically-linked gold monolayer protected cluster films. Analytica Chimica Acta, 2003, 496, 3-16.	5.4	61
52	Electron Hopping Conductivity and Vapor Sensing Properties of Flexible Network Polymer Films of Metal Nanoparticles. Journal of the American Chemical Society, 2002, 124, 8958-8964.	13.7	328
53	Dynamics of Electron Transfers between Electrodes and Monolayers of Nanoparticles. Journal of Physical Chemistry B, 2002, 106, 7751-7757.	2.6	96
54	Monolayer-Protected Clusters:Â Molecular Precursors to Metal Films. Chemistry of Materials, 2001, 13, 87-95.	6.7	121

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55	The Dynamics of Electron Self-Exchange between Nanoparticles. Journal of the American Chemical Society, 2001, 123, 7048-7053.	13.7	168
56	Mercaptoammonium-Monolayer-Protected, Water-Soluble Gold, Silver, and Palladium Clusters. Langmuir, 2000, 16, 9699-9702.	3.5	169
57	Quantized Double Layer Charging of Nanoparticle Films Assembled Using Carboxylate/(Cu2+or) Tj ETQq1 1 0.784314 rgBT /Overlock 10	13.7	194
58	Dendrimer-Mediated Adhesion between Vapor-Deposited Au and Glass or Si Wafers. Analytical Chemistry, 1999, 71, 4403-4406.	6.5	64
59	Spectroscopic, Voltammetric, and Electrochemical Scanning Tunneling Microscopic Study of Underpotentially Deposited Cu Corrosion and Passivation with Self-Assembled Organomercaptan Monolayers. Langmuir, 1998, 14, 640-647.	3.5	84
60	Corrosion Passivation of Gold by n-Alkanethiol Self-Assembled Monolayers:â€‰ Effect of Chain Length and End Group. Langmuir, 1998, 14, 3279-3286.	3.5	186
61	Nanometer-Scale Patterning of Metals by Electrodeposition from an STM Tip in Air. Journal of the American Chemical Society, 1998, 120, 9700-9701.	13.7	53
62	In-SituElectrochemical Scanning Tunneling Microscopy (ECSTM) Study of Cyanide-Induced Corrosion of Naked and Hexadecyl Mercaptan-Passivated Au(111). Langmuir, 1997, 13, 122-126.	3.5	78
63	Scanning Probe Lithography. 3. Nanometer-Scale Electrochemical Patterning of Au and Organic Resists in the Absence of Intentionally Added Solvents or Electrolytes. The Journal of Physical Chemistry, 1996, 100, 11086-11091.	2.9	92