

Francis P Zamborini

List of Publications by Year in descending order

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5236
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#	ARTICLE	IF	CITATIONS
1	Electron Hopping Conductivity and Vapor Sensing Properties of Flexible Network Polymer Films of Metal Nanoparticles. <i>Journal of the American Chemical Society</i> , 2002, 124, 8958-8964.	13.7	328
2	Size-Dependent Electrochemical Oxidation of Silver Nanoparticles. <i>Journal of the American Chemical Society</i> , 2010, 132, 70-72.	13.7	299
3	The Synthesis and Fabrication of One-Dimensional Nanoscale Heterojunctions. <i>Small</i> , 2007, 3, 722-756.	10.0	273
4	Quantized Double Layer Charging of Nanoparticle Films Assembled Using Carboxylate/(Cu ²⁺ or Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	13.7	194
5	Corrosion Passivation of Gold by n-Alkanethiol Self-Assembled Monolayers: Effect of Chain Length and End Group. <i>Langmuir</i> , 1998, 14, 3279-3286.	3.5	186
6	Nanoparticles in Measurement Science. <i>Analytical Chemistry</i> , 2012, 84, 541-576.	6.5	185
7	Mercaptoammonium-Monolayer-Protected, Water-Soluble Gold, Silver, and Palladium Clusters. <i>Langmuir</i> , 2000, 16, 9699-9702.	3.5	169
8	The Dynamics of Electron Self-Exchange between Nanoparticles. <i>Journal of the American Chemical Society</i> , 2001, 123, 7048-7053.	13.7	168
9	Chemiresistive Sensing with Chemically Modified Metal and Alloy Nanoparticles. <i>Small</i> , 2012, 8, 174-202.	10.0	127
10	Monolayer-Protected Clusters: Molecular Precursors to Metal Films. <i>Chemistry of Materials</i> , 2001, 13, 87-95.	6.7	121
11	Hydrogen Reactivity of Palladium Nanoparticles Coated with Mixed Monolayers of Alkyl Thiols and Alkyl Amines for Sensing and Catalysis Applications. <i>Journal of the American Chemical Society</i> , 2011, 133, 4389-4397.	13.7	107
12	Electrochemical Size Discrimination of Gold Nanoparticles Attached to Glass/Indium ⁺ Tin-Oxide Electrodes by Oxidation in Bromide-Containing Electrolyte. <i>Analytical Chemistry</i> , 2010, 82, 5844-5850.	6.5	102
13	Dynamics of Electron Transfers between Electrodes and Monolayers of Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2002, 106, 7751-7757.	2.6	96
14	Selective Attachment of Antibodies to the Edges of Gold Nanostructures for Enhanced Localized Surface Plasmon Resonance Biosensing. <i>Journal of the American Chemical Society</i> , 2009, 131, 11689-11691.	13.7	95
15	Scanning Probe Lithography. 3. Nanometer-Scale Electrochemical Patterning of Au and Organic Resists in the Absence of Intentionally Added Solvents or Electrolytes. <i>The Journal of Physical Chemistry</i> , 1996, 100, 11086-11091.	2.9	92
16	Synthesis and Manipulation of High Aspect Ratio Gold Nanorods Grown Directly on Surfaces. <i>Langmuir</i> , 2004, 20, 4322-4326.	3.5	88
17	Chemiresistive Sensing of Volatile Organic Compounds with Films of Surfactant-Stabilized Gold and Gold ⁺ Silver Alloy Nanoparticles. <i>ACS Nano</i> , 2008, 2, 1543-1552.	14.6	85
18	Spectroscopic, Voltammetric, and Electrochemical Scanning Tunneling Microscopic Study of Underpotentially Deposited Cu Corrosion and Passivation with Self-Assembled Organomercaptan Monolayers. <i>Langmuir</i> , 1998, 14, 640-647.	3.5	84

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19	Oxidation of Highly Unstable 4 nm Diameter Gold Nanoparticles 850 mV Negative of the Bulk Oxidation Potential. <i>Journal of the American Chemical Society</i> , 2012, 134, 5014-5017.	13.7	80
20	Purification of Gold Nanoplates Grown Directly on Surfaces for Enhanced Localized Surface Plasmon Resonance Biosensing. <i>ACS Nano</i> , 2010, 4, 3633-3646.	14.6	79
21	In-Situ Electrochemical Scanning Tunneling Microscopy (ECSTM) Study of Cyanide-Induced Corrosion of Naked and Hexadecyl Mercaptan-Passivated Au(111). <i>Langmuir</i> , 1997, 13, 122-126.	3.5	78
22	Directly Monitoring the Growth of Gold Nanoparticle Seeds into Gold Nanorods. <i>Langmuir</i> , 2004, 20, 11301-11304.	3.5	78
23	Reactivity of Hydrogen with Solid-State Films of Alkylamine- and Tetraoctylammonium Bromide-Stabilized Pd, PdAg, and PdAu Nanoparticles for Sensing and Catalysis Applications. <i>Journal of the American Chemical Society</i> , 2008, 130, 622-633.	13.7	75
24	Dendrimer-Mediated Adhesion between Vapor-Deposited Au and Glass or Si Wafers. <i>Analytical Chemistry</i> , 1999, 71, 4403-4406.	6.5	64
25	Synthesis of Gold Nanorod/Single-Wall Carbon Nanotube Heterojunctions Directly on Surfaces. <i>Journal of the American Chemical Society</i> , 2005, 127, 10822-10823.	13.7	62
26	Distance-dependent electron hopping conductivity and nanoscale lithography of chemically-linked gold monolayer protected cluster films. <i>Analytica Chimica Acta</i> , 2003, 496, 3-16.	5.4	61
27	Directing the Growth of Highly Aligned Gold Nanorods through a Surface Chemical Amidation Reaction. <i>Journal of the American Chemical Society</i> , 2006, 128, 5622-5623.	13.7	58
28	Synthesis and Alignment of Silver Nanorods and Nanowires and the Formation of Pt, Pd, and Core/Shell Structures by Galvanic Exchange Directly on Surfaces. <i>Langmuir</i> , 2007, 23, 10357-10365.	3.5	58
29	Gold Nanorods Grown Directly on Surfaces from Microscale Patterns of Gold Seeds. <i>Chemistry of Materials</i> , 2005, 17, 3415-3420.	6.7	54
30	Aggregation-Dependent Oxidation of Metal Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017, 139, 12895-12898.	13.7	54
31	Nanometer-Scale Patterning of Metals by Electrodeposition from an STM Tip in Air. <i>Journal of the American Chemical Society</i> , 1998, 120, 9700-9701.	13.7	53
32	Chemiresistive Vapor Sensing with Microscale Films of Gold Monolayer Protected Clusters. <i>Analytical Chemistry</i> , 2006, 78, 753-761.	6.5	49
33	Selectivity and Reactivity of Alkylamine- and Alkanethiolate-Stabilized Pd and PdAg Nanoparticles for Hydrogenation and Isomerization of Allyl Alcohol. <i>ACS Catalysis</i> , 2012, 2, 2602-2613.	11.2	48
34	Size-Dependent Electrophoretic Deposition of Catalytic Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2016, 138, 15295-15298.	13.7	47
35	Size Determination of Metal Nanoparticles Based on Electrochemically Measured Surface-Area-to-Volume Ratios. <i>Analytical Chemistry</i> , 2018, 90, 9308-9314.	6.5	44
36	Effect of Protein Binding Coverage, Location, and Distance on the Localized Surface Plasmon Resonance Response of Purified Au Nanoplates Grown Directly on Surfaces. <i>Journal of Physical Chemistry C</i> , 2011, 115, 7364-7371.	3.1	39

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37	Size Stability Study of Catalytically Active Sub-2 nm Diameter Gold Nanoparticles Synthesized with Weak Stabilizers. <i>Journal of the American Chemical Society</i> , 2018, 140, 14126-14133.	13.7	39
38	Effect of Size, Coverage, and Dispersity on the Potential-Controlled Ostwald Ripening of Metal Nanoparticles. <i>Langmuir</i> , 2019, 35, 16416-16426.	3.5	30
39	Anodic stripping electrochemical analysis of metal nanoparticles. <i>Current Opinion in Electrochemistry</i> , 2019, 13, 147-156.	4.8	30
40	Effect of Surface Charge and Electrode Material on the Size-Dependent Oxidation of Surface-Attached Metal Nanoparticles. <i>Langmuir</i> , 2014, 30, 13075-13084.	3.5	29
41	Covalent Modification of Photoanodes for Stable Dye-Sensitized Solar Cells. <i>Langmuir</i> , 2013, 29, 13582-13594.	3.5	25
42	Enhancing the Photovoltaic Performance of Dye-Sensitized Solar Cells with Rare-Earth Metal Oxide Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2018, 165, H52-H56.	2.9	23
43	Reversing the Thermodynamics of Galvanic Replacement Reactions by Decreasing the Size of Gold Nanoparticles. <i>Journal of the American Chemical Society</i> , 2020, 142, 19268-19277.	13.7	20
44	Impact of the Assembly Method on the Surface Area-to-Volume Ratio and Electrochemical Oxidation Potential of Metal Nanospheres. <i>Journal of Physical Chemistry C</i> , 2019, 123, 24304-24312.	3.1	18
45	Size-Selective Electrophoretic Deposition of Gold Nanoparticles Mediated by Hydroquinone Oxidation. <i>Langmuir</i> , 2019, 35, 2137-2145.	3.5	17
46	Regioselective Plasmonic Coupling in Metamolecular Analogs of Benzene Derivatives. <i>Nano Letters</i> , 2015, 15, 542-548.	9.1	15
47	Surface Enhanced Raman Spectroscopy at Electrochemically Fabricated Silver Nanowire Junctions. <i>Analytical Chemistry</i> , 2016, 88, 675-681.	6.5	15
48	Chemiresistive metal-stabilized thiol radical films as highly selective ethylene sensors. <i>RSC Advances</i> , 2014, 4, 46787-46790.	3.6	14
49	Effect of Rare-Earth Metal Oxide Nanoparticles on the Conductivity of Nanocrystalline Titanium Dioxide: An Electrical and Electrochemical Approach. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15090-15096.	3.1	14
50	Halide-Dependent Dealloying of Cu _x /Au _y Core/Shell Nanoparticles for Composition Analysis by Anodic Stripping Voltammetry. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9496-9505.	3.1	14
51	One-to-One Correlation between Structure and Optical Response in a Heterogeneous Distribution of Plasmonic Constructs. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24086-24094.	3.1	13
52	Increased efficiency of dye-sensitized solar cells by addition of rare earth oxide microparticles into a titania acceptor. <i>Electrochimica Acta</i> , 2016, 211, 918-925.	5.2	13
53	Electrooxidation, Size Stability, and Electrocatalytic Activity of 0.9-1.5 nm Diameter Gold Nanoclusters Coated with a Weak Stabilizer. <i>ChemElectroChem</i> , 2020, 7, 800-809.	3.4	9
54	Size-Dependent Ripening of Gold Nanoparticles through Repetitive Electrochemical Surface Oxidation-Reduction Cycling. <i>Journal of the Electrochemical Society</i> , 2020, 167, 146503.	2.9	9

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55	Tunable Aminoxy-Functionalized Monolayer-Protected Gold Clusters for Nonpolar and Aqueous Oxidation Reactions. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1900093.	2.3	8
56	Effect of Metal Nanoparticle Aggregate Structure on the Thermodynamics of Oxidative Dissolution. <i>Langmuir</i> , 2021, 37, 7320-7327.	3.5	8
57	Surfactant-Assisted Voltage-Driven Silver Nanoparticle Chain Formation across Microelectrode Gaps in Air. <i>ACS Nano</i> , 2015, 9, 10278-10286.	14.6	7
58	Highly Active, Selective, and Recyclable Water-Soluble Glutathione-Stabilized Pd and Pd-Alloy Nanoparticle Catalysts in Biphasic Solvent. <i>ChemCatChem</i> , 2020, 12, 2253-2261.	3.7	6
59	Reverse Size-Dependent Electrooxidation of Gold Nanoparticles Coated with Alkanethiol Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2021, 125, 2719-2728.	3.1	6
60	Chemiresistor Arrays Prepared by Simple and Fast Vapor-Phase Thiol Place-Exchange Functionalization of Gold Monolayer-Protected Cluster Films. <i>ChemElectroChem</i> , 2016, 3, 1230-1236.	3.4	5
61	Iodine activation: a general method for catalytic enhancement of thiolate monolayer-protected metal clusters. <i>Nanoscale</i> , 2020, 12, 12027-12037.	5.6	4
62	Chemical Detection by Analyte-Induced Change in Electrophoretic Deposition of Gold Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2022, 169, 016504.	2.9	1
63	A Tribute to Richard...M. Crooks on the Occasion of His 65th Birthday. <i>ChemElectroChem</i> , 2020, 7, 1062-1066.	3.4	0