

Paula E Colavita

List of Publications by Year in descending order

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79
papers

2,418
citations

147726

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docs citations

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3679
citing authors

#	ARTICLE	IF	CITATIONS
1	Low-Overpotential High-Activity Mixed Manganese and Ruthenium Oxide Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. <i>ACS Catalysis</i> , 2016, 6, 2408-2415.	5.5	139
2	Fluorine-Fluorine Interactions in the Solid State: An Experimental and Theoretical Study. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1435-1444.	1.1	132
3	Development of Patterns for Digital Image Correlation Measurements at Reduced Length Scales. <i>Experimental Mechanics</i> , 2007, 47, 63-77.	1.1	123
4	Covalent Photochemical Functionalization of Amorphous Carbon Thin Films for Integrated Real-Time Biosensing. <i>Langmuir</i> , 2006, 22, 9598-9605.	1.6	96
5	Functionalized Vertically Aligned Carbon Nanofibers as Scaffolds for Immobilization and Electrochemical Detection of Redox-Active Proteins. <i>Chemistry of Materials</i> , 2006, 18, 4415-4422.	3.2	77
6	Green Synthesis of Metal Nanoparticles via Natural Extracts: The Biogenic Nanoparticle Corona and Its Effects on Reactivity. <i>ACS Sustainable Chemistry and Engineering</i> , 2015, 3, 1610-1617.	3.2	75
7	Photochemical Functionalization of Gallium Nitride Thin Films with Molecular and Biomolecular Layers. <i>Langmuir</i> , 2006, 22, 8121-8126.	1.6	74
8	Photochemical Grafting of <i>n</i> -Alkenes onto Carbon Surfaces: the Role of Photoelectron Ejection. <i>Journal of the American Chemical Society</i> , 2007, 129, 13554-13565.	6.6	74
9	Electrochromic Nickel Oxide Films for Smart Window Applications. <i>International Journal of Electrochemical Science</i> , 2016, 11, 6636-6647.	0.5	60
10	Untangling Cooperative Effects of Pyridinic and Graphitic Nitrogen Sites at Metal-Free N-Doped Carbon Electrocatalysts for the Oxygen Reduction Reaction. <i>Small</i> , 2019, 15, e1902081.	5.2	57
11	Aggregation of protein therapeutics enhances their immunogenicity: causes and mitigation strategies. <i>RSC Chemical Biology</i> , 2021, 2, 1004-1020.	2.0	55
12	Grafting of molecular layers to oxidized gallium nitride surfaces via phosphonic acid linkages. <i>Surface Science</i> , 2008, 602, 2382-2388.	0.8	49
13	The goldilocks electrolyte: examining the performance of iron/nickel oxide thin films as catalysts for electrochemical water splitting in various aqueous NaOH solutions. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11397-11407.	5.2	47
14	Development of patterns for nanoscale strain measurements: I. Fabrication of imprinted Au webs for polymeric materials. <i>Nanotechnology</i> , 2004, 15, 1812-1817.	1.3	45
15	Growth and Characterization of a Porous Aluminum Oxide Film Formed on an Electrically Insulating Support. <i>Electrochemical and Solid-State Letters</i> , 2003, 6, B42.	2.2	44
16	Quantifying Graphitic Edge Exposure in Graphene-Based Materials and Its Role in Oxygen Reduction Reactions. <i>ACS Catalysis</i> , 2016, 6, 5215-5221.	5.5	44
17	Functional Self-Assembled Monolayers for Optimized Photoinduced Charge Transfer in Organic Field Effect Transistors. <i>Advanced Materials</i> , 2007, 19, 4353-4357.	11.1	42
18	EXAFS analysis of the L ₃ edge of Ce in CeO ₂ : effects of multi-electron excitations and final-state mixed valence. <i>Journal of Synchrotron Radiation</i> , 1999, 6, 34-42.	1.0	41

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19	Construction and Characterization of a Nanowell Electrode Array. <i>Nano Letters</i> , 2002, 2, 641-645.	4.5	41
20	Carbon tetrachloride hydrodechlorination with organometallics-based platinum and palladium catalysts on MgO. <i>Journal of Molecular Catalysis A</i> , 2002, 182-183, 157-166.	4.8	38
21	Photochemical Grafting of Alkenes onto Carbon Surfaces: Identifying the Roles of Electrons and Holes. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4067-4074.	1.5	38
22	Improving the performance of porous nickel foam for water oxidation using hydrothermally prepared Ni and Fe metal oxides. <i>Sustainable Energy and Fuels</i> , 2017, 1, 207-216.	2.5	38
23	Theoretical study of the valence and core photoemission spectra of C60. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 4481-4487.	1.3	36
24	Spontaneous Grafting of Nitrophenyl Groups on Amorphous Carbon Thin Films: A Structure-Reactivity Investigation. <i>Chemistry of Materials</i> , 2012, 24, 1031-1040.	3.2	36
25	Clustering Effects on Discontinuous Gold Film NanoCells. <i>Journal of Nanoscience and Nanotechnology</i> , 2004, 4, 907-917.	0.9	34
26	Valence and core photoemission in M@C60 (M = Be, Mg, Ca). <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 1421-1438.	0.6	33
27	Incandescent porous carbon microspheres to light up cells: solution phenomena and cellular uptake. <i>Journal of Materials Chemistry</i> , 2012, 22, 432-439.	6.7	33
28	Experimental and Computational Study of Dopamine as an Electrochemical Probe of the Surface Nanostructure of Graphitized N-Doped Carbon. <i>Journal of Physical Chemistry C</i> , 2018, 122, 20763-20773.	1.5	33
29	In Situ and Real Time Characterization of Spontaneous Grafting of Aryldiazonium Salts at Carbon Surfaces. <i>Chemistry of Materials</i> , 2013, 25, 1144-1152.	3.2	32
30	Electrocatalysis of N-doped carbons in the oxygen reduction reaction as a function of pH: N-sites and scaffold effects. <i>Carbon</i> , 2019, 148, 224-230.	5.4	32
31	Direct Photopatterning and SEM Imaging of Molecular Monolayers on Diamond Surfaces: Mechanistic Insights into UV-Initiated Molecular Grafting. <i>Langmuir</i> , 2007, 23, 11623-11630.	1.6	31
32	Template-free synthesis of mesoporous manganese oxides with catalytic activity in the oxygen evolution reaction. <i>Sustainable Energy and Fuels</i> , 2017, 1, 780-788.	2.5	31
33	Characterisation of heterogeneous catalysts by EXAFS. <i>Catalysis Today</i> , 1998, 41, 261-275.	2.2	30
34	Modulation of Protein Fouling and Interfacial Properties at Carbon Surfaces via Immobilization of Glycans Using Aryldiazonium Chemistry. <i>Scientific Reports</i> , 2016, 6, 24840.	1.6	30
35	Enhanced Antifouling Properties of Carbohydrate Coated Poly(ether sulfone) Membranes. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17238-17246.	4.0	29
36	Enhancement of Photochemical Grafting of Terminal Alkenes at Surfaces via Molecular Mediators: The Role of Surface-Bound Electron Acceptors. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5102-5112.	1.5	28

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37	Emerging trends in metal oxide electrocatalysis: Bifunctional oxygen catalysis, synergies and new insights from in situ studies. <i>Current Opinion in Electrochemistry</i> , 2018, 7, 208-215.	2.5	27
38	Template-free ultraspray pyrolysis synthesis of N/Fe-doped carbon microspheres for oxygen reduction electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 18920-18927.	5.2	25
39	Influence of Surface Termination and Electronic Structure on the Photochemical Grafting of Alkenes to Carbon Surfaces. <i>Journal of Physical Chemistry C</i> , 2009, 113, 1526-1535.	1.5	23
40	Nanotextured gold coatings on carbon nanofiber scaffolds as ultrahigh surface-area electrodes. <i>Journal of Power Sources</i> , 2012, 198, 393-401.	4.0	22
41	Carbohydrate Coatings via Aryldiazonium Chemistry for Surface Biomimicry. <i>Chemistry of Materials</i> , 2013, 25, 4122-4128.	3.2	22
42	Combined Optoelectronic and Electrochemical Study of Nitrogenated Carbon Electrodes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6596-6604.	1.5	22
43	Influence of carbon nanostructure and oxygen moieties on dopamine adsorption and charge transfer kinetics at glassy carbon surfaces. <i>Electrochimica Acta</i> , 2019, 304, 221-230.	2.6	21
44	Effects of Metal Coating on Self-Assembled Monolayers on Gold. 1. Copper on Dodecanethiol and Octadecanethiol. <i>Langmuir</i> , 2002, 18, 8503-8509.	1.6	19
45	Single-crystal silicon/silicon dioxide multilayer heterostructures based on nanomembrane transfer. <i>Applied Physics Letters</i> , 2007, 90, 183107.	1.5	19
46	In Situ Studies of the Adsorption Kinetics of 4-Nitrobenzenediazonium Salt on Gold. <i>Langmuir</i> , 2011, 27, 13029-13036.	1.6	19
47	Thermally Prepared Mn ₂ O ₃ /RuO ₂ /Ru Thin Films as Highly Active Catalysts for the Oxygen Evolution Reaction in Alkaline Media. <i>ChemElectroChem</i> , 2016, 3, 1847-1855.	1.7	19
48	Photocatalytic Initiation of Radical Thiolene Reactions Using Carbon-Bi ₂ O ₃ Nanocomposites. <i>ACS Applied Nano Materials</i> , 2018, 1, 4120-4126.	2.4	19
49	The Oxygen Evolution Reaction at Manganese Oxide Films in Base: Kinetics and Mechanism. <i>ECS Transactions</i> , 2013, 53, 59-77.	0.3	18
50	Continuous Flow Synthesis of Platinum Nanoparticles in Porous Carbon as Durable and Methanol-Tolerant Electrocatalysts for the Oxygen Reduction Reaction. <i>ChemElectroChem</i> , 2018, 5, 62-70.	1.7	18
51	Evolution of oxygen functionalities in graphene oxide and its impact on structure and exfoliation: An oxidation time based study. <i>Materials Chemistry and Physics</i> , 2018, 220, 417-425.	2.0	16
52	Capacitive storage at nitrogen doped amorphous carbon electrodes: structural and chemical effects of nitrogen incorporation. <i>RSC Advances</i> , 2019, 9, 4063-4071.	1.7	15
53	Natural reducing agents for electroless nanoparticle deposition: Mild synthesis of metal/carbon nanostructured microspheres. <i>Materials Chemistry and Physics</i> , 2013, 140, 343-349.	2.0	14
54	Stable hydrophilic poly(dimethylsiloxane) via glycan surface functionalization. <i>Polymer</i> , 2016, 106, 1-7.	1.8	14

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55	Nanoplasmonic Sensing at the Carbon-Bio Interface: Study of Protein Adsorption at Graphitic and Hydrogenated Carbon Surfaces. <i>Langmuir</i> , 2017, 33, 4198-4206.	1.6	14
56	Bioinspired Aryldiazonium Carbohydrate Coatings: Reduced Adhesion of Foulants at Polymer and Stainless Steel Surfaces in a Marine Environment. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 1141-1151.	3.2	14
57	Tailored glycosylated anode surfaces: Addressing the exoelectrogen bacterial community via functional layers for microbial fuel cell applications. <i>Bioelectrochemistry</i> , 2020, 136, 107621.	2.4	14
58	Photochemically Triggered Alkylthiol Reactions on Highly Ordered Pyrolytic Graphite. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10196-10204.	1.5	12
59	Heterogeneous Charge Transfer at the Amorphous Carbon/Solution Interface: Effect on the Spontaneous Attachment of Aryldiazonium Salts. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22768-22777.	1.5	12
60	Effects of Metal Coating on Self-Assembled Monolayers on Gold. 2. Copper on an Oligo(Phenylene-Ethynylene) Monolayer. <i>Langmuir</i> , 2005, 21, 12268-12277.	1.6	11
61	Determination of surface zeta potential and isoelectric point of carbon surfaces using tracer particle suspensions. <i>Surface and Interface Analysis</i> , 2017, 49, 781-787.	0.8	11
62	Dipolar Chromophore Functional Layers in Organic Field Effect Transistors. <i>Advanced Materials</i> , 2008, 20, 4180-4184.	11.1	10
63	Birge's Spenser Estimation of the C-H Bond Dissociation Energy in Chloroform Using Infrared, Near-Infrared, and Visible Absorption Spectroscopy. An Experiment in Physical Chemistry. <i>Journal of Chemical Education</i> , 2008, 85, 1276.	1.1	10
64	Construction of a Nanowell Electrode Array by Electrochemical Gold Stripping and Ion Bombardment. <i>Electrochemical and Solid-State Letters</i> , 2003, 6, C112.	2.2	8
65	Nanoscaffold effects on the performance of air-cathodes for microbial fuel cells: Sustainable Fe/N-carbon electrocatalysts for the oxygen reduction reaction under neutral pH conditions. <i>Bioelectrochemistry</i> , 2021, 142, 107937.	2.4	8
66	Electrochemical Detection of Isolated Nanoscale Defects in 2D Transition Metal Dichalcogenides. <i>Journal of Physical Chemistry C</i> , 2022, 126, 11636-11641.	1.5	8
67	Photo-induced surface functionalization of carbon surfaces: The role of photoelectron ejection. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008, 26, 925-931.	0.9	7
68	Study of the spontaneous attachment of polycyclic aryldiazonium salts onto amorphous carbon substrates. <i>RSC Advances</i> , 2012, 2, 6527.	1.7	7
69	Theoretical Study of Photoionization Processes in Fe(C5H5)2. <i>Journal of Physical Chemistry A</i> , 2001, 105, 9800-9812.	1.1	6
70	Porous Carbon Microparticles as Vehicles for the Intracellular Delivery of Molecules. <i>Frontiers in Chemistry</i> , 2020, 8, 576175.	1.8	5
71	Electroless deposition and characterization of Fe/FeOx nanoparticles on porous carbon microspheres: structure and surface reactivity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6043.	5.2	4
72	Spontaneous Aryldiazonium Grafting for the Preparation of Functional Cyclodextrin-Modified Materials. <i>ACS Applied Bio Materials</i> , 2018, 1, 825-832.	2.3	4

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73	Reactive Plasma N-Doping of Amorphous Carbon Electrodes: Decoupling Disorder and Chemical Effects on Capacitive and Electrocatalytic Performance. <i>Frontiers in Chemistry</i> , 2020, 8, 593932.	1.8	4
74	Bioinspired electro-permeable glycans on carbon: Fouling control for sensing in complex matrices. <i>Carbon</i> , 2020, 158, 519-526.	5.4	3
75	Understanding the Carbon-Bio Interface: Influence of Surface Chemistry and Buffer Composition on the Adsorption of Phospholipid Liposomes at Carbon Surfaces. <i>ACS Applied Bio Materials</i> , 2020, 3, 997-1007.	2.3	3
76	Laser-driven rapid functionalization of carbon surfaces and its application to the fabrication of fluorinated adsorbers. <i>RSC Advances</i> , 2016, 6, 82924-82932.	1.7	2
77	Controlling the Carbon-Bio Interface via Glycan Functional Adlayers for Applications in Microbial Fuel Cell Bioanodes. <i>Molecules</i> , 2021, 26, 4755.	1.7	2
78	Fine-Structure Measurements of Oxygen A Band Absorbance for Estimating the Thermodynamic Average Temperature of the Earth's Atmosphere. An Experiment in Physical and Environmental Chemistry. <i>Journal of Chemical Education</i> , 2006, 83, 263.	1.1	1
79	A Novel Method to Fabricate Multiple-layer SOI -- Single-Crystal Si Nanomembrane Transfer and Stacking. <i>ECS Transactions</i> , 2007, 6, 333-338.	0.3	0