

Alain R Puente-Santiago

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,484
citations

236925

25
h-index

206112

48
g-index

65
all docs

65
docs citations

65
times ranked

2659
citing authors

#	ARTICLE	IF	CITATIONS
1	Diazonium functionalized fullerenes: a new class of efficient molecular catalysts for the hydrogen evolution reaction. <i>Nanoscale</i> , 2022, 14, 3858-3864.	5.6	12
2	Controlling the Interfacial Charge Polarization of MOF-Derived ODâ€“2D vdW Architectures as a Unique Strategy for Bifunctional Oxygen Electrocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 3919-3929.	8.0	63
3	Low-dimensional heterostructures for advanced electrocatalysis: an experimental and computational perspective. <i>Chemical Society Reviews</i> , 2022, 51, 812-828.	38.1	62
4	Atomically Dispersed Heteronuclear Dual-Atom Catalysts: A New Rising Star in Atomic Catalysis. <i>Small</i> , 2022, 18, e2106091.	10.0	78
5	Experimental and Theoretical Advances on Single Atom and Atomic Cluster-Decorated Low-Dimensional Platforms towards Superior Electrocatalysts. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	25
6	Fullerenes as Key Components for Low-Dimensional (Photo)electrocatalytic Nanohybrid Materials. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 122-141.	13.8	64
7	Tissue paper-derived porous carbon encapsulated transition metal nanoparticles as advanced non-precious catalysts: Carbon-shell influence on the electrocatalytic behaviour. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 905-918.	9.4	39
8	Improving the electrocatalytic performance of sustainable Co/carbon materials for the oxygen evolution reaction by ultrasound and microwave assisted synthesis. <i>Sustainable Energy and Fuels</i> , 2021, 5, 720-731.	4.9	21
9	Fullerenes as Key Components for Low-Dimensional (Photo)electrocatalytic Nanohybrid Materials. <i>Angewandte Chemie</i> , 2021, 133, 124-143.	2.0	11
10	Tuning CO binding strength via engineering the copper/borophene interface for highly efficient conversion of CO into ethanol. <i>Journal of Materials Chemistry A</i> , 2021, 9, 13192-13199.	10.3	23
11	Nature-inspired hierarchical materials for sensing and energy storage applications. <i>Chemical Society Reviews</i> , 2021, 50, 4856-4871.	38.1	49
12	Co-Cu Bimetallic Metal Organic Framework Catalyst Outperforms the Pt/C Benchmark for Oxygen Reduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 4064-4073.	13.7	175
13	A New Class of Molecular Electrocatalysts for Hydrogen Evolution: Catalytic Activity of $M_{3N}@C_{2n}$ ($2n = 68, 78, \text{ and } 80$) Fullerenes. <i>Journal of the American Chemical Society</i> , 2021, 143, 6037-6042.	13.7	37
14	Unravelling the Reaction Mechanisms of N_2 Fixation on Molybdenum Nitride: A Full DFT Study from the Pristine Surface to Heteroatom Anchoring. <i>ChemSusChem</i> , 2021, 14, 3257-3266.	6.8	22
15	Crystallographic Characterization of $U@C_{2n}$ ($2n = 82-86$): Insights about Metal-Cage Interactions for Mono-metallofullerenes. <i>Journal of the American Chemical Society</i> , 2021, 143, 15309-15318.	13.7	22
16	Tuning the Intermolecular Electron Transfer of Low-Dimensional and Metal-Free BCN/ C_{60} Electrocatalysts via Interfacial Defects for Efficient Hydrogen and Oxygen Electrochemistry. <i>Journal of the American Chemical Society</i> , 2021, 143, 1203-1215.	13.7	140
17	Graphynes as emerging 2D-platforms for electronic and energy applications: a computational perspective. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6392-6412.	5.9	17
18	The role of fullerene derivatives in perovskite solar cells: electron transporting or electron extraction layers?. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10759-10767.	5.5	20

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19	Mechanochemically Synthesized PAN-Based Co-N-Doped Carbon Materials as Electrocatalyst for Oxygen Evolution Reaction. <i>Nanomaterials</i> , 2021, 11, 290.	4.1	10
20	Computational Study of the Curvature-Promoted Anchoring of Transition Metals for Water Splitting. <i>Nanomaterials</i> , 2021, 11, 3173.	4.1	3
21	Improving Electrochemical Hydrogen Evolution of Ag@CN Nanocomposites by Synergistic Effects with Γ -Rich Proteins. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 2207-2215.	8.0	20
22	Metal-Organic frameworks-derived multifunctional carbon encapsulated metallic nanocatalysts for catalytic peroxymonosulfate activation and electrochemical hydrogen generation. <i>Molecular Catalysis</i> , 2020, 498, 111241.	2.0	13
23	Tailoring the Interfacial Interactions of van der Waals 1T-MoS ₂ /C ₆₀ Heterostructures for High-Performance Hydrogen Evolution Reaction Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2020, 142, 17923-17927.	13.7	112
24	Tuning of Trifunctional NiCu Bimetallic Nanoparticles Confined in a Porous Carbon Network with Surface Composition and Local Structural Distortions for the Electrocatalytic Oxygen Reduction, Oxygen and Hydrogen Evolution Reactions. <i>Journal of the American Chemical Society</i> , 2020, 142, 14688-14701.	13.7	231
25	Proteins-based nanocatalysts for energy conversion reactions. <i>Topics in Current Chemistry Collections</i> , 2020, , 237-255.	0.5	1
26	Spent tea leaves templated synthesis of highly active and durable cobalt-based trifunctional versatile electrocatalysts for hydrogen and oxygen evolution and oxygen reduction reactions. <i>Green Chemistry</i> , 2020, 22, 6967-6980.	9.0	38
27	Atomically embedded asymmetrical dual-metal dimers on N-doped graphene for ultra-efficient nitrogen reduction reaction. <i>Journal of Catalysis</i> , 2020, 388, 77-83.	6.2	123
28	Proteins-Based Nanocatalysts for Energy Conversion Reactions. <i>Topics in Current Chemistry</i> , 2020, 378, 43.	5.8	3
29	Benign-by-design nature-inspired bionanoconjugates for energy conversion and storage applications. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2020, 26, 100373.	5.9	5
30	Nanomaterials and catalysis for green chemistry. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2020, 24, 48-55.	5.9	53
31	In Situ Aniline-Polymerized Interfaces on GO@PVA Nanoplatfoms as Bifunctional Supercapacitors and pH-Universal ORR Electrodes. <i>ACS Applied Energy Materials</i> , 2020, 3, 4727-4737.	5.1	13
32	Facile synthesis of C ₆₀ -nano materials and their application in high-performance water splitting electrocatalysis. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2900-2906.	4.9	19
33	Biomass-derived ultrathin carbon-shell coated iron nanoparticles as high-performance tri-functional HER, ORR and Fenton-like catalysts. <i>Journal of Cleaner Production</i> , 2020, 275, 124141.	9.3	54
34	Tailoring the ORR and HER electrocatalytic performances of gold nanoparticles through metal-ligand interfaces. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20425-20434.	10.3	45
35	Solvent-Free Preparation of 1,8-Dioxo-Octahydroxanthenes Employing Iron Oxide Nanomaterials. <i>Materials</i> , 2019, 12, 2386.	2.9	16
36	Mimicking the bioelectrocatalytic function of recombinant CotA laccase through electrostatically self-assembled bioconjugates. <i>Nanoscale</i> , 2019, 11, 1549-1554.	5.6	9

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37	Benign-by-design nature-inspired nanosystems in biofuels production and catalytic applications. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 112, 195-252.	16.4	76
38	Boosting the electrochemical oxygen reduction activity of hemoglobin on fructose@graphene-oxide nanoplateforms. <i>Chemical Communications</i> , 2019, 55, 4671-4674.	4.1	15
39	Citrate-Stabilized Gold Nanoparticles as High-Performance Electrocatalysts: The Role of Size in the Electroreduction of Oxygen. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9807-9812.	3.1	40
40	Continuous Flow Synthesis of High Valuable N-Heterocycles via Catalytic Conversion of Levulinic Acid. <i>Frontiers in Chemistry</i> , 2019, 7, 103.	3.6	21
41	Versatile Protein-Templated TiO ₂ Nanocomposite for Energy Storage and Catalytic Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 5329-5337.	6.7	24
42	Controllable Design of Polypyrrole-Iron Oxide Nanocoral Architectures for Supercapacitors with Ultrahigh Cycling Stability. <i>ACS Applied Energy Materials</i> , 2019, 2, 2161-2168.	5.1	25
43	Unprecedented Wiring Efficiency of Sulfonated Graphitic Carbon Nitride Materials: Toward High-Performance Amperometric Recombinant CotA Laccase Biosensors. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1474-1484.	6.7	21
44	Environmental Catalysis: Present and Future. <i>ChemCatChem</i> , 2019, 11, 18-38.	3.7	87
45	Non-porous carbonaceous materials derived from coffee waste grounds as highly sustainable anodes for lithium-ion batteries. <i>Journal of Cleaner Production</i> , 2019, 207, 411-417.	9.3	85
46	Sunlight-Driven Hydrogen Production Using an Annular Flow Photoreactor and g-C ₃ N ₄ -Based Catalysts. <i>ChemPhotoChem</i> , 2018, 2, 870-877.	3.0	20
47	Highly efficient direct oxygen electro-reduction by partially unfolded laccases immobilized on waste-derived magnetically separable nanoparticles. <i>Nanoscale</i> , 2018, 10, 3961-3968.	5.6	31
48	Influence of Patterning in the Acid-Base Interfacial Properties of Homogeneously Mixed CH ₃ - and COOH-Terminated Self-Assembled Monolayers. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2854-2865.	3.1	14
49	Synthesis of carbon-based fluorescent polymers driven by catalytically active magnetic bioconjugates. <i>Green Chemistry</i> , 2018, 20, 225-229.	9.0	34
50	Microwave-assisted preparation of Ag/Ag ₂ S carbon hybrid structures from pig bristles as efficient HER catalysts. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21516-21523.	10.3	48
51	Benign-by-Design Orange Peel-Templated Nanocatalysts for Continuous Flow Conversion of Levulinic Acid to N-Heterocycles. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16637-16644.	6.7	38
52	Copper Tridentate Schiff Base Complex Supported on SBA-15 as Efficient Nanocatalyst for Three-Component Reactions under Solventless Conditions. <i>Materials</i> , 2018, 11, 2458.	2.9	15
53	Encapsulated Laccases as Effective Electrocatalysts for Oxygen Reduction Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11058-11062.	6.7	18
54	Efficient Mechanochemical Bifunctional Nanocatalysts for the Conversion of Isoeugenol to Vanillin. <i>Frontiers in Chemistry</i> , 2018, 6, 77.	3.6	20

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55	Mechanochemistry: Toward Sustainable Design of Advanced Nanomaterials for Electrochemical Energy Storage and Catalytic Applications. ACS Sustainable Chemistry and Engineering, 2018, 6, 9530-9544.	6.7	130
56	Cytosine Palladium Hybrid Complex Immobilized on SBA-15 as Efficient Heterogeneous Catalyst for the Aqueous Suzuki-Miyaura Coupling. ChemistrySelect, 2018, 3, 6102-6106.	1.5	5
57	Solventless mechanochemical preparation of novel magnetic bioconjugates. Chemical Communications, 2017, 53, 7635-7637.	4.1	26
58	Mechanochemical design of hemoglobin-functionalised magnetic nanomaterials for energy storage devices. Journal of Materials Chemistry A, 2017, 5, 16404-16411.	10.3	18
59	Formation of 2-D Crystalline Intermixed Domains at the Molecular Level in Binary Self-Assembled Monolayers from a Lyotropic Mixture. Journal of Physical Chemistry C, 2016, 120, 8595-8606.	3.1	7
60	Cylindrical C ₉₆ Fullertubes: A Highly Active Metal-Free O ₂ Reduction Electrocatalyst. Angewandte Chemie, 0, , .	2.0	3