

Vicente Montiel

List of Publications by Year in descending order

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108
papers

4,912
citations

108046

37
h-index

111975

67
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108
all docs

108
docs citations

108
times ranked

5917
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of a biocathode for formic acid production upon the immobilization of formate dehydrogenase from <i>Candida boidinii</i> on a nanoporous carbon. <i>Chemosphere</i> , 2022, 291, 133117.	4.2	9
2	Electrochemical Reduction of CO ₂ to Formate on Nanoparticulated Bi ³⁺ Sn ²⁺ Sb Electrodes. <i>ChemElectroChem</i> , 2022, 9, .	1.7	17
3	CO ₂ reduction to formate on an affordable bismuth metal-organic framework based catalyst. <i>Journal of CO₂ Utilization</i> , 2022, 59, 101937.	3.3	12
4	Improving trade-offs in the figures of merit of gas-phase single-pass continuous CO ₂ electrocatalytic reduction to formate. <i>Chemical Engineering Journal</i> , 2021, 405, 126965.	6.6	57
5	Effect of confinement of horse heart cytochrome c and formate dehydrogenase from <i>Candida boidinii</i> on mesoporous carbons on their catalytic activity. <i>Bioprocess and Biosystems Engineering</i> , 2021, 44, 1699-1710.	1.7	3
6	On the activity and stability of Sb ₂ O ₃ /Sb nanoparticles for the electroreduction of CO ₂ toward formate. <i>Journal of Electroanalytical Chemistry</i> , 2021, 895, 115440.	1.9	11
7	New insights into the performance of an acid-base electrochemical flow battery. <i>Journal of Power Sources</i> , 2021, 506, 230233.	4.0	7
8	Catalyst coated membrane electrodes for the gas phase CO ₂ electroreduction to formate. <i>Catalysis Today</i> , 2020, 346, 58-64.	2.2	35
9	Gas-liquid-solid reaction system for CO ₂ electroreduction to formate without using supporting electrolyte. <i>AIChE Journal</i> , 2020, 66, e16299.	1.8	24
10	Bi-Sn nanoparticles for electrochemical denitrification: activity and selectivity towards N ₂ formation. <i>Electrochimica Acta</i> , 2020, 340, 135914.	2.6	26
11	Shape-controlled metal nanoparticles for electrocatalytic applications. <i>Physical Sciences Reviews</i> , 2019, 4, .	0.8	17
12	Electrochemical Reduction of CO ₂ to Formate on Easily Prepared Carbon-Supported Bi Nanoparticles. <i>Molecules</i> , 2019, 24, 2032.	1.7	50
13	Cu oxide/ZnO-based surfaces for a selective ethylene production from gas-phase CO ₂ electroconversion. <i>Journal of CO₂ Utilization</i> , 2019, 31, 135-142.	3.3	97
14	Paired electrolysis for simultaneous electrochemical water softening and production of weak acid solutions. <i>Electrochemistry Communications</i> , 2019, 101, 88-92.	2.3	17
15	Electrochemical softening of concentrates from an electrodialysis brackish water desalination plant: Efficiency enhancement using a three-dimensional cathode. <i>Separation and Purification Technology</i> , 2019, 208, 217-226.	3.9	36
16	Fabrication, characterization and electrochemical response of pitch-derived open-pore carbon foams as electrodes. <i>Journal of Applied Electrochemistry</i> , 2018, 48, 329-342.	1.5	9
17	Citrate-Coated, Size-Tunable Octahedral Platinum Nanocrystals: A Novel Route for Advanced Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 41608-41617.	4.0	24
18	An alternative to hydrogenation processes. Electrocatalytic hydrogenation of benzophenone. <i>Beilstein Journal of Organic Chemistry</i> , 2018, 14, 537-546.	1.3	5

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19	3. Shape-controlled metal nanoparticles for electrocatalytic applications. , 2018, , 103-156.		1
20	Electrocatalytic studies on imidazolium based ionic liquids: defining experimental conditions. Physical Chemistry Chemical Physics, 2018, 20, 19160-19167.	1.3	17
21	Prospective Applications of Renewable Energy-Based Electrochemical Systems in Wastewater Treatment. , 2018, , 513-541.		4
22	Carbonization of polymers of intrinsic microporosity to microporous heterocarbon: Capacitive pH measurements. Applied Materials Today, 2017, 9, 136-144.	2.3	11
23	Characterization of a new cartridge type electrocoagulation reactor (CTECR) using a three-dimensional steel wool anode. Journal of Electroanalytical Chemistry, 2017, 793, 93-98.	1.9	8
24	Understanding CO oxidation reaction on platinum nanoparticles. Journal of Electroanalytical Chemistry, 2017, 793, 126-136.	1.9	22
25	The Role of Carbon on Copperâ€“Carbon Composites for the Electrooxidation of Alcohols in an Alkaline Medium. Journal of Carbon Research, 2017, 3, 36.	1.4	5
26	High Performance of Alkaline Anion-Exchange Membranes Based on Chitosan/Poly (vinyl) Alcohol Doped with Graphene Oxide for the Electrooxidation of Primary Alcohols. Journal of Carbon Research, 2016, 2, 10.	1.4	15
27	Self-discharge of AC/AC electrochemical capacitors in salt aqueous electrolyte. Electrochimica Acta, 2016, 202, 66-72.	2.6	41
28	Electrodegradation of the Acid Green 28 dye using Ti/Î²-PbO 2 and Ti-Pt/Î²-PbO 2 anodes. Journal of Environmental Management, 2016, 183, 306-313.	3.8	19
29	An Acid-Base Electrochemical Flow Battery as energy storage system. International Journal of Hydrogen Energy, 2016, 41, 17801-17806.	3.8	19
30	PERFORMANCE ASSESSMENT OF A POLYMER ELECTROLYTE MEMBRANE ELECTROCHEMICAL REACTOR UNDER ALKALINE CONDITIONS â” A CASE STUDY WITH THE ELECTROOXIDATION OF ALCOHOLS. Electrochimica Acta, 2016, 206, 165-175.	2.6	4
31	Electrochemical detection of cytosine and 5-methylcytosine on Au(111) surfaces. Electrochemistry Communications, 2016, 65, 27-30.	2.3	10
32	Electrochemical lactate biosensor based upon chitosan/carbon nanotubes modified screen-printed graphite electrodes for the determination of lactate in embryonic cell cultures. Biosensors and Bioelectronics, 2016, 77, 1168-1174.	5.3	129
33	Chitosan:poly (vinyl) alcohol composite alkaline membrane incorporating organic ionomers and layered silicate materials into a PEM electrochemical reactor. Journal of Membrane Science, 2016, 498, 395-407.	4.1	44
34	Influence of the metal loading on the electrocatalytic activity of carbon-supported (100) Pt nanoparticles. Journal of Solid State Electrochemistry, 2016, 20, 1107-1118.	1.2	7
35	Application of electrodialysis for the treatment of almond industry wastewater. Journal of Membrane Science, 2015, 476, 580-589.	4.1	35
36	Preparation and characterization of novel chitosanâ€“based mixed matrix membranes resistant in alkaline media. Journal of Applied Polymer Science, 2015, 132, .	1.3	19

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37	Production of methanol from CO ₂ electroreduction at Cu ₂ O and Cu ₂ O/ZnO-based electrodes in aqueous solution. <i>Applied Catalysis B: Environmental</i> , 2015, 176-177, 709-717.	10.8	249
38	Surface structured platinum electrodes for the electrochemical reduction of carbon dioxide in imidazolium based ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23909-23916.	1.3	54
39	Electrocatalytic reduction of CO ₂ to formate using particulate Sn electrodes: Effect of metal loading and particle size. <i>Applied Energy</i> , 2015, 157, 165-173.	5.1	116
40	Evidence of Facilitated Electron Transfer on Hydrogenated Self-doped TiO ₂ Nanocrystals. <i>ChemElectroChem</i> , 2014, 1, 1415-1421.	1.7	12
41	Electrochemical Devices for Monitoring Biomarkers in Embryo Development. <i>Electrochimica Acta</i> , 2014, 140, 42-48.	2.6	3
42	Screen-printed graphite macroelectrodes for the direct electron transfer of cytochrome c: a deeper study of the effect of pH on the conformational states, immobilization and peroxidase activity. <i>Analyst</i> , 2014, 139, 1442-1448.	1.7	16
43	Electrochemical treatment of wastewater from almond industry using DSA-type anodes: Direct connection to a PV generator. <i>Separation and Purification Technology</i> , 2014, 123, 15-22.	3.9	61
44	Electrocatalytic activity of Ni-doped nanoporous carbons in the electrooxidation of propargyl alcohol. <i>Carbon</i> , 2014, 73, 291-302.	5.4	9
45	Electrochemical synthesis at pre-pilot scale of 1-phenylethanol by cathodic reduction of acetophenone using a solid polymer electrolyte. <i>Electrochemistry Communications</i> , 2013, 34, 316-319.	2.3	11
46	Electrocatalytic hydrogenation of acetophenone using a Polymer Electrolyte Membrane Electrochemical Reactor. <i>Electrochimica Acta</i> , 2013, 91, 69-74.	2.6	40
47	The electrochemistry of arylated anthraquinones in room temperature ionic liquids. <i>Journal of Physical Organic Chemistry</i> , 2013, 26, 367-375.	0.9	1
48	Electrochemical nitration of myoglobin at tyrosine 103: Structure and stability. <i>Archives of Biochemistry and Biophysics</i> , 2013, 529, 26-33.	1.4	7
49	Exploring the electrochemical behavior of screen printed graphite electrodes in a room temperature ionic liquid. <i>RSC Advances</i> , 2012, 2, 7735.	1.7	15
50	Development of a novel analytical approach combining the quantification of amino acids, organic acids and glucose using HPLC-UV-Vis and HPLC-MS with screening via NMR. <i>Analytical Methods</i> , 2012, 4, 284-290.	1.3	6
51	Surprising electrooxidation of propargyl alcohol to (Z)-3-(2-propynoxy)-2-propenoic acid at a NiOOH electrode in alkaline medium. <i>Electrochemistry Communications</i> , 2012, 22, 200-202.	2.3	6
52	Errors in the use of the Koutecky-Levich plots. <i>Electrochemistry Communications</i> , 2012, 15, 42-45.	2.3	27
53	Bismuth-modified carbon supported Pt nanoparticles as electrocatalysts for direct formic acid fuel cells. <i>Electrochimica Acta</i> , 2012, 63, 105-111.	2.6	25
54	Characterization of ferrate ion electrogeneration in acidic media by voltammetry and scanning electrochemical microscopy. Assessment of its reactivity on 2,4-dichlorophenoxyacetic acid degradation. <i>Electrochimica Acta</i> , 2012, 64, 196-204.	2.6	22

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55	Screen printed graphite macroelectrodes for the direct electron transfer of cytochrome c. <i>Analyst</i> , 2011, 136, 2146.	1.7	20
56	Electrocoagulation of wastewater from almond industry. <i>Chemosphere</i> , 2011, 84, 1290-1295.	4.2	65
57	Evaluating the ozone cleaning treatment in shape-controlled Pt nanoparticles: Evidences of atomic surface disordering. <i>Electrochemistry Communications</i> , 2011, 13, 502-505.	2.3	74
58	Direct oxidation of methionine at screen printed graphite macroelectrodes: Towards rapid sensing platforms. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 831-836.	4.0	38
59	Scanning electrochemical microscopy for studying electrocatalysis on shape-controlled gold nanoparticles and nanorods. <i>Electrochimica Acta</i> , 2010, 55, 8252-8257.	2.6	50
60	Use of MEA technology in the synthesis of pharmaceutical compounds: The electrosynthesis of N-acetyl-l-cysteine. <i>Electrochemistry Communications</i> , 2010, 12, 118-121.	2.3	17
61	Electrochemical Wastewater Treatment Directly Powered by Photovoltaic Panels: Electrooxidation of a Dye-Containing Wastewater. <i>Environmental Science & Technology</i> , 2010, 44, 5182-5187.	4.6	63
62	Imaging Structure Sensitive Catalysis on Different Shape-Controlled Platinum Nanoparticles. <i>Journal of the American Chemical Society</i> , 2010, 132, 5622-5624.	6.6	220
63	Degradation of phenol using Co- and Co,F-doped PbO ₂ anodes in electrochemical filter-press cells. <i>Journal of Hazardous Materials</i> , 2008, 153, 252-260.	6.5	109
64	Electrocoagulation of a synthetic textile effluent powered by photovoltaic energy without batteries: Direct connection behaviour. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 291-297.	3.0	72
65	Desalination of underground brackish waters using an electrodialysis system powered directly by photovoltaic energy. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1677-1688.	3.0	99
66	Mineral Iron Oxides as Iron Source in Electro-Fenton and Photoelectro-Fenton Mineralization Processes. <i>Journal of the Electrochemical Society</i> , 2007, 154, E116.	1.3	66
67	On the performance of Fe and Fe,F doped Ti/Pt/PbO ₂ electrodes in the electrooxidation of the Blue Reactive 19 dye in simulated textile wastewater. <i>Chemosphere</i> , 2007, 66, 2035-2043.	4.2	161
68	Electrodialysis of brackish water powered by photovoltaic energy without batteries: direct connection behaviour. <i>Desalination</i> , 2007, 208, 89-100.	4.0	81
69	Goethite as a more effective iron dosage source for mineralization of organic pollutants by electro-Fenton process. <i>Electrochemistry Communications</i> , 2007, 9, 19-24.	2.3	78
70	Screening of electrocatalysts for direct ammonia fuel cell: Ammonia oxidation on PtMe (Me: Ir, Rh, Pd). <i>J Electrochem Soc</i> , 2006, 153, 144.	4.6	144
71	Photovoltaic electrodialysis system for brackish water desalination: Modeling of global process. <i>Journal of Membrane Science</i> , 2006, 274, 138-149.	4.1	69
72	Brackish water desalination by electrodialysis: batch recirculation operation modeling. <i>Journal of Membrane Science</i> , 2005, 252, 65-75.	4.1	163

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73	Cathodic electrochemical regiospecific hydroxylation of isoquinoline and quinoline via their carboxylic acids. <i>Electrochemistry Communications</i> , 2005, 7, 745-750.	2.3	1
74	Electrochemical Synthesis of L-Histidinol Using Solvated Electrons. <i>Journal of the Electrochemical Society</i> , 2005, 152, D65.	1.3	10
75	Ammonia Selective Oxidation on Pt(100) Sites in an Alkaline Medium. <i>Journal of Physical Chemistry B</i> , 2005, 109, 12914-12919.	1.2	118
76	Electrochemical reduction of the anion of 1-isoquinolinecarboxylic acid: an unexpected reaction of cathodic decarboxylation. <i>Electrochemistry Communications</i> , 2004, 6, 595-599.	2.3	7
77	Electrocatalytic synthesis of 6-aminonicotinic acid at silver cathodes under mild conditions. <i>Electrochemistry Communications</i> , 2004, 6, 627-631.	2.3	71
78	Shape-dependent electrocatalysis: ammonia oxidation on platinum nanoparticles with preferential (100) surfaces. <i>Electrochemistry Communications</i> , 2004, 6, 1080-1084.	2.3	218
79	Electrochemical characterization of platinum-ruthenium nanoparticles prepared by water-in-oil microemulsion. <i>Electrochimica Acta</i> , 2004, 49, 5079-5088.	2.6	100
80	Selective electrocatalysis of ammonia oxidation on Pt(100) sites in alkaline medium. <i>Electrochemistry Communications</i> , 2003, 5, 22-26.	2.3	148
81	Electrolytic synthesis of chloroform from carbon tetrachloride in mild conditions. Laboratory approach. <i>Electrochemistry Communications</i> , 2003, 5, 246-252.	2.3	11
82	Electrochemical synthesis of 3-phenylcinnamitrile by reduction of benzophenone in acetonitrile. <i>Electrochemistry Communications</i> , 2003, 5, 349-353.	2.3	11
83	Synthesis and Electrochemical Decontamination of Platinum-Palladium Nanoparticles Prepared by Water-in-Oil Microemulsion. <i>Journal of the Electrochemical Society</i> , 2003, 150, E104.	1.3	122
84	Electrochemical Treatment of Industrial Wastewater Containing Phenols. <i>Journal of the Electrochemical Society</i> , 2002, 149, D57.	1.3	65
85	Development of a model for the characterization of fluid dispersion in electrochemical reactors. <i>Journal of Hydroinformatics</i> , 2002, 4, 281-295.	1.1	2
86	Electrodeposition of PbO ₂ on glassy carbon electrodes: influence of ultrasound power. <i>Electrochemistry Communications</i> , 2002, 4, 370-373.	2.3	26
87	Electrochemical and electrocatalytic behaviour of platinum-palladium nanoparticle alloys. <i>Electrochemistry Communications</i> , 2002, 4, 716-721.	2.3	84
88	Influence of chloride ion on electrochemical degradation of phenol in alkaline medium using bismuth doped and pure PbO ₂ anodes. <i>Water Research</i> , 2001, 35, 3291-3300.	5.3	131
89	Kinetics of electrocrystallisation of PbO ₂ on glassy carbon electrodes: influence of ultrasound. <i>New Journal of Chemistry</i> , 2001, 25, 1195-1198.	1.4	15
90	Lead electrowinning in an acid chloride medium. <i>Journal of Power Sources</i> , 2001, 92, 260-266.	4.0	23

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91	Use of hydrogen diffusion anodes during lead electrowinning in a chloride medium. <i>Journal of Power Sources</i> , 2001, 101, 103-108.	4.0	6
92	A new electrochemical method for consolidation of porous rocks. <i>Electrochemistry Communications</i> , 2001, 3, 122-127.	2.3	14
93	Methanol Electrooxidation on Platinum/Ruthenium Nanoparticle Catalysts. <i>Journal of Catalysis</i> , 2001, 203, 1-6.	3.1	189
94	Partial electro-neutralisation of d- \pm -p-hydroxyphenylglycine in sulphuric acid medium. <i>Journal of Membrane Science</i> , 2000, 170, 225-233.	4.1	11
95	Lead electrowinning in a fluoborate medium. Use of hydrogen diffusion anodes. <i>Journal of Power Sources</i> , 2000, 87, 137-143.	4.0	32
96	Kinetics of Electrocrystallization of PbO[sub 2] on Glassy Carbon Electrodes Partial Inhibition of the Progressive Three-Dimensional Nucleation and Growth. <i>Journal of the Electrochemical Society</i> , 2000, 147, 2969.	1.3	26
97	Characterization of an Electrochemical Pilot-Plant Filter-Press Reactor by Hydrodynamic and Mass Transport Studies. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 1132-1142.	1.8	27
98	The Application of Electrodialysis to Desalting an Amino Acid Solution. <i>Journal of Chemical Education</i> , 2000, 77, 1477.	1.1	11
99	Characterization of a carbon felt electrode: structural and physical properties. <i>Journal of Materials Chemistry</i> , 1999, 9, 419-426.	6.7	125
100	On the voltammetric behavior of a platinized titanium surface with respect to the specific hydrogen and anion adsorption and charge transfer processes. <i>Journal of Materials Chemistry</i> , 1999, 9, 3141-3145.	6.7	12
101	Influence of an ultrasonic field on lead electrodeposition on copper using a fluoroboric bath. <i>New Journal of Chemistry</i> , 1999, 23, 95-101.	1.4	15
102	Recovery by means of electrodialysis of an aromatic amino acid from a solution with a high concentration of sulphates and phosphates. <i>Journal of Membrane Science</i> , 1998, 140, 243-250.	4.1	27
103	Effects of ultrasound on the electrodeposition of lead dioxide on glassy carbon electrodes. <i>New Journal of Chemistry</i> , 1998, 22, 343-349.	1.4	38
104	Hydrodynamic Behavior of a Filter-Press Electrochemical Reactor with Carbon Felt As a Three-Dimensional Electrode. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 4501-4511.	1.8	32
105	Synthesis of L-cysteic acid by indirect electrooxidation and an example of paired synthesis: L-cysteic and L-cysteine from L-cystine. <i>Tetrahedron</i> , 1991, 47, 877-886.	1.0	29
106	A simple tool for the electrolytic restoration of archaeological metallic objects with localized corrosion. <i>Studies in Conservation</i> , 1986, 31, 175-176.	0.6	11
107	Electrooxidation of terpenes. Synthesis of dihydrocarvone and 1-hydroxyneodihydrocarveol by anodic oxidation of limonene. <i>Electrochimica Acta</i> , 1984, 29, 1123-1126.	2.6	9
108	Continuous gas-phase electrochemical reduction of CO ₂ to formate using Bi Catalyst Coated Membrane Electrodes in a filter press reactor. <i>Electrochimica Acta</i> , 2010, 55, 1000-1006.		0