

# Mercedes Teresita Oropeza Guzmán

## List of Publications by Year in descending order

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92  
papers

1,466  
citations

331670

21  
h-index

345221

36  
g-index

92  
all docs

92  
docs citations

92  
times ranked

1710  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coagulation-flocculation mechanisms in wastewater treatment plants through zeta potential measurements. <i>Journal of Hazardous Materials</i> , 2014, 279, 1-10.	12.4	179
2	Eco-friendly innovation for nejayote coagulation-flocculation process using chitosan: Evaluation through zeta potential measurements. <i>Chemical Engineering Journal</i> , 2016, 284, 536-542.	12.7	100
3	Capacity of ñopal™ pectin as a dual coagulant-flocculant agent for heavy metals removal. <i>Chemical Engineering Journal</i> , 2017, 323, 19-28.	12.7	63
4	Sonochemical synthesis and characterization of Pt/CNT, Pt/TiO <sub>2</sub> , and Pt/CNT/TiO <sub>2</sub> electrocatalysts for methanol electro-oxidation. <i>Electrochimica Acta</i> , 2015, 186, 76-84.	5.2	54
5	N-Doped carbon nanotubes enriched with graphitic nitrogen in a buckypaper configuration as efficient 3D electrodes for oxygen reduction to H <sub>2</sub> O <sub>2</sub> . <i>Nanoscale</i> , 2019, 11, 2829-2839.	5.6	54
6	Flavone functionalized magnetic nanoparticles: A new fluorescent sensor for Cu <sup>2+</sup> ions with nanomolar detection limit. <i>Sensors and Actuators B: Chemical</i> , 2016, 233, 459-468.	7.8	49
7	Electrochemical study on carbon steel corrosion process in alkaline sour media. <i>Electrochimica Acta</i> , 2002, 47, 2149-2158.	5.2	46
8	Evolution of non-stoichiometric iron sulfide film formed by electrochemical oxidation of carbon steel in alkaline sour environment. <i>Electrochimica Acta</i> , 2002, 47, 1197-1208.	5.2	45
9	Electrochemically grown passive films on carbon steel (SAE 1018) in alkaline sour medium. <i>Electrochimica Acta</i> , 2003, 48, 1665-1674.	5.2	45
10	Modification of chitosan with carbamoyl benzoic acids for testing its coagulant-flocculant and binding capacities in removal of metallic ions typically contained in plating wastewater. <i>Chemical Engineering Journal</i> , 2018, 332, 749-756.	12.7	41
11	Design and mechanism of action of multifunctional BPE™s with high performance in the separation of hazardous metal ions from polluted water Part I: Chitosan-poly(N-vinylcaprolactam) and its derivatives. <i>Chemical Engineering Journal</i> , 2019, 359, 840-851.	12.7	41
12	Silver electrocrystallization from a nonpolluting aqueous leaching solution containing ammonia and chloride. <i>Journal of Applied Electrochemistry</i> , 1996, 26, 451.	2.9	40
13	Sequential electrochemical treatment of dairy wastewater using aluminum and DSA-type anodes. <i>Environmental Science and Pollution Research</i> , 2014, 21, 8573-8584.	5.3	40
14	Innovative uses of carbamoyl benzoic acids in coagulation-flocculation™s processes of wastewater. <i>Chemical Engineering Journal</i> , 2017, 307, 981-988.	12.7	36
15	An electrochemical study of galena concentrate in perchlorate medium at pH 2.0: the influence of chloride ions. <i>Electrochimica Acta</i> , 2000, 45, 2729-2741.	5.2	31
16	Evaluation of the chelating performance of biopolyelectrolyte green complexes (NIBPEGCs) for wastewater treatment from the metal finishing industry. <i>Journal of Hazardous Materials</i> , 2017, 335, 18-27.	12.4	31
17	The role of different surface damages in corrosion process in alkaline sour media. <i>Corrosion Science</i> , 2002, 44, 1515-1528.	6.6	30
18	Electrochemical characterisation of sulfur species formed during anodic dissolution of galena concentrate in perchlorate medium at pH 0. <i>Electrochimica Acta</i> , 2002, 47, 1513-1525.	5.2	30

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19	Cyclic voltammetry applied to the characterisation of galena. <i>Hydrometallurgy</i> , 1999, 53, 133-144.	4.3	29
20	Improving the Efficiency of a Coagulation-Flocculation Wastewater Treatment of the Semiconductor Industry through Zeta Potential Measurements. <i>Journal of Chemistry</i> , 2014, 2014, 1-10.	1.9	29
21	Nejayote biopolyelectrolytes multifunctionality (glucurono feruloylated arabinosylans) in the separation of hazardous metal ions from industrial wastewater. <i>Chemical Engineering Journal</i> , 2021, 423, 130210.	12.7	26
22	Chemical issues of coffee and Tule lignins as ecofriendly materials for the effective removal of hazardous metal ions contained in metal finishing wastewater. <i>Chemical Engineering Journal</i> , 2020, 397, 125384.	12.7	24
23	Direct chemical conversion of continuous CVD graphene/graphite films to graphene oxide without exfoliation. <i>Carbon</i> , 2020, 158, 202-209.	10.3	22
24	Influence of anolyte and catholyte composition on TPHs removal from low permeability soil by electrokinetic reclamation. <i>Electrochimica Acta</i> , 2009, 54, 2119-2124.	5.2	21
25	Methanol electro-oxidation with alloy nanoparticles of Pt <sub>10</sub> ~Fe supported on CNTs. <i>Fuel</i> , 2016, 182, 1-7.	6.4	21
26	Effectiveness factors in an electrochemical reactor with rotating cylinder electrode for the acid-cupric/copper cathode interface process. <i>Chemical Engineering Science</i> , 2001, 56, 2695-2702.	3.8	20
27	Electrocatalytic Promotion of Pt Nanoparticles by Incorporation of Ni(OH) <sub>2</sub> for Glycerol Electro-Oxidation: Analysis of Activity and Reaction Pathway. <i>ChemNanoMat</i> , 2019, 5, 68-78.	2.8	19
28	Determination of the effective thickness of a porous electrode in a flow-through reactor; effect of the specific surface area of stainless steel fibres, used as a porous cathode, during the deposition of Ag(I) ions. <i>Hydrometallurgy</i> , 2008, 91, 98-103.	4.3	17
29	Synthetic hydroxyapatite and its use in bioactive coatings. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2019, 17, 228080001881746.	1.6	17
30	A Multiparameter Colloidal Titrations for the Determination of Cationic Polyelectrolytes. <i>Journal of Environmental Protection</i> , 2012, 03, 1559-1570.	0.7	17
31	Electrochemical Recovery of Cadmium from Simulated Waste Nickel~Cadmium Battery Solutions. <i>Water, Air, and Soil Pollution</i> , 2008, 194, 45-55.	2.4	15
32	Ordered Mesoporous Carbon Decorated with Magnetite for the Detection of Heavy Metals by Square Wave Anodic Stripping Voltammetry. <i>Journal of the Electrochemical Society</i> , 2017, 164, B304-B313.	2.9	14
33	Anion influence in lead removal from aqueous solution by deposition onto a vitreous carbon electrode. <i>Electrochimica Acta</i> , 1999, 44, 2633-2643.	5.2	13
34	Lead deposition onto fractured vitreous carbon: influence of electrochemical pretreated electrode. <i>Applied Surface Science</i> , 2000, 153, 245-258.	6.1	12
35	Mass transport studies at rotating cylinder electrode: Influence of the inter-electrode gap. <i>Electrochimica Acta</i> , 2010, 55, 3275-3278.	5.2	12
36	Study of nanofiber scaffolds of PAA, PAA/CS, and PAA/ALG for its potential use in biotechnological applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2018, 67, 800-807.	3.4	12

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37	Title is missing!. Journal of Applied Electrochemistry, 2002, 32, 905-913.	2.9	11
38	Chemical Characterization of Corrosion Films Electrochemically Grown on Carbon Steel in Alkaline Sour Environment. Journal of the Electrochemical Society, 2003, 150, B530.	2.9	10
39	Stability Study of Iron Sulfide Films, Electrochemically Grown on Carbon Steel, in Different Electrolytic Media. Corrosion, 2002, 58, 659-669.	1.1	9
40	Oxidation of Mineral Species as a Function of the Anodic Potential of Zinc Concentrate in Sulfuric Acid. Journal of the Electrochemical Society, 2004, 151, B387.	2.9	9
41	Voltammetric evaluation of the electrode material on the oxidation of cyanide catalyzed by copper ions. Journal of Solid State Electrochemistry, 2005, 9, 566-573.	2.5	9
42	Electrokinetic treatment for clayed and sandy soils. Journal of Applied Electrochemistry, 2010, 40, 1255-1261.	2.9	9
43	Synthesis and characterization of Ni <sub>2</sub> P and MoS <sub>2</sub> on MWCNT as an innovative catalytic material for hydrogen generation. Applied Surface Science, 2020, 503, 144163.	6.1	9
44	Prediction of the Combustion Enthalpy of Municipal Solid Waste. The Chemical Educator, 2002, 7, 66-70.	0.0	8
45	Anodes for Direct Alcohol Fuel Cells Assisted by Plasmon-Accelerated Electrochemical Oxidation Using Gold Nanoparticle-Decorated Buckypapers. ACS Applied Energy Materials, 2020, 3, 8755-8764.	5.1	8
46	Fabrication of porous polymeric structures using a simple sonication technique for tissue engineering. Journal of Polymer Engineering, 2017, 37, 943-951.	1.4	7
47	Effect of betaine in the successful synthesis of CoFe <sub>2</sub> O <sub>4</sub> containing octahedron nanoparticles for electrocatalytic water oxidation. Applied Surface Science, 2017, 426, 980-986.	6.1	7
48	Mathematical modeling of a galvanostatic soil electroremediation process. AIChE Journal, 2005, 51, 1822-1833.	3.6	6
49	Modifying nitrogen species of nitrogen-doped carbon nanotubes by thermal annealing to explore their role in the triiodide reduction reaction. Carbon, 2020, 167, 209-218.	10.3	6
50	Optimizing the Efficiency of a Cytocompatible Carbon-Dots-Based FRET Platform and Its Application as a Riboflavin Sensor in Beverages. Nanomaterials, 2021, 11, 1981.	4.1	6
51	Modelling of the concentration-time relationship based on global diffusion-charge transfer parameters in a flow-by reactor with a 3D electrode. Electrochimica Acta, 2006, 51, 4210-4217.	5.2	5
52	Evaluation of lead removal from sandy soils using different electrolytes in electrokinetic experiments: prospective for remediation of a real site contaminated with mining wastes. Journal of Applied Electrochemistry, 2010, 40, 1145-1152.	2.9	5
53	Electrochemical Oxidation of Vanillin and Capsaicin in Hartmann Solution. ECS Transactions, 2010, 29, 339-347.	0.5	5
54	Synthesis and physicochemical mechanistic evaluation of chitosan-based interbiopolyelectrolyte complexes for effective encapsulation of OLZ for potential application in nano-psychiatry. Sustainable Chemistry and Pharmacy, 2021, 22, 100456.	3.3	5

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55	Preparation and Evaluation of Electrocatalysts to Generate Oxygen Bubbles for the Electroflotation Process. ECS Transactions, 2008, 15, 51-59.	0.5	4
56	Identification of Flavonoid Oxidation Potentials as a Function of pH. ECS Transactions, 2009, 20, 141-149.	0.5	4
57	Evaluation of N-Alkyl-bis-o-aminobenzamide Receptors for the Determination and Separation of Metal Ions by Fluorescence, UV-Visible Spectrometry and Zeta Potential. Molecules, 2019, 24, 1737.	3.8	4
58	Methanol dehydrogenation and oxidation on Pt $\alpha$ -Ni X /CNTs at low temperature: Effect of Ni addition. Renewable Energy, 2016, 99, 437-442.	8.9	3
59	Integral use of Nejayote: Characterization, New Strategies for Physicochemical Treatment and Recovery of Valuable By-Products. , 0, , .		3
60	Potential Measurements Used to Study the Bentonite-Pollutant and Kaolin-Pollutant Interphase. ECS Transactions, 2011, 36, 341-347.	0.5	2
61	Chalcogenides and Carbon Nanostructures: Great Applications for PEM Fuel Cells. , 0, , .		2
62	Innovation in the Electrophoretic Deposition of TiO <sub>2</sub> Using Different Stabilizing Agents and Zeta Potential. , 2018, , .		2
63	Electrochemical functionalization strategy for chemical vapor deposited graphene on silicon substrates: grafting, electronic properties and biosensing. Nanotechnology, 2019, 30, 475703.	2.6	2
64	Eco-Friendly Magnetic Nanoscavengers as Emerging Materials for Improving Reclaimed Water Quality. Advanced Sustainable Systems, 2021, 5, 2000236.	5.3	2
65	Mathematical Modeling of Electrochemical Remediation for Soils under Galvanostatic Conditions. Environmental Technology (United Kingdom), 2001, 22, 17-26.	2.2	1
66	Electrochemical Evaluation of Electrocatalytic Materials for Water Oxidation. ECS Transactions, 2009, 20, 227-235.	0.5	1
67	Electrochemical Characterization of CPEs Modified with Gold Nanoparticles Deposited by Immersion. ECS Transactions, 2009, 20, 251-258.	0.5	1
68	Evaluation of an Electrochemical Advanced Oxidation Process for the Organic Matter Removal from Dairy Wastewater. ECS Transactions, 2011, 36, 323-329.	0.5	1
69	Is pickling rate of A36 steel dependent on the saturation of the pickling bath in acidic sulfate media?. Fuel, 2014, 138, 200-202.	6.4	1
70	Pulsed Fe Electro-Oxidation for Catalytic Synthesis of Hydantoin Derivatives. International Journal of Electrochemical Science, 2016, , 6324-6335.	1.3	1
71	Facile synthesis of platinum and nickel sulfides supported in N-doped carbon nanotubes for oxygen reduction reaction. Materials Letters, 2021, 293, 129686.	2.6	1
72	Physicochemical Insights of the Organic Matter Particles Dispersed in Wastewaters Induced by Bio-Polyelectrolytes. , 0, , .		1

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73	Oxygen Reduction Studies on Carbon-supported Pt-M Catalysts (M: Ru, W, Mo). Journal of New Materials for Electrochemical Systems, 2012, 15, 137-143.	0.6	1
74	Electrolysis of Methyl-t-Butyl Ether in Aqueous Solutions using Electro-generated Persulfate. ECS Transactions, 2006, 3, 47-60.	0.5	0
75	Pb Detection in Soil Samples by Electroanalysis: Cyclic Voltammetry and Osteryoung Square Wave Stripping Voltammetry. ECS Transactions, 2008, 15, 527-533.	0.5	0
76	Electrokinetic Treatment Applied to Sandy and Clay Soils. ECS Transactions, 2008, 15, 309-314.	0.5	0
77	The Effect of Zeta Potential on the Electrokinetic Process for Removal of Phenanthrene in Soil. ECS Transactions, 2008, 15, 417-425.	0.5	0
78	Selection of the Electrolyte Solution by Applying Electro-kinetic Treatment of Lead Contaminated Soil. ECS Transactions, 2009, 20, 327-332.	0.5	0
79	Electrochemical Oxidation of Synthetic Analogous of Capsaicin in Hartmann Solution. ECS Transactions, 2011, 36, 423-429.	0.5	0
80	Study of the Stability of Highly Oxidized Metals (Ir, Ti, Ta, Sn) in Ethanol-Water and Isopropanol-Water Dispersions Previous to Epd. ECS Meeting Abstracts, 2013, , .	0.0	0
81	Innovation of Coagulation-Flocculation Processes Using Biopolyelectrolytes and Zeta Potential for Water Reuse. , 0, , .		0
82	Strategic Design of Heavy Metals Removal Agents through Zeta Potential Measurements. , 2018, , .		0
83	Simulation of a Solid Phase Cathodic Electro-Fenton Process as an Alternative for Improving the Quality of Treated Water. ECS Transactions, 2021, 101, 95-100.	0.5	0
84	Effect of Heteroatom Bridge in the Transfer Electron Process of O-Aminebenzamides and Quinazolinendiones Evaluated By Electrochemistry. ECS Meeting Abstracts, 2018, , .	0.0	0
85	Click Reaction Assisted By Cu Electro-Oxidation. ECS Meeting Abstracts, 2018, , .	0.0	0
86	Pt-Based Chalcogenide As Cathodic Electrocatalysts for Proton Exchange Membrane FUEL CELL (PEMFC). ECS Meeting Abstracts, 2019, , .	0.0	0
87	Estudio de propiedades fotofísicas de sensores del tipo bis-fluorofóricos y su aplicación en la detección de iones metálicos. Revista De Ciencias Tecnológicas, 2020, 2, 124-136.	0.1	0
88	Graphene Nanosensor for NO Metabolites Detection. IFMBE Proceedings, 2020, , 486-493.	0.3	0
89	Temperature effect on the porosity of hydroxyapatite scaffolds and its use in tissue engineering. Revista De Ciencias Tecnológicas, 2020, 3, 213-221.	0.1	0
90	Evaluación de compuestos bis-fluorofóricos en agua del río Tijuana. Revista De Ciencias Tecnológicas, 2020, 3, 44-56.	0.1	0

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91	Preparación de materiales funcionalmente graduados por deposición electroforética. Revista De Ciencias Tecnológicas, 2020, 3, 1-9.	0.1	0
92	Polylactic acid/multi walled carbon nanotubes (PLA/MWCNT) nanocomposite for 3D printing of medical devices. Revista De Ciencias Tecnológicas, 2021, 4, 388-398.	0.1	0