Joaquin Gonzalez

List of Publications by Year
in descending order

111	1,606	22	32
papers	citations	h-index	g-index
		304602	414303

112	112	112	992
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrochemical and Electrostatic Cleavage of Alkoxyamines. Journal of the American Chemical Society, 2018, 140, 766-774.	6.6	129
2	Reproducible flaws unveil electrostatic aspects of semiconductor electrochemistry. Nature Communications, 2017, 8, 2066.	5.8	68
3	Pulse Voltammetry in Physical Electrochemistry and Electroanalysis. Monographs in Electrochemistry, 2016, , .	0.2	66
4	Recent advances on the theory of pulse techniques: A mini review. Electrochemistry Communications, 2014, 43, 25-30.	2.3	56
5	Voltammetry of Electrochemically Reversible Systems at Electrodes of Any Geometry: A General, Explicit Analytical Characterization. Journal of Physical Chemistry C, 2011, 115, 4054-4062.	1.5	46
6	Analytical theory of the catalytic mechanism in square wave voltammetry at disc electrodes. Physical Chemistry Chemical Physics, 2011, 13, 16748.	1.3	39
7	Quantitative Analysis of Cyclic Voltammetry of Redox Monolayers Adsorbed on Semiconductors: Isolating Electrode Kinetics, Lateral Interactions, and Diode Currents. Analytical Chemistry, 2019, 91, 5929-5937.	3.2	36
8	General analytical solution for a catalytic mechanism in potential step techniques at hemispherical microelectrodes: Applications to chronoamperometry, cyclic staircase voltammetry and cyclic linear sweep voltammetry. Journal of Electroanalytical Chemistry, 1998, 454, 15-31.	1.9	34
9	Study of Multicenter Redox Molecules with Square Wave Voltammetry. Journal of Physical Chemistry C, 2007, 111, 12446-12453.	1.5	33
10	On the meaning of the diffusion layer thickness for slow electrode reactions. Physical Chemistry Chemical Physics, 2013, 15, 2381.	1.3	30
11	Simple Analytical Equations for the Currentâ€"Potential Curves at Microelectrodes: A Universal Approach. Journal of Physical Chemistry C, 2014, 118, 346-356.	1.5	30
12	Analytical solutions for fast and straightforward study of the effect of the electrode geometry in transient and steady state voltammetries: Single- and multi-electron transfers, coupled chemical reactions and electrode kinetics. Journal of Electroanalytical Chemistry, 2015, 756, 1-21.	1.9	29
13	Derivative and Differential Voltammetry and Reciprocal Derivative Chronopotentiometry Identical Behavior Verification for Electrode Reversible Processes. Journal of the Electrochemical Society, 2000, 147, 3429.	1.3	28
14	Ion transfer across a liquid membrane. General solution for the current-potential response of any voltammetric technique. Physical Chemistry Chemical Physics, 2009, 11, 1159.	1.3	28
15	Geometrical Insights of Transient Diffusion Layers. Journal of Physical Chemistry C, 2010, 114, 4093-4099.	1.5	28
16	Advances in the Study of Ion Transfer at Liquid Membranes with Two Polarized Interfaces by Square Wave Voltammetry. Electroanalysis, 2010, 22, 1634-1642.	1.5	25
17	Cyclic Reciprocal Derivative Chronopotentiometry with Power Time Currents Applied to Electrodes Coated with Electroactive Molecular Films. Influence of the Reversibility. Langmuir, 2003, 19, 406-415.	1.6	24
18	Square Wave Voltcoulometry:â€‰ A Tool for the Study of Strongly adsorbed Redox Molecules. Analytical Chemistry, 2007, 79, 7580-7587.	3.2	24

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19	Square Wave Voltammetry and Voltcoulometry applied to electrocatalytic reactions. Oxidation of ferrocyanide at a ferrocene modified gold electrode. Journal of Electroanalytical Chemistry, 2009, 634, 90-97.	1.9	24
20	Differential Pulse Voltammetry for Ion Transfer at Liquid Membranes with Two Polarized Interfaces. Analytical Chemistry, 2009, 81, 4220-4225.	3.2	24
21	Analytical expressions for transient diffusion layer thicknesses at non uniformly accessible electrodes. Electrochimica Acta, 2011, 56, 4589-4594.	2.6	24
22	Cyclic Reciprocal Derivative Chronopotentiometry with Exponential Time Currents in the Study of Slow Charge Transfer Processes between Electrodes and Redox Adsorbates. Langmuir, 2001, 17, 5520-5526.	1.6	22
23	Application of cyclic reciprocal derivative chronopotentiometry with programmed currents to the study of the reversibility of electrode processes. Electrochimica Acta, 1999, 45, 457-468.	2.6	21
24	Theory for cyclic reciprocal derivative chronopotentiometry with power and exponential programmed currents applied to electrodes coated with reversible electroactive molecular films. Journal of Electroanalytical Chemistry, 2000, 493, 117-122.	1.9	21
25	Analytical solutions of the multipotential pulse quasi-reversible Qâ€"Eâ€"t and Iâ€"Eâ€"t responses of strongly adsorbed redox molecules. Journal of Electroanalytical Chemistry, 2006, 596, 74-86.	1.9	21
26	Catalytic mechanism in cyclic voltammetry at disc electrodes: an analytical solution. Physical Chemistry Chemical Physics, 2011, 13, 14694.	1.3	21
27	La competencia informacional-digital en la enseÃ±anza y aprendizaje de las ciencias en la educaciÃ³n secundaria obligatoria actual: una revisiÃ³n teÃ³rica. Revista Eureka Sobre EnseÃ±anza Y DivulgaciÃ³n De Las Ciencias, 2018, 15, 1-15.	0.2	21
28	Chargeâ€"potential and capacitanceâ€"potential curves corresponding to reversible redox monolayers. Journal of Electroanalytical Chemistry, 2003, 557, 157-165.	1.9	19
29	Effects of convergent diffusion and charge transfer kinetics on the diffusion layer thickness of spherical micro- and nanoelectrodes. Physical Chemistry Chemical Physics, 2013, 15, 7106.	1.3	19
30	Two-Electron Transfer Reactions in Electrochemistry for Solution-Soluble and Surface-Confined Molecules: A Common Approach. Journal of Physical Chemistry C, 2014, 118, 12312-12324.	1.5	19
31	The reaction layer at microdiscs: A cornerstone for the analytical theoretical treatment of homogeneous chemical kinetics at non-uniformly accessible microelectrodes. Electrochemistry Communications, 2016, 71, 18-22.	2.3	19
32	Mass transport at electrodes of arbitrary geometry. Reversible charge transfer reactions in square wave voltammetry. Russian Journal of Electrochemistry, 2012, 48, 600-609.	0.3	18
33	Title is missing!. Journal of Mathematical Chemistry, 1998, 23, 277-296.	0.7	17
34	Cyclic reciprocal derivative chronopotentiometry. Applications to the detection and characterisation of adsorption processes. Electrochimica Acta, 1999, 45, 761-773.	2.6	17
35	Advantages of the application of programmed currents to microelectrodes. Journal of Electroanalytical Chemistry, 2004, 569, 185-195.	1.9	17
36	The transient and stationary behaviour of first-order catalytic mechanisms at disc and hemisphere electrodes. Electrochimica Acta, 2011, 56, 7404-7410.	2.6	16

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37	Reversible multistep electrode processes. Consideration of the bulk presence of intermediate species and of the values of the diffusion coefficients in voltammetry. Electrochimica Acta, 2001, 46, 2699-2709.	2.6	15
38	Theory of linear sweep/cyclic voltammetry for the electrochemical reaction mechanism involving a redox catalyst couple attached to a spherical electrode. Electrochimica Acta, 2010, 56, 543-552.	2.6	15
39	Detection of interaction between redox centers of surface confined molecules by means of Cyclic Voltammetry and Differential Staircase Voltcoulommetry. Journal of Electroanalytical Chemistry, 2012, 664, 53-62.	1.9	15
40	Reversible Surface Two-Electron Transfer Reactions in Square Wave Voltcoulommetry: Application to the Study of the Reduction of Polyoxometalate [PMo₁₂O₄₀]^{3â€“} Immobilized at a Boron Doped Diamond Electrode. Analytical Chemistry, 2013, 85, 8764-8772.	3.2	14
41	Electrochemical and Computational Study of Ion Association in the Electroreduction of PW₁₂O₄₀^{3â€“}. Journal of Physical Chemistry C, 2017, 121, 26751-26763.	1.5	14
42	Electrochemical study of carbon dioxide reduction at copperâ€“palladium nanoparticles: Influence of the bimetallic composition in the CO poisoning tolerance. Electrochimica Acta, 2020, 354, 136739.	2.6	14
43	Electrochemical determination of kinetic parameters of surface confined redox probes in presence of intermolecular interactions by means of Cyclic Voltammetry. Application to TEMPO monolayers in gold and platinum electrodes. Electrochimica Acta, 2021, 365, 137331.	2.6	14
44	A unified treatment of reversible electrode processes in voltammetric techniques and chronopotentiometric techniques with programmed current. Electrochemistry Communications, 1999, 1, 477-482.	2.3	13
45	Reciprocal Derivative Chronopotentiometry with Programmed Current: Influence of the Reversibility. Electroanalysis, 2002, 14, 281-291.	1.5	13
46	Steady State Reciprocal Derivative Chronopotentiometry with Programmed Currents at Microelectrodes. Electroanalysis, 2005, 17, 674-684.	1.5	13
47	Analytical Iâ€“E response for several multistep potential techniques applied to an electrocatalytic process at mediator modified electrodes. Electrochimica Acta, 2009, 54, 6154-6160.	2.6	13
48	Carbon Support Effects and Mechanistic Details of the Electrocatalytic Activity of Polyoxometalates Investigated via Square Wave Voltacoulometry. ACS Catalysis, 2017, 7, 1501-1511.	5.5	13
49	Application of several multipotential step techniques to the study of multicenter molecules at spherical electrodes of any size. Journal of Electroanalytical Chemistry, 2007, 603, 249-259.	1.9	12
50	Non-Nernstian Two-Electron Transfer Reactions for Immobilized Molecules: A Theoretical Study in Cyclic Voltammetry. Journal of Physical Chemistry C, 2013, 117, 5208-5220.	1.5	12
51	Kinetic Implications of the Presence of Intermolecular Interactions in the Response of Binary Self-Assembled Electroactive Monolayers. ACS Omega, 2018, 3, 1276-1292.	1.6	12
52	Study of charge transfer processes in a surface confined redox system by means of differential staircase voltacoulommetry. Electrochimica Acta, 2007, 52, 4351-4362.	2.6	11
53	Electrocatalysis at Modified Microelectrodes: A Theoretical Approach to Cyclic Voltammetry. Journal of Physical Chemistry C, 2010, 114, 14542-14551.	1.5	11
54	Application of the superposition principle to the study of a charge transfer reaction in cyclic chronopotentiometry. Part II. Journal of Mathematical Chemistry, 1996, 20, 169-181.	0.7	10

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55	General Behavior of theIâ€“E and Î”Iâ€“E Curves Obtained when a Multistep Potential is Applied to an Electroactive Monolayer. Electroanalysis, 2007, 19, 936-944.	1.5	10
56	Characterization of the Electrocatalytic Response of Monolayer-Modified Electrodes with Square-Wave Voltammetry. Journal of Physical Chemistry C, 2012, 116, 11206-11215.	1.5	10
57	Analytical theory for ion transferâ€“electron transfer coupled reactions at redox layerâ€“modified/thick filmâ€“modified electrodes. Current Opinion in Electrochemistry, 2020, 19, 78-87.	2.5	10
58	Application of current reversal chronopotentiometry and cyclic chronopotentiometry to the study of reactant and/or product adsorption at a plane electrode. Electrochimica Acta, 1998, 44, 1263-1272.	2.6	9
59	Linear sweep voltammetric and chronopotentiometric charge/potential curves for non reversible redox monolayers. Journal of Electroanalytical Chemistry, 2005, 583, 184-192.	1.9	9
60	Electrocatalytic Responses at Mediator Modified Electrodes with Several Cyclic Step and Cyclic Sweep Potential Techniques. Application to the Oxidation of Ascorbate at a Ferrocene-Monolayer Modified Gold Electrode. Analytical Chemistry, 2009, 81, 6830-6836.	3.2	9
61	Multiple potential step at an SMDE in the absence/presence of amalgamation. Journal of Electroanalytical Chemistry, 1997, 422, 55-60.	1.9	8
62	Study of a catalytic mechanism in double potential step techniques at spherical electrodes. Journal of Electroanalytical Chemistry, 1999, 468, 158-169.	1.9	8
63	Chargeâ€“potential and capacitanceâ€“potential curves corresponding to reversible redox Langmuir submonolayers of quinizarine in aqueous acidic solutions. Electrochimica Acta, 2004, 49, 1349-1360.	2.6	8
64	Electrochemical Behavior of Two-Electron Redox Processes by Differential Pulse Techniques at Microelectrodes. Journal of Physical Chemistry C, 2012, 116, 1070-1079.	1.5	8
65	Analytical theoretical approach to the transient and steady state voltammetric response of reaction mechanisms. Linear diffusion and reaction layers at micro- and submicroelectrodes of arbitrary geometry. Journal of Electroanalytical Chemistry, 2016, 782, 59-66.	1.9	8
66	Analytical theory for the voltammetry of the non-Nernstian catalytic mechanism at macro and microelectrodes: Interplay between the rates of mass transport, electron transfer and catalysis. Journal of Electroanalytical Chemistry, 2019, 847, 113097.	1.9	8
67	Microelectrode arrays with active-area geometries defined by spatial light modulation. Electrochimica Acta, 2020, 356, 136849.	2.6	8
68	Application of chronopotentiometry and derivative chronopotentiometry with an alternating current to the study of a slow charge transfer in a surface confined redox system. Electrochimica Acta, 2006, 51, 4358-4366.	2.6	7
69	Study of catalytic homogeneous electrochemical reactions with reciprocal derivative chronopotentiometry using exponential time currents at spherical electrodes. Electrochimica Acta, 2008, 54, 467-473.	2.6	7
70	Square Wave Voltcoulommetry Analysis of the Influence of the Electrostatic Environment on the Electrochemical Functionality of Redox Monolayers. ChemElectroChem, 2019, 6, 2290-2301.	1.7	7
71	Study of Cr2O3 nanoparticles supported on carbonaceous materials as catalysts for O2 reduction reaction. Journal of Electroanalytical Chemistry, 2021, 895, 115441.	1.9	7
72	Application of a current-time function of the form to hemispherical microelectrodes. Journal of Electroanalytical Chemistry, 1997, 428, 173-183.	1.9	6

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73	Cyclic chronopotentiometry with non-linear current-time functions at an SMDE Amalgamation and reversibility effects and experimental verification. Journal of Electroanalytical Chemistry, 1997, 440, 111-123.	1.9	6
74	Linear Sweep and Cyclic Voltammetries of Reversible Ion Transfer Processes at Macroâ€•and Microcapillaries under Transient Regime. Electroanalysis, 2015, 27, 93-100.	1.5	6
75	Voltammetry of the aqueous complexationâ€“dissociation coupled to transfer (ACDT) mechanism with charged ligands. Physical Chemistry Chemical Physics, 2016, 18, 17091-17104.	1.3	6
76	Influence of intermolecular interactions in the redox kinetics performance of surface confined probes by Square Wave Voltammetry. Journal of Electroanalytical Chemistry, 2019, 854, 113549.	1.9	6
77	Quantitative analysis of the electrochemical performance of multi-redox molecular electrocatalysts. A mechanistic study of chlorate electrocatalytic reduction in presence of a molybdenium polyoxometalate. Journal of Catalysis, 2022, 413, 467-477.	3.1	6
78	Particular time-independent behaviour of the chargeâ€“potential and capacitanceâ€“potential responses of a quasi-reversible redox monolayer with chronopotentiometry with an exponential current. Journal of Electroanalytical Chemistry, 2005, 585, 132-141.	1.9	5
79	Square-wave voltammetry and square-wave voltacoulommetry applied to the study of the electrocatalytic behaviour of surface confined myoglobin. Journal of Solid State Electrochemistry, 2013, 17, 537-546.	1.2	5
80	Analytical approach to the transient and steady-state Cyclic Voltammetry of non-reversible electrode processes. Defining the transition from macro to microelectrodes. Electrochimica Acta, 2016, 213, 911-926.	2.6	5
81	Analysis of the Electrochemical Response of Surfaceâ€confined Bidirectional Molecular Electrocatalysts in the Presence of Intermolecular Interactions. ChemCatChem, 2021, 13, 747-762.	1.8	5
82	Competencia digital de estudiantes de Secundaria al buscar y seleccionar informaciÃ³n sobre ciencia. Ensenanza De Las Ciencias, 2020, 38, 81-103.	0.6	5
83	Voltammetry at microelectrodes of reversible electrode reactions with complex stoichiometry: A general analytical theoretical framework. Journal of Electroanalytical Chemistry, 2020, 872, 113932.	1.9	4
84	Cyclic chronopotentiometry with non-linear current-time functions at an SMDE amalgamation and reversibility effects and experimental verification. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1997, 440, 111-123.	0.3	4
85	Reversal and Cyclic Chronopotentiometry with Exponential Current-Time Functions at Spherical Electrodes. Reversibility Effects and Experimental Verification. Collection of Czechoslovak Chemical Communications, 2004, 69, 1997-2020.	1.0	4
86	BÃºsqueda y selecciÃ³n de informaciÃ³n en recursos digitales: Percepciones de alumnos de FÃsica y QuÃmica de EducaciÃ³n Secundaria Obligatoria y Bachillerato sobre Wikipedia. Revista Eureka Sobre EnseÃ±anza Y DivulgaciÃ³n De Las Ciencias, 2016, 13, 67-83.	0.2	4
87	Application of the superposition principle to the study of multistep electrode processes and systems with several components in chronopotentiometry with programmed current. Part I. Journal of Mathematical Chemistry, 1996, 20, 151-167.	0.7	3
88	Study of electrocatalytic processes at mediator modified interfaces with reciprocal derivative chronopotentiometry with exponential time current. Journal of Electroanalytical Chemistry, 2008, 623, 61-67.	1.9	3
89	Comparison Between a Charge Transfer Process and an Electrocatalytic Process in Cyclic Voltammetry and Cyclic Voltcoulommetry. Application to the Oxidation of Ferrocyanide at a Ferroceneâ€Monolayer Modified Gold Electrode. Electroanalysis, 2010, 22, 106-112.	1.5	3
90	Ion transfer through solvent polymeric membranes driven by an exponential current flux. Physical Chemistry Chemical Physics, 2011, 13, 5127.	1.3	3

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91	Application of Current Fluxes to the Characterization of Ion Transfer at Solvent Polymeric Membranes with One and Two Polarized Interfaces. Electroanalysis, 2011, 23, 2188-2196.	1.5	3
92	Reaction layer thickness of a catalytic mechanism under transient and stationary chronopotentiometric conditions. Journal of Electroanalytical Chemistry, 2011, 655, 173-179.	1.9	3
93	Application of Cyclic Chronopotentiometry to the Study of Slow Charge Transfer Reactions at the DME and the SMDE. Collection of Czechoslovak Chemical Communications, 1996, 61, 1432-1444.	1.0	3
94	Nuances of the voltammetry of homogeneous multi-electron molecular catalysts: An analytical theory for two-electron catalysis. Journal of Catalysis, 2022, 407, 232-240.	3.1	3
95	Chronopotentiometry at the dropping mercury electrode when the current is a power and/or exponential function of time: study of the second step of an EE mechanism with widely separated standard potentials. Journal of Electroanalytical Chemistry, 1995, 399, 223-228.	1.9	2
96	Theoretical and Experimental Study of the Homogeneous Catalytic Oxidation of Nicotinamide Adenine Dinucleotide (NADH) at Spherical Gold Electrodes Using Linear Sweep Voltammetry and Chronopotentiometry. Electroanalysis, 2009, 21, 740-748.	1.5	2
97	Some Fundamental Concepts. Monographs in Electrochemistry, 2016, , 1-66.	0.2	2
98	The pathways towards the steady state E/t and I/E responses when using an alternating current. Journal of Electroanalytical Chemistry, 2005, 580, 179-192.	1.9	1
99	Transient and steady state behaviour of electrochemical reactions preceded by a chemical step at spherical electrodes: A chronopotentiometric study. Journal of Electroanalytical Chemistry, 2010, 645, 74-80.	1.9	1
100	Value of the exponential currentâ€“time perturbation for achieving stationary polarisation curves at planar and spherical electrodes of any size. Electrochimica Acta, 2010, 55, 9010-9018.	2.6	1
101	Study of ion transfer through liquid membrane systems by Current Reversal Chronopotentiometric techniques. Journal of Electroanalytical Chemistry, 2011, 661, 219-225.	1.9	1
102	Single Pulse Voltammetry: Reversible Electrochemical Reactions. Monographs in Electrochemistry, 2016, , 67-131.	0.2	1
103	Multipulse and Sweep Voltammetries I. Monographs in Electrochemistry, 2016, , 317-374.	0.2	1
104	Reprint of â€œAnalytical theoretical approach to the transient and steady state voltammetric response of reaction mechanisms. Linear diffusion and reaction layers at micro- and submicroelectrodes of arbitrary geometryâ€• Journal of Electroanalytical Chemistry, 2017, 793, 104-112.	1.9	1
105	Kinetic Influence of Surface Charge Transfer Reactions Preceded by Nonâ€Electrochemical Processes on the Response in Cyclic Voltammetry. ChemElectroChem, 2019, 6, 473-484.	1.7	1
106	Analytical Modelling of Electronâ€coupled Ion Transfers with Immobilized vs Soluble Redox Transducer at Thick Filmâ€modified Electrodes. Electroanalysis, 2021, 33, 2267.	1.5	1
107	Steady state voltammetry of charge transfer processes with nonunity electrode reaction orders. Journal of Electroanalytical Chemistry, 2021, 896, 115206.	1.9	1
108	Double Pulse Voltammetries. Monographs in Electrochemistry, 2016, , 229-316.	0.2	1

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109	Multipulse and Sweep Voltammetries II. Monographs in Electrochemistry, 2016, , 375-462.	0.2	0
110	Differential Multipulse and Square Wave Voltammetries. Monographs in Electrochemistry, 2016, , 463-580.	0.2	0
111	Single Pulse Voltammetry: Non-reversible and Complex Electrochemical Reactions. Monographs in Electrochemistry, 2016, , 133-227.	0.2	0