Angel Cuesta

List of Publications by Year
in descending order

96 papers	4,457 citations	117453 34 h-index	106150 65 g-index
106 all docs	106 docs citations	106 times ranked	3894 citing authors

#	Article	IF	Citations
1	Enhanced electrocatalysis of the oxygen reduction reaction based on patterning of platinum surfaces with cyanide. Nature Chemistry, 2010, 2, 880-885.	6.6	284
2	Importance of Acidâ€“Base Equilibrium in Electrocatalytic Oxidation of Formic Acid on Platinum. Journal of the American Chemical Society, 2013, 135, 9991-9994.	6.6	214
3	In-situ STM characterisation of the surface morphology of platinum single crystal electrodes as a function of their preparation. Journal of Electroanalytical Chemistry, 2000, 484, 73-82.	1.9	208
4	At Least Three Contiguous Atoms Are Necessary for CO Formation during Methanol Electrooxidation on Platinum. Journal of the American Chemical Society, 2006, 128, 13332-13333.	6.6	191
5	The Role of Bridgeâ€Bonded Adsorbed Formate in the Electrocatalytic Oxidation of Formic Acid on Platinum. Angewandte Chemie - International Edition, 2011, 50, 1159-1163.	7.2	177
6	Mechanism of the Electrocatalytic Oxidation of Formic Acid on Metals. ACS Catalysis, 2012, 2, 728-738.	5.5	177
7	Potential dependence of the saturation CO coverage of Pt electrodes: The origin of the pre-peak in CO-stripping voltammograms. Part 3: Pt(poly). Journal of Electroanalytical Chemistry, 2006, 586, 184-195.	1.9	157
8	Potential dependence of the saturation CO coverage of Pt electrodes: The origin of the pre-peak in CO-stripping voltammograms. Part 1: Pt(111). Journal of Electroanalytical Chemistry, 2005, 579, 1-12.	1.9	153
9	Measurement of the surface charge density of CO-saturated Pt(111) electrodes as a function of potential: the potential of zero charge of Pt(111). Surface Science, 2004, 572, 11-22.	0.8	150
10	Cyclic Voltammetry, FTIRS, and DEMS Study of the Electrooxidation of Carbon Monoxide, Formic Acid, and Methanol on Cyanide-Modified Pt(111) Electrodes. Langmuir, 2009, 25, 6500-6507.	1.6	149
11	Determining Potentials of Zero Charge of Metal Electrodes versus the Standard Hydrogen Electrode from Density-Functional-Theory-Based Molecular Dynamics. Physical Review Letters, 2017, 119, 016801.	2.9	149
12	The adsorption of sulfate and phosphate on Au(111) and Au(100) electrodes: an in situ STM study. Physical Chemistry Chemical Physics, 2000, 2, 5684-5690.	1.3	148
13	Spectroscopic Evidence of Size-Dependent Buffering of Interfacial pH by Cation Hydrolysis during CO₂ Electroreduction. ACS Applied Materials & Interfaces, 2017, 9, 27377-27382.	4.0	144
14	The effect of pH on the electrocatalytic oxidation of formic acid/formate on platinum: A mechanistic study by surface-enhanced infrared spectroscopy coupled with cyclic voltammetry. Electrochimica Acta, 2014, 129, 127-136.	2.6	122
15	Adsorbed formate: the key intermediate in the oxidation of formic acid on platinum electrodes. Physical Chemistry Chemical Physics, 2011, 13, 20091.	1.3	104
16	Potential dependence of the saturation CO coverage of Pt electrodes: The origin of the pre-peak in CO-stripping voltammograms. Part 2: Pt(100). Journal of Electroanalytical Chemistry, 2006, 586, 204-216.	1.9	100
17	A method to prepare single crystal electrodes of reactive metals: application to Pd(hkl). Journal of Electroanalytical Chemistry, 1999, 466, 165-168.	1.9	85
18	The impact of spectator species on the interaction of H2O2 with platinum â€“ implications for the oxygen reduction reaction pathways. Physical Chemistry Chemical Physics, 2013, 15, 8058.	1.3	85

#	ARTICLE	IF	CITATIONS
19	Inâ€Situ Infrared Spectroscopy Applied to the Study of the Electrocatalytic Reduction of CO₂: Theory, Practice and Challenges. ChemPhysChem, 2019, 20, 2904-2925.	1.0	66
20	In Situ Monitoring Using ATR-SEIRAS of the Electrocatalytic Reduction of CO₂ on Au in an Ionic Liquid/Water Mixture. ACS Catalysis, 2018, 8, 6345-6352.	5.5	65
21	Determination of the Potential of Zero Charge of Au(111) Modified with Thiol Monolayers. Analytical Chemistry, 2007, 79, 6473-6479.	3.2	64
22	Electrooxidation of formic acid on gold: An ATR-SEIRAS study of the role of adsorbed formate. Catalysis Today, 2013, 202, 79-86.	2.2	62
23	Atomic Ensemble Effects in Electrocatalysis: The Siteâ€Knockout Strategy. ChemPhysChem, 2011, 12, 2375-2385.	1.0	57
24	The structure of bromide and chloride adlayers on Au(100) electrodes: an in situ STM study. Surface Science, 2000, 465, 310-316.	0.8	52
25	Electrochemical and FTIRS characterisation of NO adlayers on cyanide-modified Pt(111) electrodes: the mechanism of nitric oxide electroreduction on Pt. Physical Chemistry Chemical Physics, 2008, 10, 3628.	1.3	50
26	The structure of metal-water interface at the potential of zero charge from density functional theory-based molecular dynamics. Journal of Electroanalytical Chemistry, 2018, 819, 87-94.	1.9	50
27	Origin of the infrared reflectance increase produced by the adsorption of CO on particulate metals deposited on moderately reflecting substrates. Journal of Electroanalytical Chemistry, 1999, 465, 234-238.	1.9	48
28	Synthesis, Structure, and Physical Properties of Hybrid Nanocomposites for Solid-State Dye Lasers. Journal of Physical Chemistry B, 2005, 109, 21618-21626.	1.2	45
29	How cations determine the interfacial potential profile: Relevance for the CO2 reduction reaction. Electrochimica Acta, 2019, 327, 135055.	2.6	44
30	Microwave-Assisted Synthesis of Pt-Au Nanoparticles with Enhanced Electrocatalytic Activity for the Oxidation of Formic Acid. Electrochimica Acta, 2017, 224, 56-63.	2.6	43
31	Theoretical insight into the vibrational spectra of metalâ€"water interfaces from density functional theory based molecular dynamics. Physical Chemistry Chemical Physics, 2018, 20, 11554-11558.	1.3	41
32	Synthesis and Reactivity of Mononuclear (Pentachlorophenyl)rhodium(II) Complexes. Structural Relevance of Rhodiumâˆ'o-Chlorine Secondary Bonding. Organometallics, 1997, 16, 1026-1036.	1.1	40
33	Quantitative Study of Nonâ€Covalent Interactions at the Electrodeâ€"Electrolyte Interface Using Cyanideâ€Modified Pt(111) Electrodes. ChemPhysChem, 2011, 12, 2230-2234.	1.0	40
34	In-situ observation of an ordered sulfate adlayer on Au(100) electrodes. Surface Science, 1999, 430, L521-L526.	0.8	37
35	Adsorbed Formate is the Last Common Intermediate in the Dual-Path Mechanism of the Electrooxidation of Formic Acid. ACS Catalysis, 2020, 10, 8120-8130.	5.5	36
36	Calculation of adsorption-induced differential external reflectance infrared spectra of particulate metals deposited on a substrate. Journal of Electroanalytical Chemistry, 2004, 563, 91-109.	1.9	34

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37	The effect of chloride on the electrooxidation of adsorbed CO on polycrystalline platinum electrodes. Journal of Electroanalytical Chemistry, 2003, 548, 109-119.	1.9	33
38	CO and trans-cinnamaldehyde as corrosion inhibitors of I825, L80-13Cr and N80 alloys in concentrated HCl solutions at high pressure and temperature. Electrochimica Acta, 2013, 97, 1-9.	2.6	31
39	Nanosecond pulsed laser deposition of TiO2: nanostructure and morphology of deposits and plasma diagnosis. Thin Solid Films, 2009, 517, 6546-6552.	0.8	29
40	Comments on the paper by M.-S. Zheng and S.-G. Sun entitled â€˜In situ FTIR spectroscopic studies of CO adsorption on electrodes with nanometer-scale thin films of ruthenium in sulfuric acid solutionsâ€™ [J. Electroanal. Chem. 500 (2001) 223]. Journal of Electroanalytical Chemistry, 2002, 529, 145-154.	1.9	27
41	Electrochemical STM study of the adsorption of adenine on Au(111) electrodes. Electrochemistry Communications, 2013, 35, 61-64.	2.3	26
42	Combined ATR-SEIRAS and EC-STM Study of the Immobilization of Laccase on Chemically Modified Au Electrodes. Journal of Physical Chemistry C, 2012, 116, 16532-16540.	1.5	25
43	Coupled electronic and morphologic changes in graphene oxide upon electrochemical reduction. Carbon, 2015, 91, 11-19.	5.4	25
44	Electrocatalytic reduction of CO2 in neat and water-containing imidazolium-based ionic liquids. Current Opinion in Electrochemistry, 2020, 23, 80-88.	2.5	24
45	Adsorption Isotherm of CO on Pt(111) Electrodes. ChemPhysChem, 2006, 7, 2346-2351.	1.0	23
46	Electrolyte electroreflectance study of carbon monoxide adsorption on polycrystalline silver and gold electrodes. Electrochimica Acta, 2003, 48, 2949-2956.	2.6	21
47	Study by Fourier Transform Infrared Spectroscopy of the Electroadsorption of CO on the Ferrous Metals. 1. Iron. The Journal of Physical Chemistry, 1996, 100, 12600-12608.	2.9	20
48	Scanning Tunneling Microscopy, Fourier Transform Infrared Reflectionâˆ’Absorption Spectroscopy, and X-ray Photoelectron Spectroscopy of Thiourea Adsorption from Aqueous Solutions on Silver (111). Journal of Physical Chemistry B, 2002, 106, 9831-9838.	1.2	20
49	Accurate determination of the CO coverage at saturation on a cyanide-modified Pt(111) electrode in cyanide-free 0.5 M H2SO4. Journal of Electroanalytical Chemistry, 2003, 560, 135-141.	1.9	20
50	Cyanide-modified Pt(111): Structure, stability and hydrogen adsorption. Electrochimica Acta, 2012, 82, 524-533.	2.6	20
51	Simultaneous time-resolved ATR-SEIRAS and CO-charge displacement experiments: The dynamics of CO adsorption on polycrystalline Pt. Journal of Electroanalytical Chemistry, 2017, 800, 25-31.	1.9	18
52	Comparative voltammetric and FTIRRAS study on the electro-oxidation of thiourea and methyl-thioureas on platinum in aqueous acid solutions. Journal of Electroanalytical Chemistry, 2004, 571, 59-72.	1.9	17
53	The underpotential deposition that should not be: Cu(1Ã—1) on Au(111). Electrochemistry Communications, 2012, 25, 54-57.	2.3	17
54	Proton Transfer Voltammetry at Electrodes Modified with Acid Thiol Monolayers. Analytical Chemistry, 2012, 84, 5778-5786.	3.2	17

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55	Electrooxidation of C1 organic molecules on Pt electrodes. Current Opinion in Electrochemistry, 2017, 4, 32-38.	2.5	17
56	Potentiostatic infrared titration of 11-mercaptoundecanoic acid monolayers. Electrochemistry Communications, 2014, 45, 13-16.	2.3	16
57	Super-Nernstian Shifts of Interfacial Proton-Coupled Electron Transfers: Origin and Effect of Noncovalent Interactions. Journal of Physical Chemistry C, 2016, 120, 15586-15592.	1.5	16
58	Electrochemically Grown Tin Oxide Thin Films:â€‰ In Situ Characterization of Electronic Properties and Growth Mechanism. Journal of Physical Chemistry B, 2004, 108, 8173-8181.	1.2	15
59	Potential of zero charge as a sensitive probe for the titration of ionizable self-assembled monolayers. Electrochemistry Communications, 2008, 10, 1548-1550.	2.3	15
60	In Situ STM Observation of Stable Dislocation Networks during the Initial Stages of the Lifting of the Reconstruction on Au(111) Electrodes. Journal of Physical Chemistry Letters, 2010, 1, 2059-2062.	2.1	15
61	Computational Ag/AgCl Reference Electrode from Density Functional Theory-Based Molecular Dynamics. Journal of Physical Chemistry B, 2019, 123, 10224-10232.	1.2	15
62	ATR-SEIRAS for time-resolved studies of electrodeâ€“electrolyte interfaces. Current Opinion in Electrochemistry, 2022, 35, 101041.	2.5	14
63	Influence of a deposited TiO2 thin layer on the corrosion behaviour of TiN-based coatings on iron. Thin Solid Films, 2005, 492, 158-165.	0.8	13
64	Comments on the paper by H. Shiroishi, Y. Ayato, K. Kunimatsu and T. Okada entitled â€œStudy of adsorbed water on Pt during methanol oxidation by ATR-SEIRAS (surface-enhanced infrared absorption) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 329-330.	1.9	13
65	The Oxidation of Adsorbed CO on Pt(100) Electrodes in the Pre-peak Region. Electrocatalysis, 2010, 1, 7-18.	1.5	13
66	Methanol Dehydrogenation on Pt Electrodes: Active Sites and Role of Adsorbed Spectators Revealed through Time-Resolved ATR-SEIRAS. ACS Catalysis, 2021, 11, 13483-13495.	5.5	12
67	Dependence on the CO admission potential of the activation energy of the electrooxidation of adsorbed CO on Pt. Electrochemistry Communications, 2005, 7, 1027-1032.	2.3	10
68	Identification of the byproducts of the oxygen evolution reaction on Rutile-type oxides under dynamic conditions. Journal of Electroanalytical Chemistry, 2014, 728, 102-111.	1.9	9
69	Probing electronic and atomic ensembles effects on PtAu3 nanoparticles with CO adsorption and electrooxidation. Journal of Electroanalytical Chemistry, 2020, 870, 114233.	1.9	9
70	Water-In-Salt Environment Reduces the Overpotential for Reduction of CO₂ to CO₂^{â€“} in Ionic Liquid/Water Mixtures. ACS Catalysis, 2022, 12, 6770-6780.	5.5	9
71	Confirmation by differential reflectance spectroscopy of the transition at 270 nm of CO chemisorbed on Pt in an acid medium. Journal of Electroanalytical Chemistry, 1995, 383, 195-197.	1.9	8
72	Potential control of the CO adsorption site on Pt(100) electrodes. Electrochemistry Communications, 2004, 6, 395-399.	2.3	8

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73	Electrochemical Desorption of Thiolates and Sulfur from Nanoparticle and Planar Platinum Surfaces. Journal of Physical Chemistry C, 2013, 117, 7589-7597.	1.5	8
74	Non-covalent interactions at electrochemical interfaces: one model fits all?. Physical Chemistry Chemical Physics, 2014, 16, 14281-14286.	1.3	8
75	Reduction of Pd2+ pre-adsorbed on cyanide-modified Pt(111) electrodes: Adlayer metallization vs. metal-on-metal deposition. Electrochimica Acta, 2018, 292, 419-424.	2.6	8
76	Electroadsorption and Electrooxidation of CO on Anodic Ni Oxide in Acidic CO-free Solution. Journal of Physical Chemistry B, 1997, 101, 9287-9291.	1.2	7
77	Surface Decoration at the Atomic Scale Using a Molecular Pattern: Copper Adsorption on Cyanide-Modified Pt(111) Electrodes. Journal of Physical Chemistry C, 2009, 113, 12340-12344.	1.5	7
78	Reactive and inhibiting species in the electrocatalytic oxidation of glycerol on gold. A study combining in-situ visible reflectance and ATR-SEIRAS. Journal of Catalysis, 2021, 394, 1-7.	3.1	7
79	Inhibition by CO of the corrosion of Fe, Ni, and their alloys in concentrated HCl solutions. Journal of Electroanalytical Chemistry, 2011, 662, 150-156.	1.9	6
80	Electrochemical SERS study on a copper electrode of the insoluble organic pigment quinacridone quinone using ionic liquids (BMIMCl and TBAN) as dispersing agents. Analyst, The, 2013, 138, 4670.	1.7	6
81	Metallization of cyanide-modified Pt(111) electrodes with copper. Journal of Solid State Electrochemistry, 2016, 20, 1087-1094.	1.2	6
82	Properties improvement of poly(o-methoxyaniline) based supercapacitors: experimental and theoretical behaviour study of self-doping effect. Electrochimica Acta, 2017, 228, 57-65.	2.6	6
83	The oscillatory electro-oxidation of formic acid: Insights on the adsorbates involved from time-resolved ATR-SEIRAS and UV reflectance experiments. Journal of Electroanalytical Chemistry, 2019, 840, 249-254.	1.9	6
84	Chapter 4. Single-crystal Surfaces as Model Electrocatalysts for CO2 Reduction. RSC Energy and Environment Series, 2018, , 88-110.	0.2	6
85	On the electroadsorption of CO on Pt in methanol and acetonitrile, and the influence of residual oxygen. Journal of Electroanalytical Chemistry, 1995, 395, 331-334.	1.9	5
86	Physicochemical Characterization of <i>Acidiphilium</i> sp. Biofilms. ChemPhysChem, 2013, 14, 1237-1244.	1.0	5
87	Study by potential-modulated reflectance spectroscopy of the electroadsorption of CO on Ni in alkaline medium. Journal of Electroanalytical Chemistry, 1995, 382, 153-159.	1.9	4
88	Physicochemical Tools: Toward a Detailed Understanding of the Architecture of Targeted Radiotherapy Nanoparticles. ACS Applied Bio Materials, 2018, 1, 1639-1646.	2.3	4
89	Electrochemical metallization of molecular adlayers. Current Opinion in Electrochemistry, 2019, 17, 72-78.	2.5	4
90	A method for obtaining in situ external reflectance infrared spectra in strongly acidic solutions using fluorite windows. Electrochemistry Communications, 2009, 11, 616-618.	2.3	3

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91	In situ STM study of homoepitaxial electrodeposition on Au(100). Electrochimica Acta, 2011, 56, 6847-6852.	2.6	3
92	The energetics of electron and proton transfer to CO₂ in aqueous solution. Physical Chemistry Chemical Physics, 2021, 23, 22035-22044.	1.3	3
93	Detection of Surface Chirality by Electrolyte Electroreflectance Rotational Anisotropy. Journal of Physical Chemistry C, 2007, 111, 14290-14292.	1.5	1
94	Mapping the electronic structure of polypyrrole with imageâ€based electrochemical scanning tunneling spectroscopy. Electrochemical Science Advances, 0, , e2100028.	1.2	1
95	Atomic Ensemble Effects and Non-Covalent Interactions at the Electrodeâ€"Electrolyte Interface. Makara Journal of Science, 2016, 20, .	1.1	0
96	Reduction of Ag+ irreversibly adsorbed on cyanide-modified Pt(111). Journal of Electroanalytical Chemistry, 2021, 896, 115039.	1.9	0