Pilar Carro

List of Publications by Year
in descending order

77 papers	3,282 citations	279798 23 h-index	149698 56 g-index
81 all docs	81 docs citations	81 times ranked	5144 citing authors

#	Article	IF	Citations
1	Competition between metal-catalysed electroreduction of dinitrogen, protons, and nitrogen oxides: a DFT perspective. Catalysis Science and Technology, 2022, 12, 2856-2864.	4.1	8
2	Chemical Defectâ€Driven Response on Grapheneâ€Based Chemiresistors for Subâ€ppm Ammonia Detection. Angewandte Chemie - International Edition, 2022, 61, .	13.8	16
3	Chemical Defectâ€Driven Response on Grapheneâ€Based Chemiresistors for Subâ€ppm Ammonia Detection. Angewandte Chemie, 2022, 134, .	2.0	2
4	Effect of Ligands on the Stability of Gold Nanoclusters. Journal of Physical Chemistry Letters, 2022, 13, 6475-6480.	4.6	5
5	Unraveling the Causes of the Instability of Au<i>_n</i>(SR)<i>_x</i> Nanoclusters on Au(111). Chemistry of Materials, 2021, 33, 3428-3435.	6.7	3
6	Dynamics of RS-(Au-SR)_{<i>x</i>} Staple Motifs on Metal Surfaces: From Nanoclusters to 2D Surfaces. Journal of Physical Chemistry C, 2020, 124, 5452-5459.	3.1	6
7	Shedding Light on the Interfacial Structure of Low-Coverage Alkanethiol Lattices. Journal of Physical Chemistry C, 2020, 124, 26748-26758.	3.1	6
8	Gold adatoms modulate sulfur adsorption on gold. Nanoscale, 2019, 11, 19341-19351.	5.6	7
9	New aspects of the surface chemistry of sulfur on Au(111): Surface structures formed by gold-sulfur complexes. Applied Surface Science, 2019, 487, 848-856.	6.1	6
10	Solving the Long-Standing Controversy of Long-Chain Alkanethiols Surface Structure on Au(111). Journal of Physical Chemistry C, 2018, 122, 3893-3902.	3.1	14
11	Role of Gold Adatoms in the Adsorption of Sulfide Species on the Gold(001)-hex Surface. Journal of Physical Chemistry C, 2018, 122, 2207-2214.	3.1	12
12	Electronic Structure of a Self-Assembled Monolayer with Two Surface Anchors: 6-Mercaptopurine on Au(111). Langmuir, 2018, 34, 5696-5702.	3.5	5
13	The electrochemical stability of thiols on gold surfaces. Journal of Electroanalytical Chemistry, 2018, 819, 234-239.	3.8	24
14	Morphological Changes in Electrografted Arylâ€Based Thin Films Induced by using Diazonium Salts or Aryl Iodides. ChemElectroChem, 2018, 5, 464-470.	3.4	7
15	Combining Electrochemistry and Computational Chemistry to Understand Aryl-Radical Formation in Electrografting Processes. Journal of Chemical Education, 2018, 95, 1386-1391.	2.3	3
16	Polymorphism and metal-induced structural transformation in 5,5â€²-bis(4-pyridyl)(2,2â€²-bispyrimidine) adlayers on Au(111). Physical Chemistry Chemical Physics, 2018, 20, 15960-15969.	2.8	8
17	The Role of a Double Molecular Anchor on the Mobility and Selfâ€Assembly of Thiols on Au(111): The Case of Mercaptobenzoic Acid. ChemPhysChem, 2017, 18, 804-811.	2.1	7
18	6-Mercaptopurine Self-Assembled Monolayers on Gold (001)-Hex: Revealing the Fate of Gold Adatoms. Journal of Physical Chemistry C, 2017, 121, 8938-8943.	3.1	8

#	Article	IF	Citations
19	Surface Structure of 4-Mercaptopyridine on Au(111): A New Dense Phase. Langmuir, 2017, 33, 9565-9572.	3.5	24
20	New Insight into the Interface Chemistry and Stability of Glutathione Self-Assembled Monolayers on Au(111). Journal of Physical Chemistry C, 2016, 120, 14597-14607.	3.1	10
21	The role of the crystalline face in the ordering of 6-mercaptopurine self-assembled monolayers on gold. Nanoscale, 2016, 8, 17231-17240.	5.6	16
22	Mapping nanometric electronic property changes induced by an aryl diazonium sub-monolayer on HOPG. Physical Chemistry Chemical Physics, 2016, 18, 29218-29225.	2.8	11
23	Surface Structure and Chemistry of Alkanethiols on Au(100)-(1 Ã— 1) Substrates. Journal of Physical Chemistry C, 2016, 120, 291-296.	3.1	28
24	Role of the capping agent in the interaction of hydrophilic Ag nanoparticles with DMPC as a model biomembrane. Environmental Science: Nano, 2016, 3, 462-472.	4.3	22
25	Thiol Adsorption on the Au(100)-hex and Au(100)-(1 Ã— 1) Surfaces. Journal of Physical Chemistry C, 2015, 119, 14248-14254.	3.1	25
26	Exploring the core level shift origin of sulfur and thiolates on Pd(111) surfaces. Physical Chemistry Chemical Physics, 2015, 17, 24349-24355.	2.8	9
27	Structure and Electronic and Charge-Transfer Properties of Mercaptobenzoic Acid and Mercaptobenzoic Acidâ€"Undecanethiol Mixed Monolayers on Au(111). Journal of Physical Chemistry C, 2014, 118, 30013-30022.	3.1	11
28	A novel model for the (âˆš3 Ã— âˆš3)R30Â° alkanethiolateâ€"Au(111) phase based on alkanethiolateâ€"Au adatom complexes. Physical Chemistry Chemical Physics, 2014, 16, 19017.	2.8	13
29	Self-assembled monolayers of thiolates on metals: a review article on sulfur-metal chemistry and surface structures. RSC Advances, 2014, 4, 27730-27754.	3.6	187
30	Understanding the Surface Chemistry of Thiolate-Protected Metallic Nanoparticles. Journal of Physical Chemistry Letters, 2013, 4, 3127-3138.	4.6	66
31	Hydrocarbon Chain Length Induces Surface Structure Transitions in Alkanethiolateâ€"Gold Adatom Self-Assembled Monolayers on Au(111). Journal of Physical Chemistry C, 2013, 117, 2160-2165.	3.1	24
32	Surface Chemistry of 4-Mercaptobenzoic Acid Self-Assembled on Ag(111) and Ag Nanoparticles. Journal of Physical Chemistry C, 2013, 117, 24967-24974.	3.1	21
33	Complex Surface Chemistry of 4-Mercaptopyridine Self-Assembled Monolayers on Au(111). Langmuir, 2012, 28, 6839-6847.	3.5	45
34	Mechanisms of Defect Generation and Clustering in CH3S Self-Assembled Monolayers on Au(111). Journal of Physical Chemistry Letters, 2012, 3, 2159-2163.	4.6	9
35	Sulfidization of Au(111) from Thioacetic Acid: An Experimental and Theoretical Study. Langmuir, 2012, 28, 15278-15285.	3.5	16
36	Melanin films on Au(1 1 1): Adsorption and molecular conductance. Organic Electronics, 2012, 13, 1844-1852.	2.6	4

#	Article	IF	Citations
37	Are 4-Mercaptobenzoic Acid Self Assembled Monolayers on Au(111) a Suitable System to Test Adatom Models?. Journal of Physical Chemistry C, 2012, 116, 25765-25771.	3.1	35
38	The Chemistry of the Sulfurâ€“Gold Interface: In Search of a Unified Model. Accounts of Chemical Research, 2012, 45, 1183-1192.	15.6	459
39	From Single to Multiple Ag-Layer Modification of Au Nanocavity Substrates: A Tunable Probe of the Chemical Surface-Enhanced Raman Scattering Mechanism. ACS Nano, 2011, 5, 5433-5443.	14.6	37
40	Alkanethiol Adsorption on Platinum: Chain Length Effects on the Quality of Self-Assembled Monolayers. Journal of Physical Chemistry C, 2011, 115, 17788-17798.	3.1	34
41	On the Thermodynamic Stability of Î±,Ï‰-Alkanedithiols Self-Assembled Monolayers on Unreconstructed and Reconstructed Au(111). Langmuir, 2010, 26, 9589-9595.	3.5	12
42	Thiol with an Unusual Adsorptionâ^'Desorption Behavior: 6-Mercaptopurine on Au(111). Langmuir, 2010, 26, 17068-17074.	3.5	34
43	Self-assembled monolayers of thiols and dithiols on gold: new challenges for a well-known system. Chemical Society Reviews, 2010, 39, 1805.	38.1	1,200
44	The Complex Thiolâ^'Palladium Interface: A Theoretical and Experimental Study. Langmuir, 2010, 26, 14655-14662.	3.5	33
45	Enhanced Stability of Thiolate Self-Assembled Monolayers (SAMs) on Nanostructured Gold Substrates. Langmuir, 2009, 25, 5661-5666.	3.5	70
46	On the Thermodynamic Stability of (â^š3 Ã— â^š3)R30Â° Methanethiolate Lattice on Reconstructed Au(111) Surface Models. Journal of Physical Chemistry C, 2008, 112, 19121-19124.	3.1	20
47	Effect of Ag Adatoms on High-Coverage Alkanethiolate Adsorption on Au(111). Journal of Physical Chemistry C, 2008, 112, 4557-4563.	3.1	8
48	Electrocatalytic and Magnetic Properties of Ultrathin Nanostructured Ironâ€“Melanin Films on Au(111). Chemistry - A European Journal, 2007, 13, 473-482.	3.3	14
49	Evidence for the Formation of Different Energetically Similar Atomic Structures inAg(111)â^'(7Ã—7)â^'R19.1Â°â^'CH3S. Physical Review Letters, 2006, 97, 226103.	7.8	37
50	Electrochemical Self-Assembly of Alkanethiolate Molecules on Ni(111) and Polycrystalline Ni Surfaces. Journal of Physical Chemistry B, 2005, 109, 23450-23460.	2.6	42
51	Electrochemical Self-Assembly of Melanin Films on Gold. Langmuir, 2005, 21, 5924-5930.	3.5	48
52	Molecular Self-Assembly on Ultrathin Metallic Surfaces:Â Alkanethiolate Monolayers on Ag(1 Ã—) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1	2.6	22
53	Electrodesorption Potentials of Self-Assembled Alkanethiolate Monolayers on Copper Electrodes. An Experimental and Theoretical Study. Journal of Physical Chemistry B, 2003, 107, 13446-13454.	2.6	51
54	Electrodesorption Potentials of Self-Assembled Alkanethiolate Monolayers on Ag(111) and Au(111). An Electrochemical, Scanning Tunneling Microscopy and Density Functional Theory Study. Journal of Physical Chemistry B, 2002, 106, 12267-12273.	2.6	66

#	Article	IF	Citations
55	Electrochemical Formation of Palladium Islands on HOPG:Â Kinetics, Morphology, and Growth Mechanisms. Journal of Physical Chemistry B, 2002, 106, 4232-4244.	2.6	62
56	A Combined Scanning Tunneling Microscopy and Electrochemical Study of Copper Electrodeposition from a Cyanide Solution on a Zinc Alloy. Journal of the Electrochemical Society, 2000, 147, 4546.	2.9	4
57	The Influence of Adsorbates on the Growth Mode of Gold Islands Electrodeposited on the Basal Plane of Graphite. Langmuir, 2000, 16, 2915-2923.	3.5	21
58	Interplay of Surface Diffusion and Surface Tension in the Evolution of Solid/Liquid Interfaces. Dealloying of Î²-Brass in Aqueous Sodium Chloride. Journal of Physical Chemistry B, 2000, 104, 8229-8237.	2.6	23
59	Kinetics and Mechanism of Gold Dendrite Electroformation on C(0001). Activation Energy for Gold Adatom Surface Diffusion. Journal of Physical Chemistry B, 1999, 103, 3900-3907.	2.6	15
60	Validity of the linear interface motion equation containing a negative surface-tension term: â€ƒThe dealloying of Î²-brass. Physical Review B, 1998, 58, 9666-9669.	3.2	3
61	Three-Dimensional Monte Carlo Simulations of Roughness Development from Different Mechanisms Applicable to the Dissolution of a Pure Solid. Langmuir, 1997, 13, 833-841.	3.5	14
62	Growth Mode Transition Involving a Potential-Dependent Isotropic to Anisotropic Surface Atom Diffusion Change. Gold Electrodeposition on HOPG followed by STM. Langmuir, 1997, 13, 100-110.	3.5	69
63	Topographic Changes of Polycrystalline Ag and Cu Electrodes in Acid Aqueous Solutions Resulting from a Prolonged Application of the Potential Reversal Technique. Journal of the Electrochemical Society, 1996, 143, 2294-2305.	2.9	3
64	Transport phenomena and growth modes of silver electrodeposits. Journal of Electroanalytical Chemistry, 1995, 396, 183-195.	3.8	15
65	A Monte Carlo Simulation of Roughness Development during the Dissolution of a Pure Solid. Journal of the Electrochemical Society, 1995, 142, 3806-3811.	2.9	17
66	An ac impedance study of dendritic silver three-dimensional electrodeposits. Electrochimica Acta, 1993, 38, 1545-1549.	5.2	7
67	Growth of three-dimensional silver fractal electrodeposits under damped free convection. Physical Review E, 1993, 48, R2374-R2377.	2.1	25
68	Scanning tunneling microscopy and scanning electron microscopy observations of the early stage of silver deposition on graphite single crystal electrodes. The Journal of Physical Chemistry, 1992, 96, 10454-10460.	2.9	29
69	A New Electrochemical Method for Determining the Fractal Dimension of the Surface of Rough Metal Electrodeposits: Its Application to Dendritic Silver Surfaces. Journal of the Electrochemical Society, 1992, 139, 1064-1070.	2.9	23
70	The Adsorption of Iodide Anion on the Dropping Mercury Electrode in Water + 10% Ethanol Mixture. Collection of Czechoslovak Chemical Communications, 1992, 57, 1005-1014.	1.0	0
71	Mass-transport-induced kinetic transitions during the electrochemical formation of three-dimensional dendritic silver deposits under ohmic control. Journal of Electroanalytical Chemistry, 1992, 336, 85-97.	3.8	10
72	Electrochemical kinetics and growth modes of silver deposits on polyfaceted platinum spherical electrodes. Electrochimica Acta, 1992, 37, 2215-2227.	5.2	12

#	Article	IF	Citations
73	Changes in the growth mode of electrodeposited silver layers. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1991, 310, 361-377.	0.1	9
74	Adsorption of 2-mercaptoethanol and In(III)-2-mercaptoethanol on mercury electrodes in HClO4 + NaClO4 medium. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1987, 238, 367-381.	0.1	1
75	Adsorption of Tl(I) on mercury in azide media. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1986, 209, 361-369.	0.1	2
76	Adsorption of T1(I) on mercury in thiocyanate media. Electrochimica Acta, 1985, 30, 811-815.	5.2	5
77	Study of the electrical double-layer between mercury and aqueous solutions of trifluoroacetic acid. Electrochimica Acta, 1984, 29, 619-624.	5.2	2