

Maria Jose Esplandiu

List of Publications by Year in descending order

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57
papers

2,630
citations

186265

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h-index

182427

51
g-index

59
all docs

59
docs citations

59
times ranked

3585
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasensitive force detection with a nanotube mechanical resonator. <i>Nature Nanotechnology</i> , 2013, 8, 493-496.	31.5	327
2	Mechanical Detection of Carbon Nanotube Resonator Vibrations. <i>Physical Review Letters</i> , 2007, 99, 085501.	7.8	191
3	Functionalized Self-Assembled Alkanethiol Monolayers on Au(111) Electrodes: 1. Surface Structure and Electrochemistry. <i>Langmuir</i> , 2001, 17, 828-838.	3.5	178
4	An in situ scanning tunneling microscopy study of Ag electrodeposition on Au(111). <i>Physical Chemistry Chemical Physics</i> , 1999, 1, 4847-4854.	2.8	106
5	Electrochemical behavior of rigid carbon nanotube composite electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2008, 619-620, 117-124.	3.8	104
6	Asymmetric Hybrid Silica Nanomotors for Capture and Cargo Transport: Towards a Novel Motion-Based DNA Sensor. <i>Small</i> , 2012, 8, 2053-2059.	10.0	86
7	Ellipsometric Study of Bovine Serum Albumin Adsorbed onto Ti/TiO ₂ Electrodes. <i>Journal of Colloid and Interface Science</i> , 1999, 218, 404-411.	9.4	78
8	Impedimetric genosensors for the detection of DNA hybridization. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 385, 1195-1201.	3.7	67
9	Electrochemical STM investigation of 1,8-octanedithiol monolayers on Au(111).. <i>Surface Science</i> , 2006, 600, 155-172.	1.9	65
10	4-Nitrothiophenol SAM on Au(111) Investigated by in Situ STM, Electrochemistry, and XPS. <i>Langmuir</i> , 2001, 17, 3454-3459.	3.5	64
11	Signal amplification for impedimetric genosensing using gold-streptavidin nanoparticles. <i>Electrochimica Acta</i> , 2008, 53, 4022-4029.	5.2	63
12	Characterization of hafnium anodic oxide films: An AC impedance investigation. <i>Electrochimica Acta</i> , 1995, 40, 809-815.	5.2	62
13	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 1998, 28, 1213-1219.	2.9	62
14	Impedimetric genosensors employing COOH-modified carbon nanotube screen-printed electrodes. <i>Biosensors and Bioelectronics</i> , 2009, 24, 2885-2891.	10.1	59
15	Silicon-Based Chemical Motors: An Efficient Pump for Triggering and Guiding Fluid Motion Using Visible Light. <i>ACS Nano</i> , 2015, 9, 11234-11240.	14.6	59
16	Functionalized Self-Assembled Alkanethiol Monolayers on Au(111) Electrodes: 2. Silver Electrodeposition. <i>Langmuir</i> , 2001, 17, 839-848.	3.5	53
17	Imaging the Proton Concentration and Mapping the Spatial Distribution of the Electric Field of Catalytic Micropumps. <i>Physical Review Letters</i> , 2013, 111, 168301.	7.8	52
18	Reactivity of 1,8-octanedithiol monolayers on Au(111): Experimental and theoretical investigation. <i>Journal of Electroanalytical Chemistry</i> , 2005, 579, 13-23.	3.8	49

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19	Electrolytic metal deposition onto chemically modified electrodes. <i>Applied Physics A: Materials Science and Processing</i> , 1999, 69, 537-551.	2.3	46
20	Nanoelectrode Scanning Probes from Fluorocarbon-Coated Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2004, 4, 1873-1879.	9.1	45
21	Detecting Individual Electrons Using a Carbon Nanotube Field-Effect Transistor. <i>Nano Letters</i> , 2007, 7, 3766-3769.	9.1	44
22	The oxygen and chlorine evolution reactions at titanium oxide electrodes modified with platinum. <i>Electrochimica Acta</i> , 1998, 43, 1785-1794.	5.2	43
23	XPS investigations on the interactions of 1,6-hexanedithiol/Au(1 1 1) layers with metallic and ionic silver species. <i>Applied Surface Science</i> , 2002, 199, 166-182.	6.1	43
24	Strategies for the optimization of carbon nanotube/polymer ratio in composite materials: Applications as voltammetric sensors. <i>Sensors and Actuators B: Chemical</i> , 2010, 146, 353-360.	7.8	43
25	Electrocatalytic tuning of biosensing response through electrostatic or hydrophobic enzyme-graphene oxide interactions. <i>Biosensors and Bioelectronics</i> , 2014, 61, 655-662.	10.1	42
26	Functionalized self-assembled monolayers and their influence on silver electrodeposition. <i>Solid State Ionics</i> , 2002, 150, 39-52.	2.7	38
27	Influence of Elastic Deformation on Single-Wall Carbon Nanotube Atomic Force Microscopy Probe Resolution. <i>Journal of Physical Chemistry B</i> , 2004, 108, 13613-13618.	2.6	37
28	Unraveling the Operational Mechanisms of Chemically Propelled Motors with Micropumps. <i>Accounts of Chemical Research</i> , 2018, 51, 1921-1930.	15.6	37
29	Impedimetric genosensing of DNA polymorphism correlated to cystic fibrosis: A comparison among different protocols and electrode surfaces. <i>Biosensors and Bioelectronics</i> , 2010, 26, 1245-1251.	10.1	26
30	Mechanisms of Single-Walled Carbon Nanotube Probe Sample Multistability in Tapping Mode AFM Imaging. <i>Journal of Physical Chemistry B</i> , 2005, 109, 11493-11500.	2.6	25
31	Enhancing the electrochemical response of myoglobin with carbon nanotube electrodes. <i>Nanotechnology</i> , 2009, 20, 355502.	2.6	24
32	Sequential Tasks Performed by Catalytic Pumps for Colloidal Crystallization. <i>Langmuir</i> , 2014, 30, 11841-11845.	3.5	24
33	Key parameters controlling the performance of catalytic motors. <i>Journal of Chemical Physics</i> , 2016, 144, 124702.	3.0	24
34	Carbon nanotube/polysulfone soft composites: preparation, characterization and application for electrochemical sensing of biomarkers. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 7721.	2.8	23
35	Real time protein recognition in a liquid-gated carbon nanotube field-effect transistor modified with aptamers. <i>Nanoscale</i> , 2012, 4, 5917.	5.6	23
36	Electrophoretic origin of long-range repulsion of colloids near water/Nafion interfaces. <i>Soft Matter</i> , 2020, 16, 3717-3726.	2.7	23

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37	Using electron and ion beams on carbon nanotube-based devices. Effects and considerations for nanofabrication. <i>Microelectronic Engineering</i> , 2009, 86, 892-894.	2.4	21
38	Massive manufacture and characterization of single-walled carbon nanotube field effect transistors. <i>Microelectronic Engineering</i> , 2010, 87, 1554-1556.	2.4	21
39	Synthesis of polydopamine at the femtoliter scale and confined fabrication of Ag nanoparticles on surfaces. <i>Chemical Communications</i> , 2014, 50, 12548-12551.	4.1	21
40	Water Affinity and Surface Charging at the z-Cut and y-Cut LiNbO ₃ Surfaces: An Ambient Pressure X-ray Photoelectron Spectroscopy Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 24048-24055.	3.1	21
41	Characterization of hafnium oxide films modified by Pt doping. <i>Electrochimica Acta</i> , 1995, 40, 2587-2593.	5.2	20
42	Urea impedimetric biosensor based on polymer degradation onto interdigitated electrodes. <i>Sensors and Actuators B: Chemical</i> , 2006, 118, 84-89.	7.8	19
43	Electrostatic and Hydrophobic Interactions Involved in CNT Biofunctionalization with Short ss-DNA. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4459-4465.	3.1	18
44	Carbon Nanotubes and Electrochemistry. <i>Zeitschrift Fur Physikalische Chemie</i> , 2007, 221, 1161-1173.	2.8	17
45	Simple route for intermatrix synthesis of polymer stabilized core-shell metal nanoparticles for sensor applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 1686-1692.	1.8	17
46	Influence of the forming electrolyte on the electrical properties of anodic hafnium oxide films: an ac impedance investigation. <i>Journal of Electroanalytical Chemistry</i> , 1993, 353, 161-176.	3.8	16
47	Ellipsometric investigation of anodic hafnium oxide films. <i>Electrochimica Acta</i> , 1997, 42, 1315-1324.	5.2	15
48	Photochemically Activated Motors: From Electrokinetic to Diffusion Motion Control. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 44948-44953.	8.0	15
49	Electron Counting Spectroscopy of CdSe Quantum Dots. <i>Physical Review Letters</i> , 2009, 102, 226804.	7.8	13
50	A simple approach for DNA detection on carbon nanotube microelectrode arrays. <i>Sensors and Actuators B: Chemical</i> , 2012, 162, 120-127.	7.8	13
51	From radial to unidirectional water pumping in zeta-potential modulated Nafion nanostructures. <i>Nature Communications</i> , 2022, 13, 2812.	12.8	12
52	Elucidation of the wettability of graphene through a multi-length-scale investigation approach. <i>RSC Advances</i> , 2015, 5, 39532-39538.	3.6	10
53	Impact of the <i>in situ</i> rise in hydrogen partial pressure on graphene shape evolution during CVD growth of graphene. <i>RSC Advances</i> , 2018, 8, 8234-8239.	3.6	7
54	Electrocatalyzed O ₂ Response of Myoglobin Immobilized on Multi-Walled Carbon Nanotube Forest Electrodes. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 6132-6138.	0.9	4

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55	Water-mediated photo-induced reduction of platinum films. Journal of Synchrotron Radiation, 2019, 26, 1288-1293.	2.4	4
56	Local growth of carbon nanotubes by thermal chemical vapor deposition from iron based precursor nanoparticles. , 2007, , .		3
57	Mechanical detection and mode shape imaging of vibrational modes of micro and nanomechanical resonators by dynamic force microscopy. Journal of Physics: Conference Series, 2008, 100, 052009.	0.4	3