Carlos Diego GarcÃ-a

List of Publications by Year
in descending order

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123 papers	4,219 citations	134610 34 h-index	145109 60 g-index
148 all docs	148 docs citations	148 times ranked	5232 citing authors

#	Article	IF	Citations
1	Chemistry of paperâ€"properties, modification strategies, and uses in bioanalytical chemistry. , 2022, , 15-39.		2
2	Dielectric Spectroscopy Can Predict the Effect of External AC Fields on the Dynamic Adsorption of Lysozyme. ChemPhysChem, 2022, , .	1.0	2
3	From glow-sticks to sensors: single-electrode electrochemical detection for paper-based devices. Sensors & Diagnostics, 2022, 1, 496-503.	1.9	6
4	Onâ€Site Preparation of Natural Deep Eutectic Solvents Using Solar Energy. ChemistrySelect, 2022, 7, .	0.7	5
5	Predicting the Orientation of Adsorbed Proteins Steered with Electric Fields Using a Simple Electrostatic Model. Journal of Physical Chemistry B, 2022, 126, 5231-5240.	1.2	5
6	Fast Degradation of Hydrogen Peroxide by Immobilized Catalase to Enable the Use of Biosensors in Extraterrestrial Bodies. Astrobiology, 2021, 21, 191-198.	1.5	1
7	Use of universal 3D-Printed smartphone spectrophotometer to develop a time-based analysis for hypochlorite. Analytica Chimica Acta, 2021, 1151, 338249.	2.6	16
8	Taking the leap between analytical chemistry and artificial intelligence: A tutorial review. Analytica Chimica Acta, 2021, 1161, 338403.	2.6	75
9	Monitoring the advanced oxidation of paracetamol using ZnO films via capillary electrophoresis. Journal of Water Process Engineering, 2021, 41, 102051.	2.6	7
10	Fluorescent patterning of paper through laser engraving. Soft Matter, 2020, 16, 7659-7666.	1.2	9
11	Integrated instrumental analysis teaching platform with smartphone-operated fluorometer. Analytical Methods, 2020, 12, 4109-4115.	1.3	8
12	A Multi-Pump Magnetohydrodynamics Lab-On-A-Chip Device for Automated Flow Control and Analyte Delivery. Sensors, 2020, 20, 4909.	2.1	8
13	Laser-engraved ammonia sensor integrating a natural deep eutectic solvent. Microchemical Journal, 2020, 157, 105067.	2.3	22
14	Pyrolyzed cotton balls for protein removal: Analysis of pharmaceuticals in serum by capillary electrophoresis. Analytica Chimica Acta, 2020, 1110, 90-97.	2.6	7
15	Partial oxidation of 5â€'hydroxymethylfurfural to 2,5-furandicarboxylic acid using O2 and a photocatalyst of a composite of ZnO/PPy under visible-light: Electrochemical characterization and kinetic analysis. Chemical Engineering Journal, 2020, 393, 124699.	6.6	43
16	Fabrication of microwell plates and microfluidic devices in polyester films using a cutting printer. Analytica Chimica Acta, 2020, 1119, 1-10.	2.6	19
17	Decomposition of Chemical Warfare Agent Simulants Utilizing Pyrolyzed Cotton Balls as Wicks. ACS Omega, 2020, 5, 20051-20061.	1.6	8
18	Patterning and Modeling Three-Dimensional Microfluidic Devices Fabricated on a Single Sheet of Paper. Analytical Chemistry, 2019, 91, 8298-8303.	3.2	22

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19	Photochemical and photocatalytic degradation of 1â€propanol using UV/H₂O₂: Identification of malonate as byproduct. Electrophoresis, 2019, 40, 2256-2262.	1.3	11
20	Photochemical oxidation of alcohols: Simple derivatization strategy for their analysis by capillary electrophoresis. Food Chemistry, 2019, 292, 114-120.	4.2	14
21	CO₂reduction using paper-derived carbon electrodes modified with copper nanoparticles. RSC Advances, 2019, 9, 33657-33663.	1.7	7
22	Dehydration of fructose over thiolâ€“ and sulfonicâ€“ modified alumina in a continuous reactor for 5â€“HMF production: Study of catalyst stability by NMR. Applied Catalysis B: Environmental, 2019, 244, 250-261.	10.8	34
23	Determination of topiramate by capillary electrophoresis with capacitivelyâ€coupled contactless conductivity detection: A powerful tool for therapeutic monitoring in epileptic patients. Electrophoresis, 2018, 39, 2598-2604.	1.3	10
24	Analytical Methodologies for Space Exploration. Electrophoresis, 2018, 39, 2847-2847.	1.3	0
25	Comparison between the catalytic and photocatalytic activities of Cu/Al2O3 and TiO2 in the liquidâ€“phase oxidation of methanolâ€“ethanol mixtures: Development of a kinetic model for the preparation of catalyst. Applied Catalysis A: General, 2018, 562, 184-197.	2.2	9
26	Carbon tape as a convenient electrode material for electrochemical paper-based microfluidic devices (ePADs). Analytical Methods, 2018, 10, 4020-4027.	1.3	20
27	Analysis of inorganic cations and amino acids in high salinity samples by capillary electrophoresis and conductivity detection: Implications for inâ€situ exploration of ocean worlds. Electrophoresis, 2018, 39, 2890-2897.	1.3	28
28	Enhanced Performance of Colorimetric Biosensing on Paper Microfluidic Platforms Through Chemical Modification and Incorporation of Nanoparticles. Methods in Molecular Biology, 2017, 1571, 327-341.	0.4	1
29	Use of pyrolyzed paper as disposable substrates for voltammetric determination of trace metals. Talanta, 2017, 165, 33-38.	2.9	33
30	Analysis of Methanol in the Presence of Ethanol, Using a Hybrid Capillary Electrophoresis Device with Electrochemical Derivatization and Conductivity Detection. Analytical Chemistry, 2017, 89, 1362-1368.	3.2	25
31	Addressing the distribution of proteins spotted on Î¼PADs. Analyst, The, 2017, 142, 3899-3905.	1.7	16
32	Analysis of penicillamine using Cu-modified graphene quantum dots synthesized from uric acid as single precursor. Journal of Pharmaceutical Analysis, 2017, 7, 324-331.	2.4	32
33	Functionalization-Free Microfluidic Electronic Tongue Based on a Single Response. ACS Sensors, 2017, 2, 1027-1034.	4.0	34
34	Spectroscopic ellipsometry as a complementary tool to characterize coatings on PDMS for CE applications. Electrophoresis, 2016, 37, 2509-2516.	1.3	3
35	Analytical methodologies using carbon substrates developed by pyrolysis. Analytical Methods, 2016, 8, 4163-4176.	1.3	16
36	Determination of Inorganic Ion Profiles of Illicit Drugs by Capillary Electrophoresis. Journal of Forensic Sciences, 2016, 61, 1610-1614.	0.9	15

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37	Fast production of microfluidic devices by CO₂ laser engraving of waxâ€coated glass slides. Electrophoresis, 2016, 37, 1691-1695.	1.3	15
38	Synthesis of CuNP-modified carbon electrodes obtained by pyrolysis of paper. Sensors and Actuators B: Chemical, 2016, 227, 626-633.	4.0	37
39	Quantum dot-modified paper-based assay for glucose screening. Mikrochimica Acta, 2016, 183, 611-616.	2.5	31
40	Self-assembled nanospheres for encapsulation and aerosolization of rifampicin. RSC Advances, 2016, 6, 12959-12963.	1.7	3
41	An electrochemical immunosensor for anti-T. cruzi IgM antibodies, a biomarker for congenital Chagas disease, using a screen-printed electrode modified with gold nanoparticles and functionalized with shed acute phase antigen. Mikrochimica Acta, 2016, 183, 1203-1210.	2.5	16
42	Electrochemically Preadsorbed Collagen Promotes Adult Human Mesenchymal Stem Cell Adhesion. Tissue Engineering - Part C: Methods, 2016, 22, 69-75.	1.1	2
43	Development and characterization of carbon based electrodes from pyrolyzed paper for biosensing applications. Journal of Electroanalytical Chemistry, 2016, 765, 8-15.	1.9	53
44	Fabrication, Characterization, Modification, and Application of Carbons Electrodes Derived from Paper. ECS Meeting Abstracts, 2016, , .	0.0	0
45	Photocatalytic degradation of trichloroethylene in a continuous annular reactor using Cu-doped TiO2 catalysts by solâ€“gel synthesis. Applied Catalysis B: Environmental, 2015, 179, 249-261.	10.8	59
46	Acid-responsive nanospheres from an asparagine-derived amphiphile. RSC Advances, 2015, 5, 8585-8590.	1.7	2
47	Adsorption of Soft and Hard Proteins onto OTCEs under the Influence of an External Electric Field. Langmuir, 2015, 31, 2455-2462.	1.6	36
48	Phenol oxidation by air using a Co (II) Salen complex catalyst supported on nanoporous materials: synthesis, characterization and kinetic analysis. Applied Catalysis A: General, 2015, 506, 44-56.	2.2	16
49	Protein adsorption onto nanomaterials for the development of biosensors and analytical devices: A review. Analytica Chimica Acta, 2015, 872, 7-25.	2.6	212
50	Immobilization of glucose oxidase to nanostructured films of polystyrene-block-poly(2-vinylpyridine). Journal of Colloid and Interface Science, 2014, 430, 351-356.	5.0	12
51	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. Electrophoresis, 2014, 35, NA-NA.	1.3	9
52	Instrumentation for Capillary Electrophoresis and Microchip Electrophoresis. Electrophoresis, 2014, 35, 2067-2067.	1.3	2
53	Optical characterization of ferroelectric PZT thin films by variable angle spectroscopic ellipsometry. Proceedings of SPIE, 2014, , .	0.8	0
54	Fast and versatile fabrication of PMMA microchip electrophoretic devices by laser engraving. Electrophoresis, 2014, 35, 2325-2332.	1.3	39

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55	Getting started with openâ€hardware: Development and control of microfluidic devices. Electrophoresis, 2014, 35, 2370-2377.	1.3	43
56	Determination of nitrite in saliva using microfluidic paper-based analytical devices. Analytica Chimica Acta, 2014, 809, 117-122.	2.6	138
57	Adsorption and catalytic activity of glucose oxidase accumulated on OTCE upon the application of external potential. Journal of Colloid and Interface Science, 2014, 435, 164-170.	5.0	14
58	Modification of microfluidic paper-based devices with silica nanoparticles. Analyst, The, 2014, 139, 5560-5567.	1.7	140
59	A handheld stamping process to fabricate microfluidic paper-based analytical devices with chemically modified surface for clinical assays. RSC Advances, 2014, 4, 37637-37644.	1.7	198
60	Rational selection of substrates to improve color intensity and uniformity on microfluidic paper-based analytical devices. Analyst, The, 2014, 139, 2127-2132.	1.7	148
61	Potential-Assisted Adsorption of Bovine Serum Albumin onto Optically Transparent Carbon Electrodes. Langmuir, 2013, 29, 14154-14162.	1.6	28
62	Simultaneous solid phase extraction and derivatization of aliphatic primary amines prior to separation and UV-absorbance detection. Talanta, 2013, 115, 688-693.	2.9	10
63	Microfab-less microfluidic capillary electrophoresis devices. Analytical Methods, 2013, 5, 1652.	1.3	20
64	Computational, electrochemical, and spectroscopic, studies of acetycholinesterase covalently attached to carbon nanotubes. Colloids and Surfaces B: Biointerfaces, 2013, 103, 624-629.	2.5	12
65	Ultrathin Optically Transparent Carbon Electrodes Produced from Layers of Adsorbed Proteins. Langmuir, 2013, 29, 3320-3327.	1.6	15
66	Spectroscopic and electrochemical characterization of nanostructured optically transparent carbon electrodes. Electrophoresis, 2013, 34, 1998-2006.	1.3	15
67	Research Spotlight: The next big thing is actually small. Bioanalysis, 2012, 4, 1717-1722.	0.6	5
68	Studying the impact of application-level optimizations on the power consumption of multi-core architectures. , 2012, , .		9
69	Unmanned platform for longâ€range remote analysis of volatile compounds in air samples. Electrophoresis, 2012, 33, 2650-2659.	1.3	40
70	Instrumentation for Capillary and Microchip Electrophoresis. Electrophoresis, 2012, 33, 2613-2613.	1.3	0
71	Implementation of a field programmable gate array for wireless control of a lab-on-a-robot. Analog Integrated Circuits and Signal Processing, 2012, 71, 29-38.	0.9	2
72	Adsorption of proteins to thin-films of PDMS and its effect on the adhesion of human endothelial cells. RSC Advances, 2011, 1, 706.	1.7	79

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73	Recent applications of carbon-based nanomaterials in analytical chemistry: Critical review. Analytica Chimica Acta, 2011, 691, 6-17.	2.6	381
74	Adsorption of Glucose Oxidase to 3â€Ð Scaffolds of Carbon Nanotubes: Analytical Applications. Electroanalysis, 2011, 23, 1462-1469.	1.5	41
75	Nanomolar Detection of Glutamate at a Biosensor Based on Screenâ€Printed Electrodes Modified with Carbon Nanotubes. Electroanalysis, 2011, 23, 2357-2363.	1.5	32
76	Staining proteins: A simple method to increase the sensitivity of ellipsometric measurements in adsorption studies. Colloids and Surfaces B: Biointerfaces, 2011, 82, 253-257.	2.5	19
77	Recent developments in instrumentation for capillary electrophoresis and microchipâ€capillary electrophoresis. Electrophoresis, 2010, 31, 2469-2486.	1.3	77
78	Instrumentation for CE and Microchip-CE. Electrophoresis, 2010, 31, 2467-2468.	1.3	0
79	Determination of a setup correction function to obtain adsorption kinetic data at stagnation point flow conditions. Journal of Colloid and Interface Science, 2010, 346, 208-215.	5.0	25
80	Dynamic adsorption of albumin on nanostructured TiO 2 thin films. Materials Science and Engineering C, 2010, 30, 277-282.	3.8	34
81	Optical properties of single-wall carbon nanotube films deposited on Si/SiO2 wafers. Thin Solid Films, 2010, 518, 3954-3959.	0.8	32
82	Electrostatic and Hydrophobic Interactions Involved in CNT Biofunctionalization with Short ss-DNA. Journal of Physical Chemistry C, 2010, 114, 4459-4465.	1.5	18
83	Adsorption Kinetics of Catalase to Thin Films of Carbon Nanotubes. Langmuir, 2010, 26, 17178-17183.	1.6	36
84	Univariate and multivariate optimization of the separation conditions for the analysis of five bisphenols by micellar electrokinetic chromatography. Talanta, 2009, 77, 1172-1178.	2.9	14
85	Interaction of<scp>d</scp>-Amino Acid Oxidase with Carbon Nanotubes: Implications in the Design of Biosensors. Analytical Chemistry, 2009, 81, 1016-1022.	3.2	52
86	Investigating Protein Adsorption via Spectroscopic Ellipsometry. , 2009, , 19-41.		19
87	Labâ€onâ€aâ€robot: Integrated microchip CE, power supply, electrochemical detector, wireless unit, and mobile platform. Electrophoresis, 2008, 29, 4914-4921.	1.3	44
88	Surfactants as a Preferred Option to Improve Separation and Electrochemical Detection in Capillary Electrophoresis. Analytical Letters, 2008, 41, 312-334.	1.0	11
89	Poly(dimethylsiloxane) Microchip Electrophoresis with Contactless Conductivity Detection for Measurement of Chemical Warfare Agent Degradation Products. Analytical Letters, 2008, 41, 335-350.	1.0	30
90	Electrophoretic Effects of the Adsorption of Anionic Surfactants to Poly(dimethylsiloxane)-Coated Capillaries. Analytical Chemistry, 2007, 79, 6675-6681.	3.2	33

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91	The effects of alkyl sulfates on the analysis of phenolic compounds by microchip capillary electrophoresis with pulsed amperometric detection. Analyst, The, 2007, 132, 997.	1.7	26
92	Labâ€onâ€aâ€Chip Biosensor for Glucose Based on a Packed Immobilized Enzyme Reactor. Electroanalysis, 2007, 19, 2451-2456.	1.5	23
93	Electrophoretic separation of environmentally important phenolic compounds using montomorillonite-coated fused-silica capillaries. Electrophoresis, 2007, 28, 1197-1203.	1.3	18
94	Electrochemical detection of phenolic compounds using cylindrical carbon-ink electrodes and microchip capillary electrophoresis. Analytica Chimica Acta, 2007, 584, 244-251.	2.6	41
95	Determination of banned sudan dyes in chili powder by capillary electrophoresis. Food Chemistry, 2007, 102, 1027-1033.	4.2	167
96	The adsorptionâ€“desorption process of bovine serum albumin on carbon nanotubes. Journal of Colloid and Interface Science, 2007, 307, 349-356.	5.0	98
97	Emerging Investigators Special Issue. Analyst, The, 2006, 131, 179.	1.7	0
98	Pulsed amperometric detection with poly(dimethylsiloxane)-fabricated capillary electrophoresis microchips for the determination of EPA priority pollutants. Analyst, The, 2006, 131, 208-214.	1.7	46
99	Analysis of alkyl gallates and nordihydroguaiaretic acid using plastic capillary electrophoresis â€“ microchips. Analytica Chimica Acta, 2006, 561, 126-132.	2.6	31
100	Determination of Nonsteroidal Anti-inflammatory Drugs in Serum by Microchip Capillary Electrophoresis with Electrochemical Detection. Electroanalysis, 2006, 18, 2202-2209.	1.5	31
101	Application of microchip-CE electrophoresis to follow the degradation of phenolic acids by aquatic plants. Electrophoresis, 2006, 27, 5119-5127.	1.3	16
102	Micro-Molding for Poly(dimethylsiloxane) Microchips. , 2006, 339, 27-36.		8
103	Coupling Electrochemical Detection with Microchip Capillary Electrophoresis. , 2006, , 265-297.		1
104	Comparison of Pulsed Electrochemical Detection Modes Coupled with Microchip Capillary Electrophoresis. Electroanalysis, 2005, 17, 223-230.	1.5	24
105	Coupling Capillary Electrophoresis and Pulsed Electrochemical Detection. Electroanalysis, 2005, 17, 1125-1131.	1.5	36
106	Comparison of surfactants for dynamic surface modification of poly(dimethylsiloxane) microchips. Electrophoresis, 2005, 26, 703-709.	1.3	91
107	Determination of Levoglucosan from Smoke Samples Using Microchip Capillary Electrophoresis with Pulsed Amperometric Detection. Environmental Science & Technology, 2005, 39, 618-623.	4.6	63
108	Analysis of natural flavonoids by microchip-micellar electrokinetic chromatography with pulsed amperometric detection. Analyst, The, 2005, 130, 694-700.	1.7	55

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109	Enhanced determination of glucose by microchip electrophoresis with pulsed amperometric detection. Analytica Chimica Acta, 2004, 508, 1-9.	2.6	53
110	Direct detection of renal function markers using microchip CE with pulsed electrochemical detection. Analyst, The, 2004, 129, 579.	1.7	47
111	Direct Determination of Carbohydrates, Amino Acids, and Antibiotics by Microchip Electrophoresis with Pulsed Amperometric Detection. Analytical Chemistry, 2003, 75, 4778-4783.	3.2	128
112	Versatile 3-channel high-voltage power supply for microchip capillary electrophoresis. Lab on A Chip, 2003, 3, 324-328.	3.1	57
113	Screening of Protein-Ligand Interactions by Affinity Chromatography. Biotechnology Progress, 2003, 19, 575-579.	1.3	11
114	Measuring Protein Interactions by Microchip Self-Interaction Chromatography. Biotechnology Progress, 2003, 19, 1006-1010.	1.3	37
115	Characterization and application of humic acid modified carbon electrodes. Talanta, 2003, 61, 547-556.	2.9	7
116	Recent progress in the development of Î¼TAS for clinical analysis. Analyst, The, 2003, 128, 1002-1008.	1.7	47
117	Reflectometry applied to electrochemically generated phenoxy radical adsorption monitoring. Journal of Electroanalytical Chemistry, 2002, 519, 53-59.	1.9	19
118	Electrochemical characterization of glassy carbon electrodes modified by resol mixtures. Journal of Electroanalytical Chemistry, 2001, 510, 115-119.	1.9	13
119	BHA and TBHQ Quantification in Cosmetic Samples. Electroanalysis, 2000, 12, 1074-1076.	1.5	25
120	Glassy Carbon Electrodes Modified with Different Electropolymerized Resol Prepolymer Mixtures for Phenol and Derivatives Quantification.. Analytical Sciences, 1999, 15, 461-465.	0.8	17
121	Dissolution of Chromium Hydroxides Monitored by Turbidimetry. Langmuir, 1996, 12, 6659-6664.	1.6	5
122	Driving Forces and Consequences of the Adsorption of Proteins to Carbon Nanotubes. Key Engineering Materials, 0, 441, 75-94.	0.4	3
123	Optimization of Micellar Electrokinetic Chromatography Separation Conditions by Chemometric Methods. , 0, , 113-131.		0