Charles B Parker

List of Publications by Year
in descending order

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56 papers	1,207 citations	430874 18 h-index	377865 34 g-index
56 all docs	56 docs citations	56 times ranked	1785 citing authors

#	Article	IF	Citations
1	Design considerations for a cycloidal mass analyzer using a focal plane array detector. Journal of Mass Spectrometry, 2022, 57, .	1.6	1
2	4D Printing of Stretchable Supercapacitors via Hybrid Composite Materials. Advanced Materials Technologies, 2021, 6, .	5.8	30
3	The Long Neglected Cycloidal Mass Analyzer. Analytical Chemistry, 2021, 93, 11357-11363.	6.5	3
4	Model-free capacitance analysis of electrodes with a 2D+1D dispersion of time constants. Electrochimica Acta, 2021, 390, 138796.	5.2	1
5	Virtual-slit focusing in a cycloidal mass spectrometer â€“ A proof of concept. International Journal of Mass Spectrometry, 2021, 470, 116706.	1.5	2
6	Improving the Performance of a Cycloidal Coded-Aperture Miniature Mass Spectrometer. Journal of the American Society for Mass Spectrometry, 2021, 32, 509-518.	2.8	5
7	Comparison of thermionic filament and carbon nanotube field emitter-based electron ionization sources in cycloidal coded aperture mass analyzers. International Journal of Mass Spectrometry, 2020, 457, 116415.	1.5	5
8	A novel sector mass spectrograph design for high-order coded aperture Mass Spectrometry with stigmatic aberration correction. International Journal of Mass Spectrometry, 2020, 455, 116374.	1.5	0
9	Robust and High-Performance Electrodes via Crumpled Au-CNT Forests for Stretchable Supercapacitors. Matter, 2020, 2, 1307-1323.	10.0	26
10	Transparent MXene-Polymer Supercapacitive Film Deposited Using RIR-MAPLE. Crystals, 2020, 10, 152.	2.2	13
11	High current density electron emission from an electrodeposited metal nanowire array. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 043204.	1.2	1
12	Ti₃C₂T_x MXene-Reduced Graphene Oxide Composite Electrodes for Stretchable Supercapacitors. ACS Nano, 2020, 14, 3576-3586.	14.6	277
13	Carbon Nanotubes: Highly Stretchable Supercapacitors via Crumpled Vertically Aligned Carbon Nanotube Forests (Adv. Energy Mater. 22/2019). Advanced Energy Materials, 2019, 9, 1970082.	19.5	4
14	Highly Stretchable Supercapacitors via Crumpled Vertically Aligned Carbon Nanotube Forests. Advanced Energy Materials, 2019, 9, 1900618.	19.5	74
15	Reduction in energy for electrochemical disinfection of E. coli in urine simulant. Journal of Applied Electrochemistry, 2019, 49, 443-453.	2.9	17
16	Efficient and Stable Pt/TiO₂/CdS/Cu₂BaSn(S,Se)₄ Photocathode for Water Electrolysis Applications. ACS Energy Letters, 2018, 3, 177-183.	17.4	75
17	Improved blackwater disinfection using potentiodynamic methods with oxidized boron-doped diamond electrodes. Water Research, 2018, 140, 191-199.	11.3	22
18	Effects of Magnetic and Electric Field Uniformity on Coded Aperture Imaging Quality in a Cycloidal Mass Analyzer. Journal of the American Society for Mass Spectrometry, 2018, 29, 352-359.	2.8	4

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19	Proof of Concept Coded Aperture Miniature Mass Spectrometer Using a Cycloidal Sector Mass Analyzer, a Carbon Nanotube (CNT) Field Emission Electron Ionization Source, and an Array Detector. Journal of the American Society for Mass Spectrometry, 2018, 29, 360-372.	2.8	12
20	Integrated Flexible Conversion Circuit between a Flexible Photovoltaic and Supercapacitors for Powering Wearable Sensors. Journal of the Electrochemical Society, 2018, 165, B3122-B3129.	2.9	23
21	Enhanced H₂O₂ Production at Reductive Potentials from Oxidized Boron-Doped Ultrananocrystalline Diamond Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 16610-16619.	8.0	35
22	Coded Apertures in Mass Spectrometry. Annual Review of Analytical Chemistry, 2017, 10, 141-156.	5.4	8
23	Integrating carbon nanotube forests into polysilicon MEMS: Growth kinetics, mechanisms, and adhesion. Carbon, 2017, 113, 192-204.	10.3	13
24	A miniature electron ionization source fabricated using microelectromechanical systems (MEMS) with integrated carbon nanotube (CNT) field emission cathodes and low-temperature co-fired ceramics (LTCC). International Journal of Mass Spectrometry, 2017, 422, 162-169.	1.5	14
25	Improved Performance of Field Emission Vacuum Microelectronic Devices for Integrated Circuits. IEEE Transactions on Electron Devices, 2016, 63, 3753-3760.	3.0	16
26	Compatibility of Spatially Coded Apertures with a Miniature Mattauch-Herzog Mass Spectrograph. Journal of the American Society for Mass Spectrometry, 2016, 27, 578-584.	2.8	13
27	Role of nanocrystalline domain size on the electrochemical double-layer capacitance of high edge density carbon nanostructures. MRS Communications, 2015, 5, 285-290.	1.8	6
28	Diamond for Biosensing: Electrochemical Detection of NOx Species with Thiol-Amine Functionalized Diamond. Journal of the Electrochemical Society, 2015, 162, B225-B229.	2.9	5
29	Achieving Excellence in Graduate Research: A Guide for New Graduate Students. Advanced Science, 2015, 2, 1500203.	11.2	2
30	Eliminating proximity effects and improving transmission in field emission vacuum microelectronic devices for integrated circuits. , 2015, , .		0
31	Chemical Ionization Mass Spectrometry Using Carbon Nanotube Field Emission Electron Sources. Journal of the American Society for Mass Spectrometry, 2015, 26, 1903-1910.	2.8	13
32	Optimization of Active Manganese Oxide Electrodeposits Using Graphenated Carbon Nanotube Electrodes for Supercapacitors. Chemistry of Materials, 2015, 27, 2430-2438.	6.7	40
33	Protocol for High-Sensitivity Surface Area Measurements of Nanostructured Films Enabled by Atomic Layer Deposition of TiO₂. Journal of Physical Chemistry C, 2015, 119, 26119-26127.	3.1	8
34	Order of Magnitude Signal Gain in Magnetic Sector Mass Spectrometry Via Aperture Coding. Journal of the American Society for Mass Spectrometry, 2015, 26, 1633-1640.	2.8	21
35	Disinfection ofE. ColiContaminated Urine Using Boron-Doped Diamond Electrodes. Journal of the Electrochemical Society, 2014, 161, G81-G85.	2.9	17
36	Perspectives on the Growth of High Edge Density Carbon Nanostructures: Transitions from Vertically Oriented Graphene Nanosheets to Graphenated Carbon Nanotubes. Journal of Physical Chemistry C, 2014, 118, 16126-16132.	3.1	15

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37	Enhanced electron transfer kinetics through hybrid graphene-carbon nanotube films. Electrochemistry Communications, 2014, 48, 103-106.	4.7	29
38	Diamond surface functionalization with biomimicry â€“ Amine surface tether and thiol moiety for electrochemical sensors. Applied Surface Science, 2014, 301, 293-299.	6.1	6
39	Modeling Operational Modes of a Bipolar Vacuum Microelectronic Device. IEEE Electron Device Letters, 2012, 33, 1498-1500.	3.9	0
40	Three-dimensional arrays of graphenated carbon nanotubes. Journal of Materials Research, 2012, 27, 1046-1053.	2.6	67
41	Electrochemical Charge Storage Properties of Vertically Aligned Carbon Nanotube Films: Effects of Thermal Oxidation. Journal of Physical Chemistry C, 2012, 116, 19526-19534.	3.1	4
42	Effect of porosity variation on the electrochemical behavior of vertically aligned multi-walled carbon nanotubes. Electrochemistry Communications, 2012, 19, 138-141.	4.7	19
43	Carbon Nanotube Electron Ionization Source for Portable Mass Spectrometry. Analytical Chemistry, 2011, 83, 6527-6531.	6.5	7
44	Graphenated carbon nanotubes for enhanced electrochemical double layer capacitor performance. Applied Physics Letters, 2011, 99, 183104.	3.3	49
45	A Bipolar Vacuum Microelectronic Device. IEEE Transactions on Electron Devices, 2011, 58, 3189-3194.	3.0	4
46	Growth of vertically aligned bamboo-like carbon nanotubes from ammonia/methane precursors using a platinum catalyst. Carbon, 2011, 49, 266-274.	10.3	43
47	Electrochemical Charge Storage Properties of Vertically Aligned Carbon Nanotube Films: The Activation-Enhanced Length Effect. Journal of the Electrochemical Society, 2011, 158, K217.	2.9	3
48	A method to obtain a Ragone plot for evaluation of carbon nanotube supercapacitor electrodes. Journal of Materials Research, 2010, 25, 1500-1506.	2.6	35
49	Analysis of 3-panel and 4-panel microscale ionization sources. Journal of Applied Physics, 2010, 107, .	2.5	7
50	Simulation and testing of a lateral, microfabricated electron-impact ion source. Applied Physics Letters, 2009, 94, 044109.	3.3	5
51	High voltage MEMS platform for fully integrated, on-chip, vacuum electronic devices. , 2008, , .		3
52	Measurement of reactive and condensable gas permeation using a mass spectrometer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 1128-1137.	2.1	18
53	High voltage microelectromechanical systems platform for fully integrated, on-chip, vacuum electronic devices. Applied Physics Letters, 2008, 92, 224101.	3.3	12
54	High sensitivity permeation measurement system for â€œultrabarrierâ€•thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1587-1593.	2.1	10

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55	A Novel Ion Source and Detector for a Miniature Mass Spectrometer. , 2007, , .		4
56	On-chip electron-impact ion source using carbon nanotube field emitters. Applied Physics Letters, 2007, 90, 124102.	3.3	61