Charles B Parker

List of Publications by Year
in descending order

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	Ti₃C₂T_x MXene-Reduced Graphene Oxide Composite Electrodes for Stretchable Supercapacitors. ACS Nano, 2020, 14, 3576-3586.	14.6	277
2	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
3	Highly Stretchable Supercapacitors via Crumpled Vertically Aligned Carbon Nanotube Forests. Advanced Energy Materials, 2019, 9, 1900618.	19.5	74
4	Three-dimensional arrays of graphenated carbon nanotubes. Journal of Materials Research, 2012, 27, 1046-1053.	2.6	67
5	On-chip electron-impact ion source using carbon nanotube field emitters. Applied Physics Letters, 2007, 90, 124102.	3.3	61
6	Graphenated carbon nanotubes for enhanced electrochemical double layer capacitor performance. Applied Physics Letters, 2011, 99, 183104.	3.3	49
7	Growth of vertically aligned bamboo-like carbon nanotubes from ammonia/methane precursors using a platinum catalyst. Carbon, 2011, 49, 266-274.	10.3	43
8	Optimization of Active Manganese Oxide Electrodeposits Using Graphenated Carbon Nanotube Electrodes for Supercapacitors. Chemistry of Materials, 2015, 27, 2430-2438.	6.7	40
9	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
10	Enhanced H₂O₂ Production at Reductive Potentials from Oxidized Boron-Doped Ultrananocrystalline Diamond Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 16610-16619.	8.0	35
11	4D Printing of Stretchable Supercapacitors via Hybrid Composite Materials. Advanced Materials Technologies, 2021, 6, .	5.8	30
12	Enhanced electron transfer kinetics through hybrid graphene-carbon nanotube films. Electrochemistry Communications, 2014, 48, 103-106.	4.7	29
13	Robust and High-Performance Electrodes via Crumpled Au-CNT Forests for Stretchable Supercapacitors. Matter, 2020, 2, 1307-1323.	10.0	26
14	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
15	Improved blackwater disinfection using potentiodynamic methods with oxidized boron-doped diamond electrodes. Water Research, 2018, 140, 191-199.	11.3	22
16	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
17	Effect of porosity variation on the electrochemical behavior of vertically aligned multi-walled carbon nanotubes. Electrochemistry Communications, 2012, 19, 138-141.	4.7	19
18	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

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19	Disinfection ofE. ColiContaminated Urine Using Boron-Doped Diamond Electrodes. Journal of the Electrochemical Society, 2014, 161, G81-G85.	2.9	17
20	Reduction in energy for electrochemical disinfection of E. coli in urine simulant. Journal of Applied Electrochemistry, 2019, 49, 443-453.	2.9	17
21	Improved Performance of Field Emission Vacuum Microelectronic Devices for Integrated Circuits. IEEE Transactions on Electron Devices, 2016, 63, 3753-3760.	3.0	16
22	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
23	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
24	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
25	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
26	Integrating carbon nanotube forests into polysilicon MEMS: Growth kinetics, mechanisms, and adhesion. Carbon, 2017, 113, 192-204.	10.3	13
27	Transparent MXene-Polymer Supercapacitive Film Deposited Using RIR-MAPLE. Crystals, 2020, 10, 152.	2.2	13
28	High voltage microelectromechanical systems platform for fully integrated, on-chip, vacuum electronic devices. Applied Physics Letters, 2008, 92, 224101.	3.3	12
29	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
30	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
31	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
32	Coded Apertures in Mass Spectrometry. Annual Review of Analytical Chemistry, 2017, 10, 141-156.	5.4	8
33	Analysis of 3-panel and 4-panel microscale ionization sources. Journal of Applied Physics, 2010, 107, .	2.5	7
34	Carbon Nanotube Electron Ionization Source for Portable Mass Spectrometry. Analytical Chemistry, 2011, 83, 6527-6531.	6.5	7
35	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
36	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

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37	Simulation and testing of a lateral, microfabricated electron-impact ion source. Applied Physics Letters, 2009, 94, 044109.	3.3	5
38	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
39	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
40	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
41	A Novel Ion Source and Detector for a Miniature Mass Spectrometer. , 2007, , .		4
42	A Bipolar Vacuum Microelectronic Device. IEEE Transactions on Electron Devices, 2011, 58, 3189-3194.	3.0	4
43	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
44	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
45	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
46	High voltage MEMS platform for fully integrated, on-chip, vacuum electronic devices. , 2008, , .		3
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	The Long Neglected Cycloidal Mass Analyzer. Analytical Chemistry, 2021, 93, 11357-11363.	6.5	3
49	Achieving Excellence in Graduate Research: A Guide for New Graduate Students. Advanced Science, 2015, 2, 1500203.	11.2	2
50	Virtual-slit focusing in a cycloidal mass spectrometer â€“ A proof of concept. International Journal of Mass Spectrometry, 2021, 470, 116706.	1.5	2
51	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
52	Model-free capacitance analysis of electrodes with a 2D+1D dispersion of time constants. Electrochimica Acta, 2021, 390, 138796.	5.2	1
53	Design considerations for a cycloidal mass analyzer using a focal plane array detector. Journal of Mass Spectrometry, 2022, 57, .	1.6	1
54	Modeling Operational Modes of a Bipolar Vacuum Microelectronic Device. IEEE Electron Device Letters, 2012, 33, 1498-1500.	3.9	0

#	Article	IF	Citations
55	Eliminating proximity effects and improving transmission in field emission vacuum microelectronic devices for integrated circuits. , 2015, , .		0
56	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