

Keryn Lian

List of Publications by Year in descending order

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84
papers

3,101
citations

172457

29
h-index

161849

54
g-index

85
all docs

85
docs citations

85
times ranked

4465
citing authors

#	ARTICLE	IF	CITATIONS
1	Knitted and screen printed carbon-fiber supercapacitors for applications in wearable electronics. <i>Energy and Environmental Science</i> , 2013, 6, 2698.	30.8	494
2	Proton-conducting polymer electrolytes and their applications in solid supercapacitors: a review. <i>RSC Advances</i> , 2014, 4, 33091-33113.	3.6	279
3	High capacitive performance of exfoliated biochar nanosheets from biomass waste corn cob. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2903-2913.	10.3	207
4	Polyoxometalate modified pine cone biochar carbon for supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 3939-3947.	10.3	146
5	Polyoxometalate modified inorganic-organic nanocomposite materials for energy storage applications: A review. <i>Current Opinion in Solid State and Materials Science</i> , 2015, 19, 126-137.	11.5	143
6	Electrochemical characterizations of carbon nanomaterials by the cavity microelectrode technique. <i>Electrochimica Acta</i> , 2008, 53, 7675-7680.	5.2	114
7	Hydroxide ion conducting polymer electrolytes and their applications in solid supercapacitors: A review. <i>Energy Storage Materials</i> , 2020, 24, 6-21.	18.0	108
8	Ultrathin all-solid-state supercapacitor devices based on chitosan activated carbon electrodes and polymer electrolytes. <i>Electrochimica Acta</i> , 2018, 273, 392-401.	5.2	93
9	A NiCo ₂ S ₄ /hierarchical porous carbon for high performance asymmetrical supercapacitor. <i>Journal of Power Sources</i> , 2019, 427, 138-144.	7.8	83
10	Effect of SiO ₂ on conductivity and structural properties of PEO-EMIHSO ₄ polymer electrolyte and enabled solid electrochemical capacitors. <i>Electrochimica Acta</i> , 2013, 103, 174-178.	5.2	69
11	Investigations of multilayer polyoxometalates-modified carbon nanotubes for electrochemical capacitors. <i>Electrochimica Acta</i> , 2011, 56, 4966-4971.	5.2	64
12	High rate all-solid electrochemical capacitors using proton conducting polymer electrolytes. <i>Journal of Power Sources</i> , 2011, 196, 8855-8857.	7.8	63
13	Alkaline quaternary ammonium hydroxides and their polymer electrolytes for electrochemical capacitors. <i>RSC Advances</i> , 2014, 4, 21332-21339.	3.6	54
14	Surface characterizations of laser modified biomedical grade NiTi shape memory alloys. <i>Materials Science and Engineering C</i> , 2015, 50, 367-378.	7.3	50
15	Ionic Liquid-Derived Imidazolium Cation Linkers for the Layer-by-Layer Assembly of Polyoxometalate-MWCNT Composite Electrodes with High Power Capability. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 19100-19109.	8.0	45
16	Polyacrylamide-lithium chloride polymer electrolyte and its applications in electrochemical capacitors. <i>Electrochemistry Communications</i> , 2017, 74, 33-37.	4.7	41
17	Lignin Cellulose Nanofibrils as an Electrochemically Functional Component for High-Performance and Flexible Supercapacitor Electrodes. <i>ChemSusChem</i> , 2021, 14, 1057-1067.	6.8	40
18	Multilayer Polyoxometalates-Carbon Nanotube Composites for Electrochemical Capacitors. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, M3046-M3050.	1.8	39

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19	The Development of Pseudocapacitive Molybdenum Oxynitride Electrodes for Supercapacitors. ECS Transactions, 2014, 58, 67-75.	0.5	39
20	Solid-state electric double layer capacitors for ac line-filtering. Energy Storage Materials, 2016, 4, 66-70.	18.0	39
21	Interaction of Water Molecule with Au(111) and Au(110) Surfaces under the Influence of an External Electric Field. Journal of Physical Chemistry C, 2014, 118, 3459-3470.	3.1	38
22	Facile one-pot synthesis of water-dispersible phosphate functionalized reduced graphene oxide toward high-performance energy storage devices. Chemical Communications, 2020, 56, 1373-1376.	4.1	37
23	The unique properties of aqueous polyoxometalate (POM) mixtures and their role in the design of molecular coatings for electrochemical energy storage. Electrochimica Acta, 2016, 199, 261-269.	5.2	35
24	Advanced proton conducting membrane for ultra-high rate solid flexible electrochemical capacitors. Journal of Materials Chemistry, 2012, 22, 21272.	6.7	34
25	Effect of SiO ₂ on Silicotungstic Acid-H ₃ PO ₄ -poly(vinyl alcohol) Electrolyte for Electrochemical Supercapacitors. Journal of the Electrochemical Society, 2013, 160, A505-A510.	2.9	33
26	Li ₂ SO ₄ -polyacrylamide polymer electrolytes for 2.0 V solid symmetric supercapacitors. Electrochemistry Communications, 2017, 81, 52-55.	4.7	33
27	Lithium polyacrylate-polyacrylamide blend as polymer electrolytes for solid-state electrochemical capacitors. Electrochemistry Communications, 2018, 97, 77-81.	4.7	32
28	A Comparative Study of Nano-SiO ₂ and Nano-TiO ₂ Fillers on Proton Conductivity and Dielectric Response of a Silicotungstic Acid-H ₃ PO ₄ -Poly(vinyl alcohol) Polymer Electrolyte. ACS Applied Materials & Interfaces, 2014, 6, 464-472.	8.0	31
29	Pseudocapacitive behavior of Keggin type polyoxometalate mixtures. Electrochemistry Communications, 2014, 43, 60-62.	4.7	30
30	The effect of UV ozone treatment on poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate). Applied Physics Letters, 2009, 95, 173302.	3.3	29
31	Proton conducting H ₅ BW ₁₂ O ₄₀ electrolyte for solid supercapacitors. Journal of Materials Chemistry A, 2015, 3, 21511-21517.	10.3	29
32	Monovalent silicotungstate salts as electrolytes for electrochemical supercapacitors. Electrochimica Acta, 2014, 138, 240-246.	5.2	27
33	The Capacitive Behavior of Polyluminol on Carbon Nanotubes Electrodes. ChemElectroChem, 2019, 6, 5454-5461.	3.4	27
34	Designing Polyoxometalate based Layer-by-Layer Thin Films on Carbon Nanomaterials for Pseudocapacitive Electrodes. Journal of the Electrochemical Society, 2015, 162, A5041-A5046.	2.9	26
35	Development of pseudocapacitive molybdenum oxide-nitride for electrochemical capacitors. Materials Chemistry and Physics, 2015, 154, 118-124.	4.0	24
36	Redox Active Organic-Carbon Composites for Capacitive Electrodes: A Review. Sustainable Chemistry, 2021, 2, 407-440.	4.7	23

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37	Ultra-high-rate all-solid pseudocapacitive electrochemical capacitors. <i>Journal of Power Sources</i> , 2013, 222, 301-304.	7.8	22
38	Layer-by-layer assembly of inorganic-organic molybdovanadogermanic (GeMoV)-polyluminal composite electrodes for capacitive charge storage. <i>Journal of Materials Chemistry A</i> , 2020, 8, 23463-23472.	10.3	22
39	Capacitive charge storage of tetraphenylporphyrin sulfonate-CNT composite electrodes. <i>Electrochimica Acta</i> , 2021, 389, 138593.	5.2	22
40	A $H_{>5}BW_{>12}O_{>40}$ -polyvinyl alcohol polymer electrolyte and its application in solid supercapacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9585-9592.	10.3	21
41	EMH ₂ SO ₄ -Based Polymer Ionic Liquid Electrolyte for Electrochemical Capacitors. <i>Electrochemical and Solid-State Letters</i> , 2011, 15, A19-A22.	2.2	19
42	Germanomolybdate (GeMo ₁₂ O ₄₀) Modified Carbon Nanotube Composites for Electrochemical Capacitors. <i>Electrochimica Acta</i> , 2014, 117, 153-158.	5.2	19
43	Aqueous based asymmetrical-bipolar electrochemical capacitor with a 2.4 V operating voltage. <i>Journal of Power Sources</i> , 2018, 378, 209-215.	7.8	19
44	Vanadium oxide electrode synthesized by electroless deposition for electrochemical capacitors. <i>Journal of Power Sources</i> , 2014, 271, 534-537.	7.8	18
45	Thin and flexible Ni-P based current collectors developed by electroless deposition for energy storage devices. <i>Applied Surface Science</i> , 2017, 394, 63-69.	6.1	18
46	A comparative study of polymer electrolytes for ultrahigh rate applications. <i>Electrochemistry Communications</i> , 2012, 17, 48-51.	4.7	17
47	Electrolyte-Gated Field Effect Transistors in Biological Sensing: A Survey of Electrolytes. <i>IEEE Journal of the Electron Devices Society</i> , 2021, 9, 939-950.	2.1	17
48	Unraveling Synergistic Redox Interactions in Tetraphenylporphyrin-Polyluminal-Carbon Nanotube Composite for Capacitive Charge Storage. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28359-28369.	8.0	17
49	Investigation of polyacrylamide based hydroxide ion-conducting electrolyte and its application in all-solid electrochemical capacitors. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1580-1587.	4.9	16
50	Polymerized fuchsin and modified carbon nanotube electrodes for electrochemical capacitors. <i>Nano Structures Nano Objects</i> , 2018, 15, 173-179.	3.5	14
51	Na ₂ SO ₄ -Polyacrylamide Electrolytes and Enabled Solid-State Electrochemical Capacitors. <i>Batteries and Supercaps</i> , 2020, 3, 194-200.	4.7	14
52	A comparative study of tetraethylammonium hydroxide polymer electrolytes for solid electrochemical capacitors. <i>Polymer</i> , 2016, 99, 140-146.	3.8	13
53	A review of neutral pH polymer electrolytes for electrochemical capacitors: Transitioning from liquid to solid devices. <i>Materials Reports Energy</i> , 2021, 1, 100005.	3.2	12
54	High performing all-solid electrochemical capacitor using chitosan/poly(acrylamide-co-diallyldimethylammonium chloride) as anion conducting membranes. <i>Electrochimica Acta</i> , 2018, 276, 319-324.	5.2	11

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55	Investigation of the chemical structure and electrochemical activity of a chemically polymerized luminol. <i>Journal of Electroanalytical Chemistry</i> , 2019, 839, 90-95.	3.8	11
56	Study of solid alkaline electrolyte under high temperatures and its application in electrochemical capacitors for AC line-filtering. <i>Journal of Power Sources</i> , 2019, 417, 145-149.	7.8	11
57	The effect of SiO ₂ additives on solid hydroxide ion-conducting polymer electrolytes: a Raman microscopy study. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 7148-7155.	2.8	10
58	A Comparative Study of Activated Carbons from Liquid to Solid Polymer Electrolytes for Electrochemical Capacitors. <i>Journal of the Electrochemical Society</i> , 2019, 166, A821-A828.	2.9	10
59	The Role of Ion Hydration in the Performance of Li ₂ SO ₄ Polyacrylamide Electrolyte Systems: Material Characterizations under Real-Time Conditions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1939-1945.	3.1	8
60	A Study of Bending Properties of Solid Electrochemical Capacitors. <i>Journal of the Electrochemical Society</i> , 2019, 166, A15-A20.	2.9	6
61	Dimethyl sulfoxide additive to Na ₂ SO ₄ -based polymer electrolytes for low temperature capacitive devices. <i>Electrochimica Acta</i> , 2021, 376, 137984.	5.2	6
62	Borotungstic acid Polyacrylamide solid electrolytes for electrochemical capacitors with H ₃ PO ₄ plasticizer. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018, 229, 96-104.	3.5	4
63	Investigation of hydroxide ion-conduction in solid polymer electrolytes via electrochemical impedance spectroscopy. <i>Electrochimica Acta</i> , 2018, 288, 1-11.	5.2	4
64	Aqueous based dual-electrolyte rechargeable Pb-Zn battery with a 2.8V operating voltage. <i>Journal of Energy Storage</i> , 2020, 29, 101305.	8.1	4
65	Multi-walled carbon nanotubes incorporation into cross-linked novel alkaline ion-exchange membrane for high efficiency all-solid-state supercapacitors. <i>International Journal of Energy Research</i> , 2020, 44, 4038-4047.	4.5	4
66	Pseudo-Capacitors: SPPS Deposition and Electrochemical Analysis of \pm -MoO ₃ and Mo ₂ N Coatings. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 710-722.	3.1	3
67	A first principles approach to develop a dynamic model of electrochemical capacitors. , 2010, , .		2
68	Polyoxometalates. , 2017, , 133-164.		2
69	Communication Phosphoric Acid Based Proton Conducting Polymer Electrolytes for Organic Field Effect Transistor Gate Dielectrics. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 055003.	1.8	2
70	A Comparative Study of Sulfate-Based Neutral pH Polymer Electrolytes: Effects of Temperature on Ionic Conductivity. <i>Journal of the Electrochemical Society</i> , 2020, 167, 126508.	2.9	2
71	Characterizing battery behavior for time dependent currents. , 2012, , .		1
72	The Impact of Polymer Electrolytes on the Performance and Longevity of Solid Flexible Supercapacitors. , 2019, , .		1

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73	Challenges in developing an accurate predictive model for electrochemical energy storage devices. , 2015, , .		0
74	Bending Properties of Solid Thin Flexible Energy Storage Devices. , 2018, , .		0
75	Sustainable Materials for Solid Flexible Supercapacitors. , 2018, , .		0
76	All-solid dual-pH electrolyte electrochemical capacitor. , 2019, , .		0
77	Na ₂ SO ₄ -Polyacrylamide Neutral pH Polymer Electrolytes for Electrochemical Capacitors. ECS Meeting Abstracts, 2019, , .	0.0	0
78	The Influential Properties of Polymer Electrolytes on the Performance and Longevity of Solids-State Flexible Supercapacitors. ECS Meeting Abstracts, 2019, , .	0.0	0
79	Surface Engineering of Carbon Nanotubes with Inorganic-Organic Materials for Electrochemical Capacitors.. ECS Meeting Abstracts, 2020, MA2020-01, 2830-2830.	0.0	0
80	A Comparative Study of Sulfate-Based Neutral pH Polymer Electrolytes for Low Temperature Applications. ECS Meeting Abstracts, 2020, MA2020-01, 1602-1602.	0.0	0
81	Low Temperature Performance of Solid Electrochemical Capacitors: Effects of Electrolytes Additives and Electrode Design. ECS Meeting Abstracts, 2021, MA2021-02, 1285-1285.	0.0	0
82	Synergetic Layer-By-Layer Deposition for Highly Capacitive CNT Electrodes. ECS Meeting Abstracts, 2021, MA2021-02, 534-534.	0.0	0
83	(General Student Poster Session Award Winner - 1st Place) Effect of Surface Chemistry and Morphology on Polyluminol-Carbon Redox Active Composites. ECS Meeting Abstracts, 2022, MA2022-01, 2279-2279.	0.0	0
84	LiNO ₃ -Based Polymer Electrolytes for Solid Electrochemical Capacitors. ECS Meeting Abstracts, 2022, MA2022-01, 1513-1513.	0.0	0