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	Unraveling Synergistic Redox Interactions in Tetraphenylporphyrinâ€“Polyluminolâ€“Carbon Nanotube Composite for Capacitive Charge Storage. ACS Applied Materials & Interfaces, 2022, 14, 28359-28369.	8.0	17
2	(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
3	LiNO₃-Based Polymer Electrolytes for Solid Electrochemical Capacitors. ECS Meeting Abstracts, 2022, MA2022-01, 1513-1513.	0.0	0
4	Lignin Cellulose Nanofibrils as an Electrochemically Functional Component for Highâ€Performance and Flexible Supercapacitor Electrodes. ChemSusChem, 2021, 14, 1057-1067.	6.8	40
5	A review of neutral pH polymer electrolytes for electrochemical capacitors: Transitioning from liquid to solid devices. Materials Reports Energy, 2021, 1, 100005.	3.2	12
6	Dimethyl sulfoxide additive to Na2SO4-based polymer electrolytes for low temperature capacitive devices. Electrochimica Acta, 2021, 376, 137984.	5.2	6
7	Communicationâ€”Phosphoric Acid Based Proton Conducting Polymer Electrolytes for Organic Field Effect Transistor Gate Dielectrics. ECS Journal of Solid State Science and Technology, 2021, 10, 055003.	1.8	2
8	Redox Active Organic-Carbon Composites for Capacitive Electrodes: A Review. Sustainable Chemistry, 2021, 2, 407-440.	4.7	23
9	Capacitive charge storage of tetraphenylporphyrin sulfonate-CNT composite electrodes. Electrochimica Acta, 2021, 389, 138593.	5.2	22
10	Electrolyte-Gated Field Effect Transistors in Biological Sensing: A Survey of Electrolytes. IEEE Journal of the Electron Devices Society, 2021, 9, 939-950.	2.1	17
11	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
12	Synergetic Layer-By-Layer Deposition for Highly Capacitive CNT Electrodes. ECS Meeting Abstracts, 2021, MA2021-02, 534-534.	0.0	0
13	Hydroxide ion conducting polymer electrolytes and their applications in solid supercapacitors: A review. Energy Storage Materials, 2020, 24, 6-21.	18.0	108
14	Na 2 SO 4 â€Polyacrylamide Electrolytes and Enabled Solidâ€State Electrochemical Capacitors. Batteries and Supercaps, 2020, 3, 194-200.	4.7	14
15	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
16	Layer-by-layer assembly of inorganicâ€“organic molybdovanadogermanic (GeMoV)-polyluminol composite electrodes for capacitive charge storage. Journal of Materials Chemistry A, 2020, 8, 23463-23472.	10.3	22
17	Aqueous based dual-electrolyte rechargeable Pbâ€“Zn battery with a 2.8ÂV operating voltage. Journal of Energy Storage, 2020, 29, 101305.	8.1	4
18	Multiâ€walled carbon nanotubes incorporation into crossâ€linked novel alkaline ionâ€exchange membrane for high efficiency allâ€solidâ€state supercapacitors. International Journal of Energy Research, 2020, 44, 4038-4047.	4.5	4

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19	A Comparative Study of Sulfate-Based Neutral pH Polymer Electrolytes: Effects of Temperature on Ionic Conductivity. Journal of the Electrochemical Society, 2020, 167, 126508.	2.9	2
20	Surface Engineering of Carbon Nanotubes with Inorganic-Organic Materials for Electrochemical Capacitors.. ECS Meeting Abstracts, 2020, MA2020-01, 2830-2830.	0.0	0
21	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
22	The Capacitive Behavior of Polyluminol on Carbon Nanotubes Electrodes. ChemElectroChem, 2019, 6, 5454-5461.	3.4	27
23	A NiCo2S4 /hierarchical porous carbon for high performance asymmetrical supercapacitor. Journal of Power Sources, 2019, 427, 138-144.	7.8	83
24	A Comparative Study of Activated Carbons from Liquid to Solid Polymer Electrolytes for Electrochemical Capacitors. Journal of the Electrochemical Society, 2019, 166, A821-A828.	2.9	10
25	Investigation of the chemical structure and electrochemical activity of a chemically polymerized luminol. Journal of Electroanalytical Chemistry, 2019, 839, 90-95.	3.8	11
26	Study of solid alkaline electrolyte under high temperatures and its application in electrochemical capacitors for AC line-filtering. Journal of Power Sources, 2019, 417, 145-149.	7.8	11
27	All-solid dual-pH electrolyte electrochemical capacitor. , 2019, , .		0
28	The Impact of Polymer Electrolytes on the Performance and Longevity of Solid Flexible Supercapacitors. , 2019, , .		1
29	A Study of Bending Properties of Solid Electrochemical Capacitors. Journal of the Electrochemical Society, 2019, 166, A15-A20.	2.9	6
30	Na2so4-Polyacrylamide Neutral pH Polymer Electrolytes for Electrochemical Capacitors. ECS Meeting Abstracts, 2019, , .	0.0	0
31	The Influential Properties of Polymer Electrolytes on the Performance and Longevity of Solids-State Flexible Supercapacitors. ECS Meeting Abstracts, 2019, , .	0.0	0
32	The effect of SiO₂ additives on solid hydroxide ion-conducting polymer electrolytes: a Raman microscopy study. Physical Chemistry Chemical Physics, 2018, 20, 7148-7155.	2.8	10
33	Ultrathin all-solid-state supercapacitor devices based on chitosan activated carbon electrodes and polymer electrolytes. Electrochimica Acta, 2018, 273, 392-401.	5.2	93
34	Aqueous based asymmetrical-bipolar electrochemical capacitor with a 2.4â€¯V operating voltage. Journal of Power Sources, 2018, 378, 209-215.	7.8	19
35	The Role of Ion Hydration in the Performance of Li₂SO₄â€“Polyacrylamide Electrolyte Systems: Material Characterizations under Real-Time Conditions. Journal of Physical Chemistry C, 2018, 122, 1939-1945.	3.1	8
36	Borotungstic acid â€“ Polyacrylamide solid electrolytes for electrochemical capacitors with H 3 PO 4 plasticizer. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 229, 96-104.	3.5	4

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37	High performing all-solid electrochemical capacitor using chitosan/poly(acrylamide-co-diallyldimethylammonium chloride) as anion conducting membranes. Electrochimica Acta, 2018, 276, 319-324.	5.2	11
38	Polymerized fuchsin and modified carbon nanotube electrodes for electrochemical capacitors. Nano Structures Nano Objects, 2018, 15, 173-179.	3.5	14
39	Bending Properties of Solid Thin Flexible Energy Storage Devices. , 2018, , .		0
40	Lithium polyacrylate-polyacrylamide blend as polymer electrolytes for solid-state electrochemical capacitors. Electrochemistry Communications, 2018, 97, 77-81.	4.7	32
41	Sustainable Materials for Solid Flexible Supercapacitors. , 2018, , .		0
42	Investigation of hydroxide ion-conduction in solid polymer electrolytes via electrochemical impedance spectroscopy. Electrochimica Acta, 2018, 288, 1-11.	5.2	4
43	Polyoxometalate modified pine cone biochar carbon for supercapacitor electrodes. Journal of Materials Chemistry A, 2017, 5, 3939-3947.	10.3	146
44	Li 2 SO 4 -polyacrylamide polymer electrolytes for 2.0 V solid symmetric supercapacitors. Electrochemistry Communications, 2017, 81, 52-55.	4.7	33
45	Investigation of polyacrylamide based hydroxide ion-conducting electrolyte and its application in all-solid electrochemical capacitors. Sustainable Energy and Fuels, 2017, 1, 1580-1587.	4.9	16
46	Thin and flexible Ni-P based current collectors developed by electroless deposition for energy storage devices. Applied Surface Science, 2017, 394, 63-69.	6.1	18
47	Polyacrylamide-lithium chloride polymer electrolyte and its applications in electrochemical capacitors. Electrochemistry Communications, 2017, 74, 33-37.	4.7	41
48	Polyoxometalates. , 2017, , 133-164.		2
49	Ionic Liquid-Derived Imidazolium Cation Linkers for the Layer-by-Layer Assembly of Polyoxometalate-MWCNT Composite Electrodes with High Power Capability. ACS Applied Materials & Interfaces, 2016, 8, 19100-19109.	8.0	45
50	A H₅BW₁₂O₄₀â€“polyvinyl alcohol polymer electrolyte and its application in solid supercapacitors. Journal of Materials Chemistry A, 2016, 4, 9585-9592.	10.3	21
51	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
52	A comparative study of tetraethylammonium hydroxide polymer electrolytes for solid electrochemical capacitors. Polymer, 2016, 99, 140-146.	3.8	13
53	Solid-state electric double layer capacitors for ac line-filtering. Energy Storage Materials, 2016, 4, 66-70.	18.0	39
54	Challenges in developing an accurate predictive model for electrochemical energy storage devices. , 2015, , .		0

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55	Development of pseudocapacitive molybdenum oxideâ€“nitride for electrochemical capacitors. Materials Chemistry and Physics, 2015, 154, 118-124.	4.0	24
56	Surface characterizations of laser modified biomedical grade NiTi shape memory alloys. Materials Science and Engineering C, 2015, 50, 367-378.	7.3	50
57	Polyoxometalate modified inorganicâ€“organic nanocomposite materials for energy storage applications: A review. Current Opinion in Solid State and Materials Science, 2015, 19, 126-137.	11.5	143
58	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
59	Proton conducting H₅BW₁₂O₄₀ electrolyte for solid supercapacitors. Journal of Materials Chemistry A, 2015, 3, 21511-21517.	10.3	29
60	High capacitive performance of exfoliated biochar nanosheets from biomass waste corn cob. Journal of Materials Chemistry A, 2015, 3, 2903-2913.	10.3	207
61	The Development of Pseudocapacitive Molybdenum Oxynitride Electrodes for Supercapacitors. ECS Transactions, 2014, 58, 67-75.	0.5	39
62	Pseudocapacitive behavior of Keggin type polyoxometalate mixtures. Electrochemistry Communications, 2014, 43, 60-62.	4.7	30
63	Alkaline quaternary ammonium hydroxides and their polymer electrolytes for electrochemical capacitors. RSC Advances, 2014, 4, 21332-21339.	3.6	54
64	A Comparative Study of Nano-SiO₂ and Nano-TiO₂ Fillers on Proton Conductivity and Dielectric Response of a Silicotungstic Acidâ€“H₃PO₄â€“Poly(vinyl alcohol) Polymer Electrolyte. ACS Applied Materials & Interfaces, 2014, 6, 464-472.	8.0	31
65	Monovalent silicotungstate salts as electrolytes for electrochemical supercapacitors. Electrochimica Acta, 2014, 138, 240-246.	5.2	27
66	Vanadium oxide electrode synthesized by electroless deposition for electrochemical capacitors. Journal of Power Sources, 2014, 271, 534-537.	7.8	18
67	Proton-conducting polymer electrolytes and their applications in solid supercapacitors: a review. RSC Advances, 2014, 4, 33091-33113.	3.6	279
68	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
69	Germanomolybdate (GeMo12O404â^') Modified Carbon Nanotube Composites for Electrochemical Capacitors. Electrochimica Acta, 2014, 117, 153-158.	5.2	19
70	Knitted and screen printed carbon-fiber supercapacitors for applications in wearable electronics. Energy and Environmental Science, 2013, 6, 2698.	30.8	494
71	Pseudo-Capacitors: SPPS Deposition and Electrochemical Analysis of Î±-MoO3 and Mo2N Coatings. Journal of Thermal Spray Technology, 2013, 22, 710-722.	3.1	3
72	Ultra-high-rate all-solid pseudocapacitive electrochemical capacitors. Journal of Power Sources, 2013, 222, 301-304.	7.8	22

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73	Effect of SiO2 on conductivity and structural properties of PEOâ€“EMIHSO4 polymer electrolyte and enabled solid electrochemical capacitors. Electrochimica Acta, 2013, 103, 174-178.	5.2	69
74	Multilayer Polyoxometalates-Carbon Nanotube Composites for Electrochemical Capacitors. ECS Journal of Solid State Science and Technology, 2013, 2, M3046-M3050.	1.8	39
75	Effect of SiO₂on Silicotungstic Acid-H₃PO₄-poly(vinyl alcohol) Electrolyte for Electrochemical Supercapacitors. Journal of the Electrochemical Society, 2013, 160, A505-A510.	2.9	33
76	Characterizing battery behavior for time dependent currents. , 2012, , .		1
77	Advanced proton conducting membrane for ultra-high rate solid flexible electrochemical capacitors. Journal of Materials Chemistry, 2012, 22, 21272.	6.7	34
78	A comparative study of polymer electrolytes for ultrahigh rate applications. Electrochemistry Communications, 2012, 17, 48-51.	4.7	17
79	High rate all-solid electrochemical capacitors using proton conducting polymer electrolytes. Journal of Power Sources, 2011, 196, 8855-8857.	7.8	63
80	Investigations of multilayer polyoxometalates-modified carbon nanotubes for electrochemical capacitors. Electrochimica Acta, 2011, 56, 4966-4971.	5.2	64
81	EMIHSO4-Based Polymer Ionic Liquid Electrolyte for Electrochemical Capacitors. Electrochemical and Solid-State Letters, 2011, 15, A19-A22.	2.2	19
82	A first principles approach to develop a dynamic model of electrochemical capacitors. , 2010, , .		2
83	The effect of UV ozone treatment on poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate). Applied Physics Letters, 2009, 95, 173302.	3.3	29
84	Electrochemical characterizations of carbon nanomaterials by the cavity microelectrode technique. Electrochimica Acta, 2008, 53, 7675-7680.	5.2	114