

Lihua Chen

List of Publications by Year in descending order

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36
papers

1,707
citations

331670

21
h-index

395702

33
g-index

36
all docs

36
docs citations

36
times ranked

1581
citing authors

#	ARTICLE	IF	CITATIONS
1	Solving the electronic structure problem with machine learning. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	191
2	A universal strategy for the creation of machine learning-based atomistic force fields. <i>Npj Computational Materials</i> , 2017, 3, .	8.7	188
3	Flexible Temperature-Invariant Polymer Dielectrics with Large Bandgap. <i>Advanced Materials</i> , 2020, 32, e2000499.	21.0	128
4	Polymer informatics: Current status and critical next steps. <i>Materials Science and Engineering Reports</i> , 2021, 144, 100595.	31.8	117
5	Machine-learning predictions of polymer properties with Polymer Genome. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	111
6	Polymer design using genetic algorithm and machine learning. <i>Computational Materials Science</i> , 2021, 186, 110067.	3.0	105
7	Machine learning models for the lattice thermal conductivity prediction of inorganic materials. <i>Computational Materials Science</i> , 2019, 170, 109155.	3.0	84
8	Electrochemical Stability Window of Polymeric Electrolytes. <i>Chemistry of Materials</i> , 2019, 31, 4598-4604.	6.7	83
9	Frequency-dependent dielectric constant prediction of polymers using machine learning. <i>Npj Computational Materials</i> , 2020, 6, .	8.7	75
10	Charge injection barriers at metal/polyethylene interfaces. <i>Journal of Materials Science</i> , 2016, 51, 506-512.	3.7	56
11	Flexible polyolefin dielectric by strategic design of organic modules for harsh condition electrification. <i>Energy and Environmental Science</i> , 2022, 15, 1307-1314.	30.8	56
12	Electronic Structure of Polyethylene: Role of Chemical, Morphological and Interfacial Complexity. <i>Scientific Reports</i> , 2017, 7, 6128.	3.3	53
13	Polymers for Extreme Conditions Designed Using Syntax-Directed Variational Autoencoders. <i>Chemistry of Materials</i> , 2020, 32, 10489-10500.	6.7	43
14	Polymer informatics with multi-task learning. <i>Patterns</i> , 2021, 2, 100238.	5.9	43
15	Predicting Crystallization Tendency of Polymers Using Multifidelity Information Fusion and Machine Learning. <i>Journal of Physical Chemistry B</i> , 2020, 124, 6046-6054.	2.6	35
16	General Atomic Neighborhood Fingerprint for Machine Learning-Based Methods. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15859-15866.	3.1	33
17	Tuning Surface States of Metal/Polymer Contacts Toward Highly Insulating Polymer-Based Dielectrics. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46142-46150.	8.0	31
18	Modulating Polymerization Thermodynamics of Thiolactones Through Substituent and Heteroatom Incorporation. <i>ACS Macro Letters</i> , 2022, 11, 895-901.	4.8	28

#	ARTICLE	IF	CITATIONS
19	Electronic Structure of Polymer Dielectrics: The Role of Chemical and Morphological Complexity. <i>Chemistry of Materials</i> , 2018, 30, 7699-7706.	6.7	26
20	A density functional theory based approach for predicting melting points of ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 4114-4124.	2.8	22
21	Improving the Rotational Freedom of Polyetherimide: Enhancement of the Dielectric Properties of a Commodity High-Temperature Polymer Using a Structural Defect. <i>Chemistry of Materials</i> , 2022, 34, 6553-6558.	6.7	22
22	Unraveling the luminescence signatures of chemical defects in polyethylene. <i>Journal of Chemical Physics</i> , 2015, 143, 124907.	3.0	21
23	Computable Bulk and Interfacial Electronic Structure Features as Proxies for Dielectric Breakdown of Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 37182-37187.	8.0	21
24	Refractive index prediction models for polymers using machine learning. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	20
25	Dielectric Polymers Tolerant to Electric Field and Temperature Extremes: Integration of Phenomenology, Informatics, and Experimental Validation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53416-53424.	8.0	20
26	Molecular Engineering: Flexible Temperature-Invariant Polymer Dielectrics with Large Bandgap (Adv.) <i>Tj ETQq0 0 0 rgBT /Overlock 10 T</i>	21.0	17
27	Controlling wettability, wet strength, and fluid transport selectivity of nanopaper with atomic layer deposited (ALD) sub-nanometer metal oxide coatings. <i>Nanoscale Advances</i> , 2020, 2, 356-367.	4.6	13
28	Novel high voltage polymer insulators using computational and data-driven techniques. <i>Journal of Chemical Physics</i> , 2021, 154, 174906.	3.0	12
29	Atomistic mechanisms for chemical defects formation in polyethylene. <i>Journal of Chemical Physics</i> , 2018, 149, 234902.	3.0	11
30	An Informatics Approach for Designing Conducting Polymers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53314-53322.	8.0	11
31	Data-assisted polymer retrosynthesis planning. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	11
32	Design of polymers for energy storage capacitors using machine learning and evolutionary algorithms. <i>Journal of Materials Science</i> , 2021, 56, 19623-19635.	3.7	9
33	Remarks on the Design of Flexible High-Temperature Polymer Dielectrics for Emerging Grand Electrification - Exemplified by Poly(oxa)norbornenes. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2021, 28, 1468-1470.	2.9	5
34	Tailoring Polymeric Insulation Materials for DC Cable Dielectrics. , 2019, , .		3
35	High Electric Field Conduction of Polymers at Ambient and Elevated Temperatures. , 2019, , .		3
36	Synthesis of Mg Alkoxide Nanowires from Mg Alkoxide Nanoparticles upon Ligand Exchange. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 13820-13827.	8.0	0