

Lewis E Johnson

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,606
citations

331670

21
h-index

302126

39
g-index

50
all docs

50
docs citations

50
times ranked

1658
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and synthesis of chromophores with enhanced electro-optic activities in both bulk and plasmonic organic hybrid devices. <i>Materials Horizons</i> , 2022, 9, 261-270.	12.2	34
2	Transparent Optical-THz-Optical Link at 240/192 Gbit/s Over 5/115 m Enabled by Plasmonics. <i>Journal of Lightwave Technology</i> , 2022, 40, 1690-1697.	4.6	24
3	Organic electro-optic materials combining extraordinary nonlinearity with exceptional stability to enable commercial applications. , 2022, , .		3
4	180 GBd Electronic-Plasmonic IC Transmitter. , 2022, , .		3
5	Bis(4-dialkylaminophenyl)heteroaryl amino donor chromophores exhibiting exceptional hyperpolarizabilities. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2721-2728.	5.5	28
6	Mechanical coupling in the nitrogenase complex. <i>PLoS Computational Biology</i> , 2021, 17, e1008719.	3.2	8
7	Birefringence, dimensionality, and surface influences on organic hybrid electro-optic performance. , 2021, , .		1
8	New paradigms in materials and devices for hybrid electro-optics and optical rectification. , 2021, , .		6
9	Electro-Optic Activity in Excess of $1000 \text{ pm}^2 \text{ V}^{-1}$ Achieved via Theory-Guided Organic Chromophore Design. <i>Advanced Materials</i> , 2021, 33, e2104174.	21.0	49
10	Plasmonic-Organic-Hybrid (POH) Modulators - a Powerful Platform for Next-Generation Integrated Circuits. , 2021, , .		1
11	Derivatives of DANPY (Dialkylaminonaphthylpyridinium), a DNA-Binding Fluorophore: Practical Synthesis of Tricyclic 2-Amino-6-bromonaphthalenes by Bucherer Reaction. <i>ACS Omega</i> , 2020, 5, 537-546.	3.5	3
12	Ultrahigh Electro-Optic Coefficients, High Index of Refraction, and Long-Term Stability from Diels-Alder Cross-Linkable Binary Molecular Glasses. <i>Chemistry of Materials</i> , 2020, 32, 1408-1421.	6.7	98
13	Advances in high-performance hybrid electro-optics. , 2020, , .		3
14	Processing of organic electro-optic materials for commercial applications. , 2020, , .		2
15	Molecular Engineering of Structurally Diverse Dendrimers with Large Electro-Optic Activities. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21058-21068.	8.0	34
16	Chokepoints in Mechanical Coupling Associated with Allosteric Proteins: The Pyruvate Kinase Example. <i>Biophysical Journal</i> , 2019, 116, 1598-1608.	0.5	10
17	Mechanism of Catalytic O_2 Reduction by Iron Tetraphenylporphyrin. <i>Journal of the American Chemical Society</i> , 2019, 141, 8315-8326.	13.7	99
18	DANPY (dimethylaminonaphthylpyridinium): an economical and biocompatible fluorophore. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 3765-3780.	2.8	2

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19	Unraveling Excitonic Effects for the First Hyperpolarizabilities of Chromophore Aggregates. Journal of Physical Chemistry C, 2019, 123, 13818-13836.	3.1	8
20	Next-generation materials for hybrid electro-optic systems (Conference Presentation). , 2019, , .		4
21	Structural characterization of the P1+ intermediate state of the P-cluster of nitrogenase. Journal of Biological Chemistry, 2018, 293, 9629-9635.	3.4	44
22	Optimization of Plasmonic-Organic Hybrid Electro-Optics. Journal of Lightwave Technology, 2018, 36, 5036-5047.	4.6	41
23	Multi-scale theory-assisted nano-engineering of plasmonic-organic hybrid electro-optic device performance. , 2018, , .		1
24	Poling-induced birefringence in OEO materials under nanoscale confinement. , 2018, , .		5
25	Structure and stability of CaH ₂ surfaces: on the possibility of electron-rich surfaces in metal hydrides for catalysis. Journal of Materials Chemistry A, 2017, 5, 5550-5558.	10.3	21
26	Silicon-Organic and Plasmonic-Organic Hybrid Photonics. ACS Photonics, 2017, 4, 1576-1590.	6.6	123
27	Effect of Rigid Bridge-Protection Units, Quadrupolar Interactions, and Blending in Organic Electro-Optic Chromophores. Chemistry of Materials, 2017, 29, 6457-6471.	6.7	76
28	Alternative bridging architectures in organic nonlinear optical materials: comparison of Ñ- and Ñ-type structures. Journal of the Optical Society of America B: Optical Physics, 2016, 33, E160.	2.1	3
29	Electron anions and the glass transition temperature. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10007-10012.	7.1	15
30	Systematic Generation of Anisotropic Coarse-Grained Lennard-Jones Potentials and Their Application to Ordered Soft Matter. Journal of Chemical Theory and Computation, 2016, 12, 4362-4374.	5.3	22
31	Effects of Al ³⁺ on Phosphocholine and Phosphoglycerol Containing Solid Supported Lipid Bilayers. Langmuir, 2016, 32, 1771-1781.	3.5	5
32	Relation of System Dimensionality and Order Parameters. Journal of Physical Chemistry B, 2015, 119, 3205-3212.	2.6	9
33	Dielectric and Phase Behavior of Dipolar Spheroids. Journal of Physical Chemistry B, 2015, 119, 5240-5250.	2.6	10
34	Modeling Chromophore Order: A Guide For Improving EO Performance. Materials Research Society Symposia Proceedings, 2014, 1698, 26.	0.1	11
35	Optimum Exchange for Calculation of Excitation Energies and Hyperpolarizabilities of Organic Electro-optic Chromophores. Journal of Chemical Theory and Computation, 2014, 10, 3821-3831.	5.3	99
36	Surface and Stability Characterization of a Nanoporous ZIF-8 Thin Film. Journal of Physical Chemistry C, 2014, 118, 14449-14456.	3.1	189

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37	Optimizing Calculations of Electronic Excitations and Relative Hyperpolarizabilities of Electrooptic Chromophores. <i>Accounts of Chemical Research</i> , 2014, 47, 3258-3265.	15.6	164
38	Monitoring N3 Dye Adsorption and Desorption on TiO ₂ Surfaces: A Combined QCM-D and XPS Study. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 9093-9099.	8.0	18
39	Effect of UV-crosslinking of DNA-CTMA biopolymer on its electrical and optical properties. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
40	Characterization of N3 dye adsorption on TiO ₂ using quartz-crystal microbalance with dissipation monitoring. , 2013, , .		0
41	SFG characterization of a cationic ONLO dye in biological thin films. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1
42	Novel cationic dye and crosslinkable surfactant for DNA biophotonics. <i>Proceedings of SPIE</i> , 2012, , .	0.8	2
43	Nano-Engineering Lattice Dimensionality for a Soft Matter Organic Functional Material. <i>Advanced Materials</i> , 2012, 24, 3263-3268.	21.0	25
44	Integrating Computational Chemistry into the Physical Chemistry Curriculum. <i>Journal of Chemical Education</i> , 2011, 88, 569-573.	2.3	30
45	Measuring Order in Contact-Poled Organic Electrooptic Materials with Variable-Angle Polarization-Referenced Absorption Spectroscopy (VAPRAS). <i>Journal of Physical Chemistry B</i> , 2011, 115, 231-241.	2.6	18
46	Systematic Nanoengineering of Soft Matter Organic Electro-optic Materials. <i>Chemistry of Materials</i> , 2011, 23, 430-445.	6.7	129
47	Dielectric Constants of Simple Liquids: Stockmayer and Ellipsoidal Fluids. <i>Journal of Physical Chemistry B</i> , 2010, 114, 8431-8440.	2.6	25
48	Reduced Dimensionality in Organic Electro-Optic Materials: Theory and Defined Order. <i>Journal of Physical Chemistry B</i> , 2010, 114, 11949-11956.	2.6	47
49	CRW 2.0: A representative-compound approach to functionality-based prediction of reactive chemical hazards. <i>Process Safety Progress</i> , 2008, 27, 212-218.	1.0	9
50	A QCM Study of the Immobilization of Î²-Galactosidase on Polyelectrolyte Surfaces:Â Effect of the Terminal Polyion on Enzymatic Surface Activity. <i>Langmuir</i> , 2007, 23, 4432-4437.	3.5	43