Joshua Hihath

List of Publications by Year
in descending order

62	4,322	236612 25	138251 58
papers	citations	h-index	g-index

66	66	66	3327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Review of Dielectrophoretic Manipulation of Micro and Nanomaterials: Fundamentals, Recent Developments, and Challenges. IEEE Transactions on Biomedical Engineering, 2023, 70, 27-41.	2.5	7
2	Molecular quantum interference effects on thermopower in hybrid 2-dimensional monolayers. Nanoscale, 2022, 14, 6248-6257.	2.8	4
3	A Chirality-Based Quantum Leap. ACS Nano, 2022, 16, 4989-5035.	7.3	74
4	Highâ€Throughput Dielectrophoretic Trapping and Detection of DNA Origami. Advanced Materials Interfaces, 2021, 8, 2001476.	1.9	9
5	Design and Fabrication of a MEMS-Based Break Junction Device for Mechanical Strain-Correlated Optical Characterization of a Single-Molecule. Journal of Microelectromechanical Systems, 2021, 30, 126-136.	1.7	9
6	Temperature-Dependent Tunneling in Furan Oligomer Single-Molecule Junctions. ACS Sensors, 2021, 6, 565-572.	4.0	5
7	RÃ¼cktitelbild: Multidimensional Characterization of Singleâ€Molecule Dynamics in a Plasmonic Nanocavity (Angew. Chem. 30/2021). Angewandte Chemie, 2021, 133, 16852-16852.	1.6	0
8	Multidimensional Characterization of Singleâ€Molecule Dynamics in a Plasmonic Nanocavity. Angewandte Chemie - International Edition, 2021, 60, 16436-16441.	7.2	6
9	Multidimensional Characterization of Singleâ€Molecule Dynamics in a Plasmonic Nanocavity. Angewandte Chemie, 2021, 133, 16572-16577.	1.6	0
10	Gold Nanoparticle Synthesis. Journal of Visualized Experiments, 2021, , .	0.2	2
11	A machine learning approach for accurate and real-time DNA sequence identification. BMC Genomics, 2021, 22, 525.	1.2	9
12	Role of intercalation in the electrical properties of nucleic acids for use in molecular electronics. Nanoscale Horizons, 2021, 6, 651-660.	4.1	10
13	Understanding the Conductance Dispersion of Single-Molecule Junctions. Journal of Physical Chemistry C, 2021, 125, 3406-3414.	1.5	23
14	Thickness-Dependent Seebeck Coefficient in Hybrid 2-Dimensional layers. , 2021, , .		3
15	Molecular Control of Charge Carrier and Seebeck Coefficient in Hybrid Two-Dimensional Nanoparticle Superlattices. Journal of Physical Chemistry C, 2020, 124, 17-24.	1.5	7
16	InnenrÃ¼cktitelbild: A Memristive Element Based on an Electrically Controlled Singleâ€Molecule Reaction (Angew. Chem. 28/2020). Angewandte Chemie, 2020, 132, 11767-11767.	1.6	0
17	Moving Electrons Purposefully through Single Molecules and Nanostructures: A Tribute to the Science of Professor Nongjian Tao (1963â€“2020). ACS Nano, 2020, 14, 12291-12312.	7.3	2
18	A Memristive Element Based on an Electrically Controlled Singleâ€Molecule Reaction. Angewandte Chemie - International Edition, 2020, 59, 11641-11646.	7.2	37

#	Article	IF	Citations
19	Singleâ€Molecule Junctions: An Onâ€Chip Break Junction System for Combined Singleâ€Molecule Conductance and Raman Spectroscopies (Adv. Funct. Mater. 28/2020). Advanced Functional Materials, 2020, 30, 2070188.	7.8	0
20	A Memristive Element Based on an Electrically Controlled Singleâ€Molecule Reaction. Angewandte Chemie, 2020, 132, 11738-11743.	1.6	5
21	Conductance and Configuration of Molecular Gold-Water-Gold Junctions under Electric Fields. Matter, 2020, 3, 166-179.	5.0	21
22	An Onâ€Chip Break Junction System for Combined Singleâ€Molecule Conductance and Raman Spectroscopies. Advanced Functional Materials, 2020, 30, 2000615.	7.8	24
23	Highly uniform monolayer graphene synthesis via a facile pretreatment of copper catalyst substrates using an ammonium persulfate solution. RSC Advances, 2019, 9, 20871-20878.	1.7	6
24	Two-tiered electrical detection, purification, and identification of nucleic acids in complex media. Electrochimica Acta, 2019, 313, 116-121.	2.6	8
25	Charge transport in the inverted Marcus region. Nature Nanotechnology, 2018, 13, 276-277.	15.6	3
26	Characterization of Ligand Exchange in 2D Hybrid Molecule-nanoparticle Superlattices. Microscopy and Microanalysis, 2018, 24, 1722-1723.	0.2	0
27	Potential Dependence of Mechanical Stability and Electronic Coupling of Single Sâ€“Au Bonds. Journal of the American Chemical Society, 2018, 140, 18074-18081.	6.6	18
28	An Electromechanical Approach to Understanding Binding Configurations in Single-Molecule Devices. Nano Letters, 2018, 18, 6638-6644.	4.5	26
29	Detection and identification of genetic material via single-molecule conductance. Nature Nanotechnology, 2018, 13, 1167-1173.	15.6	59
30	Effect of Ring Strain on the Charge Transport of a Robust Norbornadieneâ€“Quadricyclane-Based Molecular Photoswitch. Journal of Physical Chemistry C, 2017, 121, 7094-7100.	1.5	42
31	Ligand exchange based molecular doping in 2D hybrid molecule-nanoparticle arrays: length determines exchange efficiency and conductance. Molecular Systems Design and Engineering, 2017, 2, 440-448.	1.7	8
32	Bismuth Doping of Germanium Nanocrystals through Colloidal Chemistry. Chemistry of Materials, 2017, 29, 7353-7363.	3.2	26
33	Long-Range Charge Transport in Adenine-Stacked RNA:DNA Hybrids. Small, 2016, 12, 432-437.	5.2	24
34	Comparing Charge Transport in Oligonucleotides: RNA:DNA Hybrids and DNA Duplexes. Journal of Physical Chemistry Letters, 2016, 7, 1888-1894.	2.1	29
35	Single-Molecule Charge Transport and Electrochemical Gating in Redox-Active Perylene Diimide Junctions. Journal of Physical Chemistry C, 2016, 120, 22646-22654.	1.5	21
36	Immobilization-mediated reduction in melting temperatures of DNAâ€“DNA and DNAâ€“RNA hybrids: Immobilized DNA probe hybridization studied by SPR. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 481, 72-79.	2.3	14

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37	Conformational gating of DNA conductance. Nature Communications, 2015, 6, 8870.	5.8	75
38	Binding configurations and intramolecular strain in single-molecule devices. Nature Materials, 2015, 14, 517-522.	13.3	92
39	Conductance based characterization of structure and hopping site density in 2D molecule-nanoparticle arrays. Nanoscale, 2015, 7, 14937-14945.	2.8	16
40	The role of moleculeâ€“electrode contact in single-molecule electronics. Semiconductor Science and Technology, 2014, 29, 054007.	1.0	38
41	Mechanically controlled molecular orbital alignment in single molecule junctions. Nature Nanotechnology, 2012, 7, 35-40.	15.6	184
42	Electronâ€“phonon interactions in atomic and molecular devices. Progress in Surface Science, 2012, 87, 189-208.	3.8	21
43	Effects of cytosine methylation on DNA charge transport. Journal of Physics Condensed Matter, 2012, 24, 164204.	0.7	23
44	Breakdown of Atomic-Sized Metallic Contacts Measured on Nanosecond Scale. Nano Letters, 2011, 11, 927-933.	4.5	18
45	Measurement and Statistical Analysis of Single-Molecule Currentâ€“Voltage Characteristics, Transition Voltage Spectroscopy, and Tunneling Barrier Height. Journal of the American Chemical Society, 2011, 133, 19189-19197.	6.6	181
46	Inelastic Transport and Low-Bias Rectification in a Single-Molecule Diode. ACS Nano, 2011, 5, 8331-8339.	7.3	78
47	Switch of Conducting Orbital by Bias-Induced Electronic Contact Asymmetry in a Bipyrimidinyl-biphenyl Diblock Molecule: Mechanism to Achieve a pn Directional Molecular Diode. Journal of Physical Chemistry C, 2011, 115, 19931-19938.	1.5	48
48	Electron correlation enhancement of the diode property of asymmetric molecules. Physical Review B, 2011, 84, .	1.1	7
49	Controlling single-molecule conductance through lateral coupling of Ï€ orbitals. Nature Nanotechnology, 2011, 6, 226-231.	15.6	138
50	Gate-controlled electron transport in coronenes as a bottom-up approach towards graphene transistors. Nature Communications, 2010, 1, 31.	5.8	104
51	Transition from Tunneling to Hopping in Single Molecular Junctions by Measuring Length and Temperature Dependence. Journal of the American Chemical Society, 2010, 132, 11658-11664.	6.6	195
52	Electronâ^'Phonon Interactions in Single Octanedithiol Molecular Junctions. ACS Nano, 2010, 4, 3823-3830.	7.3	53
53	Rectification and stability of a single molecular diode with controlled orientation. Nature Chemistry, 2009, 1, 635-641.	6.6	517
54	Rapid measurement of single-molecule conductance. Nanotechnology, 2008, 19, 265204.	1.3	33

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55	Study of Electronâ"Phonon Interactions in a Single Molecule Covalently Connected to Two Electrodes. Nano Letters, 2008, 8, 1673-1678.	4.5	94
56	Measurement of Single-Molecule Conductance. Annual Review of Physical Chemistry, 2007, 58, 535-564.	4.8	374
57	Thermally Activated Electron Transport in Single Redox Molecules. Journal of the American Chemical Society, 2007, 129, 11535-11542.	6.6	131
58	Thermal and electrochemical gate effects on DNA conductance. Journal of Physics Condensed Matter, 2007, 19, 215202.	0.7	23
59	Conductance of Single Alkanedithiols:Â Conduction Mechanism and Effect of Moleculeâ"Electrode Contacts. Journal of the American Chemical Society, 2006, 128, 2135-2141.	6.6	484
60	Effect of Anchoring Groups on Single-Molecule Conductance:Â Comparative Study of Thiol-, Amine-, and Carboxylic-Acid-Terminated Molecules. Journal of the American Chemical Society, 2006, 128, 15874-15881.	6.6	701
61	Measurement of Electron Transport Properties of Single Molecules. Japanese Journal of Applied Physics, 2005, 44, 5344-5347.	0.8	3
62	Study of single-nucleotide polymorphisms by means of electrical conductance measurements. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16979-16983.	3.3	148