Hatef Sadeghi

List of Publications by Year
in descending order

120 papers	4,049 citations	101384 36 h-index	133063 59 g-index
123 all docs	123 docs citations	123 times ranked	3588 citing authors

#	Article	IF	Citations
1	Thermoelectric Enhancement in Single Organic Radical Molecules. Nano Letters, 2022, 22, 948-953.	4.5	28
2	Low thermal conductivity in franckeite heterostructures. Nanoscale, 2022, 14, 2593-2598.	2.8	4
3	Thermoelectric properties of organic thin films enhanced by Ï€â€“Ï€ stacking. JPhys Energy, 2022, 4, 024002.	2.3	6
4	Redoxâ€Addressable Singleâ€Molecule Junctions Incorporating a Persistent Organic Radical**. Angewandte Chemie - International Edition, 2022, 61, .	7.2	25
5	Thermoelectric Effect on Linear Array of Graphene-Based Materials Including Fullerene, Twisted Graphene, and Graphene Nanoribbon. ECS Journal of Solid State Science and Technology, 2022, 11, 051002.	0.9	2
6	Vibrational Stark Effects: Ionic Influence on Local Fields. Journal of Physical Chemistry Letters, 2022, 13, 4905-4911.	2.1	11
7	2,7- and 4,9-Dialkynyldihydropyrene Molecular Switches: Syntheses, Properties, and Charge Transport in Single-Molecule Junctions. Journal of the American Chemical Society, 2022, 144, 12698-12714.	6.6	12
8	Selective Anchoring Groups for Molecular Electronic Junctions with ITO Electrodes. ACS Sensors, 2021, 6, 530-537.	4.0	8
9	The Effect of Anchor Group on the Phonon Thermal Conductance of Single Molecule Junctions. Applied Sciences (Switzerland), 2021, 11, 1066.	1.3	10
10	Reversible Switching between Destructive and Constructive Quantum Interference Using Atomically Precise Chemical Gating of Single-Molecule Junctions. Journal of the American Chemical Society, 2021, 143, 9385-9392.	6.6	50
11	Thermoelectric Properties of Pristine Graphyne and the BN-Doped Graphyne Family. ACS Omega, 2021, 6, 20149-20157.	1.6	24
12	Heteroatom Effects on Quantum Interference in Molecular Junctions: Modulating Antiresonances by Molecular Design. Journal of Physical Chemistry C, 2021, 125, 17385-17391.	1.5	10
13	Selective sensing of 2,4,6-trinitrotoluene and triacetone triperoxide using carbon/boron nitride heteronanotubes. Materials Today Communications, 2021, 28, 102739.	0.9	8
14	Genomics of carbon atomic chains. Carbon, 2021, 183, 977-983.	5.4	2
15	Single-atom control of electrical conductance and thermopower through single-cluster junctions. Nanoscale, 2021, 13, 12594-12601.	2.8	6
16	Carbazoleâ€Based Tetrapodal Anchor Groups for Gold Surfaces: Synthesis and Conductance Properties. Angewandte Chemie, 2020, 132, 892-899.	1.6	6
17	Carbazoleâ€Based Tetrapodal Anchor Groups for Gold Surfaces: Synthesis and Conductance Properties. Angewandte Chemie - International Edition, 2020, 59, 882-889.	7.2	22
18	Folding a Single-Molecule Junction. Nano Letters, 2020, 20, 7980-7986.	4.5	35

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19	Exploring the thermoelectric properties of oligo(phenylene-ethynylene) derivatives. Nanoscale, 2020, 12, 15150-15156.	2.8	14
20	Optical probes of molecules as nano-mechanical switches. Nature Communications, 2020, 11, 5905.	5.8	20
21	Switching Quantum Interference in Phenoxyquinone Single Molecule Junction with Light. Nanomaterials, 2020, 10, 1544.	1.9	2
22	Cross-plane transport in a single-molecule two-dimensional van der Waals heterojunction. Science Advances, 2020, 6, eaba6714.	4.7	42
23	Solvent-molecule interaction induced gating of charge transport through single-molecule junctions. Science Bulletin, 2020, 65, 944-950.	4.3	16
24	Controlled Quantum Dot Formation in Atomically Engineered Graphene Nanoribbon Field-Effect Transistors. ACS Nano, 2020, 14, 5754-5762.	7.3	46
25	Bottom-up Synthesis of Nitrogen-Doped Porous Graphene Nanoribbons. Journal of the American Chemical Society, 2020, 142, 12568-12573.	6.6	97
26	Radical enhancement of molecular thermoelectric efficiency. Nanoscale Advances, 2020, 2, 1031-1035.	2.2	23
27	In situ formation of H-bonding imidazole chains in break-junction experiments. Nanoscale, 2020, 12, 7914-7920.	2.8	23
28	Nanoscale Thermal Transport in 2D Nanostructures from Cryogenic to Room Temperature. Advanced Electronic Materials, 2019, 5, 1900331.	2.6	15
29	Hemilabile Ligands as Mechanosensitive Electrode Contacts for Molecular Electronics. Angewandte Chemie, 2019, 131, 16736-16742.	1.6	3
30	Cross-conjugation increases the conductance of meta-connected fluorenones. Nanoscale, 2019, 11, 13720-13724.	2.8	25
31	Hemilabile Ligands as Mechanosensitive Electrode Contacts for Molecular Electronics. Angewandte Chemie - International Edition, 2019, 58, 16583-16589.	7.2	26
32	Turning the Tap: Conformational Control of Quantum Interference to Modulate Singleâ€Molecule Conductance. Angewandte Chemie - International Edition, 2019, 58, 18987-18993.	7.2	42
33	Turning the Tap: Conformational Control of Quantum Interference to Modulate Singleâ€Molecule Conductance. Angewandte Chemie, 2019, 131, 19163-19169.	1.6	12
34	InnenrÃ¼cktitelbild: Hemilabile Ligands as Mechanosensitive Electrode Contacts for Molecular Electronics (Angew. Chem. 46/2019). Angewandte Chemie, 2019, 131, 16851-16851.	1.6	0
35	Robust graphene-based molecular devices. Nature Nanotechnology, 2019, 14, 957-961.	15.6	50
36	Thermal Transport through Single-Molecule Junctions. Nano Letters, 2019, 19, 7614-7622.	4.5	55

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37	Thermoelectric properties of oligoglycine molecular wires. Nanoscale, 2019, 11, 3567-3573.	2.8	13
38	Discriminating Seebeck sensing of molecules. Physical Chemistry Chemical Physics, 2019, 21, 2378-2381.	1.3	6
39	Quantum Interference Enhanced Thermoelectricity in Ferrocene Based Molecular Junctions. Journal of Nanoscience and Nanotechnology, 2019, 19, 7452-7455.	0.9	2
40	Quantum and Phonon Interference-Enhanced Molecular-Scale Thermoelectricity. Journal of Physical Chemistry C, 2019, 123, 12556-12562.	1.5	17
41	Unusual Length Dependence of the Conductance in Cumulene Molecular Wires. Angewandte Chemie, 2019, 131, 8466-8470.	1.6	11
42	Atomically defined angstrom-scale all-carbon junctions. Nature Communications, 2019, 10, 1748.	5.8	44
43	Unusual Length Dependence of the Conductance in Cumulene Molecular Wires. Angewandte Chemie - International Edition, 2019, 58, 8378-8382.	7.2	39
44	Magic Number Theory of Superconducting Proximity Effects and Wigner Delay Times in Graphene-Like Molecules. Journal of Physical Chemistry C, 2019, 123, 6812-6822.	1.5	1
45	On the resilience of magic number theory for conductance ratios of aromatic molecules. Scientific Reports, 2019, 9, 3478.	1.6	7
46	Anti-resonance features of destructive quantum interference in single-molecule thiophene junctions achieved by electrochemical gating. Nature Materials, 2019, 18, 364-369.	13.3	198
47	A single-molecule porphyrin-based switch for graphene nano-gaps. Nanoscale, 2018, 10, 6524-6530.	2.8	20
48	Gateway state-mediated, long-range tunnelling in molecular wires. Nanoscale, 2018, 10, 3060-3067.	2.8	25
49	MoS2 nano flakes with self-adaptive contacts for efficient thermoelectric energy harvesting. Nanoscale, 2018, 10, 7575-7580.	2.8	9
50	Connectivity-driven bi-thermoelectricity in heteroatom-substituted molecular junctions. Physical Chemistry Chemical Physics, 2018, 20, 9630-9637.	1.3	26
51	Toward High Thermoelectric Performance of Thiophene and Ethylenedioxythiophene (EDOT) Molecular Wires. Advanced Functional Materials, 2018, 28, 1703135.	7.8	42
52	Stable-radicals increase the conductance and Seebeck coefficient of graphene nanoconstrictions. Nanoscale, 2018, 10, 19220-19223.	2.8	12
53	Anchor Groups for Grapheneâ€Porphyrin Singleâ€Molecule Transistors. Advanced Functional Materials, 2018, 28, 1803629.	7.8	52
54	Breakdown of Curly Arrow Rules in Anthraquinone. Angewandte Chemie, 2018, 130, 15285-15289.	1.6	1

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55	Probing Lewis acidâ€“base interactions in single-molecule junctions. Nanoscale, 2018, 10, 18131-18134.	2.8	17
56	Breakdown of Curly Arrow Rules in Anthraquinone. Angewandte Chemie - International Edition, 2018, 57, 15065-15069.	7.2	15
57	Bias-Driven Conductance Increase with Length in Porphyrin Tapes. Journal of the American Chemical Society, 2018, 140, 12877-12883.	6.6	84
58	Magnetic edge states and coherent manipulation of graphene nanoribbons. Nature, 2018, 557, 691-695.	13.7	232
59	Theory of electron, phonon and spin transport in nanoscale quantum devices. Nanotechnology, 2018, 29, 373001.	1.3	60
60	Inherently multifunctional geopolymeric cementitious composite as electrical energy storage and self-sensing structural material. Composite Structures, 2018, 201, 766-778.	3.1	43
61	Low-Frequency Noise in Graphene Tunnel Junctions. ACS Nano, 2018, 12, 9451-9460.	7.3	22
62	Heteroatom-Induced Molecular Asymmetry Tunes Quantum Interference in Charge Transport through Single-Molecule Junctions. Journal of Physical Chemistry C, 2018, 122, 14965-14970.	1.5	46
63	The Conductance of Porphyrin-Based Molecular Nanowires Increases with Length. Nano Letters, 2018, 18, 4482-4486.	4.5	52
64	Suppression of Phonon Transport in Molecular Christmas Trees. ChemPhysChem, 2017, 18, 1234-1241.	1.0	27
65	Distinguishing Lead and Molecule States in Graphene-Based Single-Electron Transistors. ACS Nano, 2017, 11, 5325-5331.	7.3	48
66	Gating of Quantum Interference in Molecular Junctions by Heteroatom Substitution. Angewandte Chemie - International Edition, 2017, 56, 173-176.	7.2	120
67	High cross-plane thermoelectric performance of metallo-porphyrin molecular junctions. Physical Chemistry Chemical Physics, 2017, 19, 17356-17359.	1.3	20
68	High-performance thermoelectricity in edge-over-edge zinc-porphyrin molecular wires. Nanoscale, 2017, 9, 5299-5304.	2.8	37
69	Tuning the Seebeck coefficient of naphthalenediimide by electrochemical gating and doping. Nanoscale, 2017, 9, 4819-4825.	2.8	15
70	Gating of Quantum Interference in Molecular Junctions by Heteroatom Substitution. Angewandte Chemie, 2017, 129, 179-182.	1.6	22
71	Thermoelectricity in vertical graphene-C60-graphene architectures. Scientific Reports, 2017, 7, 11680.	1.6	15
72	Protonation tuning of quantum interference in azulene-type single-molecule junctions. Chemical Science, 2017, 8, 7505-7509.	3.7	58

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73	Robust Molecular Anchoring to Graphene Electrodes. Nano Letters, 2017, 17, 4611-4618.	4.5	38
74	Cross-plane enhanced thermoelectricity and phonon suppression in graphene/MoS ₂ van der Waals heterostructures. 2D Materials, 2017, 4, 015012.	2.0	34
75	Silicene Nanoribbons and Nanopores for Nanoelectronic Devices and Applications. Advances in Computer and Electrical Engineering Book Series, 2017, , 39-69.	0.2	0
76	Quantum-interference-enhanced thermoelectricity in single molecules and molecular films. Comptes Rendus Physique, 2016, 17, 1084-1095.	0.3	34
77	Functionalization mediates heat transport in graphene nanoflakes. Nature Communications, 2016, 7, 11281.	5.8	123
78	Graphene-Based DNA Sensors. , 2016, , 13-26.		2
79	Quantum Interference in Graphene Nanoconstrictions. Nano Letters, 2016, 16, 4210-4216.	4.5	70
80	Exploring quantum interference in heteroatom-substituted graphene-like molecules. Nanoscale, 2016, 8, 13199-13205.	2.8	56
81	Hexagonal-boron nitride substrates for electroburnt graphene nanojunctions. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 82, 12-15.	1.3	10
82	Redox-Dependent Franckâ€“Condon Blockade and Avalanche Transport in a Grapheneâ€“Fullerene Single-Molecule Transistor. Nano Letters, 2016, 16, 170-176.	4.5	93
83	Tuning the thermoelectric properties of metallo-porphyrins. Nanoscale, 2016, 8, 2428-2433.	2.8	33
84	Multifunctional semiconductor micro-Hall devices for magnetic, electric, and photo-detection. Applied Physics Letters, 2015, 107, .	1.5	5
85	Negative differential electrical resistance of a rotational organic nanomotor. Beilstein Journal of Nanotechnology, 2015, 6, 2332-2337.	1.5	4
86	Electron and heat transport in porphyrin-based single-molecule transistors with electro-burnt graphene electrodes. Beilstein Journal of Nanotechnology, 2015, 6, 1413-1420.	1.5	26
87	Enhanced Thermoelectric Efficiency of Porous Silicene Nanoribbons. Scientific Reports, 2015, 5, 9514.	1.6	83
88	Enhancing the thermoelectric figure of merit in engineered graphene nanoribbons. Beilstein Journal of Nanotechnology, 2015, 6, 1176-1182.	1.5	60
89	Tuning thermoelectric properties of graphene/boron nitride heterostructures. Nanotechnology, 2015, 26, 475401.	1.3	21
90	Conductance enlargement in picoscale electroburnt graphene nanojunctions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2658-2663.	3.3	98

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91	Exploiting the extended Ï€-system of perylene bisimide for label-free single-molecule sensing. Journal of Materials Chemistry C, 2015, 3, 2101-2106.	2.7	16
92	Graphene-porphyrin single-molecule transistors. Nanoscale, 2015, 7, 13181-13185.	2.8	97
93	A quantum circuit rule for interference effects in single-molecule electrical junctions. Nature Communications, 2015, 6, 6389.	5.8	164
94	Magic Ratios for Connectivity-Driven Electrical Conductance of Graphene-like Molecules. Journal of the American Chemical Society, 2015, 137, 4469-4476.	6.6	101
95	Oligoyne Molecular Junctions for Efficient Room Temperature Thermoelectric Power Generation. Nano Letters, 2015, 15, 7467-7472.	4.5	88
96	Searching the Hearts of Graphene-like Molecules for Simplicity, Sensitivity, and Logic. Journal of the American Chemical Society, 2015, 137, 11425-11431.	6.6	84
97	Sensing single molecules with carbonâ€“boron-nitride nanotubes. Journal of Materials Chemistry C, 2015, 3, 10273-10276.	2.7	13
98	GOLLUM: a next-generation simulation tool for electron, thermal and spin transport. New Journal of Physics, 2014, 16, 093029.	1.2	269
99	Electrical Transport Model of Silicene as a Channel of Field Effect Transistor. Journal of Nanoscience and Nanotechnology, 2014, 14, 4178-4184.	0.9	20
100	Silicene-based DNA nucleobase sensing. Applied Physics Letters, 2014, 104, .	1.5	49
101	Graphene Sculpturene Nanopores for DNA Nucleobase Sensing. Journal of Physical Chemistry B, 2014, 118, 6908-6914.	1.2	43
102	An analytical approach to calculate effective channel length in graphene nanoribbon field effect transistors. Microelectronics Reliability, 2013, 53, 540-543.	0.9	7
103	Bilayer Graphene Nanoribbon Mobility Model in Ballistic Transport Limit. Journal of Computational and Theoretical Nanoscience, 2013, 10, 1262-1265.	0.4	1
104	Classic and Quantum Capacitances in Bernal Bilayer and Trilayer Graphene Field Effect Transistor. Journal of Nanomaterials, 2013, 2013, 1-7.	1.5	4
105	The Effect of Effective Channel Length on a Silicon Nanowire Fin Field Effect Transistor. Journal of Computational and Theoretical Nanoscience, 2013, 10, 964-967.	0.4	0
106	Schottky Current in Carbon Nanotube-Metal Contact. Journal of Computational and Theoretical Nanoscience, 2012, 9, 1554-1557.	0.4	6
107	Trilayer graphene nanoribbon carrier statistics in degenerate and non degenerate limits. , 2012, , .		3
108	CHANNEL CONDUCTANCE OF ABA STACKING TRILAYER GRAPHENE NANORIBBON FIELD-EFFECT TRANSISTOR. Modern Physics Letters B, 2012, 26, 1250047.	1.0	10

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109	Study the effect of applied voltage on propagation delay of bilayer graphene nanoribbon transistor. , 2011, , .		2
110	Biased voltage boundary condition to operate Bilayer Graphene in the insulating region. , 2011, , .		0
111	A review on carbon-based materials as on-chip interconnects. Proceedings of SPIE, 2011, , .	0.8	2
112	CARRIER STATISTICS MODEL FOR A BILAYER GRAPHENE NANORIBBON IN THE NONDEGENERATE REGIME. , 2011, , .		1
113	Bilayer Graphene Nanoribbon Carrier Statistic in Degenerate and Non Degenerate Limit. Journal of Computational and Theoretical Nanoscience, 2011, 8, 2029-2032.	0.4	7
114	CARBON NANOTUBE CAPACITANCE MODEL IN DEGENERATE AND NONDEGENERATE REGIMES. , 2011, , .		4
115	BILAYER GRAPHENE NANORIBBON CARRIER STATISTICS IN THE DEGENERATE REGIME. , 2011, , .		4
116	Ballistic Conductance Model of Bilayer Graphene Nanoribbon (BGN). Journal of Computational and Theoretical Nanoscience, 2011, 8, 1993-1998.	0.4	12
117	Design and Analysis of a New Carbon Nanotube Full Adder Cell. Journal of Nanomaterials, 2011, 2011, 1-6.	1.5	13
118	Bilayer Graphene Nanoribbon Conductance Model in Parabolic Band Structure. , 2011, , .		0
119	Bilayer Graphene nanoribbon conductance model in parabolic band structure. , 2010, , .		0
120	Redoxâ€Addressable Singleâ€Molecule Junctions Incorporating a Persistent Organic Radical**. Angewandte Chemie, 0, , .	1.6	0