

# Michael Galperin

## List of Publications by Year in descending order

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98  
papers

5,397  
citations

81900  
39  
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82547  
72  
g-index

102  
all docs

102  
docs citations

102  
times ranked

2828  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular transport junctions: vibrational effects. Journal of Physics Condensed Matter, 2007, 19, 103201.	1.8	618
2	Inelastic electron tunneling spectroscopy in molecular junctions: Peaks and dips. Journal of Chemical Physics, 2004, 121, 11965-11979.	3.0	320
3	Hysteresis, Switching, and Negative Differential Resistance in Molecular Junctions: A Polaron Model. Nano Letters, 2005, 5, 125-130.	9.1	296
4	Nuclear Coupling and Polarization in Molecular Transport Junctions: Beyond Tunneling to Function. Science, 2008, 319, 1056-1060.	12.6	273
5	Resonant inelastic tunneling in molecular junctions. Physical Review B, 2006, 73, .	3.2	204
6	Heat conduction in molecular transport junctions. Physical Review B, 2007, 75, .	3.2	187
7	Molecular optoelectronics: the interaction of molecular conduction junctions with light. Physical Chemistry Chemical Physics, 2012, 14, 9421.	2.8	156
8	Selective triplet exciton formation in a single molecule. Nature, 2019, 570, 210-213.	27.8	142
9	Quantum Thermodynamics: A Nonequilibrium Green's Function Approach. Physical Review Letters, 2015, 114, 080602.	7.8	139
10	Current-Induced Light Emission and Light-Induced Current in Molecular-Tunneling Junctions. Physical Review Letters, 2005, 95, 206802.	7.8	127
11	On the Line Widths of Vibrational Features in Inelastic Electron Tunneling Spectroscopy. Nano Letters, 2004, 4, 1605-1611.	9.1	113
12	Nature of heat in strongly coupled open quantum systems. Physical Review B, 2015, 92, .	3.2	105
13	Optical properties of current carrying molecular wires. Journal of Chemical Physics, 2006, 124, 234709.	3.0	91
14	Inelastic tunneling effects on noise properties of molecular junctions. Physical Review B, 2006, 74, .	3.2	89
15	Transport in molecular states language: Generalized quantum master equation approach. Physical Review B, 2009, 79, .	3.2	86
16	Cooling mechanisms in molecular conduction junctions. Physical Review B, 2009, 80, .	3.2	85
17	Switching in Molecular Transport Junctions: Polarization Response. Journal of the American Chemical Society, 2007, 129, 13313-13320.	13.7	81
18	Inelastic effects in molecular junctions in the Coulomb and Kondo regimes: Nonequilibrium equation-of-motion approach. Physical Review B, 2007, 76, .	3.2	79

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19	Inelastic effects in molecular junction transport: scattering and self-consistent calculations for the Seebeck coefficient. <i>Molecular Physics</i> , 2008, 106, 397-404.	1.7	74
20	Raman scattering in current-carrying molecular junctions. <i>Journal of Chemical Physics</i> , 2009, 130, 144109.	3.0	66
21	Self-Consistent Quantum Master Equation Approach to Molecular Transport. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20362-20369.	3.1	60
22	Inelastic transport in the Coulomb blockade regime within a nonequilibrium atomic limit. <i>Physical Review B</i> , 2008, 78, .	3.2	59
23	Electron Transmission through Molecular Layers. <i>Journal of Physical Chemistry B</i> , 1998, 102, 3658-3668.	2.6	58
24	Asymmetric electron transmission across asymmetric alkanethiol bilayer junctions. <i>Journal of Electroanalytical Chemistry</i> , 2003, 550-551, 337-350.	3.8	57
25	Electrically Driven Spin Currents in DNA. <i>Journal of Physical Chemistry C</i> , 2013, 117, 13730-13737.	3.1	57
26	On the electrostatic potential profile in biased molecular wires. <i>Journal of Chemical Physics</i> , 2002, 117, 10837-10841.	3.0	54
27	Molecular Transport Junctions: Current from Electronic Excitations in the Leads. <i>Physical Review Letters</i> , 2006, 96, 166803.	7.8	54
28	Efficiency fluctuations in quantum thermoelectric devices. <i>Physical Review B</i> , 2015, 91, .	3.2	53
29	Transport and optical response of molecular junctions driven by surface plasmon polaritons. <i>Physical Review B</i> , 2010, 81, .	3.2	52
30	Collective Plasmon-Molecule Excitations in Nanojunctions: Quantum Consideration. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2738-2743.	4.6	51
31	Transport in State Space: Voltage-Dependent Conductance Calculations of Benzene-1,4-dithiol. <i>Nano Letters</i> , 2009, 9, 1770-1774.	9.1	49
32	Linear optical response of current-carrying molecular junction: A nonequilibrium Green's function time-dependent density functional theory approach. <i>Journal of Chemical Physics</i> , 2008, 128, 124705.	3.0	47
33	Molecular Transport Junctions: Asymmetry in Inelastic Tunneling Processes. <i>Journal of Physical Chemistry B</i> , 2005, 109, 8519-8522.	2.6	43
34	Raman Scattering from Nonequilibrium Molecular Conduction Junctions. <i>Nano Letters</i> , 2009, 9, 758-762.	9.1	43
35	Transient resonance structures in electron tunneling through water. <i>Journal of Chemical Physics</i> , 1999, 111, 7558-7566.	3.0	42
36	Numerical computation of tunneling fluxes. <i>Journal of Chemical Physics</i> , 2002, 117, 10817-10826.	3.0	41

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37	Many-Body State Description of Single-Molecule Electroluminescence Driven by a Scanning Tunneling Microscope. Nano Letters, 2019, 19, 2803-2811.	9.1	41
38	Light-induced current in molecular junctions: Local field and non-Markov effects. Physical Review B, 2011, 83, .	3.2	40
39	Self-consistent full counting statistics of inelastic transport. Physical Review B, 2011, 84, .	3.2	40
40	Observation and analysis of Fano-like lineshapes in the Raman spectra of molecules adsorbed at metal interfaces. Physical Review B, 2016, 93, .	3.2	40
41	Photonics and spectroscopy in nanojunctions: a theoretical insight. Chemical Society Reviews, 2017, 46, 4000-4019.	38.1	40
42	The non-linear response of molecular junctions: the polaron model revisited. Journal of Physics Condensed Matter, 2008, 20, 374107.	1.8	39
43	Greenâ€™s function methods for single molecule junctions. Journal of Chemical Physics, 2020, 152, 090901.	3.0	39
44	Inelastic transport: a pseudoparticle approach. Physical Chemistry Chemical Physics, 2012, 14, 13809.	2.8	37
45	NEGF-HF Method in Molecular Junction Property Calculations. Annals of the New York Academy of Sciences, 2003, 1006, 48-67.	3.8	35
46	Coherently controlled molecular junctions. Journal of Chemical Physics, 2012, 136, 044107.	3.0	33
47	Raman scattering from biased molecular conduction junctions: The electronic background and its temperature. Physical Review B, 2011, 84, .	3.2	32
48	Inelastic scattering and heating in a molecular spin pump. Physical Review B, 2010, 81, .	3.2	31
49	Spin inelastic currents in molecular ring junctions. Physical Review B, 2012, 86, .	3.2	31
50	Raman Scattering in Molecular Junctions: A Pseudoparticle Formulation. Nano Letters, 2014, 14, 699-703.	9.1	30
51	Raman Staircase in Charge Transfer SERS at the Junction of Fusing Nanospheres. Journal of Physical Chemistry Letters, 2013, 4, 88-92.	4.6	28
52	Pumpâ€™Probe Noise Spectroscopy of Molecular Junctions. Journal of Physical Chemistry Letters, 2015, 6, 470-476.	4.6	28
53	Nuclear Dynamics at Moleculeâ€™Metal Interfaces: A Pseudoparticle Perspective. Journal of Physical Chemistry Letters, 2015, 6, 4898-4903.	4.6	27
54	Raman Scattering and Electronic Heating in Molecular Conduction Junctions. Journal of Physical Chemistry Letters, 2011, 2, 2110-2113.	4.6	26

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55	Charge-transfer contribution to surface-enhanced Raman scattering in a molecular junction: Time-dependent correlations. Physical Review B, 2011, 84, .	3.2	26
56	Raman scattering from molecular conduction junctions: Charge transfer mechanism. Physical Review B, 2012, 85, .	3.2	26
57	Coherence in charge and energy transfer in molecular junctions. Physical Review B, 2013, 88, .	3.2	26
58	Organic Single Molecular Structures for Light Induced Spin-Pump Devices. ACS Nano, 2013, 7, 1064-1071.	14.6	26
59	Numerical Simulations of Electron Tunneling Currents in Water. Journal of Physical Chemistry A, 2002, 106, 10790-10796.	2.5	25
60	Current-Induced Forces for Nonadiabatic Molecular Dynamics. Journal of Physical Chemistry A, 2019, 123, 693-701.	2.5	24
61	Markovian treatment of non-Markovian dynamics of open Fermionic systems. New Journal of Physics, 2019, 21, 123035.	2.9	22
62	Perturbation theory approach to tunneling: Direct and resonance transmission in super-exchange models. Journal of Chemical Physics, 1999, 111, 1569-1579.	3.0	21
63	Gate-Induced Intramolecular Charge Transfer in a Tunnel Junction: A Nonequilibrium Analysis. Journal of Physical Chemistry C, 2013, 117, 10257-10263.	3.1	21
64	Nonequilibrium Atomic Limit for Transport and Optical Response of Molecular Junctions. Journal of Physical Chemistry C, 2014, 118, 11159-11173.	3.1	21
65	Nonequilibrium diagrammatic technique for Hubbard Green functions. Journal of Chemical Physics, 2017, 146, .	3.0	21
66	Correlation between Raman scattering and conductance in a molecular junction. Europhysics Letters, 2011, 95, 27001.	2.0	20
67	Molecular nanoplasmonics: Self-consistent electrodynamics in current-carrying junctions. Physical Review B, 2012, 86, .	3.2	20
68	Towards Noise Simulation in Interacting Nonequilibrium Systems Strongly Coupled to Baths. Scientific Reports, 2017, 7, 9735.	3.3	20
69	Molecular Heat Engines: Quantum Coherence Effects. Entropy, 2017, 19, 472.	2.2	20
70	Numerically exact full counting statistics of the energy current in the Kondo regime. Physical Review B, 2019, 100, .	3.2	19
71	Optical spectroscopy of molecular junctions: Nonequilibrium Green's functions perspective. Journal of Chemical Physics, 2016, 144, 174113.	3.0	17
72	On simulation of local fluxes in molecular junctions. Journal of Chemical Physics, 2018, 148, 204103.	3.0	17

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73	Traversal time for electron tunneling in water. Journal of Chemical Physics, 2001, 114, 9205-9208.	3.0	16
74	Spin seebeck coefficient of a molecular spin pump. Physical Chemistry Chemical Physics, 2011, 13, 14350.	2.8	16
75	Quantum transport with two interacting conduction channels. Journal of Chemical Physics, 2013, 138, 174111.	3.0	14
76	Inelastic effects in electron tunneling through water layers. Journal of Chemical Physics, 2001, 115, 2681-2694.	3.0	13
77	A time-dependent response to optical excitation in molecular junctions. Physica Scripta, 2012, T151, 014038.	2.5	13
78	Optical properties of periodically driven open nonequilibrium quantum systems. Journal of Chemical Physics, 2020, 152, 094101.	3.0	13
79	Cooperative Effects in Inelastic Tunneling. Journal of Physical Chemistry B, 2013, 117, 4449-4453.	2.6	12
80	Simulation of optical response functions in molecular junctions. Journal of Chemical Physics, 2016, 144, 244106.	3.0	12
81	Kinetic Schemes in Open Interacting Systems. Journal of Physical Chemistry Letters, 2018, 9, 4886-4892.	4.6	12
82	Auxiliary Master Equation for Nonequilibrium Dual-Fermion Approach. Physical Review Letters, 2019, 122, 186803.	7.8	12
83	Electronic friction in interacting systems. Journal of Chemical Physics, 2019, 150, 174101.	3.0	12
84	A Greenâ€™s function perspective on the nonequilibrium thermodynamics of open quantum systems strongly coupled to baths. European Physical Journal: Special Topics, 2021, 230, 859-866.	2.6	12
85	Hubbard Nonequilibrium Greenâ€™s Function Analysis of Photocurrent in Nitroazobenzene Molecular Junction. Journal of Physical Chemistry Letters, 2019, 10, 1550-1557.	4.6	9
86	Traversal Times for Resonant Tunnelingâ€™. Journal of Physical Chemistry B, 2002, 106, 8306-8312.	2.6	8
87	Simulation of Scanning Tunneling Microscope Images of 1,3-Cyclohexadiene Bound to a Silicon Surface. Journal of Physical Chemistry B, 2005, 109, 1473-1480.	2.6	8
88	Entropy and information flow in quantum systems strongly coupled to baths. Physical Review B, 2021, 103, .	3.2	7
89	The effect of electronic localized states at dislocations on the â€™chemicalâ€™ impurity-dislocation interaction. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 73, 845-860.	0.6	6
90	A non-equilibrium equation-of-motion approach to quantum transport utilizing projection operators. Journal of Physics Condensed Matter, 2014, 26, 455301.	1.8	6

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91	Effects of Electromagnetic Coupling on Conductance Switching of a Gated Tunnel Junction. Journal of Physical Chemistry Letters, 2014, 5, 3545-3550.	4.6	6
92	Flux-Conserving Diagrammatic Formulation of Optical Spectroscopy of Open Quantum Systems. Journal of Physical Chemistry C, 2019, 123, 29015-29023.	3.1	6
93	Comment on "Frequency-domain stimulated and spontaneous light emission signals at molecular junctions" [J. Chem. Phys. 141, 074107 (2014)]. Journal of Chemical Physics, 2015, 142, 137101.	3.0	5
94	On the widths of Stokes lines in Raman scattering from molecules adsorbed at metal surfaces and in molecular conduction junctions. Journal of Chemical Physics, 2016, 144, 244114.	3.0	3
95	Electron Transfer Methods in Open Systems. Journal of Physical Chemistry B, 2019, 123, 7225-7232.	2.6	3
96	Nonequilibrium dual-boson approach. Physical Review B, 2020, 101, .	3.2	3
97	Non-Markovian theory of collective plasmon-molecule excitations in nanojunctions combined with classical electrodynamic simulations. , 2013, , .		1
98	Green Function Methods for Optoelectronics. , 2019, , .		0