

Semion K Saikin

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67
papers

2,209
citations

25
h-index

45
g-index

74
ext. papers

2,563
ext. citations

7.7
avg, IF

4.9
L-index

#	Paper	IF	Citations
67	Accelerating the discovery of materials for clean energy in the era of smart automation. <i>Nature Reviews Materials</i> , 2018 , 3, 5-20	73.3	308
66	Photonics meets excitonics: natural and artificial molecular aggregates. <i>Nanophotonics</i> , 2013 , 2, 21-38	6.3	165
65	Separation of Electromagnetic and Chemical Contributions to Surface-Enhanced Raman Spectra on Nanoengineered Plasmonic Substrates. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 2740-2746	6.4	90
64	On the chemical bonding effects in the Raman response: benzenethiol adsorbed on silver clusters. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 9401-11	3.6	81
63	Strong coupling between chlorosomes of photosynthetic bacteria and a confined optical cavity mode. <i>Nature Communications</i> , 2014 , 5, 5561	17.4	80
62	Atomistic study of energy funneling in the light-harvesting complex of green sulfur bacteria. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2048-57	16.4	69
61	Single-electron spin decoherence by nuclear spin bath: Linked-cluster expansion approach. <i>Physical Review B</i> , 2007 , 75,	3.3	65
60	Fast initialization of the spin state of an electron in a quantum dot in the Voigt configuration. <i>Physical Review Letters</i> , 2007 , 98, 047401	7.4	64
59	Experimental and theoretical study of the crystal-field levels and hyperfine and electron-phonon interactions in LiYF ₄ :Er ³⁺ . <i>Physical Review B</i> , 2000 , 61, 7421-7427	3.3	64
58	Exciton transport in thin-film cyanine dye J-aggregates. <i>Journal of Chemical Physics</i> , 2012 , 137, 034109	3.9	60
57	Semiclassical Monte Carlo model for in-plane transport of spin-polarized electrons in III-V heterostructures. <i>Journal of Applied Physics</i> , 2003 , 94, 1769-1775	2.5	60
56	Memory-Assisted Exciton Diffusion in the Chlorosome Light-Harvesting Antenna of Green Sulfur Bacteria. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 2357-61	6.4	58
55	Plexciton Dirac points and topological modes. <i>Nature Communications</i> , 2016 , 7, 11783	17.4	52
54	The nucleus of endothelial cell as a sensor of blood flow direction. <i>Biology Open</i> , 2013 , 2, 1007-12	2.2	50
53	Autonomous Molecular Design: Then and Now. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 24825-24836	24.3	48
52	Topologically protected excitons in porphyrin thin films. <i>Nature Materials</i> , 2014 , 13, 1026-32	27	47
51	Compressed Sensing for Multidimensional Spectroscopy Experiments. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 2697-702	6.4	41

50	Blood flow-induced Notch activation and endothelial migration enable vascular remodeling in zebrafish embryos. <i>Nature Communications</i> , 2018 , 9, 5314	17.4	37
49	A Nanophotonic Structure Containing Living Photosynthetic Bacteria. <i>Small</i> , 2017 , 13, 1701777	11	36
48	A drift-diffusion model for spin-polarized transport in a two-dimensional non-degenerate electron gas controlled by spin-orbit interaction. <i>Journal of Physics Condensed Matter</i> , 2004 , 16, 5071-5081	1.8	36
47	Theoretical characterization of excitation energy transfer in chlorosome light-harvesting antennae from green sulfur bacteria. <i>Photosynthesis Research</i> , 2014 , 120, 273-89	3.7	34
46	Theoretical studies of electron-vibrational $4f \rightarrow 5d$ spectra in $\text{LiYF}_4:\text{RE}^{3+}$ crystals. <i>Journal of Luminescence</i> , 2007 , 125, 175-183	3.8	32
45	Quantum Nonlinear Optics with Polar J-Aggregates in Microcavities. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3708-15	6.4	31
44	Modulation of spin dynamics in a channel of a nonballistic spin field effect transistor. <i>Physical Review B</i> , 2004 , 70,	3.3	26
43	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , 2021 , 4, 2702-2726	12.7	26
42	Nonideality of quantum operations with the electron spin of a ^{31}P donor in a Si crystal due to interaction with a nuclear spin system. <i>Physical Review B</i> , 2003 , 67,	3.3	25
41	Fast delocalization leads to robust long-range excitonic transfer in a large quantum chlorosome model. <i>Nano Letters</i> , 2015 , 15, 1722-9	11.5	24
40	Probing biological light-harvesting phenomena by optical cavities. <i>Physical Review B</i> , 2012 , 85,	3.3	24
39	Nonlinear Raman Effects Enhanced by Surface Plasmon Excitation in Planar Refractory Nanoantennas. <i>Nano Letters</i> , 2017 , 17, 5533-5539	11.5	23
38	Relaxation of Shallow Donor Electron Spin Due to Interaction with Nuclear Spin Bath. <i>Nano Letters</i> , 2002 , 2, 651-655	11.5	23
37	Spin dynamics in a compound semiconductor spintronic structure with a Schottky barrier. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 1535-1544	1.8	22
36	Modelling for semiconductor spintronics. <i>IET Circuits, Devices and Systems</i> , 2005 , 152, 366		22
35	Monte Carlo modeling of spin FETs controlled by spin-orbit interaction. <i>Mathematics and Computers in Simulation</i> , 2004 , 65, 351-363	3.3	21
34	Mapping Forbidden Emission to Structure in Self-Assembled Organic Nanoparticles. <i>Journal of the American Chemical Society</i> , 2018 , 140, 15827-15841	16.4	19
33	Exploring Electronic Structure and Order in Polymers via Single-Particle Microresonator Spectroscopy. <i>Nano Letters</i> , 2018 , 18, 1600-1607	11.5	18

32	Increase of SERS Signal upon Heating or Exposure to a High-Intensity Laser Field: Benzenethiol on an AgFON Substrate. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 16656-16659	3.8	18
31	Phonon-assisted recombination in Fe-based spin LEDs. <i>Physical Review B</i> , 2006 , 73,	3.3	16
30	Monte Carlo modeling of spin injection through a Schottky barrier and spin transport in a semiconductor quantum well. <i>Journal of Applied Physics</i> , 2004 , 96, 4319-4325	2.5	16
29	Molecular Emission near Metal Interfaces: The Polaritonic Regime. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 6511-6516	6.4	16
28	On the Long-Range Exciton Transport in Molecular Systems: The Application to H-Aggregated Heterotriangulene Chains. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 24994-25002	3.8	15
27	Measurement of the absolute Raman cross section of the optical phonons in type Ia natural diamond. <i>Solid State Communications</i> , 2012 , 152, 204-209	1.6	15
26	Measurement of the absolute Raman cross section of the optical phonon in silicon. <i>Solid State Communications</i> , 2011 , 151, 553-556	1.6	15
25	Near-field Raman dichroism of azo-polymers exposed to nanoscale dc electrical and optical poling. <i>Nanoscale</i> , 2016 , 8, 19867-19875	7.7	14
24	Temperature and carbon assimilation regulate the chlorosome biogenesis in green sulfur bacteria. <i>Biophysical Journal</i> , 2013 , 105, 1346-56	2.9	14
23	Study of spin-polarized transport properties for spin-FET design optimization. <i>IEEE Nanotechnology Magazine</i> , 2004 , 3, 173-179	2.6	13
22	Isotopic disorder in Ge single crystals probed with ⁷³ Ge NMR. <i>Physical Review B</i> , 2003 , 68,	3.3	13
21	⁷³ Ge NMR spectra in germanium single crystals with different isotopic composition. <i>Applied Magnetic Resonance</i> , 1999 , 17, 557-576	0.8	12
20	Electromagnetic study of the chlorosome antenna complex of <i>Chlorobium tepidum</i> . <i>ACS Nano</i> , 2014 , 8, 3884-94	16.7	11
19	Chromatic acclimation and population dynamics of green sulfur bacteria grown with spectrally tailored light. <i>Scientific Reports</i> , 2014 , 4, 5057	4.9	11
18	Photoinduced Heating of Freestanding Azo-Polymer Thin Films Monitored by Scanning Thermal Microscopy. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 3007-3012	3.8	10
17	Adiabatic optical entanglement between electron spins in separate quantum dots. <i>Physical Review B</i> , 2008 , 78,	3.3	10
16	Anisotropy and Controllable Band Structure in Suprawavelength Polaritonic Metasurfaces. <i>Physical Review Letters</i> , 2019 , 122, 173902	7.4	8
15	From Absorption Spectra to Charge Transfer in Nanoaggregates of Oligomers with Machine Learning. <i>ACS Nano</i> , 2020 , 14, 6589-6598	16.7	8

14	State-by-state investigation of destructive interference in resonance Raman spectra of neutral tyrosine and the tyrosinate anion with the simplified sum-over-states approach. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 9675-86	2.8	8
13	Theoretical studies of nonradiative $4f \rightarrow 4f$ multiphonon transitions in dielectric crystals containing rare earth ions. <i>Journal of Molecular Structure</i> , 2007 , 838, 170-175	3.4	8
12	Spin injection in spin FETs using a step-doping profile. <i>IEEE Nanotechnology Magazine</i> , 2005 , 4, 40-44	2.6	8
11	Monte Carlo Simulation of Spin-Polarized Transport. <i>Lecture Notes in Computer Science</i> , 2003 , 881-891	0.9	8
10	Quadrupole Effects on ^{73}Ge NMR Spectra in Isotopically Controlled Ge Single Crystals. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2000 , 55, 105-110	1.4	7
9	Parametric hierarchical matrix approach for the wideband optical response of large-scale molecular aggregates. <i>Journal of Applied Physics</i> , 2013 , 114, 164315	2.5	6
8	Theory of isotopic effects in the optical spectra of lanthanide ions in crystals 1996 , 2706, 193		6
7	Optical Spectra of p-Doped PEDOT Nanoaggregates Provide Insight into the Material Disorder. <i>ACS Energy Letters</i> , 2016 , 1, 1100-1105	20.1	5
6	Microcavity-like exciton-polaritons can be the primary photoexcitation in bare organic semiconductors. <i>Nature Communications</i> , 2021 , 12, 6519	17.4	5
5	Effect of secondary relaxation transitions on photo-induced anisotropy in glassy azobenzene-functionalized polymers. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 6828-6833	7.1	4
4	Nuclear spin-lattice relaxation in germanium single crystals. <i>Applied Magnetic Resonance</i> , 1998 , 14, 513-528	5.2	3
3	Optically Induced Molecular Logic Operations. <i>ACS Nano</i> , 2020 , 14, 15248-15255	16.7	1
2	Room-Temperature Phosphorescence and Low-Energy Induced Direct Triplet Excitation of Alq Engineered Crystals. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 9364-9370	6.4	1
1	Isotopic disorder effect in the infrared reflection spectra of $^{6}\text{Li}^{7}\text{Li}^{19}\text{F}_4$ single crystals. <i>Solid State Communications</i> , 2007 , 142, 256-260	1.6	