

# Ivan Fishchuk

## List of Publications by Year in descending order

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64  
papers

1,157  
citations

471509

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395702

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64  
all docs

64  
docs citations

64  
times ranked

1298  
citing authors

#	ARTICLE	IF	CITATIONS
1	Random band-edge model description of thermoelectricity in high-mobility disordered semiconductors: Application to the amorphous oxide In-Ga-Zn-O. <i>Physical Review B</i> , 2022, 105, .	3.2	1
2	Density of States of OLED Host Materials from Thermally Stimulated Luminescence. <i>Physical Review Applied</i> , 2021, 15, .	3.8	14
3	Role of the reorganization energy for charge transport in disordered organic semiconductors. <i>Physical Review B</i> , 2021, 103, .	3.2	15
4	Negative field-dependent charge mobility in crystalline organic semiconductors with delocalized transport. <i>Chemical Papers</i> , 2018, 72, 1685-1695.	2.2	5
5	Unraveling the Role of Multiphonon Excitations and Disorder Concerning the Meyer-Neldel Type Compensation Effect in Organic Semiconductors. <i>Physical Review Applied</i> , 2018, 10, .	3.8	3
6	Role of transport band edge variation on delocalized charge transport in high-mobility crystalline organic semiconductors. <i>Physical Review B</i> , 2017, 96, .	3.2	8
7	Interplay between hopping and band transport in high-mobility disordered semiconductors at large carrier concentrations: The case of the amorphous oxide InGaZnO. <i>Physical Review B</i> , 2016, 93, .	3.2	43
8	Publisher's Note: Origin of Meyer-Neldel type compensation behavior in organic semiconductors at large carrier concentrations: Disorder versus thermodynamic description [ <i>Phys. Rev. B</i> 90, 245201 (2014)]. <i>Physical Review B</i> , 2015, 91, .	3.2	0
9	Analytic model of hopping transport in organic semiconductors including both energetic disorder and polaronic contributions. , 2014, , .		6
10	Origin of Meyer-Neldel type compensation behavior in organic semiconductors at large carrier concentrations: Disorder versus thermodynamic description. <i>Physical Review B</i> , 2014, 90, .	3.2	22
11	Origin of Electric Field Dependence of the Charge Mobility and Spatial Energy Correlations in C60-Based Field Effect Transistors. <i>Molecular Crystals and Liquid Crystals</i> , 2014, 589, 18-28.	0.9	3
12	Hopping Model of Charge-Carrier Transport in Organic Nanoparticle Systems. <i>Springer Proceedings in Physics</i> , 2013, , 205-242.	0.2	4
13	Unified description for hopping transport in organic semiconductors including both energetic disorder and polaronic contributions. <i>Physical Review B</i> , 2013, 88, .	3.2	86
14	Effective Medium Approximation Theory Description of Charge-Carrier Transport in Organic Field-Effect Transistors. <i>Springer Series in Materials Science</i> , 2013, , 171-201.	0.6	1
15	Anisotropic Strain Effect on Electron Transport in C60 Organic Field Effect transistors. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1501, 1.	0.1	3
16	Strain induced anisotropic effect on electron mobility in C60 based organic field effect transistors. <i>Applied Physics Letters</i> , 2012, 101, 083305.	3.3	44
17	Electric Field Confinement Effect on Charge Transport in Organic Field-Effect Transistors. <i>Physical Review Letters</i> , 2012, 108, 066601.	7.8	34
18	Electric field dependence of charge carrier hopping transport within the random energy landscape in an organic field effect transistor. <i>Physical Review B</i> , 2012, 86, .	3.2	34

#	ARTICLE	IF	CITATIONS
19	Electric field dependence of charge-carrier hopping transport at large carrier concentrations in disordered organic solids: Meyer-Neldel and Gill energies. <i>Journal of Physics: Conference Series</i> , 2012, 376, 012011.	0.4	1
20	Electric field and grain size dependence of Meyer-Neldel energy in C60 films. <i>Synthetic Metals</i> , 2011, 161, 1987-1990.	3.9	8
21	Does the Temperature Dependence of the Charge Carrier Mobility in Disordered Organic Semiconductors at Large Carrier Concentrations Obey the Meyer-Neldel Compensation Law?. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 535, 1-9.	0.9	5
22	Effect of source-drain electric field on the Meyer-Neldel energy in organic field effect transistors. <i>Applied Physics Letters</i> , 2011, 98, 223301.	3.3	19
23	Temperature dependence of the charge carrier mobility in disordered organic semiconductors at large carrier concentrations. <i>Physical Review B</i> , 2010, 81, .	3.2	116
24	Charge-carrier and polaron hopping mobility in disordered organic solids: Carrier-concentration and electric-field effects. <i>Philosophical Magazine</i> , 2010, 90, 1229-1244.	1.6	16
25	Dependence of Meyer-Neldel energy on energetic disorder in organic field effect transistors. <i>Applied Physics Letters</i> , 2010, 96, 213306.	3.3	41
26	Feature of Polaronic Charge Carriers in Polysilanes: Experimental and Theoretical Approach. <i>Molecular Crystals and Liquid Crystals</i> , 2010, 521, 72-83.	0.9	1
27	Polaronic transport in polysilanes. <i>Journal of Physics: Conference Series</i> , 2009, 193, 012108.	0.4	2
28	Theory of hopping charge-carrier transport at large carrier concentrations in disordered organic solids: Polarons versus bare charge carriers. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 746-749.	0.8	2
29	Triplet energy transfer in conjugated polymers. II. A polaron theory description addressing the influence of disorder. <i>Physical Review B</i> , 2008, 78, .	3.2	41
30	Polarons in wide-band-gap molecular materials: Polysilanes. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 4474-4478.	3.1	2
31	Analytic model of hopping mobility at large charge carrier concentrations in disordered organic semiconductors: Polarons versus bare charge carriers. <i>Physical Review B</i> , 2007, 76, .	3.2	127
32	Transition from trap-controlled to trap-to-trap hopping transport in disordered organic semiconductors. <i>Physical Review B</i> , 2006, 73, .	3.2	59
33	Theory of low-field hopping mobility in organic solids with energetic and positional disorder. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2006, 3, 271-274.	0.8	6
34	Charge Transport in Disordered Organic Semiconductors. , 2006, , 261-366.		36
35	Charge Carrier Transport in Disordered Organic Materials in the Presence of Traps. <i>Molecular Crystals and Liquid Crystals</i> , 2005, 426, 71-80.	0.9	1
36	Hopping polaron transport in disordered organic solids. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2004, 1, 152-155.	0.8	1

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37	Low-field charge-carrier hopping transport in energetically and positionally disordered organic materials. <i>Physical Review B</i> , 2004, 70, .	3.2	43
38	Nondispersive polaron transport in disordered organic solids. <i>Physical Review B</i> , 2003, 67, .	3.2	92
39	Effective-medium theory of hopping charge-carrier transport in weakly disordered organic solids. <i>Physical Review B</i> , 2002, 65, .	3.2	47
40	Nondispersive charge-carrier transport in disordered organic materials containing traps. <i>Physical Review B</i> , 2002, 66, .	3.2	64
41	On the theory of hopping transport in organic solids with superimposed disorder and polaron effects. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2001, 81, 561-568.	0.6	12
42	On the theory of hopping transport in organic solids with superimposed disorder and polaron effects. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2001, 81, 561-568.	0.6	4
43	Theory of the AC Conductivity and Hall Mobility in Inhomogeneous Anisotropic Solids. <i>Physica Status Solidi (B): Basic Research</i> , 1999, 212, 123-128.	1.5	0
44	Thermomagnetic Phenomena in Randomly Inhomogeneous Solid Media. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 199, 495-503.	1.5	0
45	On the theory of thermopower in random Two-Component solids. <i>Physica Status Solidi (B): Basic Research</i> , 1996, 196, K25.	1.5	1
46	Theory of the AC Hall Effect and Magnetoresistance in Polycrystalline Systems. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 189, 479-487.	1.5	0
47	Theory of the Thermopower and Nernst Effect in Random Two-Component Solid Systems. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 190, 545-553.	1.5	3
48	Theory of the AC Hall effect in polycrystalline semiconductors. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 2747-2750.	1.8	1
49	The AC magnetoresistance in inhomogeneous solids. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 8045-8052.	1.8	4
50	Non-linear conduction in networks of random potential barriers. <i>Physica Status Solidi (B): Basic Research</i> , 1986, 134, 805-813.	1.5	0
51	The AC Conductivity and Hall Effect in Inhomogeneous Semiconductors. <i>Physica Status Solidi A</i> , 1986, 93, 675-684.	1.7	17
52	Theoretical Investigation of the Field Dependence of the Direct Current in Inhomogeneous Semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 1982, 111, K17.	1.5	3
53	Effective Medium Theory for the DC Conductivity and Hall Effect of Inhomogeneous Semiconductors in High Electrical Fields. <i>Physica Status Solidi (B): Basic Research</i> , 1982, 113, 549-557.	1.5	1
54	A-centres build-up kinetics in the conductive matrix of pulled n-type silicon with calculation of their recharges at defect clusters. <i>Physica Status Solidi A</i> , 1981, 67, 407-411.	1.7	6

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55	Theory of Phononless Raman Scattering in Disordered Systems. Physica Status Solidi (B): Basic Research, 1980, 98, K95.	1.5	1
56	AC Conductivity Tensor of Disordered Systems in the Presence of a Magnetic Field. Physica Status Solidi (B): Basic Research, 1980, 99, 477-485.	1.5	2
57	Theoretical investigation of the frequency dependence of conductivity tensor in disordered systems in the presence of a magnetic field. Journal of Physics C: Solid State Physics, 1980, 13, 2703-2713.	1.5	5
58	Low-frequency conductivity in disordered systems due to variable-range hopping. Journal of Physics C: Solid State Physics, 1980, 13, L493-L497.	1.5	7
59	Phononless Faraday effect in disordered systems. Solid State Communications, 1979, 29, 99-102.	1.9	6
60	On theory of the hall and Faraday effects in disordered systems of two-level atoms. Physica Status Solidi (B): Basic Research, 1979, 91, K179.	1.5	3
61	Theory of the Phononless High Frequency Hall Effect in Disordered Systems. Physica Status Solidi (B): Basic Research, 1978, 89, 61-68.	1.5	6
62	Defect clusters and simple defect build-up kinetics in fast-neutron irradiated n-Si. Physica Status Solidi A, 1978, 50, 751-755.	1.7	10
63	Theory of the phononless high frequency conductivity in disordered systems. Physica Status Solidi (B): Basic Research, 1977, 83, K29.	1.5	8
64	Dispersion of the permittivity tensor of solid solutions. Theoretical and Mathematical Physics(Russian Federation), 1973, 17, 1136-1142.	0.9	1