

Vitaly Podzorov

List of Publications by Year in descending order

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10244
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Quality Graphene Using Boudouard Reaction. <i>Advanced Science</i> , 2022, 9, e2200217.	11.2	12
2	The Origin of Low Contact Resistance in Monolayer Organic Field-Effect Transistors with van der Waals Electrodes. <i>Small Science</i> , 2022, 2, .	9.9	16
3	The Photo-Hall Effect in High-Mobility Organic Semiconductors. <i>Advanced Functional Materials</i> , 2021, 31, 2006178.	14.9	15
4	n-type charge transport in heavily p-doped polymers. <i>Nature Materials</i> , 2021, 20, 518-524.	27.5	66
5	Green Lithography for Delicate Materials. <i>Advanced Functional Materials</i> , 2021, 31, 2101533.	14.9	7
6	Two-Dimensional Copper Iodide-Based Inorganic-Organic Hybrid Semiconductors: Synthesis, Structures, and Optical and Transport Properties. <i>Chemistry of Materials</i> , 2021, 33, 5317-5325.	6.7	26
7	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. <i>Advanced Functional Materials</i> , 2020, 30, 1903617.	14.9	37
8	A Large Anisotropic Enhancement of the Charge Carrier Mobility of Flexible Organic Transistors with Strain: A Hall Effect and Raman Study. <i>Advanced Science</i> , 2020, 7, 1901824.	11.2	37
9	Electric-field effect on photoluminescence of lead-halide perovskites. <i>Materials Today</i> , 2019, 28, 31-39.	14.2	21
10	Critical assessment of charge mobility extraction in FETs. <i>Nature Materials</i> , 2018, 17, 2-7.	27.5	571
11	Accurate Extraction of Charge Carrier Mobility in 4-Probe Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2018, 28, 1707105.	14.9	40
12	Experimental Demonstration of Correlated Flux Scaling in Photoconductivity and Photoluminescence of Lead-Halide Perovskites. <i>Physical Review Applied</i> , 2018, 10, .	3.8	11
13	Photon Upconversion in Crystalline Rubrene: Resonant Enhancement by an Interband State. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17632-17642.	3.1	14
14	Solution-Grown Rubrene Crystals as Radiation Detecting Devices. <i>IEEE Transactions on Nuclear Science</i> , 2017, 64, 781-788.	2.0	21
15	Control of molecular doping in conjugated polymers by thermal annealing. <i>Organic Electronics</i> , 2017, 47, 139-146.	2.6	20
16	Polarization-Dependent Photoinduced Bias-Stress Effect in Single-Crystal Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 34153-34161.	8.0	16
17	Use of an Underlayer for Large Area Crystallization of Rubrene Thin Films. <i>Chemistry of Materials</i> , 2017, 29, 6666-6673.	6.7	34
18	Organic Single Crystals: An Essential Step to New Physics and Higher Performances of Optoelectronic Devices. <i>Advanced Functional Materials</i> , 2016, 26, 2229-2232.	14.9	24

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19	Intrinsic Charge Transport across Phase Transitions in Hybrid Organo-Inorganic Perovskites. <i>Advanced Materials</i> , 2016, 28, 6509-6514.	21.0	103
20	High-Resolution ac Measurements of the Hall Effect in Organic Field-Effect Transistors. <i>Physical Review Applied</i> , 2016, 5, .	3.8	45
21	Solution-Processed Crystalline n-Type Organic Transistors Stable against Electrical Stress and Photooxidation. <i>Advanced Functional Materials</i> , 2016, 26, 2365-2370.	14.9	30
22	Quantifying the Energy Barriers and Elucidating the Charge Transport Mechanisms across Interspherulite Boundaries in Solution-Processed Organic Semiconductor Thin Films. <i>Advanced Functional Materials</i> , 2015, 25, 5662-5668.	14.9	24
23	Effect of side chain length on film structure and electron mobility of core-unsubstituted pyromellitic diimides and enhanced mobility of the dibrominated core using the optimized side chain. <i>Journal of Materials Chemistry C</i> , 2015, 3, 3029-3037.	5.5	18
24	Charge Carriers in Hybrid Organic-Inorganic Lead Halide Perovskites Might Be Protected as Large Polarons. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4758-4761.	4.6	456
25	Stable doping of carbon nanotubes via molecular self assembly. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	7
26	Tuning the metal-insulator crossover and magnetism in SrRuO ₃ by ionic gating. <i>Scientific Reports</i> , 2014, 4, 6604.	3.3	52
27	Oxygen Incorporation in Rubrene Single Crystals. <i>Scientific Reports</i> , 2014, 4, 4753.	3.3	34
28	Long and winding polymeric roads. <i>Nature Materials</i> , 2013, 12, 947-948.	27.5	41
29	Trap healing and ultralow-noise Hall effect at the surface of organic semiconductors. <i>Nature Materials</i> , 2013, 12, 1125-1129.	27.5	66
30	Organic single crystals: Addressing the fundamentals of organic electronics. <i>MRS Bulletin</i> , 2013, 38, 15-24.	3.5	183
31	Ultra-flexible solution-processed organic field-effect transistors. <i>Nature Communications</i> , 2012, 3, 1259.	12.8	274
32	Dynamic character of charge transport parameters in disordered organic semiconductor field-effect transistors. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 14142.	2.8	43
33	Bias Stress Effect in Air-Gap-Organic Field-Effect Transistors. <i>Advanced Materials</i> , 2012, 24, 2679-2684.	21.0	70
34	Surface Potential Mapping of SAM-Functionalized Organic Semiconductors by Kelvin Probe Force Microscopy. <i>Advanced Materials</i> , 2011, 23, 502-507.	21.0	78
35	Photon-Assisted Oxygen Diffusion and Oxygen-Related Traps in Organic Semiconductors. <i>Advanced Materials</i> , 2011, 23, 981-985.	21.0	44
36	The Origin of a 650 nm Photoluminescence Band in Rubrene. <i>Advanced Materials</i> , 2011, 23, 5370-5375.	21.0	59

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37	Vacuum Lamination Approach to Fabrication of High-Performance Single-Crystal Organic Field-Effect Transistors. <i>Advanced Materials</i> , 2011, 23, 5807-5811.	21.0	40
38	Infrared signatures of high carrier densities induced in semiconducting poly(3-hexylthiophene) by fluorinated organosilane molecules. <i>Journal of Applied Physics</i> , 2010, 107, 123702.	2.5	19
39	Building molecules for a function. <i>Nature Materials</i> , 2010, 9, 616-617.	27.5	32
40	Observation of long-range exciton diffusion in highly ordered organic semiconductors. <i>Nature Materials</i> , 2010, 9, 938-943.	27.5	466
41	Modification of Electronic Properties of Graphene with Self-Assembled Monolayers. <i>Nano Letters</i> , 2010, 10, 2427-2432.	9.1	106
42	Two mechanisms of exciton dissociation in rubrene single crystals. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	14
43	Doping of Conjugated Polythiophenes with Alkyl Silanes. <i>Advanced Functional Materials</i> , 2009, 19, 1906-1911.	14.9	107
44	Nanoscale Conducting Channels at the Surface of Organic Semiconductors Formed by Decoration of Molecular Steps with Self-Assembled Molecules. <i>Advanced Functional Materials</i> , 2009, 19, 3726-3730.	14.9	16
45	Electronic functionalization of the surface of organic semiconductors with self-assembled monolayers. <i>Nature Materials</i> , 2008, 7, 84-89.	27.5	195
46	Chromophore Fluorination Enhances Crystallization and Stability of Soluble Anthradithiophene Semiconductors. <i>Journal of the American Chemical Society</i> , 2008, 130, 2706-2707.	18.7	324
47	Electrostatic modification of infrared response in gated structures based on VO ₂ . <i>Applied Physics Letters</i> , 2008, 92, .	3.3	60
48	Investigating the origin of the high photoconductivity of rubrene single crystals. <i>Physical Review B</i> , 2008, 77, .	3.2	28
49	Steady-state and transient photocurrents in rubrene single crystal free-space dielectric transistors. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	16
50	Colloquium: Electronic transport in single-crystal organic transistors. <i>Reviews of Modern Physics</i> , 2006, 78, 973-989.	45.6	509
51	Nanoscale Surface Morphology and Rectifying Behavior of a Bulk Single-Crystal Organic Semiconductor. <i>Advanced Materials</i> , 2006, 18, 1552-1556.	21.0	93
52	Primary Photoexcitations and the Origin of the Photocurrent in Rubrene Single Crystals. <i>Physical Review Letters</i> , 2006, 96, 056604.	7.8	83
53	Ultrafast carrier dynamics in pentacene, functionalized pentacene, tetracene, and rubrene single crystals. <i>Applied Physics Letters</i> , 2006, 88, 162101.	3.3	107
54	Hydrostatic pressure dependence of charge carrier transport in single-crystal rubrene devices. <i>Applied Physics Letters</i> , 2005, 86, 123501.	3.3	49

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55	Hall Effect in the Accumulation Layers on the Surface of Organic Semiconductors. Physical Review Letters, 2005, 95, 226601.	7.8	356
56	Photoinduced Charge Transfer across the Interface between Organic Molecular Crystals and Polymers. Physical Review Letters, 2005, 95, 016602.	7.8	118
57	Intrinsic Charge Transport on the Surface of Organic Semiconductors. Physical Review Letters, 2004, 93, 086602.	7.8	1,089
58	Organic single-crystal field-effect transistors. Physica Status Solidi A, 2004, 201, 1302-1331.	1.7	516
59	Light-induced switching in back-gated organic transistors with built-in conduction channel. Applied Physics Letters, 2004, 85, 6039-6041.	3.3	51
60	High-mobility field-effect transistors based on transition metal dichalcogenides. Applied Physics Letters, 2004, 84, 3301-3303.	3.3	497
61	Elastomeric Transistor Stamps: Reversible Probing of Charge Transport in Organic Crystals. Science, 2004, 303, 1644-1646.	12.6	1,559
62	Field-effect transistors on rubrene single crystals with parylene gate insulator. Applied Physics Letters, 2003, 82, 1739-1741.	3.3	431
63	Single-crystal organic field effect transistors with the hole mobility $\sim 48 \text{ cm}^2/\text{Vs}$. Applied Physics Letters, 2003, 83, 3504-3506.	3.3	397
64	Mesoscopic, non-equilibrium fluctuations of inhomogeneous electronic states in manganites. Europhysics Letters, 2001, 55, 411-417.	2.0	22
65	Giant $1/f$ noise in perovskite manganites: Evidence of the percolation threshold. Physical Review B, 2000, 61, R3784-R3787.	3.2	103
66	Singlet fission dynamics in high quality rubrene single crystals. , 0, , .		0