

Oleg Borshchev

List of Publications by Year in descending order

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85
papers

1,457
citations

279798

23
h-index

361022

35
g-index

87
all docs

87
docs citations

87
times ranked

1617
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of new methods in modern selective organic synthesis: preparation of functionalized molecules with atomic precision. Russian Chemical Reviews, 2014, 83, 885-985.	6.5	182
2	Gas sensing with self-assembled monolayer field-effect transistors. Organic Electronics, 2010, 11, 895-898.	2.6	90
3	Molecularly Smooth Single-Crystalline Films of Thiophene-Phenylene Co-Oligomers Grown at the Gas-Liquid Interface. Crystal Growth and Design, 2014, 14, 1726-1737.	3.0	49
4	Material solubility and molecular compatibility effects in the design of fullerene/polymer composites for organic bulk heterojunction solar cells. Journal of Materials Chemistry, 2012, 22, 18433.	6.7	48
5	Easily Processable Highly Ordered Langmuir-Blodgett Films of Quaterthiophene Disiloxane Dimer for Monolayer Organic Field-Effect Transistors. Langmuir, 2014, 30, 15327-15334.	3.5	45
6	First Organosilicon Molecular Antennas. Chemistry of Materials, 2009, 21, 447-455.	6.7	39
7	Highly Sensitive Air-Stable Easily Processable Gas Sensors Based on Langmuir-Schaefer Monolayer Organic Field-Effect Transistors for Multiparametric H ₂ S and NH ₃ Real-Time Detection. ACS Applied Materials & Interfaces, 2018, 10, 43831-43841.	8.0	39
8	Nanostructured organosilicon luminophores and their application in highly efficient plastic scintillators. Scientific Reports, 2014, 4, 6549.	3.3	38
9	Synthesis of organosilicon derivatives of [1]benzothieno[3,2-b][1]benzothiophene for efficient monolayer Langmuir-Blodgett organic field effect transistors. Chemical Communications, 2017, 53, 885-888.	4.1	38
10	Fluorinated Thiophene-Phenylene Co-Oligomers for Optoelectronic Devices. ACS Applied Materials & Interfaces, 2020, 12, 9507-9519.	8.0	38
11	Polymer Surface Engineering for Efficient Printing of Highly Conductive Metal Nanoparticle Inks. ACS Applied Materials & Interfaces, 2015, 7, 11755-11764.	8.0	37
12	Molecular Self-Doping Controls Luminescence of Pure Organic Single Crystals. Advanced Functional Materials, 2018, 28, 1800116.	14.9	37
13	Organosilicon dimer of BTBT as a perspective semiconductor material for toxic gas detection with monolayer organic field-effect transistors. Journal of Materials Chemistry C, 2018, 6, 9649-9659.	5.5	37
14	Oligothiophene-based monolayer field-effect transistors prepared by Langmuir-Blodgett technique. Applied Physics Letters, 2013, 103, 043310.	3.3	36
15	Highly Luminescent Solution-Grown Thiophene-Phenylene Co-Oligomer Single Crystals. ACS Applied Materials & Interfaces, 2016, 8, 10088-10092.	8.0	36
16	Impact of terminal substituents on the electronic, vibrational and optical properties of thiophene-phenylene co-oligomers. Physical Chemistry Chemical Physics, 2019, 21, 11578-11588.	2.8	36
17	Bithiophenesilane Dendrimers: Synthesis and Thermal and Optical Properties. Organometallics, 2007, 26, 5165-5173.	2.3	35
18	Synthesis of Monochlorosilyl Derivatives of Dialkyloligothiophenes for Self-Assembling Monolayer Field-Effect Transistors. Organometallics, 2010, 29, 4213-4226.	2.3	32

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19	Effect of Molecular Structure of β,β' -Dialkylquaterthiophenes and Their Organosilicon Multipods on Ordering, Phase Behavior, and Charge Carrier Mobility. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22727-22736.	3.1	31
20	Synthesis and optical properties of linear and branched bithienylsilanes. <i>Mendeleev Communications</i> , 2007, 17, 34-36.	1.6	30
21	Luminescent Organic Semiconducting Langmuir Monolayers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 18078-18086.	8.0	30
22	Fully integrated ultra-sensitive electronic nose based on organic field-effect transistors. <i>Scientific Reports</i> , 2021, 11, 10683.	3.3	30
23	Formation of Self-Assembled Organosilicon-Functionalized Quinquethiophene Monolayers by Fast Processing Techniques. <i>Langmuir</i> , 2012, 28, 16186-16195.	3.5	25
24	A novel highly efficient nanostructured organosilicon luminophore with unusually fast photoluminescence. <i>Journal of Materials Chemistry C</i> , 2016, 4, 4699-4708.	5.5	25
25	Synthesis of bithiophenesilane dendrimer of the first generation. <i>Russian Chemical Bulletin</i> , 2005, 54, 684-690.	1.5	23
26	Development of VUV wavelength shifter for the use with a visible light photodetector in noble gas filled detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 695, 403-406.	1.6	18
27	Conduction band electronic states of ultrathin layers of thiophene/phenylene co-oligomers on an oxidized silicon surface. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2019, 235, 40-45.	1.7	17
28	Direct-write printing of reactive oligomeric alkoxy silanes as an affordable and highly efficient route for promoting local adhesion of silver inks on polymer substrates. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2211-2218.	5.5	16
29	Development of a New Class of Scintillating Fibres with Very Short Decay Time and High Light Yield. <i>Journal of Instrumentation</i> , 2017, 12, P05013-P05013.	1.2	16
30	Influence of the structure of electron-donating aromatic units in organosilicon luminophores based on 2,1,3-benzothiadiazole electron-withdrawing core on their absorption-luminescent properties. <i>Dyes and Pigments</i> , 2018, 155, 284-291.	3.7	16
31	Self-assembled organic semiconductors for monolayer field-effect transistors. <i>Polymer Science - Series C</i> , 2014, 56, 32-46.	1.7	15
32	Growth from Solutions, Structure, and Photoluminescence of Single-Crystal Plates of p-Terphenyl and Its Trimethylsilyl Derivative. <i>Crystallography Reports</i> , 2018, 63, 819-831.	0.6	15
33	Growth from Solution, Structure, and Optical Properties of Single-Crystal para-Quaterphenyl Films. <i>Crystallography Reports</i> , 2018, 63, 139-148.	0.6	14
34	Branched oligothiophene silanes with the efficient nonradiative energy transfer between the fragments. <i>Russian Chemical Bulletin</i> , 2010, 59, 797-805.	1.5	13
35	Synthesis, characterization and organic field-effect transistors applications of novel tetrathienoacene derivatives. <i>Dyes and Pigments</i> , 2021, 185, 108911.	3.7	12
36	Study of a pure CsI crystal readout by APD for Belle II end cap ECL upgrade. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 824, 691-692.	1.6	11

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37	Impact of N-substitution on structural, electronic, optical, and vibrational properties of a thiophene–phenylene co-oligomer. <i>RSC Advances</i> , 2020, 10, 28128-28138.	3.6	11
38	Toward probing of the local electron–phonon interaction in small-molecule organic semiconductors with Raman spectroscopy. <i>Journal of Chemical Physics</i> , 2020, 153, 174303.	3.0	11
39	Biorecognition Layer Based On Biotin-Containing [1]Benzothieno[3,2- <i>b</i>][1]benzothiophene Derivative for Biosensing by Electrolyte-Gated Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 16462-16476.	8.0	11
40	Novel Cross-Linked Luminescent Silicone Composites Based on Reactive Nanostructured Organosilicon Luminophores. <i>Silicon</i> , 2015, 7, 191-200.	3.3	10
41	Synthesis and photostability of 1,4-bis(5-phenyloxazol-2-yl)benzene (POPOP) structural isomers and their trimethylsilyl derivatives. <i>Dyes and Pigments</i> , 2017, 141, 128-136.	3.7	10
42	Suppression of dynamic disorder by electrostatic interactions in structurally close organic semiconductors. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 15485-15491.	2.8	10
43	Synthesis of Nanostructured Organosilicon Luminophores Based on Phenyloxazoles. <i>Russian Journal of Organic Chemistry</i> , 2019, 55, 25-41.	0.8	9
44	Ultrafast intramolecular energy transfer in a nanostructured organosilicon luminophore based on <i>p</i> -terphenyl and 1,4-bis(5-phenyloxazol-2-yl)benzene. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14612-14624.	5.5	9
45	Large Area Free-Standing Single Crystalline Films of <i>p</i> -Quinquephenyl: Growth, Structure and Photoluminescence Properties. <i>Crystals</i> , 2020, 10, 363.	2.2	9
46	Nanostructured organosilicon luminophores as a new concept of nanomaterials for highly efficient down-conversion of light. , 2015, , .		8
47	Luminescent High–Mobility 2D Organic Semiconductor Single Crystals. <i>Advanced Electronic Materials</i> , 2022, 8, .	5.1	8
48	Luminescence spectral properties of dendritic oligothiophenesilane macromolecules. <i>Russian Journal of Physical Chemistry A</i> , 2010, 84, 1979-1985.	0.6	7
49	Thiophene-based monolayer OFETs prepared by Langmuir techniques. <i>Proceedings of SPIE</i> , 2015, , .	0.8	7
50	Highly luminescent crystals of a novel linear π -conjugated thiophene–phenylene co-oligomer with a benzothiadiazole fragment. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2019, 75, 1076-1085.	1.1	7
51	Synthesis and properties of a new luminescent oligoarylsilane dendrimer. <i>Mendeleev Communications</i> , 2011, 21, 89-91.	1.6	6
52	Influence of chemical structure of branched and dendritic organosilicon luminophores on their optical and thermal properties. <i>Organic Photonics and Photovoltaics</i> , 2017, 5, 1-8.	1.3	6
53	Solubility and Crystal Growth of <i>p</i> -Quaterphenyl and Its Derivative with Trimethylsilyl Terminal Substituents. <i>Russian Journal of Physical Chemistry A</i> , 2019, 93, 1741-1746.	0.6	6
54	Spectroscopic Assessment of Charge–Carrier Mobility in Crystalline Organic Semiconductors. <i>Advanced Electronic Materials</i> , 0, , 2100579.	5.1	6

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55	Operationally Stable Ultrathin Organic Field Effect Transistors Based on Siloxane Dimers of Benzothieno[3,2-b][1]Benzothiophene Suitable for Ethanethiol Detection. <i>Advanced Electronic Materials</i> , 0, , 2101039.	5.1	6
56	A new linear phenyloxazoleâ€“benzothiadiazole luminophore: crystal growth, structure and fluorescence properties. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2022, 78, 261-269.	1.1	5
57	Novel wavelength shifters to improve sensitivity of vacuum photodetectors to Cherenkov light. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 766, 160-162.	1.6	4
58	Test of SensL SiPM coated with NOL-1 wavelength shifter in liquid xenon. <i>Journal of Instrumentation</i> , 2017, 12, P05014-P05014.	1.2	4
59	Synthesis and optical properties of highly luminescent phenyloxazole silane polymer. <i>Mendeleev Communications</i> , 2017, 27, 377-379.	1.6	4
60	Growth Anisotropy and Crystal Structure of Linear Conjugated Oligomers. <i>Physics of the Solid State</i> , 2019, 61, 2321-2324.	0.6	4
61	Unoccupied Electron States and the Formation of Interface between Films of Dimethyl-Substituted Thiopheneâ€“Phenylene Cooligomers and Oxidized Silicon Surface. <i>Physics of the Solid State</i> , 2018, 60, 1029-1034.	0.6	3
62	Improved tetrathienoacene synthesis. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 525, 012007.	0.6	3
63	Crystals of Phenyleneâ€“Oxazole Oligomer with a Central Benzothiadiazole Fragment. <i>Journal of Surface Investigation</i> , 2020, 14, 540-543.	0.5	3
64	Simple synthesis of alkyl derivatives of tetrathienoacene and their application in organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10216-10221.	5.5	3
65	Mechanisms of molecular polarization of bithiophenesilane dendrimers in solutions. <i>Polymer Science - Series A</i> , 2011, 53, 569-577.	1.0	2
66	Organosilicon derivatives of BTBT for monolayer organic field effect transistors. , 2017, , .		2
67	Pulse Programming of Resistive States of BTBTâ€“Based Organic Memristive Device with High Endurance. <i>Physica Status Solidi - Rapid Research Letters</i> , 0, , 2100471.	2.4	2
68	Unoccupied Electron States of Ultrathin Films of Thiopheneâ€“Phenylene Cooligomers on the Surface of Polycrystalline Gold. <i>Physics of the Solid State</i> , 2020, 62, 1960-1966.	0.6	2
69	Simulation of a Central Pattern Generator Using Memristive Devices. <i>Nanobiotechnology Reports</i> , 2021, 16, 755-760.	0.6	2
70	Monolayer organic field effect phototransistors: photophysical characterization and modeling. , 2016, , .		1
71	When dendrimers are not better â€“ rational design of nanolayers for high-performance organic electronic devices. <i>Nanoscale</i> , 2019, 11, 4463-4470.	5.6	1
72	Growth of New Linear Phenylene-Oxazole Oligomers with a Central Benzothiadiazole Fragment from Solutions of Crystals. <i>Physics of the Solid State</i> , 2019, 61, 2438-2441.	0.6	1

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73	Growth of p-Sexiphenyl Crystals and its Trimethylsilyl Derivative from the Vapor Phase. Journal of Surface Investigation, 2021, 15, 24-27.	0.5	1
74	Features of the Growth of p-Quaterphenyl Crystalline Films from Solution Drops on Substrates. Journal of Surface Investigation, 2021, 15, 169-177.	0.5	1
75	Nanostructured organosilicon luminophores for efficient and fast elementary particles photodetectors. , 2017, , .		1
76	Crystals of Linear Oligophenyls: Surface Properties, Nucleation and Growth. , 0, , .		1
77	Synthesis and Aggregation Behavior of Novel Linear and Branched Oligothiophene-Containing Organosilicon Multipods. European Journal of Organic Chemistry, 2022, 2022, .	2.4	1
78	Novel highly efficient blue-emitting branched oligoarylsilanes. Journal of Physics: Conference Series, 2018, 1124, 051010.	0.4	0
79	H2S and NH3 Detection with Langmuir-Schaefer Monolayer Organic Field-Effect Transistors. Proceedings (mdpi), 2018, 2, .	0.2	0
80	Heck Synthesis of New Organosilicon Oligo(arylenevinylenes). Russian Journal of Organic Chemistry, 2019, 55, 1562-1568.	0.8	0
81	Synthesis, photoluminescence and thermal properties of nanostructured organosilicon luminophore based on 2,2'-bithienyl and 4,7-diphenyl-2,1,3-benzothiadiazole. IOP Conference Series: Materials Science and Engineering, 2020, 848, 012012.	0.6	0
82	(Invited) Self-Assembling Organic Semiconductors for Chemical Sensing. ECS Meeting Abstracts, 2021, MA2021-01, 1044-1044.	0.0	0
83	p-Quaterphenyl Crystals: Surface Properties and Nucleation in Solution and Vapor Phase. Russian Journal of Physical Chemistry A, 2021, 95, 1461-1469.	0.6	0
84	Growth from Solutions, Structure, and Spectral Luminescent Properties of Crystalline Films of Di-n-hexyl-para-quaterphenyl. Crystallography Reports, 2021, 66, 1125-1132.	0.6	0
85	Study of memristive devices on the base of siloxane quaterthiophene dimer. AIP Conference Proceedings, 2022, , .	0.4	0