

# Viktor V Brus

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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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.

107  
papers

2,234  
citations

24  
h-index

43  
g-index

125  
ext. papers

2,836  
ext. citations

6.5  
avg, IF

5.49  
L-index

#	Paper	IF	Citations
107	CdTe X-Ray Detectors with Different Contact Materials. <i>Sensors</i> , <b>2021</b> , 21,	3.8	2
106	Optical Expediency of Back Electrode Materials for Organic Near-Infrared Photodiodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 27217-27226	9.5	4
105	On Optoelectronic Processes in Organic Solar Cells: From Opaque to Transparent. <i>Advanced Optical Materials</i> , <b>2021</b> , 9, 2001484	8.1	5
104	Charge transport features of CdTe-based X- and Ray detectors with Ti and TiOx Schottky contacts. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2021</b> , 988, 164920	1.2	6
103	A Simple Approach for Unraveling Optoelectronic Processes in Organic Solar Cells under Short-Circuit Conditions. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2002760	21.8	14
102	Temperature and Light Modulated Open-Circuit Voltage in Nonfullerene Organic Solar Cells with Different Effective Bandgaps. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003091	21.8	8
101	Effect of Palladium-Tetrakis(Triphenylphosphine) Catalyst Traces on Charge Recombination and Extraction in Non-Fullerene-based Organic Solar Cells. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2009363	15.6	10
100	Effects of Recombination Order on Open-Circuit Voltage Decay Measurements of Organic and Perovskite Solar Cells. <i>Energies</i> , <b>2021</b> , 14, 4800	3.1	5
99	Physical properties of carbon nanowalls synthesized by the ICP-PECVD method vs. the growth time. <i>Scientific Reports</i> , <b>2021</b> , 11, 19287	4.9	3
98	The importance of sulfonate to the self-doping mechanism of the water-soluble conjugated polyelectrolyte PCPDTBT-SO3K. <i>Materials Chemistry Frontiers</i> , <b>2020</b> , 4, 3556-3566	7.8	16
97	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 15175-15182	7.1	19
96	Organic Electrochemical Transistors Based on the Conjugated Polyelectrolyte PCPDTBT-SO K (CPE-K). <i>Advanced Materials</i> , <b>2020</b> , 32, e1908120	24	27
95	Transient grating spectroscopy of photocarrier dynamics in semiconducting polymer thin films. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 253302	3.4	2
94	Coupling between structural properties and charge transport in nano-crystalline and amorphous graphitic carbon films, deposited by electron-beam evaporation. <i>Nanotechnology</i> , <b>2020</b> , 31, 505706	3.4	6
93	A High-Performance Solution-Processed Organic Photodetector for Near-Infrared Sensing. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906027	24	138
92	On the recombination order of surface recombination under open circuit conditions. <i>Organic Electronics</i> , <b>2020</b> , 86, 105905	3.5	14
91	Visualization of Charge Transfer from Bacteria to a Self-Doped Conjugated Polymer Electrode Surface Using Conductive Atomic Force Microscopy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 40778-40785	9.5	3

90	On Charge Carrier Density in Organic Solar Cells Obtained via Capacitance Spectroscopy. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 2000517	6.4	4
89	Light-Induced Defect Generation in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Thin Films and Single Crystals. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900246	4.6	9
88	Towards understanding the doping mechanism of organic semiconductors by Lewis acids. <i>Nature Materials</i> , <b>2019</b> , 18, 1327-1334	27	85
87	Graphene/semi-insulating single crystal CdTe Schottky-type heterojunction X- and $\beta$ Ray Radiation Detectors. <i>Scientific Reports</i> , <b>2019</b> , 9, 1065	4.9	10
86	Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900904	24	117
85	Atomic-Level Insight into the Postsynthesis Band Gap Engineering of a Lewis Base Polymer Using Lewis Acid Tris(pentafluorophenyl)borane. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6715-6725	9.6	23
84	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1401-1409	20.1	106
83	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901438	21.8	71
82	Hall of Fame Article: Solution-Processed Semitransparent Organic Photovoltaics: From Molecular Design to Device Performance (Adv. Mater. 30/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970219	24	18
81	n-Type Ionic-Organic Electronic Ratchets for Energy Harvesting. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 1081-1087	9.5	3
80	Creation and annealing of metastable defect states in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> at low temperatures. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 081102	3.4	8
79	Fine Art of Thermoelectricity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 4737-4742	9.5	20
78	Graphite/p-SiC Schottky Diodes Prepared by Transferring Drawn Graphite Films onto SiC. <i>Semiconductors</i> , <b>2018</b> , 52, 236-241	0.7	3
77	Secondary phases in Cu <sub>2</sub> ZnSnS <sub>4</sub> films obtained by spray pyrolysis at different substrate temperatures and Cu contents. <i>Materials Letters</i> , <b>2018</b> , 216, 173-175	3.3	15
76	Charge Generation and Recombination in an Organic Solar Cell with Low Energetic Offsets. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1701073	21.8	49
75	Doping Effects and Charge-Transfer Dynamics at Hybrid Perovskite/Graphene Interfaces. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800826	4.6	8
74	Structure and optical properties of thin films CZTS obtained by the RF magnetron sputtering <b>2018</b> ,		3
73	Structural, electrical, and photoelectric properties of p-NiO/n-CdTe heterojunctions. <i>Optical Engineering</i> , <b>2018</b> , 57, 1	1.1	1

72	Influence of Radiation on the Properties and the Stability of Hybrid Perovskites. <i>Advanced Materials</i> , <b>2018</b> , 30, 1702905	24	112
71	Solution-Processed Ion-Free Organic Ratchets with Asymmetric Contacts. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804794	24	8
70	Balance Between Light Absorption and Recombination Losses in Solution-Processed Small Molecule Solar Cells with Normal or Inverted Structures. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801807	21.8	15
69	Performance Comparison of X- and $\gamma$ -Ray CdTe Detectors With MoO <sub>x</sub> , TiO <sub>x</sub> , and TiN Schottky Contacts. <i>IEEE Transactions on Nuclear Science</i> , <b>2018</b> , 65, 1365-1370	1.7	5
68	Defect Dynamics in Proton Irradiated CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1600438	6.4	62
67	Understanding the Device Physics in Polymer-Based Ionic-Organic Ratchets. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606464	24	11
66	Silicon nanowire array architecture for heterojunction electronics. <i>Semiconductors</i> , <b>2017</b> , 51, 542-548	0.7	0
65	Capabilities of CdTe-Based Detectors With $\text{MoO}_x$ Contacts for Detection of X- and $\gamma$ -Radiation. <i>IEEE Transactions on Nuclear Science</i> , <b>2017</b> , 64, 1168-1172	1.7	6
64	Effect of surface treatment on the quality of ohmic contacts to single-crystal p-CdTe. <i>Journal of Surface Investigation</i> , <b>2017</b> , 11, 276-279	0.5	2
63	Conjugated Polyelectrolyte/Graphene Hetero-Bilayer Nanocomposites Exhibit Temperature Switchable Type of Conductivity. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1600515	6.4	10
62	Structural and optical properties of Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> films obtained by magnetron sputtering of a Cu <sub>2</sub> ZnSn alloy target. <i>Physics of the Solid State</i> , <b>2017</b> , 59, 1643-1647	0.8	4
61	Unraveling the Light-Induced Degradation Mechanisms of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Films. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700158	6.4	89
60	Structural, optical and electrical properties of Cu <sub>2</sub> ZnSnS <sub>4</sub> films prepared from a non-toxic DMSO-based sol-gel and synthesized in low vacuum. <i>Journal of Physics and Chemistry of Solids</i> , <b>2017</b> , 100, 154-160	3.9	19
59	Radiation Hardness and Self-Healing of Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2016</b> , 28, 8726-8731	24	128
58	Modification of the properties of tin sulfide films grown by spray pyrolysis. <i>Inorganic Materials</i> , <b>2016</b> , 52, 851-857	0.9	7
57	Low-temperature spray-pyrolysis of FeS <sub>2</sub> films and their electrical and optical properties. <i>Physics of the Solid State</i> , <b>2016</b> , 58, 37-41	0.8	9
56	Molybdenum oxide thin films in CdTe-based electronic and optoelectronic devices. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2016</b> , 10, 346-349	2.5	9
55	Light dependent open-circuit voltage of organic bulk heterojunction solar cells in the presence of surface recombination. <i>Organic Electronics</i> , <b>2016</b> , 29, 1-6	3.5	49

54	Raman spectroscopy of Cu-Sn-S ternary compound thin films prepared by the low-cost spray-pyrolysis technique. <i>Applied Optics</i> , <b>2016</b> , 55, B158-62	1.7	36
53	Capacitance Spectroscopy for Quantifying Recombination Losses in Nonfullerene Small-Molecule Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502250	21.8	66
52	Fabricating Low-Cost Ionic-Organic Electronic Ratchets with Graphite Pencil and Adhesive Tape. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1500344	6.4	14
51	Diodes based on semi-insulating CdTe crystals with Mo/MoOx contacts for X- and $\gamma$ -ray detectors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2016</b> , 14, 1600232		2
50	Electrical and Photoelectric Properties of the TiN/p-InSe Heterojunction. <i>Semiconductors</i> , <b>2016</b> , 50, 334-338		4
49	Optical properties and mechanisms of current flow in Cu <sub>2</sub> ZnSnS <sub>4</sub> films prepared by spray pyrolysis. <i>Physics of the Solid State</i> , <b>2016</b> , 58, 1058-1064	0.8	15
48	Fabrication and investigation of photosensitive MoOx/n-CdTe heterojunctions. <i>Semiconductor Science and Technology</i> , <b>2016</b> , 31, 105006	1.8	7
47	Electrical and photoelectric properties of n-TiN/p-Hg <sub>3</sub> In <sub>2</sub> Te <sub>6</sub> heterostructures. <i>Semiconductors</i> , <b>2016</b> , 50, 1020-1024	0.7	3
46	Quantifying interface states and bulk defects in high-efficiency solution-processed small-molecule solar cells by impedance and capacitance characteristics. <i>Progress in Photovoltaics: Research and Applications</i> , <b>2015</b> , 23, 1526-1535	6.8	34
45	Graphitic carbon/n-CdTe Schottky-type heterojunction solar cells prepared by electron-beam evaporation. <i>Solar Energy</i> , <b>2015</b> , 112, 78-84	6.8	17
44	Temperature dependent electrical properties and barrier parameters of photosensitive heterojunctions n-TiN/p-Cd <sub>1-x</sub> Zn <sub>x</sub> Te. <i>Semiconductor Science and Technology</i> , <b>2015</b> , 30, 075006	1.8	8
43	2D nanocomposite photoconductive sensors fully dry drawn on regular paper. <i>Nanotechnology</i> , <b>2015</b> , 26, 255501	3.4	12
42	Isotype surface-barrier n-TiN/n-Si heterostructure. <i>Semiconductors</i> , <b>2014</b> , 48, 219-223	0.7	9
41	Electrical properties of MOS diodes In/TiO <sub>2</sub> /p-CdTe. <i>Semiconductors</i> , <b>2014</b> , 48, 487-491	0.7	5
40	Stability of graphene/silicon heterostructure solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 843-847	1.6	30
39	Fabrication and characterization of anisotype heterojunctions n-TiN/p-CdTe. <i>Semiconductor Science and Technology</i> , <b>2014</b> , 29, 015007	1.8	19
38	Electrical properties of thin-film semiconductor heterojunctions n-TiO <sub>2</sub> /p-CuInS <sub>2</sub> . <i>Semiconductors</i> , <b>2014</b> , 48, 1046-1050	0.7	5
37	Charge-transport mechanisms in heterostructures based on TiO <sub>2</sub> :Cr <sub>2</sub> O <sub>3</sub> thin films. <i>Semiconductors</i> , <b>2014</b> , 48, 1174-1177	0.7	1

36	Electrical properties of anisotype n-CdO/p-Si heterojunctions. <i>Semiconductors</i> , <b>2014</b> , 48, 899-904	0.7	3
35	Transport properties of metal/semiconductor junctions on n-type InP prepared by electrophoretic deposition of Pt nanoparticles. <i>Semiconductor Science and Technology</i> , <b>2014</b> , 29, 045017	1.8	14
34	Temperature and light dependent diode current in high-efficiency solution-processed small-molecule solar cells. <i>Organic Electronics</i> , <b>2014</b> , 15, 2141-2147	3.5	7
33	Temperature and light dependent electrical properties of Graphene/n-Si/H <sub>3</sub> -terminated solar cells. <i>Solar Energy</i> , <b>2014</b> , 107, 74-81	6.8	8
32	Specific features of the optical and electrical properties of polycrystalline CdTe films grown by the thermal evaporation method. <i>Physics of the Solid State</i> , <b>2014</b> , 56, 1947-1951	0.8	26
31	Electrical and optical properties of graphite/ZnO nanorods heterojunctions. <i>Carbon</i> , <b>2014</b> , 77, 1011-1019	10.4	19
30	Graphite traces on water surface: A step toward low-cost pencil-on-semiconductor electronics and optoelectronics. <i>Carbon</i> , <b>2014</b> , 78, 613-616	10.4	24
29	Electrical properties of anisotype n-TiN/p-Hg <sub>3</sub> In <sub>2</sub> Te <sub>6</sub> heterojunctions. <i>Technical Physics Letters</i> , <b>2014</b> , 40, 231-233	0.7	4
28	Photosensitive Schottky-type heterojunctions prepared by the drawing of graphite films. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 173501	3.4	17
27	Specific features of the recombination loss of the photocurrent in n-TiN/p-Si anisotype heterojunctions. <i>Semiconductors</i> , <b>2014</b> , 48, 1504-1506	0.7	4
26	Heterojunction Solar Cells. <i>International Journal of Photoenergy</i> , <b>2014</b> , 2014, 1-2	2.1	1
25	Fabrication and Properties of the Photosensitive Anisotype n-CdxZn1-xO/p-CdTe Heterojunctions. <i>Acta Physica Polonica A</i> , <b>2014</b> , 126, 1163-1166	0.6	1
24	11th International Conference "Correlation Optics": Propolis films for hybrid biomaterial-inorganic electronics and optoelectronics. <i>Applied Optics</i> , <b>2014</b> , 53, B121-7	1.7	2
23	Structural and photoluminescent properties of TiN thin films. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2014</b> , 117, 753-755	0.7	5
22	Electrical and optical properties of TiN thin films. <i>Inorganic Materials</i> , <b>2014</b> , 50, 40-45	0.9	64
21	Electrical and photoelectrical properties of P3HT/n-Si hybrid organic/inorganic heterojunction solar cells. <i>Organic Electronics</i> , <b>2013</b> , 14, 3109-3116	3.5	28
20	The effect of interface state continuum on the impedance spectroscopy of semiconductor heterojunctions. <i>Semiconductor Science and Technology</i> , <b>2013</b> , 28, 025013	1.8	11
19	Electrical properties of an n-TiO <sub>2</sub> /n-GaP semiconductor heterostructure. <i>Russian Physics Journal</i> , <b>2013</b> , 56, 233-235	0.7	

18	Electrical and photoelectric properties of anisotype n-TiN/p-Si heterojunctions. <i>Semiconductors</i> , <b>2013</b> , 47, 1174-1179	0.7	20
17	Kinetic properties of TiN thin films prepared by reactive magnetron sputtering. <i>Physics of the Solid State</i> , <b>2013</b> , 55, 2234-2238	0.8	17
16	Surface Barrier heterojunctions TiO <sub>2</sub> /CdZnTe. <i>Semiconductor Science and Technology</i> , <b>2013</b> , 28, 015014	1.8	8
15	Charge transport mechanisms in anisotype n-TiO <sub>2</sub> /p-Si heterostructures. <i>Semiconductors</i> , <b>2013</b> , 47, 799-803	0.7	9
14	Open-circuit analysis of thin film heterojunction solar cells. <i>Solar Energy</i> , <b>2012</b> , 86, 1600-1604	6.8	18
13	Optical properties of TiO <sub>2</sub> -MnO <sub>2</sub> thin films prepared by electron-beam evaporation. <i>Technical Physics</i> , <b>2012</b> , 57, 1148-1151	0.5	17
12	Electrical properties of anisotype heterojunctions n-CdZnO/p-CdTe. <i>Semiconductors</i> , <b>2012</b> , 46, 1152-1157	0.7	15
11	On the impedance spectroscopy of structures with a potential barrier. <i>Semiconductors</i> , <b>2012</b> , 46, 1012-1015	0.7	12
10	Electrical and optical properties of TiO <sub>2</sub> and TiO <sub>2</sub> :Fe thin films. <i>Inorganic Materials</i> , <b>2012</b> , 48, 1026-1032	0.9	21
9	Optical constants and polarimetric properties of MnO <sub>2</sub> thin films. <i>Optical Materials</i> , <b>2012</b> , 34, 1940-1945	0.3	18
8	On impedance spectroscopy analysis of nonideal heterojunctions. <i>Semiconductor Science and Technology</i> , <b>2012</b> , 27, 035024	1.8	35
7	On quantum efficiency of nonideal solar cells. <i>Solar Energy</i> , <b>2012</b> , 86, 786-791	6.8	33
6	Light-dependent I-V characteristics of TiO <sub>2</sub> /CdTe heterojunction solar cells. <i>Semiconductor Science and Technology</i> , <b>2012</b> , 27, 055008	1.8	20
5	Electrical and photoelectrical properties of photosensitive heterojunctions n-TiO <sub>2</sub> /p-CdTe. <i>Semiconductor Science and Technology</i> , <b>2011</b> , 26, 125006	1.8	39
4	The effect of CoO impurity and substrate temperature on optical properties of TiO <sub>2</sub> thin films <b>2011</b> ,		3
3	Mechanisms of charge transport in anisotype n-TiO <sub>2</sub> /p-CdTe heterojunctions. <i>Semiconductors</i> , <b>2011</b> , 45, 1077-1081	0.7	28
2	Visible to Near-Infrared Photodiodes with Advanced Radiation Resistance. <i>Advanced Theory and Simulations</i> , 2100436	3.5	3
1	Understanding Interfacial Recombination Processes in Narrow-Band-Gap Organic Solar Cells. <i>ACS Energy Letters</i> , 1626-1634	20.1	2

