

# Pavlo D Maryanchuk

## List of Publications by Year in descending order

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98  
papers

1,125  
citations

393982

19  
h-index

500791

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g-index

100  
all docs

100  
docs citations

100  
times ranked

864  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical and optical properties of TiN thin films. <i>Inorganic Materials</i> , 2014, 50, 40-45.	0.2	89
2	Electrical and photoelectrical properties of photosensitive heterojunctions n-TiO <sub>2</sub> /p-CdTe. <i>Semiconductor Science and Technology</i> , 2011, 26, 125006.	1.0	41
3	Raman spectroscopy of Cu-Sn-S ternary compound thin films prepared by the low-cost spray-pyrolysis technique. <i>Applied Optics</i> , 2016, 55, B158.	0.9	41
4	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> , 2015, 23, 1526-1535.	4.4	40
5	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> , 2014, 56, 1947-1951.	0.2	32
6	Electrical and optical properties of TiO <sub>2</sub> and TiO <sub>2</sub> :Fe thin films. <i>Inorganic Materials</i> , 2012, 48, 1026-1032.	0.2	31
7	Graphite traces on water surface – A step toward low-cost pencil-on-semiconductor electronics and optoelectronics. <i>Carbon</i> , 2014, 78, 613-616.	5.4	31
8	Fine Art of Thermoelectricity. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 4737-4742.	4.0	30
9	Mechanisms of charge transport in anisotype n-TiO <sub>2</sub> /p-CdTe heterojunctions. <i>Semiconductors</i> , 2011, 45, 1077-1081.	0.2	29
10	Annealing effect on the near-band edge emission of ZnO. <i>Journal of Physics and Chemistry of Solids</i> , 2013, 74, 291-297.	1.9	28
11	Photosensitive Schottky-type heterojunctions prepared by the drawing of graphite films. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	25
12	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> , 2018, 216, 173-175.	1.3	25
13	Optical constants and polarimetric properties of MnO <sub>2</sub> thin films. <i>Optical Materials</i> , 2012, 34, 1940-1945.	1.7	24
14	Graphitic carbon/n-CdTe Schottky-type heterojunction solar cells prepared by electron-beam evaporation. <i>Solar Energy</i> , 2015, 112, 78-84.	2.9	24
15	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> , 2017, 100, 154-160.	1.9	24
16	Electrical and photoelectric properties of anisotype n-TiN/p-Si heterojunctions. <i>Semiconductors</i> , 2013, 47, 1174-1179.	0.2	23
17	Fabrication and characterization of anisotype heterojunctions n-TiN/p-CdTe. <i>Semiconductor Science and Technology</i> , 2014, 29, 015007.	1.0	23
18	Light-dependent I-V characteristics of TiO <sub>2</sub> /CdTe heterojunction solar cells. <i>Semiconductor Science and Technology</i> , 2012, 27, 055008.	1.0	22

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19	Kinetic properties of TiN thin films prepared by reactive magnetron sputtering. <i>Physics of the Solid State</i> , 2013, 55, 2234-2238.	0.2	22
20	Optical properties of TiO <sub>2</sub> -MnO <sub>2</sub> thin films prepared by electron-beam evaporation. <i>Technical Physics</i> , 2012, 57, 1148-1151.	0.2	20
21	Electrical properties of anisotype heterojunctions n-CdZnO/p-CdTe. <i>Semiconductors</i> , 2012, 46, 1152-1157.	0.2	18
22	Features of the influence of the deposition power and Ar/O <sub>2</sub> gas ratio on the microstructure and optical properties of the Zn <sub>0.9</sub> Cd <sub>0.1</sub> O films. <i>Thin Solid Films</i> , 2012, 520, 4772-4777.	0.8	17
23	Peculiarities in electrical and optical properties of Cu <sub>2</sub> Zn <sub>1-x</sub> Mn <sub>x</sub> Sn <sub>4</sub> films obtained by spray pyrolysis. <i>Technical Physics Letters</i> , 2016, 42, 291-294.	0.2	17
24	Low-temperature spray-pyrolysis of FeS <sub>2</sub> films and their electrical and optical properties. <i>Physics of the Solid State</i> , 2016, 58, 37-41.	0.2	17
25	Magnetic, electrical, and optical properties of (HgS) <sub>1.5</sub> (Al <sub>2</sub> S <sub>3</sub> ) <sub>0.5</sub> ⊗Mn <sup>2+</sup> and (HgS) <sub>1.5</sub> (In <sub>2</sub> S <sub>3</sub> ) <sub>0.5</sub> ⊗Mn <sup>2+</sup> crystals. <i>Inorganic Materials</i> , 2012, 48, 655-661.	0.2	15
26	Transport properties of metal-semiconductor junctions on n-type InP prepared by electrophoretic deposition of Pt nanoparticles. <i>Semiconductor Science and Technology</i> , 2014, 29, 045017.	1.0	15
27	Temperature dependent electrical properties and barrier parameters of photosensitive heterojunctions n-TiN-N/p-Cd <sub>1-x</sub> Zn <sub>x</sub> Te. <i>Semiconductor Science and Technology</i> , 2015, 30, 075006.	1.0	15
28	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> , 2016, 58, 1058-1064.	0.2	15
29	Molybdenum oxide thin films in CdTe-based electronic and optoelectronic devices. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 346-349.	1.2	15
30	Coupling between structural properties and charge transport in nano-crystalline and amorphous graphitic carbon films, deposited by electron-beam evaporation. <i>Nanotechnology</i> , 2020, 31, 505706.	1.3	15
31	Optical properties of Hg <sub>1-x</sub> MnxTe <sub>1-y</sub> Se <sub>y</sub> . <i>Infrared Physics and Technology</i> , 2005, 46, 379-387.	1.3	14
32	2D nanocomposite photoconductive sensors fully dry drawn on regular paper. <i>Nanotechnology</i> , 2015, 26, 255501.	1.3	13
33	Isotype surface-barrier n-TiN/n-Si heterostructure. <i>Semiconductors</i> , 2014, 48, 219-223.	0.2	12
34	Fabrication and investigation of photosensitive MoO <sub>x</sub> /n-CdTe heterojunctions. <i>Semiconductor Science and Technology</i> , 2016, 31, 105006.	1.0	12
35	Modification of the properties of tin sulfide films grown by spray pyrolysis. <i>Inorganic Materials</i> , 2016, 52, 851-857.	0.2	12
36	Capabilities of CdTe-Based Detectors With $\{\mathrm{MoO}\}_x$ Contacts for Detection of X- and $\gamma$ -Radiation. <i>IEEE Transactions on Nuclear Science</i> , 2017, 64, 1168-1172.	1.2	12

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37	Performance Comparison of X- and $\gamma$ -Ray CdTe Detectors With MoO <sub>x</sub> , TiO <sub>x</sub> , and TiN Schottky Contacts. IEEE Transactions on Nuclear Science, 2018, 65, 1365-1370.	1.2	12
38	Electronic and magnetic properties of the diluted magnetic semiconductor Hg <sub>1-x</sub> Mn <sub>x</sub> Te <sub>1-y</sub> Se <sub>y</sub> . Semiconductor Science and Technology, 1995, 10, 463-468.	1.0	11
39	Charge transport mechanisms in anisotype n-TiO <sub>2</sub> /p-Si heterostructures. Semiconductors, 2013, 47, 799-803.	0.2	11
40	Surface barrier heterojunctions TiO <sub>2</sub> /CdZnTe. Semiconductor Science and Technology, 2013, 28, 015014.	1.0	10
41	Electrical Properties of p-NiO/n-Si Heterostructures Based on Nanostructured Silicon. Semiconductors, 2018, 52, 859-863.	0.2	10
42	Electrical Properties and Energy Parameters of n-FeS <sub>2</sub> /p-Cd <sub>1-x</sub> Zn <sub>x</sub> Te Heterojunctions. Semiconductors, 2018, 52, 1171-1177.	0.2	9
43	Structure and optical properties of thin films CZTS obtained by the RF magnetron sputtering. , 2018, , .		9
44	Electric Properties of Thin Films Cu <sub>2</sub> ZnSnSe <sub>4</sub> and Cu <sub>2</sub> ZnSnSe <sub>2</sub> Te <sub>2</sub> (S <sub>2</sub> ) Obtained by Thermal Vacuum Deposition. Journal of Nano- and Electronic Physics, 2018, 10, 01028-1-01028-3.	0.2	9
45	Effect of heat treatment in sulfur and mercury vapors on the magnetic susceptibility of Hg <sub>1-x</sub> Mn <sub>x</sub> Te <sub>1-y</sub> S <sub>y</sub> crystals. Inorganic Materials, 2008, 44, 475-480.	0.2	8
46	Magnetic and band parameters of (3HgS) <sub>1-x</sub> (Al <sub>2</sub> S <sub>3</sub> ) <sub>x</sub> (x = 0.5) crystals doped with manganese. Russian Physics Journal, 2010, 53, 60-66.	0.2	8
47	Electrical and optical properties of manganese-doped (3HgSe) <sub>1-x</sub> (Al <sub>2</sub> Se <sub>3</sub> ) <sub>x</sub> crystals. Inorganic Materials, 2010, 46, 460-463.	0.2	8
48	Physical properties of Hg <sub>1-x</sub> Cd <sub>x</sub> Eu <sub>y</sub> Se crystals. Inorganic Materials, 2014, 50, 241-245.	0.2	8
49	Temperature and light dependent diode current in high-efficiency solution-processed small-molecule solar cells. Organic Electronics, 2014, 15, 2141-2147.	1.4	8
50	Structural, electrical, and photoelectric properties of p-NiO/n-CdTe heterojunctions. Optical Engineering, 2018, 57, 1.	0.5	8
51	Mechanisms of electron scattering in (3HgSe) <sub>1-x</sub> (Al <sub>2</sub> Se <sub>3</sub> ) <sub>x</sub> crystals doped with manganese. Russian Physics Journal, 2009, 52, 1355-1357.	0.2	7
52	Charge transport and mechanisms of electron scattering in (HgSe) <sub>3</sub> (In <sub>2</sub> Se <sub>3</sub> ) crystals doped with 3d transition metals. Inorganic Materials, 2014, 50, 447-451.	0.2	7
53	Temperature dependences of the electrical parameters of anisotype NiO/CdTe heterojunctions. Semiconductors, 2017, 51, 344-348.	0.2	7
54	Electron paramagnetic resonance studies of Hg <sub>1-x</sub> Mn <sub>x</sub> Te <sub>1-y</sub> Se <sub>y</sub> . Solid State Communications, 2002, 122, 389-393.	0.9	6

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55	Optical coefficients of Hg <sub>1-x</sub> Cd <sub>x</sub> Se crystals. Optics and Spectroscopy (English Translation) Tj ETQq1 1 0.784314 rgBT / Overlock	0.2	6
56	Magnetic, optical, and kinetic properties of Hg <sub>1-x</sub> Mn <sub>x</sub> Te crystals. Inorganic Materials, 2013, 49, 445-449.	0.2	6
57	Structural and photoluminescent properties of TiN thin films. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT / Overlock	0.2	6
58	Electrical and Photoelectric Properties of the TiN/p-InSe Heterojunction. Semiconductors, 2016, 50, 334-338.	0.2	6
59	Temperature dependence of optical properties (3HgSe) <sub>0.5</sub> (In <sub>2</sub> Se <sub>3</sub> ) <sub>0.5</sub> , doped with Mn or Fe. , 2011, , .		5
60	Optical Properties of Hg <sub>1-x</sub> Cd <sub>x</sub> Se Crystals. Russian Physics Journal, 2013, 56, 831-836.	0.2	5
61	Specific features of the recombination loss of the photocurrent in n-TiN/p-Si anisotype heterojunctions. Semiconductors, 2014, 48, 1504-1506.	0.2	5
62	Electrical properties of MOS diodes In/TiO <sub>2</sub> /p-CdTe. Semiconductors, 2014, 48, 487-491.	0.2	5
63	Electrical properties of thin-film semiconductor heterojunctions n-TiO <sub>2</sub> /p-CuInS <sub>2</sub> . Semiconductors, 2014, 48, 1046-1050.	0.2	5
64	Electrical properties of anisotype n-TiN/p-Hg <sub>3</sub> In <sub>2</sub> Te <sub>6</sub> heterojunctions. Technical Physics Letters, 2014, 40, 231-233.	0.2	5
65	Surface morphology and composition of crystals of indium and mercury selenides doped with 3d metals. Journal of Surface Investigation, 2015, 9, 415-419.	0.1	5
66	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. Physics of the Solid State, 2017, 59, 1643-1647.	0.2	5
67	Optical and electrical properties of thin NiO films deposited by reactive magnetron sputtering and spray pyrolysis. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2017, 122, 944-948.	0.2	5
68	Effect of surface treatment on the quality of ohmic contacts to single-crystal p-CdTe. Journal of Surface Investigation, 2017, 11, 276-279.	0.1	4
69	Graphite/p-SiC Schottky Diodes Prepared by Transferring Drawn Graphite Films onto SiC. Semiconductors, 2018, 52, 236-241.	0.2	4
70	The influence of selenium on the optical properties of thin films KZTS. , 2018, , .		4
71	11th International Conference "Correlation Optics" Propolis films for hybrid biomaterial-inorganic electronics and optoelectronics. Applied Optics, 2014, 53, B121.	0.9	3
72	Electrical properties of anisotype n-CdO/p-Si heterojunctions. Semiconductors, 2014, 48, 899-904.	0.2	3

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73	Electrical and photoelectric properties of n-TiN/p-Hg <sub>3</sub> In <sub>2</sub> Te <sub>6</sub> heterostructures. Semiconductors, 2016, 50, 1020-1024.	0.2	3
74	Optical properties of thin Cu <sub>2</sub> ZnSnS <sub>4</sub> films produced by RF magnetron sputtering. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2017, 123, 38-43.	0.2	3
75	Charge-transport mechanisms in heterostructures based on TiO <sub>2</sub> :Cr <sub>2</sub> O <sub>3</sub> thin films. Semiconductors, 2014, 48, 1174-1177.	0.2	2
76	Electrical and Optical Properties of Cu <sub>2</sub> Zn(Fe,Mn)SnS <sub>4</sub> Films Prepared by Spray Pyrolysis. Technical Physics, 2018, 63, 243-249.	0.2	2
77	Radiation Resistance of (HgSe) <sub>3</sub> (In <sub>2</sub> Se <sub>3</sub> ) <sub>3</sub> . Russian Physics Journal, 2018, 61, 1189-1193.	0.2	2
78	Mechanisms of Charge Transport in Anisotype Heterojunctions p-NiO/n-Si. Journal of Nano- and Electronic Physics, 2018, 10, 02028-1-02028-4.	0.2	2
79	Optical properties of spin-coated SnS <sub>2</sub> thin films. , 2018, , .		2
80	Influence of technological conditions on optical and structural properties of molybdenum oxide thin films. , 2018, , .		2
81	Magnetic, optical, and kinetic properties of Hg <sub>1-x</sub> Cd <sub>x</sub> Se crystals. Inorganic Materials, 2016, 52, 447-451.	0.2	1
82	Silicon nanowire array architecture for heterojunction electronics. Semiconductors, 2017, 51, 542-548.	0.2	1
83	Electrical properties of photosensitive heterostructures n-FeS <sub>2</sub> /p-InSe. Functional Materials, 2018, 25, 463-470.	0.4	1
84	Prospects of In/CdTe X- and $\gamma$ -ray detectors with MoO <sub>3</sub> Ohmic contacts. , 2018, , .		1
85	Heterojunction photodiode on cleaved SiC. , 2018, , .		1
86	The boil-off effect and negative magnetoresistance in p-Hg <sub>1-x</sub> Mn <sub>x</sub> Te <sub>1-y</sub> Se <sub>y</sub> . European Physical Journal D, 1996, 46, 2025-2026.	0.4	0
87	Kinetic properties and band parameters of Hg <sub>1-x</sub> Mn <sub>x</sub> S crystals. Russian Physics Journal, 2010, 53, 431-434.	0.2	0
88	Electrical properties of an n-TiO <sub>2</sub> /n-GaP semiconductor heterostructure. Russian Physics Journal, 2013, 56, 233-235.	0.2	0
89	The effect of surface treatment on electrical and photoelectrical properties of anisotype heterojunctions n-TiN/p-Si. Proceedings of SPIE, 2013, , .	0.8	0
90	Effect of annealing on the kinetic properties and band parameters of Hg <sub>1-x</sub> Cd <sub>x</sub> Se semiconductor crystals. Semiconductors, 2014, 48, 1680-1684.	0.2	0

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91	Composition and predominant electron scattering mechanisms in $\text{Hg}_{1-x}\text{Cd}_x\text{Eu}_y\text{Se}$ crystals. Inorganic Materials, 2014, 50, 987-991.	0.2	0
92	Structural parameters and polarization properties of TiN thin films prepared by reactive magnetron sputtering. , 2015, , .		0
93	Possibilities of CdTe-based $X\text{ray}$ detectors with MoOx contacts. , 2016, , .		0
94	Influence of Surface Processing Si on the Electrical Properties of Heterostructures p-NiO/n-Si. Journal of Nano- and Electronic Physics, 2017, 9, 03024-1-03024-4.	0.2	0
95	Physical properties of the heterojunction $\text{p-CdTe}/\text{n-CdTe}$ as a function of the parameters of CdTe crystals. , 2018, , .		0
96	Optical constants and polarimetric properties of AlN thin films. , 2018, , .		0
97	Physical properties of W2N thin films deposited by reactive magnetron sputtering. , 2020, , .		0
98	Physical properties of CrxN thin films. , 2020, , .		0