

Pavel HubĀ-k

List of Publications by Year in descending order

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times ranked

1014
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#	ARTICLE	IF	CITATIONS
1	Transport properties of AlGaIn/GaN HEMT structures with back barrier: impact of dislocation density and improved design. <i>Semiconductor Science and Technology</i> , 2021, 36, 075016.	1.0	11
2	Analysis of thickness-dependent electron transport in magnetron sputtered ZrN films by spectroscopic ellipsometry. <i>Thin Solid Films</i> , 2021, 731, 138746.	0.8	4
3	Modeling current transport in boron-doped diamond at high electric fields including self-heating effect. <i>Diamond and Related Materials</i> , 2020, 109, 108003.	1.8	5
4	Room Temperature Reactive Deposition of InGaZnO and ZnSnO Amorphous Oxide Semiconductors for Flexible Electronics. <i>Coatings</i> , 2020, 10, 2.	1.2	10
5	Microfluidic Diamond Biosensor Using NV Centre Charge State Detection. <i>IFMBE Proceedings</i> , 2019, , 27-31.	0.2	1
6	Role of contacts in metal/semi-insulating GaAs/metal structures: Symmetrical geometry. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0
7	Electrical and optical properties of scandium nitride nanolayers on MgO (100) substrate. <i>AIP Advances</i> , 2019, 9, .	0.6	16
8	Diffusive propagation of nervous signals and their quantum control. <i>European Physical Journal: Special Topics</i> , 2019, 227, 2329-2347.	1.2	2
9	Electrochemical Characterization of CuSCN Hole-Extracting Thin Films for Perovskite Photovoltaics. <i>ACS Applied Energy Materials</i> , 2019, 2, 4264-4273.	2.5	20
10	Neuron Adhesion on Diamond: Competition between Polymer Treatment and Surface Morphology. <i>Advanced Engineering Materials</i> , 2018, 20, 1800182.	1.6	3
11	Nanocrystalline Boron-Doped Diamond as a Corrosion-Resistant Anode for Water Oxidation via Si Photoelectrodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29552-29564.	4.0	23
12	Optically transparent composite diamond/Ti electrodes. <i>Carbon</i> , 2017, 119, 179-189.	5.4	18
13	On relativistic transformation of temperature. <i>Fortschritte Der Physik</i> , 2017, 65, 1700018.	1.5	5
14	Thermal Analysis Scheme Anticipated for Better Understanding of the Earth Climate Changes: Impact of Irradiation, Absorbability, Atmosphere, and Nanoparticles. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2017, , 471-494.	0.5	1
15	What Is the Physical and Operational Meaning of Temperature and Its Self-Measurability During Unsteady Thermal Processes Within Thermodynamic Concepts?. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2017, , 45-77.	0.5	2
16	The growth of zinc phthalocyanine thin films by pulsed laser deposition. <i>Journal of Materials Research</i> , 2016, 31, 163-172.	1.2	19
17	Photocurrent spectra of semi-insulating GaAs M ⁺ S ⁻ M diodes: Role of the contacts. <i>Solid-State Electronics</i> , 2016, 118, 30-35.	0.8	5
18	Effect of plasma composition on nanocrystalline diamond layers deposited by a microwave linear antenna plasma-enhanced chemical vapour deposition system. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 2418-2423.	0.8	15

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19	Change of diamond film structure and morphology with N_{2} addition in MW PECVD apparatus with linear antenna delivery system. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2296-2301.	0.8	7
20	Large area deposition of boron doped nano-crystalline diamond films at low temperatures using microwave plasma enhanced chemical vapour deposition with linear antenna delivery. <i>Diamond and Related Materials</i> , 2014, 47, 27-34.	1.8	38
21	Unexpected current lowering by a low work-function metal contact: Mg/Si/GaAs. <i>Solid-State Electronics</i> , 2013, 82, 72-76.	0.8	12
22	Conductivity of boron-doped polycrystalline diamond films: influence of specific boron defects. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	55
23	4H-SiC and novel Si GaAs-based M-S-M radiation hard photodetectors applicable in UV, EUV, and soft x-ray detection: design, technology, and performance testing. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
24	Application of the electrostatic Thompson-Lampard theorem to resistivity measurements. <i>Measurement Science and Technology</i> , 2012, 23, 045004.	1.4	6
25	Point contact to single-crystalline diamond. <i>Semiconductor Science and Technology</i> , 2012, 27, 065013.	1.0	0
26	Electron Transport Studies of Disorder and Dimensionality in Nano-Crystalline Diamond. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2012, , 371-397.	0.5	0
27	Transport properties of hydrogen-terminated nanocrystalline diamond films. <i>Diamond and Related Materials</i> , 2012, 24, 63-68.	1.8	24
28	Shadows over the speed of light. <i>Physica Scripta</i> , 2012, T151, 014080.	1.2	3
29	Metal/Si GaAs/Metal systems: Demonstration of unpinning of the Fermi level at the interface. , 2012, , .		0
30	Oxide Glass Structure, Non-bridging Oxygen and Feasible Magnetic Properties due to the Addition of Fe/Mn Oxides. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2011, , 199-216.	0.5	2
31	Synthesis, structure, and opto-electronic properties of organic-based nanoscale heterojunctions. <i>Nanoscale Research Letters</i> , 2011, 6, 238.	3.1	24
32	Radial space-charge-limited electron flow in semi-insulating GaN:Fe. <i>Journal of Applied Physics</i> , 2011, 110, 013723.	1.1	1
33	Historical Roots and Development of Thermal Analysis and Calorimetry. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2011, , 347-370.	0.5	16
34	Transport Constitutive Relations, Quantum Diffusion and Periodic Reactions. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2011, , 227-244.	0.5	8
35	Vibration Forms in the Vicinity of Glass Transition, Structural Changes and the Creation of Voids When Assuming the Role of Polarizability. <i>Hot Topics in Thermal Analysis and Calorimetry</i> , 2011, , 41-58.	0.5	2
36	Thermal analysis scheme aimed at better understanding of the Earth's climate changes due to the alternating irradiation. <i>Journal of Thermal Analysis and Calorimetry</i> , 2010, 101, 567-575.	2.0	10

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37	Relativistic transformation of temperature and Mosengeil's antinomy. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 484-487.	1.3	18
38	Photo-conductivity and Hall mobility of holes at polypyrrole-diamond interface. Diamond and Related Materials, 2010, 19, 174-177.	1.8	9
39	Deep defects in GaN/AlGaIn/SiC heterostructures. Journal of Applied Physics, 2009, 105, .	1.1	25
40	Electrostatic screening and experimental evidence of a topological phase transition in a bulk quantum Hall liquid. New Journal of Physics, 2009, 11, 083028.	1.2	5
41	Contribution by Lazare and Sadi Carnot to the caloric theory of heat and its inspirative role in thermodynamics. Journal of Thermal Analysis and Calorimetry, 2009, 97, 679-683.	2.0	15
42	A new kind of quasi-ohmic metallization in semi-insulating GaAs: Study of electrical characteristics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 132-134.	0.7	12
43	Low-Temperature Phenomena in Highly Doped Grained Diamond. Journal of Nanoscience and Nanotechnology, 2009, 9, 3689-3694.	0.9	0
44	Grain boundary effects in nanocrystalline diamond. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2163-2168.	0.8	8
45	Quantum Transport in Boron-Doped Nanocrystalline Diamond. Chemical Vapor Deposition, 2008, 14, 161-172.	1.4	5
46	Phenomenological approach to the caloric theory of heat. Thermochimica Acta, 2008, 474, 16-24.	1.2	38
47	Study of bulk semi-insulating GaAs radiation detectors: Role of ohmic contact metallization in electrical charge transport and detection performance. , 2008, , .		0
48	Influence of ambient humidity on the surface conductivity of hydrogenated diamond. Diamond and Related Materials, 2008, 17, 1356-1361.	1.8	27
49	Interpretation of the DLTS spectra of silicon p-n junctions prepared by diffusion technique. , 2008, , .		4
50	Selected topics related to the transport and superconductivity in boron-doped diamond. Science and Technology of Advanced Materials, 2008, 9, 044101.	2.8	16
51	SOME QUANTUM EXPERIMENTS FROM THE POINT OF VIEW OF STOCHASTIC ELECTRODYNAMICS. , 2007, , .		0
52	On unconventional superconductivity in boron-doped diamond. Diamond and Related Materials, 2007, 16, 1-5.	1.8	28
53	Boron-doped diamond - Grained Mott's metal revealing superconductivity. Diamond and Related Materials, 2007, 16, 921-925.	1.8	14
54	Low-temperature magnetoresistance study of electrical transport in N- and B-doped ultrananocrystalline and nanocrystalline diamond films. Diamond and Related Materials, 2006, 15, 607-613.	1.8	24

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55	Weak localization – Precursor of unconventional superconductivity in nanocrystalline boron-doped diamond. <i>Diamond and Related Materials</i> , 2006, 15, 1863-1867.	1.8	18
56	Superconductive B-doped nanocrystalline diamond thin films: Electrical transport and Raman spectra. <i>Applied Physics Letters</i> , 2006, 88, 232111.	1.5	77
57	Performance study of radiation detectors based on semi-insulating GaAs with P+ homo- and heterojunction blocking electrode. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 563, 159-162.	0.7	2
58	Superconductivity and low temperature electrical transport in B-doped CVD nanocrystalline diamond. <i>Science and Technology of Advanced Materials</i> , 2006, 7, S41-S44.	2.8	14
59	Transport-controlling deep defects in MOVPE grown GaSb. <i>Semiconductor Science and Technology</i> , 2006, 21, 180-183.	1.0	4
60	Electrical Transport in Heavily B-Doped Epitaxial Diamond and NCD. <i>Materials Research Society Symposia Proceedings</i> , 2006, 956, 1.	0.1	0
61	Deep Defects in MOVPE Grown SiC/AlGaIn/GaN Heterostructures. , 2006, , .		0
62	Weak localization in ultrananocrystalline diamond. <i>Applied Physics Letters</i> , 2006, 88, 092107.	1.5	42
63	Do periodic chemical reactions reveal Fick's quantum diffusion limit?. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 145-149.	1.3	7
64	Filling a cavity with zero-point electromagnetic radiation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 213-217.	1.3	0
65	Weak localization – an experimental tool to investigate electromagnetic vacuum fluctuations. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 375-379.	1.3	2
66	On Expansion of a Spherical Enclosure Bathed in Zero-Point Radiation. <i>Entropy</i> , 2004, 6, 216-222.	1.1	0
67	Influence of growth rate on charge transport in GaSb homojunctions prepared by metalorganic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2004, 95, 1811-1815.	1.1	17
68	Lateral conductivity in GaAs/InAs quantum dot structures. <i>EPJ Applied Physics</i> , 2004, 27, 93-95.	0.3	1
69	Dynamical behaviour of the δ -doped Au/GaAs Schottky barrier. <i>Physica Status Solidi A</i> , 2003, 195, 61-66.	1.7	0
70	Ohm – Kirchhoff's law and screening in two-dimensional electron liquid. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2002, 12, 340-343.	1.3	4
71	Highly disordered two-dimensional electron system in a weak magnetic field. <i>Europhysics Letters</i> , 1999, 45, 374-380.	0.7	1
72	Bulk Extended States in a Two-Dimensional Electron Gas in the Quantum Hall Regime. <i>Physical Review Letters</i> , 1999, 82, 4699-4702.	2.9	9

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73	The role of space charge in GaAs-based particle detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 434, 57-60.	0.7	0
74	Out-of-Plane Weak Localization in Two-Dimensional Electron Structures. Physical Review Letters, 1998, 80, 4020-4023.	2.9	7
75	High field transport in semi-insulating GaAs: A promising material for solid-state detectors. Journal of Applied Physics, 1997, 82, 3358-3362.	1.1	16
76	Deep level transient measurements of DX centers in GaAlAs up to room temperature. Journal of Applied Physics, 1997, 82, 1967-1969.	1.1	0
77	On mechanical contacts to porous silicon. Thin Solid Films, 1997, 295, 305-309.	0.8	0
78	Low-field magnetoresistance anomaly in two-dimensional electron gas. Solid State Communications, 1997, 101, 243-247.	0.9	9
79	DX center in AlGaAsSb:Te and a mechanism of its ionization. Journal of Applied Physics, 1996, 79, 2467-2472.	1.1	1
80	Deep donors in tellurium and sulphur codoped GaSb. Semiconductor Science and Technology, 1996, 11, 989-995.	1.0	3
81	Hall and photo-Hall effect measurements on sulphur-doped GaSb. Semiconductor Science and Technology, 1995, 10, 455-462.	1.0	8
82	Manganese-doped GaSb single crystals grown by the Czochralski method. Semiconductor Science and Technology, 1994, 9, 1138-1142.	1.0	6
83	Electrical properties of Mn-doped GaSb. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1994, 28, 134-137.	1.7	7
84	DX-like centre in bulk GaSb:S. Solid State Communications, 1993, 86, 19-22.	0.9	19
85	GaSb single crystals doped with manganese. Journal of Crystal Growth, 1993, 132, 345-347.	0.7	12
86	Sulphur-doped GaSb single crystals. Journal of Crystal Growth, 1993, 126, 617-620.	0.7	20
87	Thermodynamic aspects of (Te,S)-double-doped GaSb crystal growth. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1993, 21, 14-18.	1.7	5
88	Analysis of experimental data on DX centres in GaAs _{1-x} P _x :S. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1993, 67, 49-67.	0.6	1
89	A comparison of picps with direct measurements of non-exponential current transients on Si-GaAs. Solid State Communications, 1991, 77, 409-413.	0.9	15
90	Transport mechanisms in GaAlAs-based laser structures. Semiconductor Science and Technology, 1991, 6, 261-267.	1.0	1

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91	Persistent behaviour of 2DEG in single $\hat{\Gamma}$ -layers. , 0, , .		0
92	The screening properties of 2DEG in the integral quantum Hall regime. , 0, , .		2