

# Buczko Ryszard

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4516254/publications.pdf>

Version: 2024-02-01

90  
papers

2,899  
citations

279487

23  
h-index

168136

53  
g-index

90  
all docs

90  
docs citations

90  
times ranked

3487  
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological crystalline insulator states in $\text{Pb}_{1-x}\text{Sn}_x\text{Se}$ . <i>Nature Materials</i> , 2012, 11, 1023-1027.	13.3	693
2	Atomic Arrangement of Iodine Atoms inside Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2000, 84, 4621-4624.	2.9	224
3	Bonding Arrangements at the $\text{Si}/\text{SiO}_2$ and $\text{SiC}/\text{SiO}_2$ Interfaces and a Possible Origin of their Contrasting Properties. <i>Physical Review Letters</i> , 2000, 84, 943-946.	2.9	186
4	Reactions of hydrogen with $\text{Si-SiO}_2$ interfaces. <i>IEEE Transactions on Nuclear Science</i> , 2000, 47, 2262-2268.	1.2	184
5	Method for Suppression of Stacking Faults in Wurtzite $\text{III-V}$ Nanowires. <i>Nano Letters</i> , 2009, 9, 1506-1510.	4.5	162
6	Nucleation of Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2003, 90, 145501.	2.9	127
7	Shallow donor impurities in $\text{GaAs-Ga}_{1-x}\text{Al}_x\text{As}$ quantum-well structures: Role of the dielectric-constant mismatch. <i>Physical Review B</i> , 1990, 41, 5096-5103.	1.1	102
8	Bound and resonant electron states in quantum dots: The optical spectrum. <i>Physical Review B</i> , 1996, 54, 2667-2674.	1.1	92
9	Topological crystalline insulator $(\text{Pb,Sn})\text{Te}$ : Surface states and their spin polarization. <i>Physical Review B</i> , 2013, 88, .	1.1	91
10	Excitonic Effects in Core-Excitation Spectra of Semiconductors. <i>Physical Review Letters</i> , 2000, 85, 2168-2171.	2.9	76
11	Spin-polarized (001) surface states of the topological crystalline insulator $\text{Pb}_{1-x}\text{Sn}_x\text{Se}$ . <i>Physical Review B</i> , 2013, 87, .	1.1	68
12	Core-hole effects on energy-loss near-edge structure. <i>Ultramicroscopy</i> , 2001, 86, 355-362.	0.8	65
13	Observation of topological crystalline insulator surface states on (111)-oriented $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$ films. <i>Physical Review B</i> , 2014, 89, .	1.1	60
14	Modelling the structure of $\text{GaAs}$ and $\text{InAs}$ nanowires. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 454226.	0.7	59
15	$\text{Si}/\text{SiO}_2$ and $\text{SiC}/\text{SiO}_2$ Interfaces for MOSFETs – Challenges and Advances. <i>Materials Science Forum</i> , 2006, 527-529, 935-948.	0.3	54
16	Binding energies of excited shallow acceptor states in $\text{GaAs/Ga}_{1-x}\text{Al}_x\text{As}$ quantum wells. <i>Physical Review B</i> , 1989, 40, 5602-5612.	1.1	52
17	Shallow acceptor resonant states in $\text{Si}$ and $\text{Ge}$ . <i>Physical Review B</i> , 1992, 45, 5838-5847.	1.1	48
18	Giant Rashba Splitting in $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$ (111) Topological Crystalline Insulator Films Controlled by Bi Doping in the Bulk. <i>Advanced Materials</i> , 2017, 29, 1604185.	11.1	44

#	ARTICLE	IF	CITATIONS
19	Structure-Dependent Ferromagnetism in Mn-Doped III-V Nanowires. Nano Letters, 2011, 11, 3319-3323.	4.5	38
20	Quantum spin Hall effect in IV-VI topological crystalline insulators. New Journal of Physics, 2015, 17, 063041.	1.2	38
21	Crystal Structure and Transport in Merged InAs Nanowires MBE Grown on (001) InAs. Nano Letters, 2013, 13, 5190-5196.	4.5	35
22	Effect of uniaxial stress on shallow acceptor states in silicon and germanium. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1987, 9, 669-689.	0.4	32
23	PbTe/PbSnTe heterostructures as analogs of topological insulators. Physical Review B, 2012, 85, .	1.1	32
24	Origin of the Residual Acceptor Ground-State Splitting in Silicon. Physical Review Letters, 2003, 90, Q16404.	2.9	24
25	Structural and electronic properties of Pb <sub>1-x</sub> Cd <sub>x</sub> Te and Pb <sub>1-x</sub> Sn <sub>x</sub> Te. Applied Physics Letters, 2009, 95, 082105.	1.1	20
26	Experimental and Theoretical Analysis of PbTe-CdTe Solid Solution Grown by Physical Vapour Transport Method. Acta Physica Polonica A, 2009, 116, 959-961.	0.2	20
27	Defect Free PbTe Nanowires Grown by Molecular Beam Epitaxy on GaAs(111)B Substrates. Crystal Growth and Design, 2010, 10, 109-113.	1.4	18
28	Alloy broadening of the near-gap luminescence and the natural band offset in semiconductor alloys. Semiconductor Science and Technology, 1992, 7, 547-551.	1.0	16
29	Equation of state for gadolinium gallium garnet crystals: Experimental and computational study. Applied Physics Letters, 2009, 95, 082105.	1.5	14
30	Merging of the F <sub>4</sub> level states of Nd <sup>3+</sup> in the 4f <sup>9</sup> configuration. Journal of Physics C: Solid State Physics, 1980, 13, 71-83.	0.3	13
31	Atomic Structure and Properties of Extended Defects in Silicon. Solid State Phenomena, 1999, 67-68, 3-14.	0.3	13
32	Crystal and electronic structure of PbTe/CdTe nanostructures. Nanoscale Research Letters, 2011, 6, 126.	3.1	13
33	Segregation of Impurities in GaAs and InAs Nanowires. Journal of Physical Chemistry C, 2013, 117, 20361-20370.	1.5	12
34	Structure Inversion Asymmetry and Rashba Effect in Quantum Confined Topological Crystalline Insulator Heterostructures. Advanced Functional Materials, 2021, 31, 2008885.	7.8	12
35	The effect of stress on the acceptor ground state in germanium. Journal of Physics C: Solid State Physics, 1980, 13, 71-83.	1.5	11
36	Shallow acceptor resonant states in Si and Ge. Solid State Communications, 1995, 93, 367-373.	0.9	11

#	ARTICLE	IF	CITATIONS
37	Effect of uniaxial stress on the acceptor ground state and on hopping conduction in p-type germanium and silicon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1984, 50, 429-462.	0.6	10
38	Evidence for correlated hole distribution in neutron-transmutation-doped isotopically controlled germanium. Physical Review B, 1996, 53, 7797-7804.	1.1	10
39	Atomic-Scale Engineering of the SiC-SiO <sub>2</sub> Interface. Materials Science Forum, 2000, 338-342, 1133-1136.	0.3	9
40	What Determines the Crystal Structure of Nanowires?. AIP Conference Proceedings, 2010, , .	0.3	8
41	Topological states on uneven (Pb,Sn)Se (001) surfaces. Physical Review B, 2018, 98, .	1.1	8
42	Stability of III <sup>V</sup> and IV <sup>VI</sup> nanowires – A theoretical study. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 795-798.	1.3	7
43	Fragility of the Dirac Cone Splitting in Topological Crystalline Insulator Heterostructures. ACS Nano, 2018, 12, 617-626.	7.3	7
44	Occupation of electron subbands in optically excited acceptor-doped GaAs/Al	1.1	6
45	Local and Global Bonding at the Si-SiO <sub>2</sub> Interface. Springer Series in Materials Science, 2001, , 193-218.	0.4	6
46	Percolative transport in GaAs at 10 T magnetic fields Interpretation via hydrogen wavefunctions at megatesla fields. Philosophical Magazine Letters, 1987, 56, 251-258.	0.5	5
47	Modeling of Small Diameter Semiconductor Nanowires. Acta Physica Polonica A, 2007, 112, 425-430.	0.2	5
48	Resonant Photoemission Study of 4f Electrons on the Surface of Semiconductors. Acta Physica Polonica A, 2008, 114, S-103-S-114.	0.2	5
49	The acceptor wavefunctions in the spherical approximation and the piezoresistance in p-type germanium. Journal of Physics C: Solid State Physics, 1980, 13, L9-L12.	1.5	4
50	Transmission Electron Microscopy: Overview and Challenges. AIP Conference Proceedings, 2003, , .	0.3	4
51	Interband polarization spectroscopy to test the spherical model of a shallow acceptor in $\delta$ -doped heterostructures. Journal of Physics Condensed Matter, 2007, 19, 236205.	0.7	4
52	The Si/SiO <sub>2</sub> Interface: Atomic Structures, Composition, Strain And Energetics. Microscopy and Microanalysis, 1999, 5, 122-123.	0.2	3
53	Probing Nanostructures Site by Site with the Aberration-Corrected STEM. Microscopy and Microanalysis, 2003, 9, 2-3.	0.2	3
54	Magnesium Acceptor Energy Levels in Cubic GaN. Acta Physica Polonica A, 2003, 103, 683-688.	0.2	3

#	ARTICLE	IF	CITATIONS
55	Optical $\hat{\sigma}_y$ $\hat{\sigma}_z$ $\hat{\sigma}_x$ Free-to-Bound Transitions in Acceptor $\hat{\sigma}$ -Doped Single Heterostructure - Theoretical Analysis. Acta Physica Polonica A, 2008, 114, 1079-1083.	0.2	3
56	Atomic-Scale Structure of the Si-SiO <sub>2</sub> and SiC-SiO <sub>2</sub> Interfaces and the Origin of Their Contrasting Properties. Materials Research Society Symposia Proceedings, 1999, 592, 234.	0.1	2
57	Direct Observation of Intercalant and Catalyst Particle in Single Wall Carbon Nanotubes. Materials Research Society Symposia Proceedings, 1999, 593, 129.	0.1	2
58	Bonding, Defects, And Defect Dynamics In The SiC-SiO <sub>2</sub> System. Materials Research Society Symposia Proceedings, 2000, 640, 1.	0.1	2
59	New type of antiferromagnetic polaron and bipolaron in high-T <sub>c</sub> superconductors. Physica B: Condensed Matter, 2000, 284-288, 437-438.	1.3	2
60	Optical pumping of the electron spin polarization in bulk CuCl. Physical Review B, 2005, 72, .	1.1	2
61	Optical electron spin pumping in n-doped quantum wells. Journal of Physics Condensed Matter, 2009, 21, 045802.	0.7	2
62	First principles studies of structural, electrical and magnetic properties of semiconductor nanowires. Physica Status Solidi - Rapid Research Letters, 2013, 7, 739-753.	1.2	2
63	Magnetic Properties of Semiconductor-Antiferromagnet Superlattices. Acta Physica Polonica A, 1996, 90, 973-976.	0.2	2
64	The ground state of the shallow acceptor in highly doped P-type Hg <sub>1-x</sub> MnxTe. Solid State Communications, 1986, 59, 495-497.	0.9	1
65	Test for the Impurity Wavefunction Modelling from the Alloy Broadening of the Impurity-Related Luminescence. Materials Science Forum, 1994, 143-147, 501-506.	0.3	1
66	Bound and resonant states of shallow donors in quantum dots. Solid State Communications, 1995, 93, 470.	0.9	1
67	Electric Field Broadening of Gallium Acceptor States in Compensated Ge: Ga, As. Materials Science Forum, 1995, 196-201, 127-132.	0.3	1
68	Nanoscale Structure/Property Correlation Through Aberration-Corrected Stem And Theory. Materials Research Society Symposia Proceedings, 2002, 738, 111.	0.1	1
69	Ferromagnetism in Mn-doped III-V Nanowires. AIP Conference Proceedings, 2011, , .	0.3	1
70	Comment on "Tuning topological surface states by cleavage angle in topological crystalline insulators". Physical Review B, 2020, 101, .	1.1	1
71	Phonon Effects on the Weak Measurement of Charge States in Quantum Dots with a Quantum Point Contact. Acta Physica Polonica A, 2011, 119, 640-643.	0.2	1
72	Valence Band Quantization in a Spherical Quantum Dot. Acta Physica Polonica A, 1992, 82, 789-792.	0.2	1

#	ARTICLE	IF	CITATIONS
73	"Comb-Like" Polarons and Bipolarons in High-T <sub>c</sub> Materials. Acta Physica Polonica A, 2000, 97, 185-188.	0.2	1
74	Sub-Band Spectrum Engineering via Structural Order in Tapered Nanowires. Nano Letters, 2021, 21, 10215-10221.	4.5	1
75	Alloy Broadening of the Acceptor-Related Near-Gap Luminescence in Semiconductor Alloys. Materials Science Forum, 1993, 117-118, 105-110.	0.3	0
76	Core Hole Effects on Eels Near-Edge Fine Structure in Semiconductors and Insulators. Microscopy and Microanalysis, 2001, 7, 1174-1175.	0.2	0
77	The Si/SiO <sub>2</sub> Interface: Atomic Structures, Composition, Strain and Energetics. Microscopy and Microanalysis, 2001, 7, 768-769.	0.2	0
78	Degenerate impurity states in hopping conduction. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2001, 81, 965-984.	0.6	0
79	Magnetic polarons in weakly doped high-T <sub>c</sub> superconductors. Physical Review B, 2002, 66, .	1.1	0
80	Optical $\Gamma_6 \rightarrow \Gamma_8$ Free-to-Bound Transition in Acceptor $\Gamma$ -doped Single Heterostructure – Theoretical Analysis. , 2010, , .		0
81	Atomic Structure and Properties of Dislocations and Grain Boundaries. , 2016, , .		0
82	Dislocations in Semiconductors: Atomic Structure and Properties. , 2001, , 2312-2325.		0
83	Spectroscopy of Be Acceptor Ground State in GaAs/AlGaAs Heterostructure. Acta Physica Polonica A, 2007, 112, 209-213.	0.2	0
84	Percolative Transport in GaAs at 10 T Magnetic Fields: Interpretation via Hydrogen Wavefunctions at Megatesla Fields. Springer Series in Solid-state Sciences, 1989, , 588-591.	0.3	0
85	Impurity Wave Function and Alloy Broadening of Impurity-Related Luminescence. Acta Physica Polonica A, 1993, 84, 591-594.	0.2	0
86	Bound and Resonant States of Shallow Donors in Quantum Antidots. Acta Physica Polonica A, 1996, 90, 743-746.	0.2	0
87	Small Antiferromagnetic Clusters. Acta Physica Polonica A, 1996, 90, 747-750.	0.2	0
88	Ultra-Fast Spin Dynamics in Diluted Magnetic Semiconductors. Acta Physica Polonica A, 1996, 90, 969-972.	0.2	0
89	Quantum Phenomena in Small Antiferromagnets. Acta Physica Polonica A, 1997, 92, 379-382.	0.2	0
90	Quantum Spin Hall Effect in Strained (111)-Oriented SnSe Layers. Acta Physica Polonica A, 2016, 129, A-150-A-152.	0.2	0