

# Valeri I Orlov

## List of Publications by Year in descending order

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47  
papers

351  
citations

840776

11  
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16  
g-index

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51  
docs citations

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times ranked

211  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-resonant change of unlocking stress for dislocations in silicon. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1869-1872.	0.8	36
2	Mechanical properties of nitrogen-doped CZ silicon crystals. <i>Materials Science in Semiconductor Processing</i> , 2002, 5, 403-407.	4.0	23
3	Mechanical properties and deformation of fullerenes. <i>Journal of Superconductivity and Novel Magnetism</i> , 1995, 8, 1-3.	0.5	22
4	Anomalous Dislocation Kink Drift in Germanium. <i>Physical Review Letters</i> , 1997, 78, 3137-3140.	7.8	20
5	Energy Dissipation during High Temperature Displacement-Sensitive Indentation in Cubic Zirconia Single Crystals. <i>Physica Status Solidi A</i> , 1998, 166, 115-126.	1.7	17
6	Recombination and optical properties of dislocations gliding at room temperature in GaN under applied stress. <i>Journal of Alloys and Compounds</i> , 2019, 776, 181-186.	5.5	17
7	Mechanisms of energy dissipation during displacement-sensitive indentation in Ge single crystals at elevated temperatures. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1998, 78, 671-677.	0.6	16
8	Barriers for the kink motion on dislocations in Si. <i>Physica Status Solidi A</i> , 1993, 138, 557-571.	1.7	15
9	Influence of the Dislocation Travel Distance on the DLTS Spectra of Dislocations in Cz-Si. <i>Solid State Phenomena</i> , 2008, 131-133, 175-182.	0.3	14
10	Influence of Nitrogen on Dislocation Mobility in Czochralski Silicon. <i>Solid State Phenomena</i> , 2004, 95-96, 465-472.	0.3	13
11	Effect of a magnetic field on the starting stress and mobility of individual dislocations in silicon. <i>Journal of Experimental and Theoretical Physics</i> , 2003, 97, 601-605.	0.9	11
12	Deformation-Induced Dislocations in 4H-SiC and GaN. <i>Materials Research Society Symposia Proceedings</i> , 1999, 572, 369.	0.1	10
13	Determination of the nonequilibrium concentration of vacancies in silicon crystals by measuring the concentration of nickel atoms at lattice sites. <i>Journal of Experimental and Theoretical Physics</i> , 2010, 110, 769-774.	0.9	10
14	Low temperature stacking fault nucleation and expansion from stress concentrators in 4H-SiC. <i>Acta Materialia</i> , 2017, 139, 155-162.	7.9	10
15	Influence of Magnetic Field on Critical Stress and Mobility of Dislocations in Silicon. <i>Solid State Phenomena</i> , 2004, 95-96, 433-438.	0.3	9
16	Possible Polymerisation at Dislocations in C60 Crystals. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 222, 111-119.	1.5	8
17	Some new insights into the impact of annealing on single stacking faults in 4H-SiC. <i>Superlattices and Microstructures</i> , 2018, 120, 7-14.	3.1	8
18	Residual Stress Distribution and Silicon Phase Transformation Induced by Rockwell Indentation at Different Temperatures, Studied by Means of Micro-Raman Spectroscopy. <i>Solid State Phenomena</i> , 2004, 95-96, 513-518.	0.3	7

#	ARTICLE	IF	CITATIONS
19	Dislocation and kink motion study in the bulk SiGe alloy single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 735-738.	5.6	6
20	EBIC and LBIC investigations of dislocation trails in Si. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 1081-1084.	0.8	6
21	The Effect of Tin Content on the Strength of a Carbon Fiber/Al-Sn-Matrix Composite Wire. Metals, 2021, 11, 2057.	2.3	6
22	Ge Concentration Effect on the Dislocation Mobility in the Bulk SiGe Alloy Single Crystals. Solid State Phenomena, 1997, 57-58, 419-424.	0.3	5
23	Spatial Distribution of the Dislocation Trails in Silicon. Solid State Phenomena, 2015, 242, 155-159.	0.3	5
24	Estimations of Low Temperature Dislocation Mobility in GaN. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900163.	1.8	5
25	Dislocation trails in Si: Geometry and electrical properties. Physica Status Solidi C: Current Topics in Solid State Physics, 2017, 14, 1700074.	0.8	5
26	Silicon Layers Grown on Siliconized Carbon Net: Producing and Properties. Solid State Phenomena, 2005, 108-109, 503-508.	0.3	4
27	Fine Structure of Dislocation Related PL Bands D1 and D2 in Silicon. Solid State Phenomena, 2005, 108-109, 767-772.	0.3	4
28	Structural state and mechanical properties of nanocrystalline carbon films obtained by methane pyrolysis in electric field. Technical Physics Letters, 2013, 39, 108-111.	0.7	4
29	A Comparison of EBIC, LBIC and XBIC Methods as Tools for Multicrystalline Si Characterization. Solid State Phenomena, 0, 205-206, 142-147.	0.3	4
30	Extended defect study in Si: EBIC versus LBIC. Superlattices and Microstructures, 2016, 99, 202-207.	3.1	4
31	EBIC and LBIC studies of the properties of extended defects in plastically deformed silicon. Semiconductors, 2015, 49, 720-723.	0.5	3
32	Increase of Electrical Activity of Dislocations in Si during Plastic Deformation. Materials Science Forum, 1995, 196-201, 1183-1188.	0.3	2
33	Raman investigation of stress and phase transformation induced in silicon by indentation at high temperatures. EPJ Applied Physics, 2004, 27, 279-283.	0.7	2
34	Peculiarities of structure and properties of metal surfaces subjected to strain polishing. Inorganic Materials: Applied Research, 2014, 5, 307-311.	0.5	2
35	Investigation of stacking faults introduced into 4H-SiC crystals by indentation. Journal of Surface Investigation, 2017, 11, 234-237.	0.5	2
36	Study of Low Voltage Prebreakdown Sites in Multicrystalline Si Based Cells by the LBIC, EL, and EDS Methods. Advances in Condensed Matter Physics, 2017, 2017, 1-5.	1.1	2

#	ARTICLE	IF	CITATIONS
37	Effect of Nickel and Copper Introduced at Room Temperature on the Recombination Properties of Extended Defects in Silicon. <i>Semiconductors</i> , 2019, 53, 411-414.	0.5	2
38	Dislocation Kink Dynamics and Gettering Processes in Semiconductors. <i>Solid State Phenomena</i> , 1991, 19-20, 311-322.	0.3	1
39	Dislocation-point defects interaction in semiconductors and kink mobility. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1993, 164, 346-349.	5.6	1
40	Experimental Study of Anomalous Dislocation Kinks Drift in Germanium Single Crystals. <i>Solid State Phenomena</i> , 1993, 32-33, 333-338.	0.3	1
41	Dynamics of kinks on dislocations in SiGe single crystals. <i>Journal of Experimental and Theoretical Physics</i> , 2002, 94, 108-118.	0.9	1
42	Dislocation mobility in C60 fullerite crystals. <i>Physics of the Solid State</i> , 2007, 49, 800-804.	0.6	1
43	Micromechanical properties of C70 single crystals in the temperature range 77â€“350â€“K. <i>Low Temperature Physics</i> , 2012, 38, 227-234.	0.6	1
44	X-ray diffraction, calorimetric, and spectroscopic studies of lithium borate glass activated with various oxide admixtures based on europium. <i>Glass Physics and Chemistry</i> , 2016, 42, 453-457.	0.7	1
45	Dislocation dynamics in Ge single crystals under conditions of periodic two-level intermittent loading. <i>Physica Status Solidi A</i> , 1993, 138, 601-606.	1.7	0
46	Influence of Magnetic Field on the Unlocking Stress for Dislocation Motion in Cz-Si Depending on Pre-Annealing Time. <i>Solid State Phenomena</i> , 2005, 108-109, 163-168.	0.3	0
47	Fullerit C60 single crystals grown on earth and in space. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2011, 75, 1031-1032.	0.6	0