Sergei A Tarelkin

List of Publications by Year
in descending order

49	773	566801 15	525886 27
papers	citations	h-index	g-index

51	51	51	766
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compensation and persistent photocapacitance in homoepitaxial Sn-doped Î²-Ga2O3. Journal of Applied Physics, 2018, 123, .	1.1	73
2	Development of nuclear microbattery prototype based on Schottky barrier diamond diodes. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2539-2547.	0.8	66
3	Electrical properties of the high quality boron-doped synthetic single-crystal diamonds grown by the temperature gradient method. Diamond and Related Materials, 2013, 35, 19-23.	1.8	65
4	Power high-voltage and fast response Schottky barrier diamond diodes. Diamond and Related Materials, 2015, 57, 32-36.	1.8	62
5	High power density nuclear battery prototype based on diamond Schottky diodes. Diamond and Related Materials, 2018, 84, 41-47.	1.8	62
6	Power diamond vertical Schottky barrier diode with 10 A forward current. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2621-2627.	0.8	39
7	Ultrawide-Bandgap p-n Heterojunction of Diamond/Î²-Ga₂O₃ for a Solar-Blind Photodiode. ECS Journal of Solid State Science and Technology, 2020, 9, 045004.	0.9	31
8	Thin large area vertical Schottky barrier diamond diodes with low on-resistance made by ion-beam assisted lift-off technique. Diamond and Related Materials, 2017, 75, 78-84.	1.8	29
9	Deep traps determining the non-radiative lifetime and defect band yellow luminescence in n-GaN. Journal of Alloys and Compounds, 2016, 686, 1044-1052.	2.8	28
10	Defects responsible for lifetime degradation in electron irradiated n-GaN grown by hydride vapor phase epitaxy. Applied Physics Letters, 2017, 110, .	1.5	26
11	Studies of deep level centers determining the diffusion length in epitaxial layers and crystals of undoped n-GaN. Journal of Applied Physics, 2016, 119, .	1.1	25
12	Degradation-induced low frequency noise and deep traps in GaN/InGaN near-UV LEDs. Applied Physics Letters, 2017, 111, .	1.5	21
13	Superconductivity in bulk polycrystalline metastable phases of Sb2Te3 and Bi2Te3 quenched after high-pressureâ€“high-temperature treatment. Chemical Physics Letters, 2015, 631-632, 97-102.	1.2	20
14	Spatially controlled fabrication of single NV centers in IIa HPHT diamond. Optical Materials Express, 2020, 10, 198.	1.6	20
15	Comparative study of different metals for Schottky barrier diamond betavoltaic power converter by EBIC technique. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2492-2497.	0.8	18
16	Electron traps as major recombination centers in n-GaN films grown by metalorganic chemical vapor deposition. Applied Physics Express, 2016, 9, 061002.	1.1	14
17	Thermal conductivity of synthetic boron-doped single-crystal HPHT diamond from 20 to 400 K. MRS Communications, 2016, 6, 71-76.	0.8	14
18	Diamond Microstructuring by Deep Anisotropic Reactive Ion Etching. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800273.	0.8	14

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19	Electrical properties and deep trap spectra in Ga2O3 films grown by halide vapor phase epitaxy on p-type diamond substrates. Journal of Applied Physics, 2021, 129, .	1.1	14
20	Electrical Properties of Bulk, Non-Polar, Semi-Insulating M-GaN Grown by the Ammonothermal Method. ECS Journal of Solid State Science and Technology, 2018, 7, P260-P265.	0.9	13
21	Deep trap analysis in green light emitting diodes: Problems and solutions. Journal of Applied Physics, 2019, 125, .	1.1	10
22	Optimization of the coherence properties of diamond samples with an intermediate concentration of NV centers. Results in Physics, 2021, 21, 103845.	2.0	10
23	Weak superconductivity in the surface layer of a bulk single-crystal boron-doped diamond. Europhysics Letters, 2014, 108, 67014.	0.7	9
24	Photoluminescence enhancement by localized surface plasmons in AlGaN/GaN/AlGaN double heterostructures. Physica Status Solidi - Rapid Research Letters, 2015, 9, 575-579.	1.2	7
25	Electrical Properties of Diamond Platinum Vertical Schottky Barrier Diodes. Materials Today: Proceedings, 2016, 3, S159-S164.	0.9	7
26	Transport properties of nanocomposite thermoelectric materials based on Si and Ge. Physics of the Solid State, 2015, 57, 605-612.	0.2	6
27	Low Temperature Thermal Conductivity of Heavily Boron-Doped Synthetic Diamond: Influence of Boron-Related Structure Defects. Journal of Superhard Materials, 2019, 41, 24-31.	0.5	6
28	Near-far IR photoconductivity damping in hyperdoped Si at low temperatures. Optical Materials Express, 2021, 11, 3792.	1.6	6
29	Carbon nanotube cloth as a promising electrode material for flexible aqueous supercapacitors. Journal of Applied Electrochemistry, 2022, 52, 487-498.	1.5	6
30	Heat capacity of bulk boron-doped single-crystal HPHT diamonds in the temperature range from 2 to 400 K. Journal of Superhard Materials, 2016, 38, 412-416.	0.5	5
31	Electronic band structure of phosphorus-doped single crystal diamond: Dynamic Jahn-Teller distortion of the tetrahedral donor ground state. Physical Review B, 2020, 102, .	1.1	5
32	Highâ€Pressure Highâ€Temperature Singleâ€Crystal Diamond Type IIa Characterization for Particle Detectors. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900888.	0.8	5
33	Evidence of linear Zeeman effect for infrared intracenter transitions in boron doped diamond in high magnetic fields. Diamond and Related Materials, 2017, 75, 52-57.	1.8	4
34	Electrical Properties of High-Quality Synthetic Boron-Doped Diamond Single Crystals and Schottky Barrier Diodes on Their Basis. Inorganic Materials, 2018, 54, 1469-1476.	0.2	4
35	Dynamics of infrared excitations in boron doped diamond. Diamond and Related Materials, 2019, 92, 259-265.	1.8	4
36	Large substitutional impurity isotope shift in infrared spectra of boron-doped diamond. Physical Review B, 2020, 102, .	1.1	4

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37	Using electron backscatter diffraction to investigate the influence of mechanical polishing on the state of the surface of diamond. Journal of Surface Investigation, 2017, 11, 125-129.	0.1	3
38	Superconductivity, Magnetoresistance, Magnetic Anomaly and Crystal Structure of New Phases of Topological Insulators Bi₂Se₃and Sb₂Te₃. Journal of Physics: Conference Series, 2018, 969, 012152.	0.3	3
39	Twoâ€Step Reactive Ion Etching Process for Diamondâ€Based Nanophotonics Structure Formation. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000206.	0.8	3
40	Hopping carrier transport in epitaxial V:TiO2 âˆ’ x layers. Semiconductors, 2012, 46, 1589-1592.	0.2	2
41	Nonvertical Sidewall Angle Influence on the Efficiency of Diamondâ€onâ€Insulator Grating Couplers. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900271.	0.8	2
42	Intracenter dipole transitions of a hydrogen-like boron acceptor in diamond: Oscillator strengths and line broadening. Diamond and Related Materials, 2021, 120, 108629.	1.8	2
43	Isothermal sections of Tm-Ag-Sn and Lu-Ag-Sn ternary systems at 873ÂK. Journal of Alloys and Compounds, 2016, 688, 828-839.	2.8	1
44	Testing of a Prototype Detector of Heavy Charged Particles Based on Diamond Epitaxial Films Obtained by Gas-Phase Deposition. Instruments and Experimental Techniques, 2019, 62, 473-479.	0.1	1
45	Raman Scattering of Quasi-Single-Photon Pulses in Pumped Fiber. Semiconductors, 2020, 54, 966-968.	0.2	1
46	Mid-IR-Sensitive n/p-Junction Fabricated on p-Type Si Surface via Ultrashort Pulse Laser n-Type Hyperdoping and High-Temperature Annealing. ACS Applied Electronic Materials, 2021, 3, 769-777.	2.0	1
47	FABRICATION OF WELL-DEVELOPED SURFACE OF SYNTHETIC DIAMOND SINGLE CRYSTALS FOR INCREASING IN SPECIFIC POWER OF BETAVOLTAIC POWER SUPPLIES ON THEIR BASE. ChemChemTech, 2018, 59, 86.	0.1	1
48	Resonant boron acceptor states in semiconducting diamond. Physical Review B, 2021, 104, .	1.1	1
49	Structural, electrical and luminescent characteristics of ultraviolet light emitting structures grown by hydride vapor phase epitaxy. Modern Electronic Materials, 2017, 3, 32-39.	0.2	0