

# Alexey G Petrov

## List of Publications by Year in descending order

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31  
papers

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794141

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31  
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31  
docs citations

31  
times ranked

390  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Essential Mechanism of Heat Dissipation in Carbon Nanotube Electronics. Nano Letters, 2009, 9, 1850-1855.	4.5	110
2	The Effects of Substrate Phonon Mode Scattering on Transport in Carbon Nanotubes. Nano Letters, 2009, 9, 312-316.	4.5	88
3	Terahertz electroluminescence from 6D-SiC structures with natural superlattice. Applied Physics Letters, 2012, 100, .	1.5	23
4	Energy relaxation of hot carriers in single-wall carbon nanotubes by surface optical phonons of the substrate. JETP Letters, 2006, 84, 156-160.	0.4	22
5	Transport in nanotubes: Effect of remote impurity scattering. Physical Review B, 2004, 70, .	1.1	17
6	Current-voltage characteristic of quantum-well heterostructures. Semiconductor Science and Technology, 1991, 6, 1163-1166.	1.0	13
7	Breaking of Nanotube Symmetry by Substrate Polarization. Nano Letters, 2003, 3, 701-705.	4.5	13
8	Interlevel optical transitions in quantum wells. Physical Review B, 1993, 48, 11883-11889.	1.1	11
9	Terahertz radiation induced by the Wannier-Stark localization of electrons in a natural silicon carbide superlattice. JETP Letters, 2011, 94, 362-365.	0.4	10
10	Dark current in p-type quantum well structures. Journal of Applied Physics, 1998, 83, 3203-3206.	1.1	5
11	Anharmonic Bloch Oscillation of Electrons in Biased Superlattices. JETP Letters, 2015, 102, 796-802.	0.4	5
12	Terahertz-emission generation caused by new effects in the 6H-SiC natural superlattice. Semiconductors, 2015, 49, 242-246.	0.2	4
13	Terahertz emission from SiC natural superlattices in strong electrical field. Applied Physics Letters, 2016, 108, .	1.5	4
14	The intensive terahertz electroluminescence induced by Bloch oscillations in SiC natural superlattices. Nanoscale Research Letters, 2012, 7, 560.	3.1	3
15	Impact ionization of nitrogen in 4H- and 6H-SiC. Journal of Applied Physics, 2013, 114, 063704.	1.1	3
16	Terahertz Electroluminescence of 6H-SiC Natural SiC Superlattice in Bloch Oscillations Regime. Materials Science Forum, 0, 717-720, 553-556.	0.3	2
17	The Bloch Oscillations and THz Electroluminescence in Natural Superlattices of 6H-, 8H-SiC Polytypes. Materials Science Forum, 0, 821-823, 277-280.	0.3	2
18	Intraexciton and Intracenter Terahertz Radiation from Doped Silicon under Interband Photoexcitation. JETP Letters, 2018, 107, 540-543.	0.4	2

#	ARTICLE	IF	CITATIONS
19	Intersubband optical absorption of holes in quantum wells. Superlattices and Microstructures, 1994, 15, 467-469.	1.4	1
20	Terahertz Luminescence and Electrical Characteristics of SiC Structures with Natural Superlattice in Strong Electric Fields. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1530-1541.	1.2	1
21	THz Emission from SiC Natural Superlattice Diodes Induced by Strong Electrical Field. Materials Science Forum, 2018, 924, 310-313.	0.3	1
22	Stimulated Terahertz Emission in a System of Excitons in Photoexcited Silicon. JETP Letters, 2019, 109, 781-785.	0.4	1
23	Depolarization and photoionization effects in quantum wells. Semiconductors, 1997, 31, 567.	0.2	1
24	Surface polariton scattering for charge transport and heat management in carbon-based heterogeneous electronics: Problem or solution?. , 2010, , .		0
25	Terahertz emission induced by electron Bloch oscillations in SiC natural superlattice. , 2011, , .		0
26	Wannier-Stark localization and terahertz electroluminescence of natural SiC superlattice. , 2013, , .		0
27	THz electroluminescence in natural superlattice of SiC polytypes induced by Bloch oscillations and by the features of miniband spectra. , 2013, , .		0
28	New Efficient Canal of THz Emission from SiC Natural Superlattices in Conditions of Wannier-Stark Localization. Materials Science Forum, 2017, 897, 242-245.	0.3	0
29	Bloch Oscillations Signature of THz Electroluminescence from SiC Natural Superlattices. , 2018, , .		0
30	SiC Natural and Artificial Superlattices for the Implementation of the Bloch Oscillation Process: A Comparative Analysis. Materials Science Forum, 0, 1004, 256-264.	0.3	0
31	On Feasibility of Population Inversion Between the Quantum Confinement Levels in Quantum Wells Under Interband Photoexcitation. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 986.	1.2	0