Konstantin G Batrakov

List of Publications by Year
in descending order

63	896	516215 16	476904 29
papers	citations	h-index	g-index

66	66	66	929
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Outstanding Radiation Tolerance of Supported Graphene: Towards 2D Sensors for the Space Millimeter Radioastronomy. Nanomaterials, 2021, 11, 170.	1.9	6
2	Stretching and Tunability of Grapheneâ€Based Passive Terahertz Components. Physica Status Solidi (B): Basic Research, 2019, 256, 1800683.	0.7	4
3	Tunable Perfect THz Absorber Based on a Stretchable Ultrathin Carbon-Polymer Bilayer. Materials, 2019, 12, 143.	1.3	21
4	Electrodynamics of graphene heterostructures and electromagnetic applications. , 2018, , .		0
5	CHERENKOV-TYPE STIMULATED EMISSION IN GRAPHENE-BASED SYSTEMS. , 2018, 62, 33-40.	0.0	0
6	Main principles of passive devices based on graphene and carbon films in microwaveâ€”THz frequency range. Journal of Nanophotonics, 2017, 11, 032504.	0.4	48
7	Effect of graphene grains size on the microwave electromagnetic shielding effectiveness of graphene/polymer multilayers. Journal of Nanophotonics, 2017, 11, 032511.	0.4	3
8	Carbon thin films as effective absorbers of microwave radiation: Experiment and EMC applications. , 2017, , .		0
9	Carbon films as perfect electromagnetic wave absorbers and antiâ€reflectors. Micro and Nano Letters, 2017, 12, 312-314.	0.6	2
10	Electron beam induced terahertz ÄŒerenkov radiation from multilayer graphene sandwiches. , 2017, , .		0
11	Graphene layered systems as a terahertz source with tuned frequency. Physical Review B, 2017, 95, .	1.1	16
12	Enhanced electromagnetic response of ultrathin carbon films in thz frequency range. , 2017, , .		0
13	Electromagnetic response properties of nanocarbon structures. , 2017, , .		0
14	Carbon based ultralight microwave shields. , 2017, , .		0
15	Enhanced microwave-to-terahertz absorption in graphene. Applied Physics Letters, 2016, 108, .	1.5	99
16	Electromagnetic and thermal properties of three-dimensional printed multilayered nano-carbon/poly(lactic) acid structures. Journal of Applied Physics, 2016, 119, .	1.1	44
17	Electrodynamics of Graphene/Polymer Multilayers in the GHz Frequency Domain. NATO Science for Peace and Security Series B: Physics and Biophysics, 2016, , 45-67.	0.2	2
18	Microwave Absorption in Graphene Films: Theory and Experiment. Journal of Applied Spectroscopy, 2016, 83, 650-655.	0.3	0

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19	Zigzag-Shaped Superlattices on the Basis of Graphene Nanoribbons: Structure and Electronic Properties. Russian Physics Journal, 2016, 59, 633-639.	0.2	17
20	Challenges and Perspectives of Nanoelectromagnetics in the THz Range. , 2015, , .		0
21	Band gaps in jagged and straight graphene nanoribbons tunable by an external electric field. Journal of Physics Condensed Matter, 2015, 27, 145305.	0.7	33
22	Enhanced electromagnetic properties of ultrathin pyrolytic carbon films in Ka-band. , 2015, , .		1
23	Edge-modified zigzag-shaped graphene nanoribbons: Structure and electronic properties. Physics of the Solid State, 2014, 56, 2135-2145.	0.2	27
24	Electromagnetic Properties of Graphene-like Films in Ka-Band. Applied Sciences (Switzerland), 2014, 4, 255-264.	1.3	8
25	Flexible transparent graphene/polymer multilayers for efficient electromagnetic field absorption. Scientific Reports, 2014, 4, 7191.	1.6	131
26	Enhanced microwave shielding effectiveness of ultrathin pyrolytic carbon films. Applied Physics Letters, 2013, 103, .	1.5	40
27	Nonlinear theory of graphene interaction with strong laser radiation beyond the Dirac cone approximation: Coherent control of quantum states in nano-optics. Physical Review B, 2013, 88, .	1.1	18
28	Multiphoton resonant excitations and high-harmonic generation in bilayer graphene. Physical Review B, 2013, 88, .	1.1	40
29	Surface Plasmon Retardation in Graphene Bilayer. Springer Proceedings in Physics, 2013, , 103-115.	0.1	1
30	Plasmon polariton deceleration in graphene structures. Journal of Nanophotonics, 2012, 6, 061719.	0.4	20
31	Cherenkov synchronism: Non-relativistic electron beam in multi-walled carbon nanotube and multi-layer graphene. Physica B: Condensed Matter, 2010, 405, 3050-3053.	1.3	4
32	Mechanisms of terahertz emission from carbon nanotubes. Physica B: Condensed Matter, 2010, 405, 3054-3056.	1.3	7
33	Terahertz processes in carbon nanotubes. Journal of Nanophotonics, 2010, 4, 041665.	0.4	52
34	Carbon nanotube as a Cherenkov-type light emitter and free electron laser. Physical Review B, 2009, 79, .	1.1	47
35	Electromagnetic wave slowing down in graphene bilayer. , 2009, , .		1
36	Dielectric Response of Onion-Like Carbon-Based Polymethyl Methacrylate Composites. Journal of Nanoelectronics and Optoelectronics, 2009, 4, 261-266.	0.1	3

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37	Onion-Like Carbon in Microwaves: Electromagnetic Absorption Bands and Percolation Effect. Journal of Nanoelectronics and Optoelectronics, 2009, 4, 257-260.	0.1	13
38	Stimulated emission of electron beam in nanotube bundles. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2370-2374.	1.3	11
39	Toward the nano-FEL: Undulator and Cherenkov mechanisms of light emission in carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1065-1068.	1.3	13
40	Terahertz probing of onion-like carbon-PMMA composite films. Diamond and Related Materials, 2008, 17, 1608-1612.	1.8	45
41	Generation and Propagation of Electromagnetic Waves in Carbon Nanotubes: New Propositon for Optoelectronics and Bioâ€medical Applications. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2007, 37, 341-346.	0.6	6
42	<title>Simulation of the PXR and CBS spectra radiated by non-relativistic electrons in thin crystals</title>. , 2007, , .		1
43	Experimental observation of frequency tuning of X-ray radiation from nonrelativistic electrons in crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 363, 448-452.	0.9	10
44	Experimental observation of frequency tunable xâ€rays generated by interaction of nonrelativistic electrons with a silicon crystal. X-Ray Spectrometry, 2007, 36, 343-347.	0.9	0
45	Radiative instability of electron beam in carbon nanotubes. , 2006, 6328, 206.		10
46	Experimental observation of radiation frequency tuning in â€œOLSE-10â€•prototype of volume free electron laser. Nuclear Instruments & Methods in Physics Research B, 2006, 252, 86-91.	0.6	7
47	Coherent bremsstrahlung and parametric X-ray radiation from nonrelativistic electrons in a crystal. Technical Physics Letters, 2006, 32, 392-395.	0.2	3
48	Development of tunable source on the basis of parametric X-radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 543, 55-57.	0.7	6
49	Evaluation of the Carrier Frequency of a Single Microwave Pulse from the OLSE-10 Volume Free-Electron Laser. Instruments and Experimental Techniques, 2004, 47, 771-774.	0.1	1
50	Use of dynamical undulator mechanism to produce short wavelength radiation in volume FEL (VFEL). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 507, 35-39.	0.7	0
51	Application of volume diffraction grating for TeraHertz lasing in volume FEL (VFEL). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 507, 93-96.	0.7	2
52	Progress of the volume FEL (VFEL) experiments in millimeter range. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 507, 137-140.	0.7	10
53	Testing ofCP,CPT,and causality violation with light propagation in vacuum in the presence of uniform electric and magnetic fields. Physical Review D, 2002, 66, .	1.6	2
54	First lasing of a volume FEL (VFEL) at a wavelength range Î»â¼4â€“. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 483, 21-23.	0.7	21

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55	Dependence of volume FEL (VFEL) threshold conditions on undulator parameters. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 483, 531-533.	0.7	0
56	Phenomenon of a deuteron (Î©â˜' hyperon) spin oscillation and rotation as a method of the N-N of the N-N (quark-quark) scattering amplitude investigation. European Physical Journal D, 2000, 50, 165-170.	0.4	0
57	The effect of spin oscillation of relativistic particles passing through substance and the possibility of constituent quark rescattering observation at -hyperon-proton collision. Journal of Physics G: Nuclear and Particle Physics, 1998, 24, 2049-2064.	1.4	5
58	Parametric X-ray FEL operating with external Bragg reflectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 375, 292-294.	0.7	0
59	Formation of distributed feedback in an FEL under multi-wave diffraction. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 358, 493-496.	0.7	6
60	Visible surface quasi-Cherenkov FEL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 358, 508-511.	0.7	1
61	Surface quasi-Cherenkov free-electron laser. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1994, 341, 274-276.	0.7	1
62	Induced Radiation from a Relativistic Electron Beam in Periodic Structures. Physica Status Solidi (B): Basic Research, 1992, 169, 235-244.	0.7	2
63	Parametric (quasi-Cerenkov) X-ray free electron lasers. Journal Physics D: Applied Physics, 1991, 24, 1250-1257.	1.3	22