

Alexander Grigorenko

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67
papers

17,952
citations

33
h-index

74
g-index

74
ext. papers

20,478
ext. citations

12.1
avg, IF

6.58
L-index

#	Paper	IF	Citations
67	Fine structure constant defines visual transparency of graphene. <i>Science</i> , 2008 , 320, 1308	33.3	6461
66	Graphene plasmonics. <i>Nature Photonics</i> , 2012 , 6, 749-758	33.9	2152
65	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. <i>Nanoscale</i> , 2015 , 7, 4598-810	7.7	2015
64	Fluorographene: a two-dimensional counterpart of Teflon. <i>Small</i> , 2010 , 6, 2877-84	11	979
63	Strong plasmonic enhancement of photovoltage in graphene. <i>Nature Communications</i> , 2011 , 2, 458	17.4	679
62	Extremely narrow plasmon resonances based on diffraction coupling of localized plasmons in arrays of metallic nanoparticles. <i>Physical Review Letters</i> , 2008 , 101, 087403	7.4	541
61	Plasmonic Surface Lattice Resonances: A Review of Properties and Applications. <i>Chemical Reviews</i> , 2018 , 118, 5912-5951	68.1	517
60	Nanometric optical tweezers based on nanostructured substrates. <i>Nature Photonics</i> , 2008 , 2, 365-370	33.9	488
59	Nanofabricated media with negative permeability at visible frequencies. <i>Nature</i> , 2005 , 438, 335-8	50.4	487
58	Spectroscopic ellipsometry of graphene and an exciton-shifted van Hove peak in absorption. <i>Physical Review B</i> , 2010 , 81,	3.3	410
57	Ultrathin graphene-based membrane with precise molecular sieving and ultrafast solvent permeation. <i>Nature Materials</i> , 2017 , 16, 1198-1202	27	383
56	Singular phase nano-optics in plasmonic metamaterials for label-free single-molecule detection. <i>Nature Materials</i> , 2013 , 12, 304-9	27	311
55	Phase and amplitude sensitivities in surface plasmon resonance bio and chemical sensing. <i>Optics Express</i> , 2009 , 17, 21191-204	3.3	198
54	Hybrid graphene plasmonic waveguide modulators. <i>Nature Communications</i> , 2015 , 6, 8846	17.4	183
53	Electrically controlled water permeation through graphene oxide membranes. <i>Nature</i> , 2018 , 559, 236-240	50.4	177
52	Sieving hydrogen isotopes through two-dimensional crystals. <i>Science</i> , 2016 , 351, 68-70	33.3	173
51	Graphene-protected copper and silver plasmonics. <i>Scientific Reports</i> , 2014 , 4, 5517	4.9	143

50	Phase jumps and interferometric surface plasmon resonance imaging. <i>Applied Physics Letters</i> , 1999 , 75, 3917-3919	3.4	120
49	Sensitivity of collective plasmon modes of gold nanoresonators to local environment. <i>Optics Letters</i> , 2010 , 35, 956-8	3	118
48	Plasmonic blackbody: Almost complete absorption of light in nanostructured metallic coatings. <i>Physical Review B</i> , 2008 , 78,	3.3	117
47	Superconductivity in Ca-doped graphene laminates. <i>Scientific Reports</i> , 2016 , 6, 23254	4.9	87
46	Plasmonic blackbody: Strong absorption of light by metal nanoparticles embedded in a dielectric matrix. <i>Physical Review B</i> , 2010 , 81,	3.3	84
45	Optomagnetic composite medium with conducting nanoelements. <i>Physical Review B</i> , 2002 , 66,	3.3	79
44	Applied optics. Gain modulation by graphene plasmons in aperiodic lattice lasers. <i>Science</i> , 2016 , 351, 246-8	33.3	78
43	Narrow Collective Plasmon Resonances in Nanostructure Arrays Observed at Normal Light Incidence for Simplified Sensing in Asymmetric Air and Water Environments. <i>ACS Photonics</i> , 2014 , 1, 1116-1126	6.3	74
42	Super-narrow, extremely high quality collective plasmon resonances at telecom wavelengths and their application in a hybrid graphene-plasmonic modulator. <i>Nano Letters</i> , 2015 , 15, 3519-23	11.5	64
41	Strained Bubbles in van der Waals Heterostructures as Local Emitters of Photoluminescence with Adjustable Wavelength. <i>ACS Photonics</i> , 2019 , 6, 516-524	6.3	59
40	Ultra-narrow surface lattice resonances in plasmonic metamaterial arrays for biosensing applications. <i>Biosensors and Bioelectronics</i> , 2018 , 104, 102-112	11.8	57
39	Hierarchical self-assembly of a bulk metamaterial enables isotropic magnetic permeability at optical frequencies. <i>Materials Horizons</i> , 2016 , 3, 596-601	14.4	50
38	Topological darkness in self-assembled plasmonic metamaterials. <i>Advanced Materials</i> , 2014 , 26, 324-30	24	50
37	Surface Hydrogenation and Optics of a Graphene Sheet Transferred onto a Plasmonic Nanoarray. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 3882-3887	3.8	48
36	Giant photoeffect in proton transport through graphene membranes. <i>Nature Nanotechnology</i> , 2018 , 13, 300-303	28.7	41
35	Giant optical anisotropy in transition metal dichalcogenides for next-generation photonics. <i>Nature Communications</i> , 2021 , 12, 854	17.4	41
34	Cascaded optical field enhancement in composite plasmonic nanostructures. <i>Physical Review Letters</i> , 2010 , 105, 246806	7.4	33
33	Layered material platform for surface plasmon resonance biosensing. <i>Scientific Reports</i> , 2019 , 9, 20286	4.9	33

32	Composite au nanostructures for fluorescence studies in visible light. <i>Nano Letters</i> , 2010 , 10, 874-9	11.5	30
31	Measurements of electrically tunable refractive index of MoS2 monolayer and its usage in optical modulators. <i>Npj 2D Materials and Applications</i> , 2019 , 3,	8.8	29
30	Current-induced birefringent absorption and non-reciprocal plasmons in graphene. <i>2D Materials</i> , 2016 , 3, 015011	5.9	29
29	Negative refractive index in artificial metamaterials. <i>Optics Letters</i> , 2006 , 31, 2483-5	3	28
28	Bottom-up fabrication and optical characterization of dense films of meta-atoms made of core-shell plasmonic nanoparticles. <i>Langmuir</i> , 2013 , 29, 1551-61	4	27
27	Two-Dimensional Covalent Crystals by Chemical Conversion of Thin van der Waals Materials. <i>Nano Letters</i> , 2019 , 19, 6475-6481	11.5	26
26	Nonlinear Light Mixing by Graphene Plasmons. <i>Nano Letters</i> , 2018 , 18, 282-287	11.5	22
25	Plasmonic resonances in optomagnetic metamaterials based on double dot arrays. <i>Optics Express</i> , 2010 , 18, 9780-90	3.3	21
24	Strong coupling of diffraction coupled plasmons and optical waveguide modes in gold stripe-dielectric nanostructures at telecom wavelengths. <i>Scientific Reports</i> , 2017 , 7, 45196	4.9	16
23	Solid-State Electrolyte-Gated Graphene in Optical Modulators. <i>Advanced Materials</i> , 2017 , 29, 1606372	24	15
22	Nanoparticle arrays: From magnetic response to coupled plasmon resonances. <i>Physical Review B</i> , 2014 , 90,	3.3	15
21	Two-Dimensional Plasmonic Superlattice Based on Au Nanoparticles Self-Assembling onto a Functionalized Substrate. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 7579-7590	3.8	15
20	Tilt of pancake vortex stacks in layered superconductors in the crossing lattice regime. <i>Physical Review Letters</i> , 2005 , 94, 067001	7.4	13
19	Graphene light modulators working at near-infrared wavelengths. <i>Optics Express</i> , 2017 , 25, 10255-10260	3.3	12
18	Fine structure constant and quantized optical transparency of plasmonic nanoarrays. <i>Nature Communications</i> , 2012 , 3, 640	17.4	12
17	Maximum modulation of plasmon-guided modes by graphene gating. <i>Optics Express</i> , 2016 , 24, 8266-79	3.3	12
16	Phase-Responsive Fourier Nanotransducers for Probing 2D Materials and Functional Interfaces. <i>Advanced Functional Materials</i> , 2019 , 29, 1902692	15.6	10
15	Nanomechanical electro-optical modulator based on atomic heterostructures. <i>Nature Communications</i> , 2016 , 7, 13590	17.4	8

14	Retinal light trapping in textured photovoltaic cells. <i>Applied Physics Letters</i> , 2010 , 97, 143701	3.4	7
13	Laser nanotrapping and manipulation of nanoscale objects using subwavelength apertured plasmonic media. <i>Journal of Applied Physics</i> , 2008 , 103, 084316	2.5	7
12	Ultrafast Spectroscopy of Graphene-Protected Thin Copper Films. <i>ACS Photonics</i> , 2016 , 3, 1508-1516	6.3	7
11	Resistive coupling of localized plasmon resonances in metallic nanostripes through a graphene layer. <i>Journal of Optics (United Kingdom)</i> , 2013 , 15, 114002	1.7	6
10	Ultrasensitive and rapid detection of malaria using graphene-enhanced surface plasmon resonance. <i>2D Materials</i> , 2020 , 7, 045019	5.9	6
9	New class of photocatalytic materials and a novel principle for efficient water splitting under infrared and visible light: MgB ₂ as unexpected example. <i>Optics Express</i> , 2015 , 23, A1651-63	3.3	5
8	Topological phase singularities in atomically thin high-refractive-index materials.. <i>Nature Communications</i> , 2022 , 13, 2049	17.4	5
7	Anisotropic pancake vortex transport in the crossing lattices regime of Bi ₂ Sr ₂ CaCu ₂ O ₈ +Bingle crystals. <i>Physical Review B</i> , 2005 , 72,	3.3	4
6	Plasmon-induced nanoscale quantised conductance filaments. <i>Scientific Reports</i> , 2017 , 7, 2878	4.9	3
5	Metallic binary alloyed superconductors for photogenerating current from dissociated water molecules using broad light spectra. <i>Journal of Renewable and Sustainable Energy</i> , 2017 , 9, 021201	2.5	2
4	Particles, Fields and a Canonical Distance Form. <i>Foundations of Physics</i> , 2016 , 46, 382-392	1.2	2
3	Reply to comment on "Negative refractive index in artificial metamaterials". <i>Optics Letters</i> , 2007 , 32, 1512-4	3	2
2	Metal-Dielectric-Graphene Hybrid Heterostructures with Enhanced Surface Plasmon Resonance Sensitivity Based on Amplitude and Phase Measurements. <i>Plasmonics</i> ,1	2.4	2
1	Effect of Dielectric Fabrication Techniques on Graphene Gating. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 865-872	3.8	1