

# Alexander N Chaika

## List of Publications by Year in Descending Order

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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.

152  
papers

232  
citations

9  
h-index

13  
g-index

170  
ext. papers

288  
ext. citations

13.1  
avg, IF

2.67  
L-index

#	Paper	IF	Citations
152	Surface functionalization of few-layer graphene on SiC(001) by Neutral Red dye. <i>Applied Surface Science</i> , <b>2022</b> , 585, 152542	6.7	0
151	Atomic and Electronic Structure of a Multidomain GeTe Crystal. <i>ACS Nano</i> , <b>2020</b> ,	16.7	10
150	Graphene-Based Nanocomposite Materials for the Design of Electrochemical Sensors and Their Applications <b>2019</b> , 535-568		0
149	Supramolecular Graphene-Based Systems for Drug Delivery <b>2019</b> , 443-479		
148	Graphite in Metallic Materials Growths, Structures, and Defects of Spheroidal Graphite in Ductile Iron <b>2019</b> , 1-39		
147	Biological, Biomedical, and Medical Applications of Graphene and Graphene-Based Materials (G-bMs) <b>2019</b> , 1-41		1
146	Adaptation and Viability of Graphene-Based Materials in Clinical Improvement <b>2019</b> , 79-98		
145	Modeling of Graphene-Based Electronics: From Material Properties to Circuit Simulations <b>2019</b> , 73-120		
144	Graphene Oxide Multilayers Obtained from Bamboo: New Synthesis Method, Basic Properties, and Future Electronic Applications <b>2019</b> , 191-236		1
143	Topological Design of Graphene <b>2019</b> , 1-44		2
142	Graphene in Bioelectronics <b>2019</b> , 253-262		
141	Graphene-Based Advanced Nanostructures <b>2019</b> , 471-493		
140	Exfoliated Graphene-Based 2D Materials: Synthesis and Catalytic Behaviors <b>2019</b> , 529-558		4
139	Graphene Metamaterial Electron Optics: Excitation Processes and Electro-Optical Modulation <b>2019</b> , 263-296		0
138	Synthesis, Characterization, and Applications of Polymer/Graphene Oxide Composite Materials <b>2019</b> , 541-573		
137	Graphene-Based Materials for Advanced Lithium-Ion Batteries <b>2019</b> , 197-218		
136	Nitrogen-Doped Carbon Nanostructures as Oxygen Reduction Reaction (ORR) and Oxygen Evolution Reaction (OER) Electrocatalysts in Acidic Media <b>2019</b> , 373-413		1

135	Electrochemical Biosensors Based on Green Synthesized Graphene and Graphene Nanocomposites <b>2019</b> , 233-296	0
134	Graphene Composites <b>2019</b> , 1-25	0
133	Graphene-Based Biosensors in Agro-Defense: Food Safety and Animal Health Diagnosis <b>2019</b> , 29-57	1
132	Buckling Characteristics of Bilayer Graphene Sheets Subjected to Humid Thermomechanical Loading <b>2019</b> , 433-454	1
131	Features and Prospects for Epitaxial Graphene on SiC <b>2019</b> , 153-199	1
130	Graphene and Graphene-Based Hybrid Composites for Advanced Rechargeable Battery Electrodes <b>2019</b> , 147-196	
129	Graphene-Based Electrochemical Aptasensors <b>2019</b> , 465-482	1
128	Graphene and Graphene Nanocomposite-Based Electrochemical Sensors <b>2019</b> , 631-661	1
127	Proximity-Induced Topological Transition and Strain-Induced Charge Transfer in Graphene/MoS <sub>2</sub> Bilayer Heterostructures <b>2019</b> , 1-28	2
126	Graphene/SiC Reinforced Hybrid Composite Foam: Response to High Strain Rate Deformation <b>2019</b> , 101-116	
125	Three-Dimensional Graphene Foams for Energy Storage Applications <b>2019</b> , 49-91	
124	Graphene Structures: From Preparations to Applications <b>2019</b> , 323-357	2
123	Graphene Molecules as Platforms for SERS Detection: A Future Perspective <b>2019</b> , 429-464	
122	Self-Organized 3D Graphene as a Robust Sensing Platform <b>2019</b> , 483-507	1
121	Interactions of Molecular Species with Graphene and Graphene Sensing <b>2019</b> , 509-533	
120	Self-Assembled Thin Films of Graphene Materials for Sensors <b>2019</b> , 569-602	
119	Electrochemically Reduced Graphene Oxide: A Smart Material for Electrochemical Sensing <b>2019</b> , 603-629	2
118	Controlling the Electromagnetic and Electrochemical Sensing Properties of Graphene via Heteroatom Doping <b>2019</b> , 663-682	2

- 117 Graphene and Graphene Composites-Modified Electrodes Surfaces for Selective Sensing of Dopamine in the Presence of Ascorbic Acid and Uric Acid **2019**, 683-706 1
- 116 Three-Dimensional Graphene-Based Structures: Production Methods, Properties, and Applications **2019**, 359-387 3
- 115 Finite Element Analysis of Graphene Materials **2019**, 707-730
- 114 Quantitative Real-Time Evaluation of C/O Ratios and Stepwise Control of Deoxidization of Graphene Oxide Using Plasmonic-Based Electrochemical Spectroscopy **2019**, 731-765
- 113 Effect of Graphene Oxide Nanosheets on the Structure and Properties of Cement Composites **2019**, 43-78
- 112 Graphene-Based Synaptic Devices for Neuromorphic Applications **2019**, 99-142
- 111 Graphene-Based Materials for Implants **2019**, 143-175 0
- 110 Ultrashort Pulse Fiber Laser Generation Using Molybdenum Disulfide and Tungsten Disulfide Saturable Absorber **2019**, 177-197
- 109 Graphene-Modified Asphalt **2019**, 199-223
- 108 Electrochemistry of Graphene Materials **2019**, 389-419
- 107 Graphene-Based Materials for Brain Targeting **2019**, 225-246 1
- 106 Antimicrobial Activities of Graphene-Based Materials **2019**, 247-266
- 105 Reworking Defective Soldering Joints With Graphene Sheets and Gold Nanoparticles **2019**, 1-9
- 104 Printed Graphene Radio Frequency and Sensing Applications for Internet of Things **2019**, 11-46
- 103 Modeling and Characterization of the Metal Contact and the Channel in a Graphene Device **2019**, 47-71
- 102 Hybrid GrapheneSilicon Photonic and Optoelectronic Integrated Devices **2019**, 121-146
- 101 Sustainability, Research, and Development of Graphene for Engineering Applications **2019**, 147-190
- 100 Hydrogen Functionalized Graphene Nanostructure Material for Spintronic Application **2019**, 421-450

- 99 Laser Direct-Writing Graphene Oxide to Graphene Mechanisms to Applications **2019**, 237-287 0
- 98 Wave Propagation Responses of Double-Layered Graphene Sheets in Hygrothermal Environment **2019**, 289-307
- 97 Graphene Terahertz Leaky-Wave Antennas **2019**, 309-340
- 96 Terahertz Applications of Graphene **2019**, 341-357
- 95 Modelling of Graphene Nanoribbons Antenna Based on MoM-GEC Method to Enhance Nanocommunications in Terahertz Range **2019**, 359-392 1
- 94 Graphene-Based Plasmonic Components for THz Applications: Planar Ring Array Devices **2019**, 393-408
- 93 Polymer/Graphene Nanomaterials: A Platform for Current High-Tech Applications **2019**, 455-469 1
- 92 The Impact of Uniaxial Strain and Defect Pattern on Magnetoelectronic and Transport Properties of Graphene **2019**, 451-502 1
- 91 Exploiting Graphene as an Efficient Catalytic Template for Organic Transformations: Synthesis, Characterization and Activity Evaluation of Graphene-Based Catalysts **2019**, 503-528
- 90 Functionalization of Graphene with Molecules and/or Nanoparticles for Advanced Applications **2019**, 559-609 0
- 89 Carbon Allotropes, Between Diamond and Graphite: How to Create Semiconductor Properties in Graphene and Related Structures **2019**, 611-647
- 88 Graphene at the Metal Oxide Interface: A New Approach to Modify the Chemistry of Supported Metals **2019**, 45-71
- 87 The Combinatorial Structure of Graphene **2019**, 73-94
- 86 Interacting Electrons in Graphene **2019**, 95-125
- 85 Computational Determination of the Properties of Graphene Nanoribbons **2019**, 127-145
- 84 Synthetic Electric Fields Influence the Non-Stationary Processes in Graphene **2019**, 147-193
- 83 Interaction and Manipulation of Bi Adatoms on Monolayer Epitaxial Graphene **2019**, 195-218
- 82 Strain Engineering: Electromechanical Properties of Graphene **2019**, 219-243

- 81 Characteristic Mechanical Responses of Graphene Membranes **2019**, 245-271
- 80 Graphene and Its Derivatives as Platforms for MALDI-MS **2019**, 273-289 4
- 79 Characterization and Dynamic Manipulation of Graphene by In Situ Transmission Electron Microscopy at Atomic Scale **2019**, 291-314
- 78 Methods of Synthesis and Physicochemical Properties of Fluorographenes **2019**, 63-100
- 77 Peculiarities of Quasi-Particle Spectra in Graphene Nanostructures **2019**, 315-387 1
- 76 Complex Refractive Index (RI) of Graphene **2019**, 389-412 2
- 75 Fractional Quantum Hall Effect in Graphene, a Topological Approach **2019**, 413-453
- 74 Graphene Plasmonic: Switching Applications **2019**, 455-505 3
- 73 Theoretical Study and Numerical Modeling of Graphene's Electromagnetic Response **2019**, 507-548
- 72 Graphene-Like ANB8 $\pi$  Compounds on Metals and Semiconductors **2019**, 549-591 1
- 71 Lower Dimensional Materials **2019**, 593-611
- 70 Nature of Graphene, Its Chemical Structure, Composites, Synthesis, Properties, and Applications **2019**, 613-636 1
- 69 Planar Graphene Superlattices **2019**, 29-82
- 68 Magnetic and Optical Properties of Graphene Materials with Porous Defects **2019**, 83-111
- 67 Graphynes: Advanced Carbon Materials with Layered Structure **2019**, 113-150 7
- 66 Nanoelectronic Application of Graphyne and Its Structural Derivatives **2019**, 151-176
- 65 Twisted Bilayer Graphene: Low-Energy Physics, Electronic and Optical Properties **2019**, 177-231 6
- 64 Effects of Charged Coulomb Impurities on Low-Lying Energy Spectra in Graphene Magnetic Dot and Ring **2019**, 233-252

63	Linear Carbon: From 1D Carbyne to 2D Hybrid sp-sp <sup>2</sup> Nanostructures Beyond Graphene <b>2019</b> , 297-340	1
62	Band Structure Modifications in Beyond Graphene Materials <b>2019</b> , 341-372	
61	Atomic Structure and Electronic Properties of Few-Layer Graphene on SiC(001) <b>2019</b> , 117-151	1
60	Chemically Modified 2D Materials: Production and Applications <b>2019</b> , 373-400	1
59	Black Phosphorus Saturable Absorber for Passive Mode-Locking Pulses Generation <b>2019</b> , 401-430	
58	Search for Fundamental Physics on Table Top Experiments with Dirac/Weyl Materials <b>2019</b> , 431-466	
57	Graphene-Reinforced Advanced Composite Materials <b>2019</b> , 27-89	3
56	Graphene-Based Composite Materials <b>2019</b> , 91-114	
55	Interfacial Mechanical Properties of Graphene/Substrate System: Measurement Methods and Experimental Analysis <b>2019</b> , 115-146	
54	Graphene-Based Ceramic Composites: Processing and Applications <b>2019</b> , 147-169	
53	Ab Initio Design of 2D and 3D Graphene-Based Nanostructure <b>2019</b> , 171-202	1
52	Graphene-Based Composite Nanostructures: Synthesis, Properties, and Applications <b>2019</b> , 203-232	1
51	Graphene-Based Composites with Shape Memory Effect Properties, Applications, and Future Perspectives <b>2019</b> , 233-259	
50	Graphene-Based Scroll Structures: Optical Characterization and Its Application in Resistive Switching Memory Devices <b>2019</b> , 261-283	
49	Fabrication and Properties of Copper/Graphene Composites <b>2019</b> , 285-322	3
48	Graphene/Metal Oxide Composite as Anode Material in Li-Ion Batteries <b>2019</b> , 323-352	
47	Graphene/TiO <sub>2</sub> Nanocomposites: Synthesis Routes, Characterization, and Solar Cell Applications <b>2019</b> , 353-394	1
46	Role of Reduced Graphene Oxide Nanosheet Composition with ZnO Nanostructures in Gas Sensing Properties <b>2019</b> , 395-417	

- 45 Functional Graphene Oxide/Epoxy Nanocomposite Coatings with Enhanced Protection Properties **2019**, 419-442
- 44 Polymeric Nanocomposites Including Graphene Nanoplatelets **2019**, 481-515 5
- 43 Graphene Oxide/Polyacrylamide Composites: Optical and Mechanical Characterizations **2019**, 517-540
- 42 Graphitic Carbon/Graphene on Si(111) via Direct Deposition of Solid-State Carbon Atoms: Growth Mechanism and Film Characterization **2019**, 201-247
- 41 Graphene Nanomaterials in Energy and Environment Applications **2019**, 1-25 1
- 40 Graphene as Nanolubricant for Machining **2019**, 27-48
- 39 Graphene-Based Materials for Supercapacitors and Conductive Additives of Lithium Ion Batteries **2019**, 219-298
- 38 Graphene-Based Flexible Actuators, Sensors, and Supercapacitors **2019**, 299-337
- 37 Graphene as Catalyst Support for the Reactions in Fuel Cells **2019**, 339-372
- 36 Chemical Reactivity and Variation in Electronic Properties of Graphene on Ni(111) and Reduced Graphene Oxide **2019**, 249-294
- 35 Recent Advances in Graphene-Based Materials for Photocatalytic H<sub>2</sub> Evolution **2019**, 415-433
- 34 Graphene Thermal Functional Device and Its Property Characterization **2019**, 435-468
- 33 Self- and Directed-Assembly of Metallic and Nonmetallic Fluorophors: Considerations into Graphene and Graphene Oxides for Sensing and Imaging Applications **2019**, 469-505 1
- 32 Stimuli-Responsive Graphene-Based Matrices for Smart Therapeutics **2019**, 507-533
- 31 Application of Graphene Materials in Molecular Diagnostics **2019**, 535-560
- 30 Graphene Oxide Membranes for Liquid Separation **2019**, 561-573
- 29 Graphene-Based Biosensors: Fundamental Concepts, Outline of Utility, and Future Scopes **2019**, 1-14
- 28 Graphene for Electrochemical Biosensors in Biomedical Applications **2019**, 15-28

27	Chlorophyll and Graphene: A New Paradigm of Biomimetic Symphony <b>2019</b> , 295-322	
26	Trends and Frontiers in Graphene-Based (Bio)sensors for Pesticides Electroanalysis <b>2019</b> , 59-98	1
25	Graphene-Based Biosensors: Design, Construction, and Validation. Toward a Nanotechnological Tool for the Rapid in-Field Detection of Food Toxicants and Environmental Pollutants <b>2019</b> , 99-116	1
24	Application of Porous Graphene in Electrochemical Sensors and Biosensors <b>2019</b> , 117-142	
23	Reduced Graphene Oxide for Biosensing and Electrocatalytic Applications <b>2019</b> , 143-179	
22	Recent Progress in the Graphene-Based Electrochemical Biosensors Development <b>2019</b> , 181-232	
21	Recent Biosensing Applications of Graphene-Based Nanomaterials <b>2019</b> , 297-348	1
20	Graphene-Based Sensors: Applications in Electrochemical (Bio)sensing <b>2019</b> , 349-369	2
19	Graphene-Based Fiber Optic Label-Free Biosensor <b>2019</b> , 371-396	1
18	Label-Free Biosensors Based on Graphene: State-of-the-Art <b>2019</b> , 397-427	0
17	Graphene-Based Nanomaterials in Tissue Engineering and Regenerative Medicine <b>2019</b> , 637-658	3
16	Graphene Quantum Dots: A New Member of the Graphene Family: Structure, Properties, and Biomedical Applications <b>2019</b> , 267-299	
15	Functionalized Graphene Nanomaterials as Biocatalysts: Recent Developments and Future Prospects <b>2019</b> , 301-323	
14	Continuous Graphene Oxide Fiber and Its Applications <b>2019</b> , 409-431	
13	Graphene Synthesis and Quality Optimization <b>2019</b> , 41-62	
12	Electronic Transport upon Adsorption of Biomolecules on Graphene <b>2019</b> , 767-792	
11	Three-Dimensional Graphene Materials: Synthesis and Applications in Electrocatalysts and Electrochemical Sensors <b>2019</b> , 93-145	
10	Layer-by-Layer Graphene Growth on SiC/Si(001). <i>ACS Nano</i> , <b>2019</b> , 13, 526-535	16.7 10

9	A photochemical approach for a fast and self-limited covalent modification of surface supported graphene with photoactive dyes. <i>Nanotechnology</i> , <b>2018</b> , 29, 275705	3.4	4
8	Step bunching with both directions of the current: Vicinal W(110) surfaces versus atomistic-scale model. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	10
7	Large positive in-plane magnetoresistance induced by localized states at nanodomain boundaries in graphene. <i>Nature Communications</i> , <b>2017</b> , 8, 14453	17.4	23
6	Graphene on cubic-SiC. <i>Progress in Materials Science</i> , <b>2017</b> , 89, 1-30	42.2	22
5	High Resolution STM Imaging <b>2015</b> , 561-619		0
4	Transport Gap Opening and High On-Off Current Ratio in Trilayer Graphene with Self-Aligned Nanodomain Boundaries. <i>ACS Nano</i> , <b>2015</b> , 9, 8967-75	16.7	18
3	Rotated domain network in graphene on cubic-SiC(001). <i>Nanotechnology</i> , <b>2014</b> , 25, 135605	3.4	12
2	Continuous wafer-scale graphene on cubic-SiC(001). <i>Nano Research</i> , <b>2013</b> , 6, 562-570	10	27
1	Writing with atoms: Oxygen adatoms on the MoO <sub>2</sub> /Mo(110) surface. <i>Nano Research</i> , <b>2013</b> , 6, 929-937	10	12