

# Igor Asanov

## List of Publications by Year in descending order

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82  
papers

1,754  
citations

279798  
23  
h-index

315739  
38  
g-index

82  
all docs

82  
docs citations

82  
times ranked

2248  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of nitrogen doping on Raman spectra of multiwalled carbon nanotubes. Physica Status Solidi (B): Basic Research, 2008, 245, 1971-1974.	1.5	169
2	Influence of Ni~Co Catalyst Composition on Nitrogen Content in Carbon Nanotubes. Journal of Physical Chemistry B, 2004, 108, 9048-9053.	2.6	114
3	Copper on carbon materials: stabilization by nitrogen doping. Journal of Materials Chemistry A, 2017, 5, 10574-10583.	10.3	103
4	Bromination of Double-Walled Carbon Nanotubes. Chemistry of Materials, 2012, 24, 2708-2715.	6.7	76
5	Structure and supercapacitor performance of graphene materials obtained from brominated and fluorinated graphites. Carbon, 2014, 78, 137-146.	10.3	62
6	Anisotropy of Chemical Bonding in Semifluorinated Graphite C <sub>2</sub> F Revealed with Angle-Resolved X-ray Absorption Spectroscopy. ACS Nano, 2013, 7, 65-74.	14.6	61
7	Graphene nanochains and nanoislands in the layers of room-temperature fluorinated graphite. Carbon, 2013, 59, 518-529.	10.3	57
8	Effect of nitrogen doping on the electromagnetic properties of carbon nanotube-based composites. Journal of Applied Physics, 2013, 113, .	2.5	56
9	Field emission luminescence of nanodiamonds deposited on the aligned carbon nanotube array. Scientific Reports, 2015, 5, 9379.	3.3	52
10	Stability of Fluorinated Double-Walled Carbon Nanotubes Produced by Different Fluorination Techniques. Chemistry of Materials, 2010, 22, 4197-4203.	6.7	49
11	A backside fluorine-functionalized graphene layer for ammonia detection. Physical Chemistry Chemical Physics, 2015, 17, 444-450.	2.8	42
12	Ni-N4 sites in a single-atom Ni catalyst on N-doped carbon for hydrogen production from formic acid. Journal of Catalysis, 2021, 402, 264-274.	6.2	41
13	Edge state magnetism in zigzag-interfaced graphene via spin susceptibility measurements. Scientific Reports, 2015, 5, 13382.	3.3	39
14	Advantage of graphene fluorination instead of oxygenation for restorable adsorption of gaseous ammonia and nitrogen dioxide. Carbon, 2017, 118, 225-232.	10.3	33
15	Hexamolybdenum Clusters Supported on Exfoliated h-BN Nanosheets for Photocatalytic Water Purification. Inorganic Chemistry, 2020, 59, 6439-6448.	4.0	33
16	MWCNT buckypaper/polypyrrole nanocomposites for supercapacitor application. Electrochimica Acta, 2020, 335, 135700.	5.2	32
17	Comparative Study on the Electronic Structure of Arc-Discharge and Catalytic Carbon Nanotubes. Journal of Physical Chemistry B, 2001, 105, 4853-4859.	2.6	29
18	Fabrication of free-standing aligned multiwalled carbon nanotube array for Li-ion batteries. Journal of Power Sources, 2016, 311, 42-48.	7.8	29

#	ARTICLE	IF	CITATIONS
19	Purification of Single-Walled Carbon Nanotubes Using Acid Treatment and Magnetic Separation. Physica Status Solidi (B): Basic Research, 2019, 256, 1800742.	1.5	28
20	X-ray Spectroscopic and Quantum-Chemical Characterization of Hydrofullerene C <sub>60</sub> H <sub>36</sub> . Journal of Physical Chemistry A, 1999, 103, 716-720.	2.5	25
21	Charge-induced formation of thin conducting layers on fluorinated graphite surface. Carbon, 2015, 82, 446-458.	10.3	25
22	Development of graphene layers by reduction of graphite fluoride C <sub>2</sub> F surface. Physica Status Solidi (B): Basic Research, 2009, 246, 2545-2548.	1.5	24
23	Hydrogen Production from Formic Acid over Au Catalysts Supported on Carbon: Comparison with Au Catalysts Supported on SiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> . Catalysts, 2019, 9, 376.	3.5	24
24	XPS experimental and DFT investigations on solid solutions of Mo <sub>1-x</sub> Re <sub>x</sub> S <sub>2</sub> (0 < x < 0.20). Nanoscale, 2018, 10, 10232-10240.	5.6	23
25	X-ray photoelectron study of fluorinated graphite intercalation compounds. Journal of Structural Chemistry, 1998, 39, 928-932.	1.0	20
26	Effects of the Carbon Support Doping with Nitrogen for the Hydrogen Production from Formic Acid over Ni Catalysts. Energies, 2019, 12, 4111.	3.1	20
27	Chemical vapor deposition of pyrolytic boron nitride from borazine. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 94-98.	2.1	19
28	Nitrogen inserting in fluorinated graphene via annealing of acetonitrile intercalated graphite fluoride. Physica Status Solidi (B): Basic Research, 2014, 251, 2530-2535.	1.5	19
29	Structure and supercapacitor properties of few-layer low-fluorinated graphene materials. Journal of Materials Science, 2018, 53, 13053-13066.	3.7	18
30	Functional composition and super-capacitor properties of graphite oxide reduced with hot sulfuric acid. Physica Status Solidi (B): Basic Research, 2013, 250, 2747-2752.	1.5	17
31	Effect of oxidative treatment on the electrochemical properties of aligned multi-walled carbon nanotubes. Russian Journal of Electrochemistry, 2016, 52, 441-448.	0.9	17
32	Perforation of graphite in boiling mineral acid. Physica Status Solidi (B): Basic Research, 2012, 249, 2620-2624.	1.5	16
33	MOCVD Synthesis of Terbium Oxide Films and their Optical Properties. Chemical Vapor Deposition, 2015, 21, 150-155.	1.3	16
34	Energy shift of collective electron excitations in highly corrugated graphitic nanostructures: Experimental and theoretical investigation. Applied Physics Letters, 2014, 104, .	3.3	15
35	Pyrrhotite Electrooxidation in Acid Solutions. Russian Journal of Electrochemistry, 2001, 37, 1277-1282.	0.9	14
36	Thermally exfoliated fluorinated graphite for NO <sub>2</sub> gas sensing. Physica Status Solidi (B): Basic Research, 2016, 253, 2492-2498.	1.5	14

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37	A new approach towards the study of thermal decomposition and formation processes of nanoalloys: the double complex salt $[\text{Pd}(\text{NH}_3)_4][\text{PtCl}_6]$ . New Journal of Chemistry, 2018, 42, 5071-5082.	2.8	14
38	Complex salts of $\text{Pd}(\text{II})$ and $\text{Pt}(\text{II})$ with $\text{Co}(\text{II})$ and $\text{Ni}(\text{II})$ aqua-cations as single-source precursors for bimetallic nanoalloys and mixed oxides. New Journal of Chemistry, 2018, 42, 8843-8850.	2.8	14
39	Oxalato complexes of $\text{Pd}(\text{II})$ with $\text{Co}(\text{II})$ and $\text{Ni}(\text{II})$ as single-source precursors for bimetallic nanoalloys. Journal of Thermal Analysis and Calorimetry, 2019, 138, 111-121.	3.6	14
40	Title is missing!. Russian Journal of Electrochemistry, 2001, 37, 1269-1276.	0.9	13
41	Interaction of $\text{NH}_3$ with the reduced surface of graphite fluoride $\text{C}_2\text{F}$ . Physica Status Solidi (B): Basic Research, 2010, 247, 3039-3042.	1.5	13
42	Exothermal effects in the thermal decomposition of $[\text{IrCl}_6]^{2-}$ -containing salts with $[\text{M}(\text{NH}_3)_5\text{Cl}]^{2+}$ cations: $[\text{M}(\text{NH}_3)_5\text{Cl}][\text{IrCl}_6]$ ( $\text{M} = \text{Co}, \text{Cr}, \text{Ru}, \text{Rh}, \text{Ir}$ ). New Journal of Chemistry, 2018, 42, 1762-1770.	2.8	13
43	Redox Processes in Reduced Graphite Oxide Decorated by Carboxyl Functional Groups. Physica Status Solidi (B): Basic Research, 2019, 256, 1800700.	1.5	13
44	Structural and Optical Properties of N-Doped and B-Doped Carbon Dots. Journal of Structural Chemistry, 2020, 61, 818-825.	1.0	13
45	Layered compounds based on perforated graphene. Journal of Structural Chemistry, 2011, 52, 903-909.	1.0	11
46	Effect of the graphite oxide composition on the structure of products obtained by sulfuric acid treatment at elevated temperatures. Journal of Structural Chemistry, 2017, 58, 1180-1186.	1.0	11
47	Chemiresistive Properties of Imprinted Fluorinated Graphene Films. Materials, 2020, 13, 3538.	2.9	11
48	Porosity and composition of nitrogen-doped carbon materials templated by the thermolysis products of calcium tartrate and their performance in electrochemical capacitors. Journal of Alloys and Compounds, 2021, 858, 158259.	5.5	11
49	Sensor properties of electron beam irradiated fluorinated graphite. Journal of Nanophotonics, 2015, 10, 012512.	1.0	10
50	Title is missing!. Journal of Structural Chemistry, 2002, 43, 843-855.	1.0	9
51	Field emission properties of aligned $\text{CN}_x$ nanotube arrays synthesized by pyrolysis of a ferrocene/acetonitrile aerosol at different temperatures. Physica Status Solidi (B): Basic Research, 2015, 252, 2524-2529.	1.5	9
52	Thermal decomposition of ammonium hexachloroosmate. Physical Chemistry Chemical Physics, 2016, 18, 33134-33141.	2.8	9
53	Structure of Diamond Films Grown Using High-Speed Flow of a Thermally Activated $\text{CH}_4\text{-H}_2$ Gas Mixture. Materials, 2020, 13, 219.	2.9	9
54	Composites based on polyaniline and aligned carbon nanotubes. Polymer Science - Series B, 2010, 52, 101-108.	0.8	8

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55	Electronic structure of the chlorinated fullerene $C_{60}Cl_{30}$ studied by quantum chemical modeling of X-ray absorption spectra. International Journal of Quantum Chemistry, 2011, 111, 2688-2695.	2.0	8
56	Thermal Decomposition of Co-Doped Calcium Tartrate and Use of the Products for Catalytic Chemical Vapor Deposition Synthesis of Carbon Nanotubes. Journal of Physical Chemistry C, 2012, 116, 343-351.	3.1	8
57	Redox reactions between acetonitrile and nitrogen dioxide in the interlayer space of fluorinated graphite matrices. Physical Chemistry Chemical Physics, 2021, 23, 10580-10590.	2.8	8
58	In situ X-ray spectroscopic investigation of thermal decomposition of double complex salt $[Pt(NH_3)_4][OsCl_6]$ . Journal of Structural Chemistry, 2017, 58, 901-910.	1.0	7
59	The Role of Support in Formic Acid Decomposition on Gold Catalysts. Energies, 2019, 12, 4198.	3.1	7
60	Sulfuric Acid Solutions of $[Pt(OH)_4(H_2O)_2]$ : A Platinum Speciation Survey and Hydrated Pt(IV) Oxide Formation for Practical Use. Inorganic Chemistry, 2022, 61, 9667-9684.	4.0	7
61	Effect of Hot Pressing on the Electrochemical Performance of Multilayer Holey Graphene Materials in Li-ion Batteries. Physica Status Solidi (B): Basic Research, 2018, 255, 1800202.	1.5	6
62	Enhancement of Volumetric Capacitance of Binder-Free Single-Walled Carbon Nanotube Film via Fluorination. Nanomaterials, 2021, 11, 1135.	4.1	6
63	Extra electronic outer-shell peculiarities accessible under a joint XPS and DFT study. Physical Chemistry Chemical Physics, 2017, 19, 15842-15848.	2.8	5
64	Electronic and structural peculiarities of Br <sub>2</sub> -embedded C <sub>2</sub> F: XPS and DFT study. AIP Advances, 2018, 8, 085319.	1.3	5
65	MOCVD of Noble Metal Film Materials for Medical Implants: Microstructure and Biocompatibility of Ir and Au/Ir Coatings on TiNi. Coatings, 2021, 11, 638.	2.6	5
66	Flotation behavior of sulfides on mechanical activation. Journal of Mining Science, 2000, 36, 87-90.	0.6	4
67	MOCVD growth of Pt films using a novel Pt(IV) compound as a precursor. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 1053-1059.	0.8	4
68	Effect of Hydrogen Fluoride Addition and Synthesis Temperature on the Structure of Double-Walled Carbon Nanotubes Fluorinated by Molecular Fluorine. Physica Status Solidi (B): Basic Research, 2018, 255, 1700261.	1.5	4
69	Studying the Process of $(NH_4)_2[IrCl_6]$ Thermal Decomposition by X-Ray Photoelectron Spectroscopy and Electron Microscopy. Journal of Structural Chemistry, 2020, 61, 388-399.	1.0	4
70	Effect of Toluene Addition in an Electric Arc on Morphology, Surface Modification, and Oxidation Behavior of Carbon Nanohorns and Their Sedimentation in Water. Nanomaterials, 2021, 11, 992.	4.1	4
71	Photolysis of Fluorinated Graphites with Embedded Acetonitrile Using a White-Beam Synchrotron Radiation. Nanomaterials, 2022, 12, 231.	4.1	4
72	Title is missing!. Journal of Structural Chemistry, 2001, 42, 251-260.	1.0	3

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73	Synthesis and Study of Potassium Hexabromoiridate(IV). Russian Journal of Coordination Chemistry/Koordinatsionnaya Khimiya, 2002, 28, 864-866.	1.0	3
74	Title is missing!. Inorganic Materials, 2003, 39, 117-122.	0.8	3
75	Identification of conjugate electron transitions in X-ray photoelectron spectra. Journal of Structural Chemistry, 2017, 58, 1160-1165.	1.0	3
76	PtPd-nanoparticles supported by new carbon materials. Journal of Structural Chemistry, 2016, 57, 1398-1406.	1.0	2
77	Study of chemical bonds and element composition of silicon oxycarbonitride films by the methods of XP-, IR-, and energy-dispersive spectroscopy. Glass Physics and Chemistry, 2017, 43, 410-416.	0.7	2
78	An Xps and Low-Temperature Nitrogen Adsorption Study of the Structure of Carbon-Fluorocarbon Nanocomposites. Journal of Structural Chemistry, 2018, 59, 1841-1848.	1.0	2
79	Local atomic and electronic structure of Pt-Os nanoplates and nanofibers derived from the single-source precursor (NH <sub>4</sub> ) <sub>2</sub> [Pt <sub>0.5</sub> Os <sub>0.5</sub> Cl <sub>6</sub> ]. Journal of Nanoparticle Research, 2021, 24, 1.	1.9	2
80	An Xps Study of Solid Solutions Mo <sub>1-x</sub> Nb <sub>x</sub> S <sub>2</sub> (0 < x < 0.15). Journal of Structural Chemistry, 2018, 59, 1833-1840.	1.0	1
81	Features of Extended XPS Spectra of C <sub>2</sub> FBr <sub>0.15</sub> Intercalate and Silver Foil. Journal of Structural Chemistry, 2020, 61, 523-532.	1.0	1
82	Investigation of the phase composition and photoluminescence of CVD (Y <sub>x</sub> Gd <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> films on Si substrates after annealing in the air. Journal of Luminescence, 2021, 233, 117842.	3.1	0