

# Alexander Nikolaev

## List of Publications by Year in descending order

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35  
papers

400  
citations

759233

12  
h-index

839539

18  
g-index

36  
all docs

36  
docs citations

36  
times ranked

466  
citing authors

#	ARTICLE	IF	CITATIONS
1	Supercritical fluids in chemistry. Russian Chemical Reviews, 2020, 89, 1337-1427.	6.5	62
2	Design and synthesis of new ultra-low band gap thiadiazoloquinoxaline-based polymers for near-infrared organic photovoltaic application. RSC Advances, 2016, 6, 14893-14908.	3.6	26
3	Formation of superhydrophobic surfaces by the deposition of coatings from supercritical carbon dioxide. Colloid Journal, 2007, 69, 411-424.	1.3	25
4	Structural and electrocatalytic features of Pt/C catalysts fabricated in supercritical carbon dioxide. Journal of Solid State Electrochemistry, 2011, 15, 623-633.	2.5	21
5	Modification of Nafion with silica nanoparticles in supercritical carbon dioxide for electrochemical applications. Journal of Membrane Science, 2018, 564, 106-114.	8.2	19
6	Categorization system of nanofillers to polymer composites. Journal of Friction and Wear, 2010, 31, 68-80.	0.5	18
7	New low bandgap near-IR conjugated D-A copolymers for BHJ polymer solar cell applications. Physical Chemistry Chemical Physics, 2016, 18, 8389-8400.	2.8	18
8	Effect of supercritical carbon dioxide on nanoporous polyhexafluoropropylene. High Energy Chemistry, 2016, 50, 287-291.	0.9	16
9	Study of porous structure of polyimide films resulting by using various methods. Journal of Supercritical Fluids, 2012, 70, 146-155.	3.2	15
10	Change of microstructure of polyimide thin films under the action of supercritical carbon dioxide and its influence on the transport properties. Structural Chemistry, 2014, 25, 301-310.	2.0	15
11	Microstructure relaxation process of polyhexafluoropropylene after swelling in supercritical carbon dioxide. Journal of Applied Polymer Science, 2016, 133, .	2.6	15
12	Lowering the dielectric constant of polyimide thin films by swelling with supercritical carbon dioxide. Polymers for Advanced Technologies, 2013, 24, 615-622.	3.2	13
13	Synthesis of alternating D-A <sub>1</sub> -D-A <sub>2</sub> terpolymers comprising two electron-deficient moieties, quinoxaline and benzothiadiazole units for photovoltaic applications. Polymer Chemistry, 2016, 7, 4025-4035.	3.9	11
14	Synthesis and photophysical properties of regioregular low bandgap copolymers with controlled 5-fluorobenzotriazole orientation for photovoltaic application. Polymer Chemistry, 2016, 7, 5849-5861.	3.9	11
15	Synthesis of new D-A <sub>1</sub> -D-A <sub>2</sub> type low bandgap terpolymers based on different thiadiazoloquinoxaline acceptor units for efficient polymer solar cells. RSC Advances, 2016, 6, 71232-71244.	3.6	11
16	Electrocatalysts for fuel cells synthesized in supercritical carbon dioxide. Nanotechnologies in Russia, 2011, 6, 311-322.	0.7	10
17	Random D <sub>1</sub> -A <sub>1</sub> -D <sub>1</sub> -A <sub>2</sub> terpolymers based on diketopyrrolopyrrole and benzothiadiazolequinoxaline (BTQx) derivatives for high-performance polymer solar cells. New Journal of Chemistry, 2019, 43, 5325-5334.	2.8	9
18	Carbon dioxide in the surface layers of ultrahigh molecular weight polyethylene. Doklady Physical Chemistry, 2008, 419, 68-72.	0.9	8

#	ARTICLE	IF	CITATIONS
19	Influence of swelling in supercritical carbon dioxide of Ultem and polyhexafluoropropylene thin films on their gas separation properties: comparative analysis. Structural Chemistry, 2018, 29, 457-466.	2.0	8
20	Structure of mono- and bimetallic heterogeneous catalysts based on noble metals obtained by means of fluid technology and metal-vapor synthesis. Russian Journal of Physical Chemistry A, 2012, 86, 1602-1608.	0.6	7
21	Change of microstructure of polyimide thin films under the action of supercritical carbon dioxide and its influence on dielectric constant. Structural Chemistry, 2014, 25, 1687-1694.	2.0	7
22	New Conjugated Polymers Based on Dithieno[2,3- <i>b</i> :3',2'- <i>b'</i> ]Isoindole-7,9(8H)-Dione Derivatives for Applications in Nonfullerene Polymer Solar Cells. Solar Rrl, 2020, 4, 1900475.	5.8	7
23	Structure of composites prepared via polypyrrole synthesis in supercritical CO <sub>2</sub> on microporous polyethylene. Polymer Science - Series A, 2006, 48, 827-840.	1.0	6
24	Dithienosilole-phenylquinoxaline-based copolymers with A-D-A and A-D structures for polymer solar cells. Journal of Polymer Science Part A, 2018, 56, 376-386.	2.3	6
25	Fractionation of ultradisperse polytetrafluoroethylene in supercritical carbon dioxide and the chemical structures of the fractions. Polymer Science - Series A, 2015, 57, 271-278.	1.0	4
26	Electrochemically active dispersed tungsten oxides obtained from tungsten hexacarbonyl in supercritical carbon dioxide. Journal of Materials Science, 2019, 54, 9426-9441.	3.7	4
27	The Effect of Conformation Order on Gas Separation Properties of Polyetherimide Ultem Films. Polymers, 2020, 12, 1578.	4.5	4
28	Platinum cross-linked chitosan hydrogels synthesized in water saturated with CO <sub>2</sub> under high pressure. Journal of Applied Polymer Science, 2021, 138, 50006.	2.6	4
29	Synthesis and photophysical properties of semiconductor molecules D1-A-D2-A-D1-type structure based on derivatives of quinoxaline and dithienosilole for organics solar cells. Organic Electronics, 2016, 39, 361-370.	2.6	3
30	Polystyrene Foamed with Supercritical CO <sub>2</sub> as Possible Model System of the Membrane Materials for Flow Batteries. Polymer Science - Series A, 2018, 60, 507-514.	1.0	3
31	Effect of Supercritical CO <sub>2</sub> Treatment on Mechanical and Gas Transport Characteristics of Polyimides Based on Diethyl Toluene Diamine Isomers. Membranes and Membrane Technologies, 2022, 4, 162-169.	1.9	3
32	Phosphonium salts derived from $\pm$ -ferrocenylvinyl cation in situ generated in sc-CO <sub>2</sub> from ethynylferrocene by Nafion film. Journal of Supercritical Fluids, 2018, 131, 117-123.	3.2	2
33	Formation of Dispersed Particles of Tungsten Oxide and Deposition of Platinum Nanoparticles on Them Using Organometallic Precursors from Solutions in Supercritical Carbon Dioxide. Russian Journal of Physical Chemistry B, 2019, 13, 1315-1321.	1.3	2
34	Redispersible polymers are prepared in supercritical carbon dioxide. Russian Journal of Inorganic Chemistry, 2015, 60, 724-728.	1.3	1
35	Synthesis, characterization and photovoltaic properties of new iridium-containing conjugated polymers. AIP Conference Proceedings, 2018, , .	0.4	0