

# Alexander Nikolaev

## List of Publications by Year in descending order

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35  
papers

400  
citations

758635

12  
h-index

839053

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.	2.5	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.	1.7	26
3	Formation of superhydrophobic surfaces by the deposition of coatings from supercritical carbon dioxide. Colloid Journal, 2007, 69, 411-424.	0.5	25
4	Structural and electrocatalytic features of Pt/C catalysts fabricated in supercritical carbon dioxide. Journal of Solid State Electrochemistry, 2011, 15, 623-633.	1.2	21
5	Modification of Nafion with silica nanoparticles in supercritical carbon dioxide for electrochemical applications. Journal of Membrane Science, 2018, 564, 106-114.	4.1	19
6	Categorization system of nanofillers to polymer composites. Journal of Friction and Wear, 2010, 31, 68-80.	0.1	18
7	New low bandgap near-IR conjugated D <sup>1</sup> A copolymers for BHJ polymer solar cell applications. Physical Chemistry Chemical Physics, 2016, 18, 8389-8400.	1.3	18
8	Effect of supercritical carbon dioxide on nanoporous polyhexafluoropropylene. High Energy Chemistry, 2016, 50, 287-291.	0.2	16
9	Study of porous structure of polyimide films resulting by using various methods. Journal of Supercritical Fluids, 2012, 70, 146-155.	1.6	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.	1.0	15
11	Microstructure relaxation process of polyhexafluoropropylene after swelling in supercritical carbon dioxide. Journal of Applied Polymer Science, 2016, 133, .	1.3	15
12	Lowering the dielectric constant of polyimide thin films by swelling with supercritical carbon dioxide. Polymers for Advanced Technologies, 2013, 24, 615-622.	1.6	13
13	Synthesis of alternating D <sup>1</sup> A <sup>1</sup> D <sup>2</sup> A <sup>2</sup> terpolymers comprising two electron-deficient moieties, quinoxaline and benzothiadiazole units for photovoltaic applications. Polymer Chemistry, 2016, 7, 4025-4035.	1.9	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.	1.9	11
15	Synthesis of new D-A <sup>1</sup> D-A <sup>2</sup> type low bandgap terpolymers based on different thiadiazoloquinoxaline acceptor units for efficient polymer solar cells. RSC Advances, 2016, 6, 71232-71244.	1.7	11
16	Electrocatalysts for fuel cells synthesized in supercritical carbon dioxide. Nanotechnologies in Russia, 2011, 6, 311-322.	0.7	10
17	Random D <sup>1</sup> A <sup>1</sup> D <sup>1</sup> A <sup>2</sup> terpolymers based on diketopyrrolopyrrole and benzothiadiazolequinoxaline (BTOx) derivatives for high-performance polymer solar cells. New Journal of Chemistry, 2019, 43, 5325-5334.	1.4	9
18	Carbon dioxide in the surface layers of ultrahigh molecular weight polyethylene. Doklady Physical Chemistry, 2008, 419, 68-72.	0.2	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. <i>Structural Chemistry</i> , 2018, 29, 457-466.	1.0	8
20	Structure of mono- and bimetallic heterogeneous catalysts based on noble metals obtained by means of fluid technology and metal-vapor synthesis. <i>Russian Journal of Physical Chemistry A</i> , 2012, 86, 1602-1608.	0.1	7
21	Change of microstructure of polyimide thin films under the action of supercritical carbon dioxide and its influence on dielectric constant. <i>Structural Chemistry</i> , 2014, 25, 1687-1694.	1.0	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. <i>Solar Rrl</i> , 2020, 4, 1900475.	3.1	7
23	Structure of composites prepared via polypyrrole synthesis in supercritical CO <sub>2</sub> on microporous polyethylene. <i>Polymer Science - Series A</i> , 2006, 48, 827-840.	0.4	6
24	Dithienosilole-phenylquinoxaline-based copolymers with A-D and A structures for polymer solar cells. <i>Journal of Polymer Science Part A</i> , 2018, 56, 376-386.	2.5	6
25	Fractionation of ultradisperse polytetrafluoroethylene in supercritical carbon dioxide and the chemical structures of the fractions. <i>Polymer Science - Series A</i> , 2015, 57, 271-278.	0.4	4
26	Electrochemically active dispersed tungsten oxides obtained from tungsten hexacarbonyl in supercritical carbon dioxide. <i>Journal of Materials Science</i> , 2019, 54, 9426-9441.	1.7	4
27	The Effect of Conformation Order on Gas Separation Properties of Polyetherimide Ultem Films. <i>Polymers</i> , 2020, 12, 1578.	2.0	4
28	Platinum cross-linked chitosan hydrogels synthesized in water saturated with CO <sub>2</sub> under high pressure. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50006.	1.3	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. <i>Organic Electronics</i> , 2016, 39, 361-370.	1.4	3
30	Polystyrene Foamed with Supercritical CO <sub>2</sub> as Possible Model System of the Membrane Materials for Flow Batteries. <i>Polymer Science - Series A</i> , 2018, 60, 507-514.	0.4	3
31	Effect of Supercritical CO <sub>2</sub> Treatment on Mechanical and Gas Transport Characteristics of Polyimides Based on Diethyl Toluene Diamine Isomers. <i>Membranes and Membrane Technologies</i> , 2022, 4, 162-169.	0.6	3
32	Phosphonium salts derived from $\text{Î±}$ -ferrocenylvinyl cation in situ generated in sc-CO <sub>2</sub> from ethynylferrocene by Nafion film. <i>Journal of Supercritical Fluids</i> , 2018, 131, 117-123.	1.6	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. <i>Russian Journal of Physical Chemistry B</i> , 2019, 13, 1315-1321.	0.2	2
34	Redispersible polymers are prepared in supercritical carbon dioxide. <i>Russian Journal of Inorganic Chemistry</i> , 2015, 60, 724-728.	0.3	1
35	Synthesis, characterization and photovoltaic properties of new iridium-containing conjugated polymers. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0