

# Akbar Shojaei

## List of Publications by Year in descending order

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113  
papers

4,694  
citations

76196

40  
h-index

114278

63  
g-index

116  
all docs

116  
docs citations

116  
times ranked

4505  
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective dye adsorption by highly water stable metal-organic framework: Long term stability analysis in aqueous media. <i>Applied Surface Science</i> , 2018, 445, 424-436.	3.1	240
2	Fabrication and Properties of Polycaprolactone Composites Containing Calcium Phosphate-Based Ceramics and Bioactive Glasses in Bone Tissue Engineering: A Review. <i>Polymer Reviews</i> , 2018, 58, 164-207.	5.3	179
3	Enhancing CO <sub>2</sub> /N <sub>2</sub> adsorption selectivity via post-synthetic modification of NH <sub>2</sub> -UiO-66(Zr). <i>Microporous and Mesoporous Materials</i> , 2018, 257, 193-201.	2.2	170
4	High-capacity Hierarchically Imprinted Polymer Beads for Protein Recognition and Capture. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 495-498.	7.2	156
5	Preparation of Metal-Organic Frameworks UiO-66 for Adsorptive Removal of Methotrexate from Aqueous Solution. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2018, 28, 177-186.	1.9	129
6	Inhibitor-loaded conducting polymer capsules for active corrosion protection of coating defects. <i>Corrosion Science</i> , 2016, 112, 138-149.	3.0	123
7	Improving mixed-matrix membrane performance via PMMA grafting from functionalized NH <sub>2</sub> -UiO-66. <i>Journal of Materials Chemistry A</i> , 2018, 6, 2775-2791.	5.2	117
8	Polymer/nanodiamond composites - a comprehensive review from synthesis and fabrication to properties and applications. <i>Advances in Colloid and Interface Science</i> , 2019, 269, 122-151.	7.0	106
9	Rapid and tunable selective adsorption of dyes using thermally oxidized nanodiamond. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 52-64.	5.0	99
10	Thermal, mechanical and acoustic damping properties of flexible open-cell polyurethane/multi-walled carbon nanotube foams: effect of surface functionality of nanotubes. <i>Polymer International</i> , 2011, 60, 475-482.	1.6	98
11	Anticorrosion properties of smart coating based on polyaniline nanoparticles/epoxy-ester system. <i>Progress in Organic Coatings</i> , 2012, 75, 502-508.	1.9	94
12	Evaluation of UiO-66 metal organic framework as an effective sorbent for Curcumin's overdose. <i>Applied Organometallic Chemistry</i> , 2018, 32, e4221.	1.7	93
13	Effect of short carbon fiber on thermal, mechanical and tribological behavior of phenolic-based brake friction materials. <i>Composites Part B: Engineering</i> , 2019, 168, 98-105.	5.9	92
14	Column study of Cr (VI) adsorption onto modified silica-polyacrylamide microspheres composite. <i>Chemical Engineering Journal</i> , 2012, 210, 280-288.	6.6	91
15	Vulcanization kinetics and reversion behavior of natural rubber/styrene-butadiene rubber blend filled with nanodiamond - the role of sulfur curing system. <i>European Polymer Journal</i> , 2016, 81, 98-113.	2.6	88
16	A review on the features, performance and potential applications of hydrogel-based wearable strain/pressure sensors. <i>Advances in Colloid and Interface Science</i> , 2021, 298, 102553.	7.0	82
17	pH responsive Ce(III) loaded polyaniline nanofibers for self-healing corrosion protection of AA2024-T3. <i>Progress in Organic Coatings</i> , 2016, 99, 197-209.	1.9	81
18	Mixed-Matrix Composite Membranes Based on UiO-66-Derived MOFs for CO <sub>2</sub> Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 9448-9461.	4.0	70

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19	Modeling and simulation approaches in the resin transfer molding process: A review. <i>Polymer Composites</i> , 2003, 24, 525-544.	2.3	68
20	Molecularly imprinted polydopamine nano-layer on the pore surface of porous particles for protein capture in HPLC column. <i>Journal of Colloid and Interface Science</i> , 2013, 404, 117-126.	5.0	68
21	Effect of rubber component on the performance of brake friction materials. <i>Wear</i> , 2012, 274-275, 286-297.	1.5	65
22	Nanodiamond-filled chitosan as an efficient adsorbent for anionic dye removal from aqueous solutions. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 3283-3294.	3.3	62
23	Thermally conductive rubber-based composite friction materials for railroad brakes – Thermal conduction characteristics. <i>Composites Science and Technology</i> , 2007, 67, 2665-2674.	3.8	57
24	Ultrafast and simultaneous removal of anionic and cationic dyes by nanodiamond/UiO-66 hybrid nanocomposite. <i>Chemosphere</i> , 2020, 247, 125882.	4.2	56
25	Cure kinetic and network structure of NR/SBR composites reinforced by multiwalled carbon nanotube and carbon blacks. <i>Thermochimica Acta</i> , 2013, 566, 238-248.	1.2	55
26	Silane functionalization of nanodiamond for polymer nanocomposites-effect of degree of silanization. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 506, 254-263.	2.3	53
27	Numerical simulation of three-dimensional flow and analysis of filling process in compression resin transfer moulding. <i>Composites Part A: Applied Science and Manufacturing</i> , 2006, 37, 1434-1450.	3.8	52
28	Effect of nanoclays on the mechanical properties and durability of novolac phenolic resin/woven glass fiber composite at various chemical environments. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014, 63, 149-158.	3.8	52
29	Ethylenediamine Grafting to Functionalized NH <sub>2</sub> -UiO-66 Using Green Aza-Michael Addition Reaction to Improve CO <sub>2</sub> /CH <sub>4</sub> Adsorption Selectivity. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 7030-7039.	1.8	52
30	Three-dimensional process cycle simulation of composite parts manufactured by resin transfer molding. <i>Composite Structures</i> , 2004, 65, 381-390.	3.1	51
31	Cure Kinetics of Nanodiamond-Filled Epoxy Resin: Influence of Nanodiamond Surface Functionality. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 8954-8962.	1.8	49
32	Effects of hybrid carbon-aramid fiber on performance of non-asbestos organic brake friction composites. <i>Wear</i> , 2020, 452-453, 203280.	1.5	46
33	Improvement of dry sliding tribological properties of polyamide 6 using diamond nanoparticles. <i>Tribology International</i> , 2017, 115, 370-377.	3.0	46
34	Synthesis and characterization of biodegradable acrylated polyurethane based on poly( $\mu$ -caprolactone) and 1,6-hexamethylene diisocyanate. <i>Materials Science and Engineering C</i> , 2014, 42, 763-773.	3.8	44
35	Chemically modified organic/inorganic nanoporous composite particles for the adsorption of reactive black 5 from aqueous solution. <i>Reactive and Functional Polymers</i> , 2015, 86, 7-15.	2.0	44
36	Enhanced adsorption removal performance of UiO-66 by rational hybridization with nanodiamond. <i>Microporous and Mesoporous Materials</i> , 2020, 296, 110008.	2.2	44

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37	Numerical simulation of three-dimensional mold filling process in resin transfer molding using quasi-steady state and partial saturation formulations. <i>Composites Science and Technology</i> , 2002, 62, 861-879.	3.8	43
38	Effect of carbon-based nanoparticles on the cure characteristics and network structure of styrene-butadiene rubber vulcanizate. <i>Polymer International</i> , 2012, 61, 664-672.	1.6	43
39	Characterization of polyamide 6/carbon nanotube composites prepared by melt mixing-effect of matrix molecular weight and structure. <i>Composites Part B: Engineering</i> , 2015, 78, 50-64.	5.9	42
40	Experimental Study on the Influence of Initial pH, Ionic Strength, and Temperature on the Selective Adsorption of Dyes onto Nanodiamonds. <i>Journal of Chemical &amp; Engineering Data</i> , 2019, 64, 1508-1514.	1.0	42
41	Simulation of the three-dimensional non-isothermal mold filling process in resin transfer molding. <i>Composites Science and Technology</i> , 2003, 63, 1931-1948.	3.8	41
42	Theoretical and experimental analysis of the thermal, fade and wear characteristics of rubber-based composite friction materials. <i>Wear</i> , 2010, 269, 145-151.	1.5	41
43	Effects of rubber curing ingredients and phenolic resin on mechanical, thermal, and morphological characteristics of rubber/phenolic resin blends. <i>Journal of Applied Polymer Science</i> , 2008, 108, 3808-3821.	1.3	40
44	Rheological and mechanical characteristics of low density polyethylene/ethylene vinyl acetate/organoclay nanocomposites. <i>Polymer Engineering and Science</i> , 2010, 50, 1315-1325.	1.5	40
45	Nanodiamond gels in nonpolar media: Colloidal and rheological properties. <i>Journal of Rheology</i> , 2014, 58, 1599-1614.	1.3	40
46	Biodegradable polyurethane acrylate/HEMA-grafted nanodiamond composites with bone regenerative potential applications: structure, mechanical properties and biocompatibility. <i>RSC Advances</i> , 2016, 6, 8743-8755.	1.7	40
47	Submicron nanoporous polyacrylamide beads with tunable size for verapamil imprinting. <i>Journal of Applied Polymer Science</i> , 2012, 125, 189-199.	1.3	38
48	Mechanical properties and structure of solvent processed novolac resin/layered silicate: development of interphase region. <i>RSC Advances</i> , 2015, 5, 80875-80883.	1.7	38
49	Prediction and optimization of cure cycle of thick fiber-reinforced composite parts using dynamic artificial neural networks. <i>Journal of Reinforced Plastics and Composites</i> , 2012, 31, 1201-1215.	1.6	37
50	Frictional behavior of resin-based brake composites: Effect of carbon fibre reinforcement. <i>Wear</i> , 2019, 420-421, 108-115.	1.5	37
51	Mechanical performance of styrene-butadiene-rubber filled with carbon nanoparticles prepared by mechanical mixing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7161-7172.	2.6	36
52	A numerical study of filling process through multilayer preforms in resin injection/compression molding. <i>Composites Science and Technology</i> , 2006, 66, 1546-1557.	3.8	35
53	Reinforcing mechanisms of carbon nanotubes and high structure carbon black in natural rubber/styrene-butadiene rubber blend prepared by mechanical mixing-effect of bound rubber. <i>Polymer International</i> , 2015, 64, 1627-1638.	1.6	35
54	Controlled growth of hollow polyaniline structures: From nanotubes to microspheres. <i>Polymer</i> , 2013, 54, 5586-5594.	1.8	34

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55	Bio-based UV curable polyurethane acrylate: Morphology and shape memory behaviors. <i>European Polymer Journal</i> , 2019, 118, 514-527.	2.6	34
56	Enhanced mechanical properties of chitosan/nanodiamond composites by improving interphase using thermal oxidation of nanodiamond. <i>Carbohydrate Polymers</i> , 2017, 167, 219-228.	5.1	33
57	Physico-mechanical properties and thermal stability of thermoset nanocomposites based on styrene-butadiene rubber/phenolic resin blend. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 917-926.	2.6	32
58	Network structure and mechanical properties of polydimethylsiloxane filled with nanodiamond “Effect of degree of silanization of nanodiamond. <i>Composites Science and Technology</i> , 2017, 142, 227-234.	3.8	32
59	An Experimental Study of Saturated and Unsaturated Permeabilities in Resin Transfer Molding Based on Unidirectional Flow Measurements. <i>Journal of Reinforced Plastics and Composites</i> , 2004, 23, 1515-1536.	1.6	31
60	Efficient removal of heavy metal ions from aqueous media by unmodified and modified nanodiamonds. <i>Journal of Environmental Management</i> , 2022, 316, 115214.	3.8	31
61	Nanodiamond loaded with corrosion inhibitor as efficient nanocarrier to improve anticorrosion behavior of epoxy coating. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 83, 153-163.	2.9	29
62	Adhesion modification of polyethylenes for metallization using radiation-induced grafting of vinyl monomers. <i>Surface and Coatings Technology</i> , 2007, 201, 7519-7529.	2.2	26
63	Theoretical and Experimental Study on the Adsorption and Desorption of Methane by Granular Activated Carbon at 25°C. <i>Journal of Natural Gas Chemistry</i> , 2007, 16, 415-422.	1.8	26
64	On the viscosity of composite suspensions of aluminum and ammonium perchlorate particles dispersed in hydroxyl terminated polybutadiene “New empirical model. <i>Journal of Colloid and Interface Science</i> , 2006, 299, 962-971.	5.0	24
65	High-performance styrene-butadiene rubber nanocomposites based on carbon nanotube/nanodiamond hybrid with synergistic thermal conduction characteristics and electrically insulating properties. <i>Polymer</i> , 2020, 196, 122470.	1.8	24
66	Morphological and mechanical properties of polyamide 6/nanodiamond composites prepared by melt mixing: effect of surface functionality of nanodiamond. <i>Polymer International</i> , 2017, 66, 557-565.	1.6	23
67	Highly biocompatible multifunctional hybrid nanoparticles based on Fe <sub>3</sub> O <sub>4</sub> decorated nanodiamond with superior superparamagnetic behaviors and photoluminescent properties. <i>Materials Science and Engineering C</i> , 2020, 114, 110993.	3.8	22
68	Characterization of reinforcing effect of alumina nanoparticles on the novolac phenolic resin. <i>Polymer Composites</i> , 2014, 35, 1285-1293.	2.3	21
69	Performance characterization of composite materials based on recycled high-density polyethylene and ground tire rubber reinforced with short glass fibers for structural applications. <i>Journal of Applied Polymer Science</i> , 2007, 104, 1-8.	1.3	20
70	Photo-curable acrylate polyurethane as efficient composite membrane for CO <sub>2</sub> separation. <i>Polymer</i> , 2018, 149, 178-191.	1.8	20
71	Effect of alumina nanoparticle on the tribological performance of automotive brake friction materials. <i>Journal of Reinforced Plastics and Composites</i> , 2014, 33, 166-178.	1.6	19
72	Thermally Oxidized Nanodiamond: An Effective Sorbent for Separation of Methotrexate from Aqueous Media: Synthesis, Characterization, In Vivo and In Vitro Biocompatibility Study. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2019, 29, 701-709.	1.9	19

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73	Developing tough terpolymer hydrogel with outstanding swelling ability by hydrophobic association cross-linking. <i>Polymer</i> , 2022, 254, 125037.	1.8	19
74	Synthesis and characterization of polyaniline/nanodiamond hybrid nanostructures with various morphologies to enhance the corrosion protection performance of epoxy coating. <i>Diamond and Related Materials</i> , 2021, 120, 108672.	1.8	18
75	Analysis of the sedimentation process in reactive polymeric suspensions. <i>Chemical Engineering Science</i> , 2006, 61, 7565-7578.	1.9	17
76	Properties of alumina nanoparticle-filled nitrile-butadiene rubber/phenolic resin blend prepared by melt mixing. <i>Polymer Composites</i> , 2009, 30, 1290-1298.	2.3	16
77	Field Scale Characterization of Geological Formations Using Percolation Theory. <i>Transport in Porous Media</i> , 2012, 92, 357-372.	1.2	16
78	Wear and thermal effects in low modulus polymer-based composite friction materials. <i>Journal of Applied Polymer Science</i> , 2005, 95, 1181-1188.	1.3	15
79	Utilization of percolation approach to evaluate reservoir connectivity and effective permeability: A case study on North Pars gas field. <i>Scientia Iranica</i> , 2011, 18, 1391-1396.	0.3	15
80	Effect of anisotropy on the scaling of connectivity and conductivity in continuum percolation theory. <i>Physical Review E</i> , 2010, 81, 061119.	0.8	14
81	An investigation on the structural characteristics and reinforcement of melt processed polyamide 66/multiwalled carbon nanotube composites. <i>Polymers for Advanced Technologies</i> , 2014, 25, 406-417.	1.6	14
82	Morphology transition control of polyaniline from nanotubes to nanospheres in a soft template method. <i>Polymer International</i> , 2015, 64, 88-95.	1.6	14
83	Thermal interaction between polymer-based composite friction materials and counterfaces. <i>Journal of Applied Polymer Science</i> , 2001, 81, 364-369.	1.3	13
84	Taguchi analysis of extrusion variables and composition effects on the morphology and mechanical properties of EPR-g-MA toughened polyamide 6 and its composite with short glass fiber. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 506, 45-57.	2.6	13
85	A Reservoir Conductivity Evaluation Using Percolation Theory. <i>Petroleum Science and Technology</i> , 2011, 29, 1041-1053.	0.7	13
86	Optimization of industrial CSTR for vinyl acetate polymerization using novel shuffled frog leaping based hybrid algorithms and dynamic modeling. <i>Computers and Chemical Engineering</i> , 2011, 35, 2351-2365.	2.0	13
87	Studies on the friction and wear characteristics of rubber-based friction materials containing carbon and cellulose fibers. <i>Journal of Materials Science</i> , 2011, 46, 1890-1901.	1.7	13
88	Effect of chemical treatment of Teflon powder on the properties of polyamide 66/Teflon composites prepared by melt mixing. <i>Macromolecular Research</i> , 2011, 19, 613-621.	1.0	13
89	Tire tread performance of silica-filled SBR/BR rubber composites incorporated with nanodiamond and nanodiamond/nano-SiO <sub>2</sub> hybrid nanoparticle. <i>Diamond and Related Materials</i> , 2022, 126, 109068.	1.8	13
90	Cure kinetics of a polymer-based composite friction material. <i>Journal of Applied Polymer Science</i> , 2006, 100, 9-17.	1.3	12

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91	Tribological Characteristics of Rubber-Based Friction Materials. <i>Tribology Letters</i> , 2011, 41, 325-336.	1.2	11
92	Morphology development and mechanical properties of unsaturated polyester resin containing nanodiamonds. <i>Polymer International</i> , 2017, 66, 950-959.	1.6	11
93	A mathematical method for XRD pattern interpretation in clay containing nano composites. <i>Applied Surface Science</i> , 2014, 318, 90-94.	3.1	10
94	<i>In situ</i> preparation and characterization of biocompatible acrylate-terminated polyurethane containing chemically modified multiwalled carbon nanotube. <i>Polymer Composites</i> , 2018, 39, E297.	2.3	10
95	Efficient inductively heated shape memory polyurethane acrylate network with silane modified nanodiamond@Fe <sub>3</sub> O <sub>4</sub> superparamagnetic nanohybrid. <i>European Polymer Journal</i> , 2021, 159, 110735.	2.6	10
96	Analysis of structure-properties relationship in nitrile-butadiene rubber/phenolic resin/organoclay ternary nanocomposites using simple model system. <i>Polymers for Advanced Technologies</i> , 2010, 21, 356-364.	1.6	9
97	Synthesis of high-reinforcing-silica@nanodiamond nanohybrids as efficient particles for enhancement of mechanical, thermal, and rolling resistance of styrene-butadiene rubber. <i>Polymer</i> , 2022, 255, 125122.	1.8	9
98	Effect of system of initiators on the process cycle of nonisothermal resin transfer molding - Numerical investigation. <i>Composites Part A: Applied Science and Manufacturing</i> , 2010, 41, 138-145.	3.8	8
99	Binary and ternary blends of high-density polyethylene with poly(ethylene terephthalate) and polystyrene based on recycled materials. <i>Polymers for Advanced Technologies</i> , 2011, 22, 690-702.	1.6	7
100	Effect of reactive diluent on gas separation behavior of photocurable acrylated polyurethane composite membranes. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48293.	1.3	7
101	Effect of organoclay loading and electron beam irradiation on the physico-mechanical properties of low-density polyethylene/ethylene vinyl acetate blend. <i>Polymers for Advanced Technologies</i> , 2011, 22, 2352-2359.	1.6	6
102	Amino functionalized hierarchically produced porous polyacrylamide microspheres for the removal of chromium(VI) from aqueous solution. <i>Journal of Porous Materials</i> , 2017, 24, 1705-1715.	1.3	6
103	Bare and functionalized nanodiamonds in aqueous media: A theoretical study. <i>Diamond and Related Materials</i> , 2018, 89, 301-311.	1.8	6
104	A Numerical Investigation on the Cure Cycle of Composite Brake Blocks. <i>International Polymer Processing</i> , 2006, 21, 421-431.	0.3	5
105	Estimating the Connected Volume of Hydrocarbon During Early Reservoir Life by Percolation Theory. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2014, 36, 301-308.	1.2	4
106	Modeling and optimization of friction materials based on genetic programming and experimental frictional data. <i>Journal of Reinforced Plastics and Composites</i> , 2015, 34, 581-590.	1.6	3
107	Oxygen Scavenging Hybrid Nanostructure: Localization of Different Iron Nanoparticles on Montmorillonite Clays Host. <i>ACS Omega</i> , 2022, 7, 16391-16401.	1.6	3
108	pH-Responsive Nanostructured Polyaniline Capsules for Self-Healing Corrosion Protection: The Influence of Capsule Concentration. <i>Scientia Iranica</i> , 2017, .	0.3	2

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109	Simulation of Three-dimensional Flow in Compression Resin Transfer Molding by the Control Volume/Finite Element Method. , 2004, , 357-362.		1
110	Chitosan interphase around nanodiamond: Insight from equilibrium molecular dynamics. Diamond and Related Materials, 2020, 104, 107737.	1.8	1
111	Self-healing and self-sensing smart polymer composites. , 2021, , 307-357.		1
112	A Flat Polymeric Membrane Sensor for Carbon Dioxide/Nitrogen Gas Mixture. Chemical Engineering Communications, 2017, 204, 445-452.	1.5	0
113	A Numerical Approach to Analyze the Curing Process of Railroad Composite Brake Shoe. , 2004, , 811-816.		0