

Ahmed A Abdala

List of Publications by Year in descending order

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101
papers

14,526
citations

76294

40
h-index

39638

94
g-index

103
all docs

103
docs citations

103
times ranked

18203
citing authors

#	ARTICLE	IF	CITATIONS
1	Single Sheet Functionalized Graphene by Oxidation and Thermal Expansion of Graphite. Chemistry of Materials, 2007, 19, 4396-4404.	3.2	3,276
2	Functionalized graphene sheets for polymer nanocomposites. Nature Nanotechnology, 2008, 3, 327-331.	15.6	3,206
3	Graphene/Polymer Nanocomposites. Macromolecules, 2010, 43, 6515-6530.	2.2	2,979
4	Recent advances in graphene based gas sensors. Sensors and Actuators B: Chemical, 2015, 218, 160-183.	4.0	723
5	Graphene/polyethylene nanocomposites: Effect of polyethylene functionalization and blending methods. Polymer, 2011, 52, 1837-1846.	1.8	358
6	Melamine formaldehyde: curing studies and reaction mechanism. Polymer Journal, 2013, 45, 413-419.	1.3	297
7	Intercalation and Stitching of Graphite Oxide with Diaminoalkanes. Langmuir, 2007, 23, 10644-10649.	1.6	234
8	Recent advances in chemical modifications of graphene. Nano Research, 2015, 8, 1039-1074.	5.8	215
9	Polymer membranes for acid gas removal from natural gas. Separation and Purification Technology, 2016, 158, 333-356.	3.9	195
10	Enhancing oil removal from water using ferric oxide nanoparticles doped carbon nanotubes adsorbents. Chemical Engineering Journal, 2016, 293, 90-101.	6.6	148
11	Mechanical properties of water desalination and wastewater treatment membranes. Desalination, 2017, 401, 190-205.	4.0	146
12	Does Graphene Change T_g of Nanocomposites?. Macromolecules, 2014, 47, 8311-8319.	2.2	119
13	Mesoporous Octahedron-Shaped Tricobalt Tetroxide Nanoparticles for Photocatalytic Degradation of Toxic Dyes. ACS Omega, 2020, 5, 7823-7835.	1.6	95
14	Novel Associative Polymer Networks Based on Cyclodextrin Inclusion Compounds. Macromolecules, 2005, 38, 3037-3040.	2.2	86
15	Solvent-free synthesis of ZnO-graphene nanocomposite with superior photocatalytic activity. Applied Surface Science, 2019, 465, 1107-1113.	3.1	85
16	Mobility of Ethomeen C12 and Carbon Dioxide (CO ₂) Foam at High Temperature/High Salinity and in Carbonate Cores. SPE Journal, 2016, 21, 1151-1163.	1.7	78
17	Metal/Metal Oxide Nanoparticles: Toxicity, Applications, and Future Prospects. Current Pharmaceutical Design, 2019, 25, 4013-4029.	0.9	72
18	Processable conductive graphene/polyethylene nanocomposites: Effects of graphene dispersion and polyethylene blending with oxidized polyethylene on rheology and microstructure. Polymer, 2016, 98, 143-155.	1.8	70

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19	Effect of Graphene Oxide Synthesis Method on Properties and Performance of Polysulfone-Graphene Oxide Mixed Matrix Membranes. <i>Nanomaterials</i> , 2019, 9, 769.	1.9	70
20	A critical review of phase change material composite performance through Figure-of-Merit analysis: Graphene vs Boron Nitride. <i>Energy Storage Materials</i> , 2021, 34, 365-387.	9.5	67
21	Removal of phenols and dyes from aqueous solutions using graphene and graphene composite adsorption: A review. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105858.	3.3	67
22	Effect of Thermally Reduced Graphene Sheets on the Phase Behavior, Morphology, and Electrical Conductivity in Poly[(\pm -methyl styrene)-co-(acrylonitrile)]/poly(methyl-methacrylate) Blends. <i>ACS Applied Materials & Interfaces</i> , 2011, 3, 3172-3180.	4.0	66
23	Recent Advances in Applications of Hybrid Graphene Materials for Metals Removal from Wastewater. <i>Nanomaterials</i> , 2020, 10, 595.	1.9	62
24	Aqueous reduced graphene/thermoplastic polyurethane nanocomposites. <i>Polymer</i> , 2013, 54, 4555-4559.	1.8	58
25	Effect of Synthesis on Performance of MXene/Iron Oxide Anode Material for Lithium-Ion Batteries. <i>Langmuir</i> , 2018, 34, 11325-11334.	1.6	58
26	Oil spill cleanup using graphene. <i>Environmental Science and Pollution Research</i> , 2013, 20, 3271-3279.	2.7	56
27	Rheology and microstructure of dilute graphene oxide suspension. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	0.8	55
28	Poly(hydroxyalkanoate) Elastomers and Their Graphene Nanocomposites. <i>Macromolecules</i> , 2014, 47, 3926-3941.	2.2	55
29	Removal of emulsified and dissolved diesel oil from high salinity wastewater by adsorption onto graphene oxide. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103106.	3.3	55
30	Metal Organic Framework "Based Mixed Matrix Membranes for Carbon Dioxide Separation: Recent Advances and Future Directions. <i>Frontiers in Chemistry</i> , 2020, 8, 534.	1.8	54
31	Silver Nanoparticle-Based Nanocomposites for Combating Infectious Pathogens: Recent Advances and Future Prospects. <i>Nanomaterials</i> , 2021, 11, 581.	1.9	54
32	Modulation of Hydrophobic Interactions in Associative Polymers Using Inclusion Compounds and Surfactants. <i>Macromolecules</i> , 2003, 36, 7833-7841.	2.2	52
33	Graphene-Reinforced Bulk Metal Matrix Composites: Synthesis, Microstructure, and Properties. <i>Reviews on Advanced Materials Science</i> , 2020, 59, 67-114.	1.4	52
34	Brownian Motion of Colloidal Spheres in Aqueous PEO Solutions. <i>Macromolecules</i> , 2004, 37, 3874-3880.	2.2	50
35	Rheology control by modulating hydrophobic and inclusion associations in modified poly(acrylic) Tj ETQq1 1 0.784314 rgBT /Overlock	1.8	50
36	Solution rheology of hydrophobically modified associative polymers: Effects of backbone composition and hydrophobe concentration. <i>Journal of Rheology</i> , 2004, 48, 979-994.	1.3	49

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37	Photocatalytic degradation of dyes by nanomaterials. <i>Materials Today: Proceedings</i> , 2020, 29, 967-973.	0.9	45
38	Heat transfer enhancement of nanofluids using iron nanoparticles decorated carbon nanotubes. <i>Applied Thermal Engineering</i> , 2016, 107, 1008-1018.	3.0	43
39	Adsorption of a Switchable Cationic Surfactant on Natural Carbonate Minerals. <i>SPE Journal</i> , 2015, 20, 70-78.	1.7	41
40	Developing Hydrophobic Graphene Foam for Oil Spill Cleanup. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 6945-6951.	1.8	41
41	Mixed matrix membranes containing aspartic acid functionalized graphene oxide for enhanced oil-water emulsion separation. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104269.	3.3	39
42	Thermally reduced graphene: synthesis, characterization and dye removal applications. <i>RSC Advances</i> , 2013, 3, 24455.	1.7	36
43	Enhanced protective properties and UV stability of epoxy/graphene nanocomposite coating on stainless steel. <i>EXPRESS Polymer Letters</i> , 2016, 10, 1034-1046.	1.1	36
44	Solution rheology of hydrophobically modified associative polymers: Solvent quality and hydrophobic interactions. <i>Journal of Rheology</i> , 2003, 47, 497-511.	1.3	35
45	Effect of solvent on the uncatalyzed synthesis of aminosilane-functionalized graphene. <i>RSC Advances</i> , 2014, 4, 6830-6839.	1.7	35
46	Corrosion inhibition of copper in sodium chloride solution using polyetherimide/graphene composites. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 896-904.	0.9	35
47	Removal of oil from oil-in-water emulsions using thermally reduced graphene and graphene nanoplatelets. <i>Chemical Engineering Research and Design</i> , 2018, 137, 47-59.	2.7	35
48	Thermodynamic assessment of an integrated renewable energy multigeneration system including ammonia as hydrogen carrier and phase change material energy storage. <i>Energy Conversion and Management</i> , 2019, 198, 111809.	4.4	35
49	Adsorptive Removal of Azithromycin Antibiotic from Aqueous Solution by Azolla Filiculoides-Based Activated Porous Carbon. <i>Nanomaterials</i> , 2021, 11, 3281.	1.9	33
50	Influence of Functionalized Graphene Sheets on Modulus and Glass Transition of PMMA. <i>Macromolecules</i> , 2014, 47, 7674-7676.	2.2	29
51	Nanoconfined Synthesis of Nitrogen-Rich Metal-Free Mesoporous Carbon Nitride Electrocatalyst for the Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 1439-1447.	2.5	29
52	Facile In Situ Fabrication of Nanostructured Graphene-CuO Hybrid with Hydrogen Sulfide Removal Capacity. <i>Nano-Micro Letters</i> , 2016, 8, 312-319.	14.4	28
53	Bioinspired graphene-based silver nanoparticles: Fabrication, characterization and antibacterial activity. <i>Materials Today: Proceedings</i> , 2020, 29, 720-725.	0.9	27
54	Enhancement of Thermoelectric Properties of Layered Chalcogenide Materials. <i>Reviews on Advanced Materials Science</i> , 2020, 59, 371-378.	1.4	26

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55	In situ formed graphene/ZnO nanostructured composites for low temperature hydrogen sulfide removal from natural gas. RSC Advances, 2016, 6, 81142-81150.	1.7	25
56	CO Surrogates: A Green Alternative in Palladium-Catalyzed CO Gas Free Carbonylation Reactions. Current Organic Chemistry, 2020, 24, 2588-2600.	0.9	23
57	Thermally enhanced pristine polyolefins: fundamentals, progress and prospective. Journal of Materials Research and Technology, 2020, 9, 10796-10806.	2.6	22
58	Mechanical Characterization of Membranes. , 2017, , 259-306.		19
59	Thermal, electrical, and mechanical properties of highly filled HDPE/graphite nanoplatelets composites. Materials Today: Proceedings, 2020, 29, 704-708.	0.9	19
60	Tracer Microrheology Study of a Hydrophobically Modified Comblike Associative Polymer. Langmuir, 2015, 31, 3944-3951.	1.6	18
61	Modeling of water diffusion mechanism in polypropylene/date palm fiber composite materials. Journal of Composite Materials, 2018, 52, 2651-2659.	1.2	18
62	Sulfamic acid promoted one-pot multicomponent reaction: a facile synthesis of 4-oxo-tetrahydroindoles under ball milling conditions. RSC Advances, 2019, 9, 39735-39742.	1.7	18
63	Nanoporous carbon nitride with a high content of inbuilt N site for the CO ₂ capture. Journal of Hazardous Materials, 2021, 408, 124843.	6.5	18
64	Sustainability Assessment and Techno-Economic Analysis of Thermally Enhanced Polymer Tube for Multi-Effect Distillation (MED) Technology. Polymers, 2021, 13, 681.	2.0	17
65	Thermally enhanced polyolefin composites: fundamentals, progress, challenges, and prospects. Science and Technology of Advanced Materials, 2020, 21, 737-766.	2.8	16
66	Thermally Conductive Polyethylene/Expanded Graphite Composites as Heat Transfer Surface: Mechanical, Thermo-Physical and Surface Behavior. Polymers, 2020, 12, 2863.	2.0	16
67	Adsorption of enhanced oil recovery polymer, schizophyllan, over carbonate minerals. Carbohydrate Polymers, 2020, 240, 116263.	5.1	15
68	Influence of polymer structure and amount on microstructure and properties of polyethylene-modified asphalt binders. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	15
69	Template-free synthesis of Se-nanorods-rGO nanocomposite for application in supercapacitors. Nanotechnology Reviews, 2019, 8, 661-670.	2.6	15
70	Surfactant/organic solvent free single-step engineering of hybrid graphene-Pt/TiO ₂ nanostructure: Efficient photocatalytic system for the treatment of wastewater coming from textile industries. Scientific Reports, 2018, 8, 14656.	1.6	14
71	Mesoporous PbO nanoparticle-catalyzed synthesis of arylbenzodioxo xanthenedione scaffolds under solvent-free conditions in a ball mill. RSC Advances, 2019, 9, 31683-31690.	1.7	13
72	Silver Micro-Nanoparticle-Based Nanoarchitectures: Synthesis Routes, Biomedical Applications, and Mechanisms of Action. Polymers, 2021, 13, 2870.	2.0	13

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73	Role of surface functionalization on corrosion resistance and thermal stability of epoxy/glass flake composite coating on cold rolled steel. <i>Progress in Organic Coatings</i> , 2018, 122, 180-188.	1.9	12
74	Isotherm and Kinetic Modeling of Strontium Adsorption on Graphene Oxide. <i>Nanomaterials</i> , 2021, 11, 2780.	1.9	12
75	Manipulation of hydrophobic interactions in associative polymers using cyclodextrin and enzyme. <i>Soft Matter</i> , 2010, 6, 4237.	1.2	11
76	Synthesis and characterization of polyethylene/oxidized polyethylene miscible blends and role of OPE as a viscosity control. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	10
77	Electrooxidation behavior of ethanol toward carbon microbead-encapsulated ZnO particles derived from coffee waste. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 6530-6537.	1.1	10
78	Ni-doped ZnO nanocrystalline material for electrocatalytic oxygen reduction reaction. <i>Materials Today: Proceedings</i> , 2020, 29, 715-719.	0.9	10
79	Validation of Total Mercury in Marine Sediment and Biological Samples, Using Cold Vapour Atomic Absorption Spectrometry. <i>Methods and Protocols</i> , 2018, 1, 31.	0.9	9
80	Characterization of Conductive Nanographite Melamine Composites. <i>Open Journal of Composite Materials</i> , 2014, 04, 61-71.	0.4	9
81	Efficient removal of different basic dyes using graphene. , 0, 68, 226-235.		9
82	Self-Healing Silicones for Outdoor High Voltage Insulation: Mechanism, Applications and Measurements. <i>Energies</i> , 2022, 15, 1677.	1.6	9
83	Applications of Graphene in Catalysis. <i>Journal of Biofertilizers & Biopesticides</i> , 2014, 05, .	0.8	7
84	Large scale synthesis of hexagonal boron nitride nanosheets and their use in thermally conductive polyethylene nanocomposites. <i>International Journal of Energy Research</i> , 2022, 46, 10143-10156.	2.2	7
85	Technoeconomic analysis of tri hybrid reverse osmosis-forward osmosis-multi stage flash desalination process. , 0, 98, 1-15.		7
86	Nanocellulose and nanohydrogels for the development of cleaner energy and future sustainable materials. , 2020, , 81-113.		5
87	Graphitic Carbon Nitride-based Photocatalysts for Environmental Remediation of Organic Pollutants. <i>Current Nanoscience</i> , 2023, 19, 148-169.	0.7	5
88	CePd@Nanoparticles@Incorporated Carbon Nanofibers as Efficient Counter Electrode for DSSCs. <i>ChemistrySelect</i> , 2018, 3, 12314-12319.	0.7	4
89	Hierarchical Sphere-Like ZnO@CuO Grown in a Controlled Boundary Layer for High-Performance H ₂ S Sensing. <i>Journal of Electronic Materials</i> , 2021, 50, 5168.	1.0	4
90	Enhanced thermal conductivity of polyethylene nanocomposites with graphene, granulated graphene, graphene nanoplatelet, and their hybrids. <i>International Journal of Energy Research</i> , 2022, 46, 10218-10227.	2.2	4

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91	Fabrication of Graphene Oxide-Based Membranes and their Applications in Water Treatment. Current Pharmaceutical Biotechnology, 2021, 22, 1686-1704.	0.9	4
92	Modulation of soft glassy dynamics in aqueous suspensions of an anisotropic charged swelling clay through pH adjustment. Journal of Colloid and Interface Science, 2022, 606, 860-872.	5.0	4
93	Synthesis of Poly-(R)-3 Hydroxyoctanoate (PHO) and Its Graphene Nanocomposites. ACS Symposium Series, 2013, , 199-209.	0.5	3
94	Adsorption of a Switchable Cationic Surfactant on Natural Carbonate Minerals. , 2014, , .		3
95	Modeling the intrinsic viscosity of polydisperse disks. Journal of Rheology, 2017, 61, 997-1006.	1.3	3
96	Novel Electrically Conductive Melamine-Formaldehyde Nanocomposite Based on Graphite Nanosheets. Macromolecular Symposia, 2014, 340, 73-80.	0.4	2
97	Amine-Functionalized Graphene for Natural Gas Sweetening. Advanced Materials Research, 0, 1064, 21-25.	0.3	2
98	Water Absorption and Stress Relaxation Behavior of PP/Date Palm Fiber Composite Materials. Lecture Notes in Mechanical Engineering, 2015, , 437-445.	0.3	2
99	Data on characterization and performance of aspartic acid functionalized graphene oxide-polysulfone mixed matrix membranes. Data in Brief, 2020, 32, 106197.	0.5	2
100	Low density polyethylene for asphalt binder modification. , 2020, , 324-328.		1
101	Molecular Dynamics Simulations of Self-Assembled Polyethylene-Hexagonal Boron Nitride Composite and Its Thermal Conductivity. , 2019, , .		0