

Ahmad B Albadarin

List of Publications by Year in descending order

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106
papers

5,245
citations

87723

38
h-index

95083

68
g-index

108
all docs

108
docs citations

108
times ranked

6320
citing authors

#	ARTICLE	IF	CITATIONS
1	Activated lignin-chitosan extruded blends for efficient adsorption of methylene blue. <i>Chemical Engineering Journal</i> , 2017, 307, 264-272.	6.6	601
2	Kinetic and thermodynamics of chromium ions adsorption onto low-cost dolomite adsorbent. <i>Chemical Engineering Journal</i> , 2012, 179, 193-202.	6.6	438
3	Synthesis and characterization of a new starch/SnO ₂ nanocomposite for efficient adsorption of toxic Hg ²⁺ metal ion. <i>Chemical Engineering Journal</i> , 2016, 300, 306-316.	6.6	329
4	Spray drying of pharmaceuticals and biopharmaceuticals: Critical parameters and experimental process optimization approaches. <i>European Journal of Pharmaceutical Sciences</i> , 2019, 127, 300-318.	1.9	196
5	Organic synthesis by Twin Screw Extrusion (TSE): continuous, scalable and solvent-free. <i>Green Chemistry</i> , 2017, 19, 1507-1518.	4.6	160
6	Biosorption of toxic chromium from aqueous phase by lignin: mechanism, effect of other metal ions and salts. <i>Chemical Engineering Journal</i> , 2011, 169, 20-30.	6.6	154
7	Remediation of phenol-contaminated water by adsorption using poly(methyl methacrylate) (PMMA). <i>Chemical Engineering Journal</i> , 2011, 168, 691-699.	6.6	106
8	Mechanisms of Alizarin Red S and Methylene blue biosorption onto olive stone by-product: Isotherm study in single and binary systems. <i>Journal of Environmental Management</i> , 2015, 164, 86-93.	3.8	95
9	Arsenic(III,V) adsorption onto charred dolomite: Charring optimization and batch studies. <i>Chemical Engineering Journal</i> , 2015, 259, 663-671.	6.6	92
10	Removal of acetaminophen from synthetic wastewater in a fixed-bed column adsorption using low-cost coconut shell waste pretreated with NaOH, HNO ₃ , ozone, and/or chitosan. <i>Journal of Environmental Management</i> , 2018, 226, 365-376.	3.8	91
11	High-performance removal of toxic phenol by single-walled and multi-walled carbon nanotubes: Kinetics, adsorption, mechanism and optimization studies. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 35, 63-74.	2.9	90
12	Enhanced photocatalytic degradation of acetaminophen from wastewater using WO ₃ /TiO ₂ /SiO ₂ composite under UV-A VIS irradiation. <i>Journal of Molecular Liquids</i> , 2017, 243, 761-770.	2.3	86
13	MitoQ Loaded Chitosan-Hyaluronan Composite Membranes for Wound Healing. <i>Materials</i> , 2018, 11, 569.	1.3	82
14	Developing ANN-Kriging hybrid model based on process parameters for prediction of mean residence time distribution in twin-screw wet granulation. <i>Powder Technology</i> , 2019, 343, 568-577.	2.1	82
15	Simulation of CO ₂ absorption by solution of ammonium ionic liquid in hollow-fiber contactors. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016, 108, 27-34.	1.8	75
16	Enhanced removal of acetaminophen from synthetic wastewater using multi-walled carbon nanotubes (MWCNTs) chemically modified with NaOH, HNO ₃ /H ₂ SO ₄ , ozone, and/or chitosan. <i>Journal of Molecular Liquids</i> , 2018, 251, 369-377.	2.3	74
17	Influence of solution chemistry on Cr(VI) reduction and complexation onto date-pits/tea-waste biomaterials. <i>Journal of Environmental Management</i> , 2013, 114, 190-201.	3.8	72
18	Preliminary investigation of mixed adsorbents for the removal of copper and methylene blue from aqueous solutions. <i>Chemical Engineering Journal</i> , 2014, 255, 525-534.	6.6	71

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19	BaTiO ₃ /TiO ₂ composite-assisted photocatalytic degradation for removal of acetaminophen from synthetic wastewater under UV-vis irradiation. <i>Materials Science in Semiconductor Processing</i> , 2018, 73, 42-50.	1.9	70
20	A novel and facile green synthesis method to prepare LDH/MOF nanocomposite for removal of Cd(II) and Pb(II). <i>Scientific Reports</i> , 2021, 11, 1609.	1.6	67
21	Enhanced cell viability in hyaluronic acid coated poly(lactic-co-glycolic acid) porous scaffolds within microfluidic channels. <i>International Journal of Pharmaceutics</i> , 2017, 532, 595-602.	2.6	65
22	Reforming MSWM in Sukunan (Yogyakarta, Indonesia): A case-study of applying a zero-waste approach based on circular economy paradigm. <i>Journal of Cleaner Production</i> , 2021, 284, 124775.	4.6	65
23	Comparative biosorption of chromium (VI) using chemically modified date pits (CM-DP) and olive stone (CM-OS): Kinetics, isotherms and influence of co-existing ions. <i>Chemical Engineering Research and Design</i> , 2020, 156, 251-262.	2.7	62
24	Spray drying ternary amorphous solid dispersions of ibuprofen – An investigation into critical formulation and processing parameters. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2017, 120, 43-51.	2.0	59
25	Resource recovery toward sustainability through nutrient removal from landfill leachate. <i>Journal of Environmental Management</i> , 2021, 287, 112265.	3.8	57
26	Resource recovery from landfill leachate: An experimental investigation and perspectives. <i>Chemosphere</i> , 2021, 274, 129986.	4.2	57
27	Modelling and Fixed Bed Column Adsorption of Cr(VI) onto Orthophosphoric Acid-activated Lignin. <i>Chinese Journal of Chemical Engineering</i> , 2012, 20, 469-477.	1.7	56
28	Single, simultaneous and consecutive biosorption of Cr(VI) and Orange II onto chemically modified masau stones. <i>Journal of Environmental Management</i> , 2017, 204, 365-374.	3.8	56
29	Mechanism analysis of tartrazine biosorption onto masau stones; a low cost by-product from semi-arid regions. <i>Journal of Molecular Liquids</i> , 2017, 242, 478-483.	2.3	56
30	Removal of arsenic from groundwater by adsorption onto an acidified laterite by-product. <i>Chemical Engineering Journal</i> , 2013, 228, 565-574.	6.6	55
31	Development of stability-enhanced ternary solid dispersions via combinations of HPMCP and Soluplus® processed by hot melt extrusion. <i>International Journal of Pharmaceutics</i> , 2017, 532, 603-611.	2.6	54
32	Removal of ortho-phosphate from aqueous solution by adsorption onto dolomite. <i>Journal of Environmental Chemical Engineering</i> , 2014, 2, 1123-1130.	3.3	50
33	Retention of toxic chromium from aqueous phase by H ₃ PO ₄ -activated lignin: Effect of salts and desorption studies. <i>Desalination</i> , 2011, 274, 64-73.	4.0	48
34	Experimental design and batch experiments for optimization of Cr(VI) removal from aqueous solutions by hydrous cerium oxide nanoparticles. <i>Chemical Engineering Research and Design</i> , 2014, 92, 1354-1362.	2.7	47
35	Removal of noxious dye – Acid Orange 7 from aqueous solution using natural pumice and Fe-coated pumice stone. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 31, 124-131.	2.9	47
36	Design of spray dried ternary solid dispersions comprising itraconazole, soluplus and HPMCP: Effect of constituent compositions. <i>International Journal of Pharmaceutics</i> , 2017, 519, 365-372.	2.6	47

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37	Effect of poly ethylene glycol on the mechanical and thermal properties of bioactive poly(μ -caprolactone) melt extrudates for pharmaceutical applications. <i>International Journal of Pharmaceutics</i> , 2016, 500, 179-186.	2.6	43
38	Phenol degradation by powdered metal ion modified titanium dioxide photocatalysts. <i>Chemical Engineering Journal</i> , 2012, 213, 125-134.	6.6	42
39	Compartmental approach for modelling twin-screw granulation using population balances. <i>International Journal of Pharmaceutics</i> , 2020, 576, 118737.	2.6	36
40	Mathematical modeling and numerical simulation of CO ₂ capture using MDEA-based nanofluids in nanostructure membranes. <i>Chemical Engineering Research and Design</i> , 2021, 148, 1377-1385.	2.7	36
41	Alternative method for producing organic fertiliser from anaerobic digestion liquor and limestone powder: High Shear wet granulation. <i>Powder Technology</i> , 2013, 233, 245-254.	2.1	33
42	Development of high-performance hybrid ANN-finite volume scheme (ANN-FVS) for simulation of pharmaceutical continuous granulation. <i>Chemical Engineering Research and Design</i> , 2020, 163, 320-326.	2.7	33
43	Investigation of the Dependence of the Flory-Huggins Interaction Parameter on Temperature and Composition in a Drug-Polymer System. <i>Molecular Pharmaceutics</i> , 2018, 15, 5327-5335.	2.3	31
44	Techno-economic analysis of the effects of heat integration and different carbon capture technologies on the performance of coal-based IGCC power plants. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 103471.	3.3	31
45	Efficient removal of anionic and cationic dyes from aqueous systems using spent Yerba Mate <i>œllex paraguariensis</i> . <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 82, 144-155.	2.7	30
46	Adsorption of dyes on multifunctionalized nano-silica KCC-1. <i>Journal of Molecular Liquids</i> , 2021, 338, 116573.	2.3	30
47	Acid-catalyzed hydrolysis of cellulose and cellulosic waste using a microwave reactor system. <i>RSC Advances</i> , 2011, 1, 839.	1.7	29
48	Dilute phosphoric acid-catalysed hydrolysis of municipal bio-waste wood shavings using autoclave parr reactor system. <i>Bioresource Technology</i> , 2011, 102, 9076-9082.	4.8	28
49	Adsorption study using optimised 3D organised mesoporous silica coated with Fe and Al oxides for specific As(III) and As(V) removal from contaminated synthetic groundwater. <i>Microporous and Mesoporous Materials</i> , 2014, 198, 101-114.	2.2	28
50	Maximising success in multidrug formulation development: A review. <i>Journal of Controlled Release</i> , 2018, 283, 1-19.	4.8	28
51	Complete two dimensional population balance modelling of wet granulation in twin screw. <i>International Journal of Pharmaceutics</i> , 2020, 591, 120018.	2.6	27
52	A state-of-the-art review on the application of various pharmaceutical nanoparticles as a promising technology in cancer treatment. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103352.	2.3	27
53	The variability in nutrient composition of Anaerobic Digestate granules produced from high shear granulation. <i>Waste Management</i> , 2013, 33, 33-42.	3.7	25
54	Optimisation of high shear granulation of multicomponent fertiliser using response surface methodology. <i>Powder Technology</i> , 2013, 238, 142-150.	2.1	25

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55	Bioactive PCL matrices with a range of structural & rheological properties. <i>Reactive and Functional Polymers</i> , 2016, 101, 54-62.	2.0	25
56	Removal of linear alkyl benzene sulfonate from aqueous solutions by functionalized multi-walled carbon nanotubes. <i>Journal of Molecular Liquids</i> , 2016, 213, 339-344.	2.3	25
57	Mechanistic modelling of industrial-scale roller compactor ~Freund TF-MINI model™. <i>Computers and Chemical Engineering</i> , 2017, 104, 141-150.	2.0	25
58	Manufacturing of novel low-cost adsorbent: Co-granulation of limestone and coffee waste. <i>Journal of Environmental Management</i> , 2017, 203, 853-860.	3.8	25
59	Quantum chemical calculations and molecular modeling for methylene blue removal from water by a lignin-chitosan blend. <i>International Journal of Biological Macromolecules</i> , 2018, 120, 2065-2075.	3.6	25
60	Molecular modeling investigation on mechanism of phenol removal from aqueous media by single- and multi-walled carbon nanotubes. <i>Journal of Molecular Liquids</i> , 2018, 271, 24-30.	2.3	24
61	Finite volume approximation of nonlinear agglomeration population balance equation on triangular grid. <i>Journal of Aerosol Science</i> , 2019, 137, 105430.	1.8	24
62	Novel bimodal micro-mesoporous Ni ₅₀ Co ₅₀ -LDH/UiO-66-NH ₂ nanocomposite for Tl(I) adsorption. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103058.	2.3	24
63	ANN Analysis of a Roller Compaction Process in the Pharmaceutical Industry. <i>Chemical Engineering and Technology</i> , 2017, 40, 487-492.	0.9	23
64	High shear granulation of binary mixtures: Effect of powder composition on granule properties. <i>Powder Technology</i> , 2015, 270, 424-434.	2.1	22
65	Metal-Organic Material Polymer Coatings for Enhanced Gas Sorption Performance and Hydrolytic Stability under Humid Conditions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33759-33764.	4.0	22
66	Design, production and characterisation of granular adsorbent material for arsenic removal from contaminated wastewater. <i>Chemical Engineering Research and Design</i> , 2016, 110, 70-81.	2.7	21
67	Granulated polyhalite fertilizer caking propensity. <i>Powder Technology</i> , 2017, 308, 193-199.	2.1	21
68	Synthesis of hierarchical micro-mesoporous LDH/MOF nanocomposite with in situ growth of UiO-66-(NH ₂) ₂ MOF on the functionalized NiCo-LDH ultrathin sheets and its application for thallium (I) removal. <i>Journal of Molecular Liquids</i> , 2021, 336, 116189.	2.3	21
69	Properties of super-hydrophobic copper and stainless steel meshes: Applications in controllable water permeation and organic solvents/water separation. <i>Applied Surface Science</i> , 2015, 335, 107-114.	3.1	20
70	Synthesis of multi-organo-functionalized fibrous silica KCC-1 for highly efficient adsorption of acid fuchsine and acid orange II from aqueous solution. <i>Scientific Reports</i> , 2021, 11, 2716.	1.6	20
71	Novel comparison of kinetic models for the adsorption-coupled reduction of Cr(VI) using untreated date pit biomaterial. <i>Ecological Engineering</i> , 2014, 70, 200-205.	1.6	19
72	Development of a value-added soil conditioner from high shear co-granulation of organic waste and limestone powder. <i>Powder Technology</i> , 2014, 252, 33-41.	2.1	19

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73	Effect of impeller design on homogeneity, size and strength of pharmaceutical granules produced by high-shear wet granulation. <i>Particuology</i> , 2015, 23, 31-39.	2.0	19
74	Efficient removal of Co(II) metal ion from aqueous solution using cost effective oxidized activated carbon: kinetic and isotherm studies. , 0, 70, 220-226.		19
75	New volume consistent approximation for binary breakage Population Balance Equation and its convergence analysis. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 1695-1713.	0.8	18
76	Production of porous aluminium and iron sulphated oxyhydroxides using industrial grade coagulants for optimised arsenic removal from groundwater. <i>Journal of Industrial and Engineering Chemistry</i> , 2015, 25, 56-66.	2.9	17
77	Amorphous solid dispersions of BCS class II drugs: A rational approach to solvent and polymer selection. <i>Chemical Engineering Research and Design</i> , 2016, 110, 192-199.	2.7	17
78	Mass-based finite volume scheme for aggregation, growth and nucleation population balance equation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190552.	1.0	17
79	A rational approach towards spray drying of biopharmaceuticals: The case of lysozyme. <i>Powder Technology</i> , 2020, 366, 206-215.	2.1	16
80	Spectroscopic, density functional theory, cytotoxicity and antioxidant activities of sulfasalazine and naproxen drugs combination. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103190.	2.3	16
81	Stabilizing vaccines via drying: Quality by design considerations. <i>Advanced Drug Delivery Reviews</i> , 2022, 187, 114313.	6.6	16
82	Thermo-mechanical properties of poly ϵ -caprolactone/poly L-lactic acid blends: Addition of nalidixic acid and polyethylene glycol additives. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 45, 154-165.	1.5	15
83	Particle engineering of excipients: A mechanistic investigation into the compaction properties of lignin and [co]-spray dried lignin. <i>International Journal of Pharmaceutics</i> , 2019, 563, 237-248.	2.6	15
84	Neural simulation and experimental investigation of Chloroquine solubility in supercritical solvent. <i>Journal of Molecular Liquids</i> , 2021, 333, 115942.	2.3	15
85	Investigation of influence of process variables on mechanical strength, size and homogeneity of pharmaceutical granules produced by fluidised hot melt granulation. <i>Powder Technology</i> , 2015, 272, 173-180.	2.1	13
86	Amorphous solid dispersion of ibuprofen: A comparative study on the effect of solution based techniques. <i>International Journal of Pharmaceutics</i> , 2019, 572, 118816.	2.6	13
87	Application of Al ₂ O ₃ modified sulfate tailings (CaFe-Cake and SuFe) for efficient removal of cyanide ions from mine process water. <i>Minerals Engineering</i> , 2018, 118, 24-32.	1.8	12
88	Production of bio-waste granules and their evaluation as adsorbent for removal of hexavalent chromium and methylene blue dye. <i>Chemical Engineering Research and Design</i> , 2020, 164, 59-67.	2.7	12
89	In-line Raman spectroscopy and chemometrics for monitoring cocrystallisation using hot melt extrusion. <i>International Journal of Pharmaceutics</i> , 2021, 601, 120555.	2.6	12
90	Continuous twin screw wet granulation: The combined effect of process parameters on residence time, particle size, and granule morphology. <i>Journal of Drug Delivery Science and Technology</i> , 2018, 48, 319-327.	1.4	11

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91	Simultaneous biosorption of methylene blue and trivalent chromium onto olive stone. <i>Desalination and Water Treatment</i> , 2016, 57, 17400-17410.	1.0	10
92	Bio-based 3D dendritic silica nanosphere: A green superior adsorbent. <i>Journal of Cleaner Production</i> , 2022, 335, 130204.	4.6	10
93	Analysis of friction factor reduction in turbulent water flow using a superhydrophobic coating. <i>Progress in Organic Coatings</i> , 2016, 90, 472-476.	1.9	9
94	Insights into the ameliorating ability of mesoporous silica in modulating drug release in ternary amorphous solid dispersion prepared by hot melt extrusion. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 165, 244-258.	2.0	9
95	Modelling of yields in torrefaction of olive stones using artificial intelligence coupled with kriging interpolation. <i>Journal of Cleaner Production</i> , 2021, 326, 129020.	4.6	9
96	A modeling study by artificial neural network on ethidium bromide adsorption optimization using natural pumice and iron-coated pumice. <i>Desalination and Water Treatment</i> , 2016, 57, 13472-13483.	1.0	8
97	Highly selective trace ammonium removal from dairy wastewater streams by aluminosilicate materials. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 86, 39-46.	2.9	8
98	Phosphorus adsorption onto an industrial acidified laterite by a product: equilibrium and thermodynamic investigation. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2014, 9, 929-940.	0.8	7
99	Statistical analysis of industrial-scale roller compactor â€œFreund TF-MINI modelâ€™. <i>International Journal of Pharmaceutics</i> , 2016, 513, 453-463.	2.6	6
100	Growth kinetics of nuclei formed from different binders and powders in vertical cylindrical mixing devices. <i>Chemical Engineering Research and Design</i> , 2018, 132, 1070-1081.	2.7	3
101	Use of nanoadvanced activated carbon, alumina and ferric adsorbents for humics removal from water: isotherm study. <i>Emergent Materials</i> , 2020, 3, 841-856.	3.2	3
102	The extent of change in the physicochemical characteristics and pollutants sequestration of date palm stones after microemulsion modification. , 0, 71, 244-260.		2
103	Image processing for detecting complete two dimensional propertiesâ€™ distribution of granules produced in twin screw granulation. <i>International Journal of Pharmaceutics</i> , 2021, 600, 120472.	2.6	1
104	Neural modeling and simulation of molecular separation using amino acid salt solutions. <i>Journal of Molecular Liquids</i> , 2021, 337, 116473.	2.3	1
105	The Removal of Heavy Metals from Aqueous Solutions by Commercial Activated Carbon. , 2011, , .		0
106	Granulation of teawaste and limestone using sodium-based lignosulfonate and DEM simulation of powder mixing. <i>Powder Technology</i> , 2021, 380, 321-333.	2.1	0