Abdelbaki Benamor

List of Publications by Year
in descending order

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108 papers	4,067 citations	126708 33 h-index	123241 61 g-index
109 all docs	109 docs citations	109 times ranked	4030 citing authors

#	Article	IF	Citations
1	Recent progress and new developments in post-combustion carbon-capture technology with amine based solvents. International Journal of Greenhouse Gas Control, 2015, 40, 26-54.	2.3	403
2	Adsorption of organic pollutants by natural and modified clays: A comprehensive review. Separation and Purification Technology, 2019, 228, 115719.	3.9	354
3	Development of polysulfone-nanohybrid membranes using ZnO-GO composite for enhanced antifouling and antibacterial control. Desalination, 2017, 402, 123-132.	4.0	183
4	Modeling of CO2 solubility and carbamate concentration in DEA, MDEA and their mixtures using the Deshmukhâ€“Mather model. Fluid Phase Equilibria, 2005, 231, 150-162.	1.4	153
5	Adsorption of organic pollutants by nanomaterial-based adsorbents: An overview. Journal of Molecular Liquids, 2020, 301, 112335.	2.3	153
6	Analysis of Equilibrium Data of CO2 in Aqueous Solutions of Diethanolamine (DEA), Methyldiethanolamine (MDEA) and Their Mixtures Using the Modified Kent Eisenberg Model. Chemical Engineering Research and Design, 1998, 76, 961-968.	2.7	122
7	Carbon dioxide (CO2) capture: Absorption-desorption capabilities of 2-amino-2-methyl-1-propanol (AMP), piperazine (PZ) and monoethanolamine (MEA) tri-solvent blends. Journal of Natural Gas Science and Engineering, 2016, 33, 742-750.	2.1	122
8	Reducing energy consumption of CO2 desorption in CO2-loaded aqueous amine solution using Al2O3/HZSM-5 bifunctional catalysts. Applied Energy, 2018, 229, 562-576.	5.1	110
9	Platinum degradation mechanisms in proton exchange membrane fuel cell (PEMFC) system: A review. International Journal of Hydrogen Energy, 2021, 46, 15850-15865.	3.8	110
10	Influence of polyelectrolytes and other polymer complexes on the flocculation and rheological behaviors of clay minerals: A comprehensive review. Separation and Purification Technology, 2017, 187, 137-161.	3.9	107
11	Heat duty, heat of absorption, sensible heat and heat of vaporization of 2â€“Aminoâ€“2â€“Methylâ€“1â€“Propanol (AMP), Piperazine (PZ) and Monoethanolamine (MEA) triâ€–solvent blend for carbon dioxide (CO2) capture. Chemical Engineering Science, 2017, 170, 26-35.	1.9	96
12	Carbon dioxide (CO2) capture performance of aqueous tri-solvent blends containing 2-amino-2-methyl-1-propanol (AMP) and methyldiethanolamine (MDEA) promoted by diethylenetriamine (DETA). International Journal of Greenhouse Gas Control, 2016, 53, 292-304.	2.3	88
13	Synthesis of new amines for enhanced carbon dioxide (CO2) capture performance: The effect of chemical structure on equilibrium solubility, cyclic capacity, kinetics of absorption and regeneration, and heats of absorption and regeneration. Separation and Purification Technology, 2016, 167, 97-107.	3.9	82
14	Synthesis of minimal-size ZnO nanoparticles through solâ€“gel method: Taguchi design optimisation. Materials and Design, 2015, 87, 780-787.	3.3	79
15	Optimization of nickel oxide nanoparticle synthesis through the solâ€“gel method using Boxâ€–Behnken design. Materials and Design, 2015, 86, 948-956.	3.3	72
16	Investigation of the effect of polyelectrolyte structure and type on the electrokinetics and flocculation behavior of bentonite dispersions. Chemical Engineering Journal, 2017, 311, 265-276.	6.6	69
17	Advancement and new perspectives of using formulated reactive amine blends for post-combustion carbon dioxide (CO2) capture technologies. Petroleum, 2017, 3, 10-36.	1.3	66
18	Simultaneous removal of Congo red and cadmium(II) from aqueous solutions using graphene oxideâ€“silica composite as a multifunctional adsorbent. Journal of Environmental Sciences, 2020, 98, 151-160.	3.2	66

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19	A comprehensive review on the rheological behavior of imidazolium based ionic liquids and natural deep eutectic solvents. Journal of Molecular Liquids, 2019, 277, 932-958.	2.3	65
20	Electroreduction of Carbon Dioxide into Formate: A Comprehensive Review. ChemElectroChem, 2021, 8, 3207-3220.	1.7	65
21	Fabrication of high flux nanofiltration membrane via hydrogen bonding based co-deposition of polydopamine with poly(vinyl alcohol). Journal of Membrane Science, 2018, 552, 222-233.	4.1	53
22	Effect of electrolytes on electrokinetics and flocculation behavior of bentonite-polyacrylamide dispersions. Applied Clay Science, 2018, 158, 46-54.	2.6	50
23	Carbon Mineralization by Reaction with Steel-Making Waste: A Review. Processes, 2019, 7, 115.	1.3	48
24	Functionalization of zinc oxide (ZnO) nanoparticles and its effects on polysulfone-ZnO membranes. Desalination and Water Treatment, 2016, 57, 7801-7811.	1.0	47
25	Intercalation of ionic liquids into bentonite: Swelling and rheological behaviors. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 507, 141-151.	2.3	44
26	Effects of sodium carbonate addition, heat and agitation on swelling and rheological behavior of Ca-bentonite colloidal dispersions. Applied Clay Science, 2017, 147, 176-183.	2.6	44
27	Hybrid chitosan/FeCl3 coagulationâ€“membrane processes: Performance evaluation and membrane fouling study in removing natural organic matter. Separation and Purification Technology, 2015, 152, 23-31.	3.9	43
28	Size and shape controlled of Î±-Fe2O3 nanoparticles prepared via solâ€“gel technique and their photocatalytic activity. Journal of Sol-Gel Science and Technology, 2017, 81, 880-893.	1.1	40
29	Effect of temperature and fluid speed on the corrosion behavior of carbon steel pipeline in Qatari oilfield produced water. Journal of Electroanalytical Chemistry, 2018, 808, 218-227.	1.9	38
30	Chitosan as natural coagulant in hybrid coagulation-nanofiltration membrane process for water treatment. Journal of Environmental Chemical Engineering, 2016, 4, 4857-4862.	3.3	37
31	Hybrid coagulationâ€“NF membrane process for brackish water treatment: Effect of antiscalant on water characteristics and membrane fouling. Desalination, 2016, 393, 144-150.	4.0	35
32	An experimental investigation on the rate of CO2 absorption into aqueous methyldiethanolamine solutions. Korean Journal of Chemical Engineering, 2007, 24, 16-23.	1.2	34
33	Effect of membrane performance including fouling on cost optimization in brackish water desalination process. Chemical Engineering Research and Design, 2017, 117, 401-413.	2.7	34
34	A comparative study of novel activated AMP using 1,5-diamino-2-methylpentane vs MEA solution for CO2 capture from gas-fired power plant. Fuel, 2018, 234, 1089-1098.	3.4	34
35	Removal of Oil Content from Oil-Water Emulsions Using Iron Oxide/Bentonite Nano Adsorbents. Journal of Water Process Engineering, 2020, 38, 101583.	2.6	34
36	Distinguishing characteristics and usability of graphene oxide based on different sources of graphite feedstock. Journal of Colloid and Interface Science, 2019, 542, 429-440.	5.0	33

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37	The emergence of multifunctional adsorbents and their role in environmental remediation. Journal of Environmental Chemical Engineering, 2021, 9, 104793.	3.3	33
38	Equilibrium Constant for Carbamate Formation from Monoethanolamine and Its Relationship with Temperature. Journal of Chemical & Engineering Data, 1999, 44, 887-891.	1.0	32
39	Synthesis and characterization of Sm3+-doped ZnO nanoparticles via a solâ€“gel method and their photocatalytic application. Journal of Sol-Gel Science and Technology, 2018, 85, 178-190.	1.1	32
40	Organically Modified Nanoclay Filled Thin-Film Nanocomposite Membranes for Reverse Osmosis Application. Materials, 2019, 12, 3803.	1.3	32
41	A hybrid electro-coagulation/forward osmosis system for treatment of produced water. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107621.	1.8	27
42	Microwave-assisted conversion of palm kernel shell biomass waste to photoluminescent carbon dots. Scientific Reports, 2020, 10, 21199.	1.6	27
43	Nanoparticles functionalized ceramic membranes: fabrication, surface modification, and performance. Environmental Science and Pollution Research, 2021, 28, 12256-12281.	2.7	27
44	Î±-Fe2O3/graphene oxide powder and thin film nanocomposites as peculiar photocatalysts for dye removal from wastewater. Scientific Reports, 2021, 11, 20378.	1.6	26
45	Hybrid coagulationâ€“NF membrane processes for brackish water treatment: Effect of pH and salt/calcium concentration. Desalination, 2016, 390, 25-32.	4.0	25
46	Reaction Kinetics of Carbon Dioxide (CO₂) with Diethylenetriamine and 1-Amino-2-propanol in Nonaqueous Solvents Using Stopped-Flow Technique. Industrial & Engineering Chemistry Research, 2016, 55, 7307-7317.	1.8	24
47	Choline chloride based natural deep eutectic solvent for destabilization and separation of stable colloidal dispersions. Separation and Purification Technology, 2021, 255, 117737.	3.9	24
48	Reaction kinetics of carbon dioxide with aqueous solutions of l-Arginine, Glycine & Sarcosine using the stopped flow technique. International Journal of Greenhouse Gas Control, 2017, 63, 47-58.	2.3	23
49	Solar photocatalytic degradation of 2-chlorophenol with ZnO nanoparticles: optimisation with D-optimal design and study of intermediate mechanisms. Environmental Science and Pollution Research, 2017, 24, 2804-2819.	2.7	23
50	Arabic gum as green agent for ZnO nanoparticles synthesis: properties, mechanism and antibacterial activity. Journal of Materials Science: Materials in Electronics, 2017, 28, 12100-12107.	1.1	21
51	Effective Heterogeneous Fentonâ€Like degradation of Malachite Green Dye Using the Coreâ€Shell Fe₃O₄@SiO₂ Nanoâ€Catalyst. ChemistrySelect, 2021, 6, 865-875.	0.7	21
52	Reaction kinetics of carbon dioxide in aqueous blends of N-methyldiethanolamine and glycine using the stopped flow technique. Journal of Natural Gas Science and Engineering, 2016, 33, 186-195.	2.1	20
53	Fabrication of polysulfone nanocomposite membranes with silverâ€doped carbon nanotubes and their antifouling performance. Journal of Applied Polymer Science, 2017, 134, .	1.3	20
54	Effect of the induced dielectrophoretic force on harvesting of marine microalgae (Tetraselmis sp.) in electrocoagulation. Journal of Environmental Management, 2020, 260, 110106.	3.8	20

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55	CO2 capture from lime kiln using AMP-DA2MP amine solvent blend: A pilot plant study. Journal of Environmental Chemical Engineering, 2018, 6, 7102-7110.	3.3	19
56	Impact of combined oil-in-water emulsions and particulate suspensions on ceramic membrane fouling and permeability recovery. Separation and Purification Technology, 2019, 212, 215-222.	3.9	19
57	Thermo-rheological characterization of Malic Acid based Natural Deep Eutectic Solvents. Science of the Total Environment, 2020, 708, 134848.	3.9	19
58	A novel cylindrical electrode configuration for inducing dielectrophoretic forces during electrocoagulation. Journal of Water Process Engineering, 2020, 35, 101195.	2.6	19
59	Kinetic of CO2 absorption and carbamate formation in aqueous solutions of diethanolamine. Korean Journal of Chemical Engineering, 2008, 25, 451-460.	1.2	18
60	Synthesis and characterisation of Co2+-incorporated ZnO nanoparticles prepared through a sol-gel method. Advanced Powder Technology, 2016, 27, 2439-2447.	2.0	18
61	Regeneration Energy Analysis of Aqueous Triâ€“Solvent Blends Containing 2â€“Aminoâ€“2â€“Methylâ€“1â€“Propanol (AMP), Methyldiethanolamine (MDEA) and Diethylenetriamine (DETA) for Carbon Dioxide (CO2) Capture. Energy Procedia, 2017, 114, 2039-2046.	1.8	17
62	Corrosion Behavior of API X100 Steel Material in a Hydrogen Sulfide Environment. Metals, 2017, 7, 109.	1.0	17
63	Enhancement of flocculation and dewaterability of a highly stable activated sludge using a hybrid system of organic coagulants and polyelectrolytes. Journal of Water Process Engineering, 2020, 35, 101237.	2.6	17
64	Adsorption of 4-Nitrophenol onto Iron Oxide Bentonite Nanocomposite: Process Optimization, Kinetics, Isotherms and Mechanism. International Journal of Environmental Research, 2022, 16, 1.	1.1	17
65	CO2 capture from water-gas shift process plant: Comparative bench-scale pilot plant investigation of MDEA-PZ blend vs novel MDEA activated by 1,5-diamino-2-methylpentane. International Journal of Greenhouse Gas Control, 2019, 82, 218-228.	2.3	14
66	Corrosion study of carbon steel in CO2 loaded solution of N-methyldiethanolamine and l-arginine mixtures. Journal of Electroanalytical Chemistry, 2019, 837, 10-21.	1.9	14
67	An Investigation of the Swelling Kinetics of Bentonite Systems Using Particle Size Analysis. Journal of Dispersion Science and Technology, 2020, 41, 817-827.	1.3	14
68	Influence of polyelectrolyte structure and type on the degree of flocculation and rheological behavior of industrial MBR sludge. Separation and Purification Technology, 2020, 233, 116001.	3.9	14
69	Effects of amphiphilic pluronic F127 on the performance of PS/SPEEK blend ultrafiltration membrane: Characterization and antifouling study. Journal of Water Process Engineering, 2017, 18, 176-184.	2.6	13
70	Photocatalytic Degradation of Pentachlorophenol Using ZnO Nanoparticles: Study of Intermediates and Toxicity. International Journal of Environmental Research, 2017, 11, 461-473.	1.1	12
71	Destabilization of stable bentonite colloidal suspension using choline chloride based deep eutectic solvent: Optimization study. Journal of Water Process Engineering, 2021, 40, 101885.	2.6	12
72	Enhanced Removal of Diesel Oil Using New Magnetic Bentonite-Based Adsorbents Combined with Different Carbon Sources. Water, Air, and Soil Pollution, 2022, 233, .	1.1	12

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73	Reaction Kinetics of Carbon Dioxide in Aqueous Blends of N-Methyldiethanolamine and L-Arginine Using the Stopped-Flow Technique. Processes, 2019, 7, 81.	1.3	11
74	Absorption of CO 2 in aqueous blend of methyldiethanolamine and arginine. Asia-Pacific Journal of Chemical Engineering, 2020, 15, e2460.	0.8	10
75	Evaluation of the current state and perspective of wastewater treatment and reuse in Qatar. , 0, 71, 1-11.		9
76	Flocculation and viscoelastic behavior of industrial papermaking suspensions. Korean Journal of Chemical Engineering, 2016, 33, 448-455.	1.2	8
77	Biotechnology for Gas-to-Liquid (GTL) Wastewater Treatment: A Review. Water (Switzerland), 2020, 12, 2126.	1.2	8
78	Reactive Absorption of CO2 into Aqueous Mixtures of Methyldiethanolamine and Diethanolamine. International Journal of Chemical Engineering and Applications (IJCEA), 2014, 5, 291-297.	0.3	8
79	Reaction Kinetics of Carbon Dioxide with 2-Amino-1-butanol in Aqueous Solutions Using a Stopped-Flow Technique. Industrial & Engineering Chemistry Research, 2018, 57, 2797-2804.	1.8	7
80	Chemical kinetics of carbon dioxide in the blends of different amino acid salts and methyldiethanolamine. International Journal of Energy Research, 2020, 44, 12506-12524.	2.2	6
81	Gas Processing Technology-Treatment and Utilization. , 2017, , 359-387.		5
82	Carbamate Formation and Amine Protonation Constants in 2-Amino-1-Butanolâ€“CO2â€“H2O System and Their Temperature Dependences. Journal of Solution Chemistry, 2018, 47, 262-277.	0.6	5
83	Synthesis and Characterization of Fe3O4 Nanoparticles Using Different Experimental Methods. IOP Conference Series: Materials Science and Engineering, 2020, 778, 012028.	0.3	5
84	Corrosion Behavior of API-X120 Carbon Steel Alloy in a GTL F-T Process Water Environment at Low COD Concentration. Metals, 2020, 10, 707.	1.0	5
85	Experimental determination of carbamate formation and amine protonation constants in 3-amino-1-propanolâ€“CO2â€“H2O system and their temperature dependency. International Journal of Greenhouse Gas Control, 2015, 37, 237-242.	2.3	4
86	Thermal degradation of aqueous amine/amino acid solutions in the presence and absence of CO₂. IOP Conference Series: Materials Science and Engineering, 0, 423, 012154.	0.3	4
87	Kinetics of CO2 Absorption Into Aqueous Blends of Diethanolamine and Methyldiethanolamine. , 2012, , 64-70.		3
88	Experimental measurements and modelling of viscosity and density of calcium and potassium chlorides ternary solutions. Scientific Reports, 2020, 10, 16312.	1.6	3
89	Modeling Analysis of Corrosion Behavior of Carbon Steel in CO2 Loaded Amine Solutions. International Journal of Chemical Engineering and Applications (IJCEA), 2014, 5, 353-358.	0.3	3
90	Fuzzy Logic-Based Model to Predict the Impact of Flow Rate and Turbidity on the Performance of Multimedia Filters. Journal of Environmental Engineering, ASCE, 2017, 143, .	0.7	2

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91	Metal-oxide nanotubes functional material tailored for membrane water/wastewater treatment. IOP Conference Series: Materials Science and Engineering, 2019, 634, 012048.	0.3	2
92	Absorption of Carbon Dioxide into Piperazine Activated Diethanolamine Solutions. , 2012, , 42-49.		1
93	Corrosion Study of Carbon Steel in CO2 Loaded Amine-Amino Acid Solutions-Case of Mixtures of NMethyldiethanolamine and L-Arginine. IOP Conference Series: Earth and Environmental Science, 2018, 164, 012028.	0.2	1
94	Development of novel thin film composite reverse osmosis membranes for desalination. AIP Conference Proceedings, 2019, , .	0.3	1
95	Capillary Microreactor for Initial Screening of Three Amine-Based Solvents for CO2 Absorption, Desorption, and Foaming. Frontiers in Chemical Engineering, 2022, 4, .	1.3	1
96	Analysis of CO2 equilibrium data in aqueous solutions of DEA, MDEA and their mixtures using the modified Kent Eisenberg model and the Deshmukh-Mather model. Qatar Foundation Annual Research Forum Proceedings, 2012, , .	0.0	0
97	Membrane Gas Desorption for Natural Gas Treating. , 2015, , 233-242.		0
98	Design philosophy GPC high pressure pilot plant. , 2015, , 371-378.		0
99	Analysis of CO2 Solubility and Absorption Heat into Aqueous 1-Diethylamino-2-propanol. Energy Procedia, 2017, 114, 873-879.	1.8	0
100	Kinetics of CO2 reaction with N-methyldiethanolamine and aminobutanol using stopped flow technique. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012063.	0.3	0
101	CO2 Absorption Capacity and its Enthalpy of Absorption in Aqueous Blend of MDEA/Piperazine/Arginine. IOP Conference Series: Materials Science and Engineering, 2020, 736, 022088.	0.3	0
102	A wind turbine for microgeneration in Qatar. , 2012, , .		0
103	Real-time monitoring of solvent composition for acid gas absorption processes. , 2015, , 379-389.		0
104	Novel Graphene-Zinc Iron Oxide Composite to Enhance Ultrafiltration Membrane Performance for Water Treatment and Desalination. , 2016, , .		0
105	Mechanical Behavior of a Novel Nanocomposite Polysulphone â€“ Carbon Nanotubes Membrane for Water Treatment. , 2016, , .		0
106	Influence of modified clay on the structure and performance of polysulfone composite membrane. , 0, 120, 51-64.		0
107	Nanocomposite material-based catalyst, adsorbent, and membranes for petroleum wastewater treatment. , 2022, , 147-160.		0
108	Analysis of corrosion behaviour of carbon steel in a Qatari GTL plant process water. Vacuum, 2022, 203, 111235.	1.6	0