Amiya K Jana

List of Publications by Year
in descending order

83	1,871	279487 23	329751 37
papers	citations	h-index	g-index

83	83	83	1011
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Proposing ab initio assisted lattice distortion theory for phase equilibrium: Pure and mixed refrigerant gas hydrates. AIChE Journal, 2022, 68, e17463.	1.8	4
2	Microsecond molecular dynamics of methaneâ€“carbon dioxide swapping in pure and saline water environment. Scientific Reports, 2022, 12, 2634.	1.6	1
3	Formulating noncovalent interactions to predict structural transition in mixed guest hydrates. AIChE Journal, 2022, 68, .	1.8	3
4	Optimal reflux splitting reactive distillation for algal biodiesel Production: Waste heat recovery through vapor recompression and organic Rankine cycle. Separation and Purification Technology, 2022, 292, 121007.	3.9	7
5	Optimizing algal biodiesel production from a novel reactive distillation based unit: Reducing CO2 emission and cost. Chemical Engineering and Processing: Process Intensification, 2022, 176, 108948.	1.8	12
6	Transforming conventional distillation sequence to dividing wall column: Minimizing cost, energy usage and environmental impact through genetic algorithm. Separation and Purification Technology, 2022, 297, 121437.	3.9	19
7	Physical and molecular insights to Clathrate hydrate thermodynamics. Renewable and Sustainable Energy Reviews, 2021, 135, 110150.	8.2	13
8	A binary MOF of iron and copper for treating ciprofloxacin-contaminated waste water by an integrated technique of adsorption and photocatalytic degradation. New Journal of Chemistry, 2021, 45, 17196-17210.	1.4	28
9	Naturally Occurring Hydrate Formation and Dissociation in Marine Sediment: Experimental Validation. Industrial & Engineering Chemistry Research, 2021, 60, 1175-1184.	1.8	2
10	A novel vapor recompressed batch extractive distillation: Design and retrofitting. Separation and Purification Technology, 2021, 260, 118225.	3.9	15
11	Silica supported binary metal organic framework for removing organic dye involving combined effect of adsorption followed by photocatalytic degradation. Materials Research Bulletin, 2021, 138, 111227.	2.7	12
12	Nonlinear control of a PEM fuel cell integrated system with water electrolyzer. Chemical Engineering Research and Design, 2021, 171, 150-167.	2.7	8
13	Nano-catalytic heterogeneous reactive distillation for algal biodiesel production: Multi-objective optimization and heat integration. Energy Conversion and Management, 2021, 241, 114298.	4.4	19
14	Structure-H hydrate of mixed gases: Phase equilibrium modeling and experimental validation. Journal of Molecular Liquids, 2021, 343, 117605.	2.3	12
15	Vertical partition in fractionating tower to configure a novel heat integrated distillation hybridized with vapor recompression. Separation and Purification Technology, 2020, 235, 116153.	3.9	7
16	Mixed-Integer dynamic optimization of conventional and vapor recompressed batch distillation for economic and environmental objectives. Chemical Engineering Research and Design, 2020, 154, 70-85.	2.7	15
17	Clathrate hydrate dynamics with synthetic- and bio-surfactant in porous media: Model formulation and validation. Chemical Engineering Science, 2020, 213, 115386.	1.9	19
18	Gas hydrate dynamics in distributed porous particles with saltwater: Model formulation and experimental validation. Chemical Engineering Journal, 2020, 392, 123660.	6.6	10

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19	A novel synthesis of MIL-53(Al)@SiO₂: an integrated photocatalyst adsorbent to remove bisphenol a from wastewater. New Journal of Chemistry, 2020, 44, 18892-18905.	1.4	23
20	A Lattice Distortion Theory for Promotor Containing Clathrate Hydrates. Scientific Reports, 2020, 10, 9622.	1.6	2
21	Analysis of Weighting and Selection Methods for Pareto-Optimal Solutions of Multiobjective Optimization in Chemical Engineering Applications. Industrial & Engineering Chemistry Research, 2020, 59, 14850-14867.	1.8	54
22	Carbon Dioxide Hydrate Growth Dynamics and Crystallography in Pure and Saline Water. Crystal Growth and Design, 2020, 20, 7129-7140.	1.4	25
23	Microscopic Molecular Insights into Hydrate Formation and Growth in Pure and Saline Water Environments. Journal of Physical Chemistry A, 2020, 124, 4241-4252.	1.1	27
24	Insight into the thermo-physics of gas hydrates: Three phase equilibrium in presence of electrolyte. Journal of Chemical Thermodynamics, 2020, 150, 106182.	1.0	8
25	Multiphase vortex flow patterns in slab caster mould: insights of air vortex interaction and plant data analysis. Canadian Metallurgical Quarterly, 2020, 59, 270-287.	0.4	2
26	Evolutionary Algorithm Based Multiobjective Optimization of Vapor Recompressed Batch Extractive Distillation: Assessing Economic Potential and Environmental Impact. Industrial & Engineering Chemistry Research, 2020, 59, 5032-5046.	1.8	18
27	Insights into the competitive adsorption of pollutants on a mesoporous aluminaâ€“silica nano-sorbent synthesized from coal fly ash and a waste aluminium foil. RSC Advances, 2020, 10, 15514-15522.	1.7	13
28	Nonmonotonous Lattice Distortion Model for Gas Hydrates. Journal of Physical Chemistry A, 2020, 124, 3149-3156.	1.1	6
29	Performance analysis of a heat integrated column with heat pumping. Separation and Purification Technology, 2019, 209, 18-25.	3.9	21
30	Alumina-silica nano-sorbent from plant fly ash and scrap aluminium foil in removing nickel through adsorption. Powder Technology, 2019, 354, 792-803.	2.1	27
31	Multi-objective optimization of vapor recompressed distillation column in batch processing: Improving energy and cost savings. Applied Thermal Engineering, 2019, 150, 1273-1296.	3.0	22
32	Growth and Decomposition Mechanism of Clathrate Hydrates in the Presence of Porous Media and Seawater: Experimental Validation. Energy & Fuels, 2019, 33, 1433-1443.	2.5	20
33	Techno-economic Feasibility of Reactive Distillation for Biodiesel Production from Algal Oil: Comparing with a Conventional Multiunit System. Industrial & Engineering Chemistry Research, 2019, 58, 12028-12040.	1.8	20
34	A Novel Heat Integrated Extractive Dividing Wall Column for Ethanol Dehydration. Industrial & Engineering Chemistry Research, 2019, 58, 9109-9117.	1.8	32
35	Double-partitioned dividing wall column for a multicomponent azeotropic system. Separation and Purification Technology, 2019, 219, 33-46.	3.9	26
36	Computing Anisotropic Cavity Potential for Clathrate Hydrates. Journal of Physical Chemistry A, 2019, 123, 2762-2770.	1.1	15

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37	Vapor recompressed batch distillation: Optimizing reflux ratio at variable mode. Computers and Chemical Engineering, 2019, 124, 184-196.	2.0	16
38	Modeling recovery of natural gas from hydrate reservoirs with carbon dioxide sequestration: Validation with IÄ¡nik Sikumi field data. Scientific Reports, 2019, 9, 18901.	1.6	20
39	Vapor recompression with interreboiler in a ternary dividing wall column: Improving energy efficiency and savings, and economic performance. Applied Thermal Engineering, 2019, 147, 1009-1023.	3.0	23
40	Optimizing reboiler duty and reflux ratio profiles of vapor recompressed batch distillation. Separation and Purification Technology, 2019, 213, 553-570.	3.9	24
41	Pressure-Swing Dividing Wall Column with Multiple Binary Azeotropes: Improving Energy Efficiency and Cost Savings through Vapor Recompression. Industrial & Engineering Chemistry Research, 2018, 57, 4019-4032.	1.8	25
42	Dynamics and Estimator-Based Nonlinear Control of a PEM Fuel Cell. IEEE Transactions on Control Systems Technology, 2018, 26, 1124-1131.	3.2	17
43	Fundamental of swapping phenomena in naturally occurring gas hydrates. Scientific Reports, 2018, 8, 16563.	1.6	25
44	A Novel Divided-Wall Heat Integrated Distillation Column: Thermodynamic and Economic Feasibility. Industrial & Engineering Chemistry Research, 2018, 57, 12127-12135.	1.8	8
45	Nonlinear multivariable sliding mode control of a reversible PEM fuel cell integrated system. Energy Conversion and Management, 2018, 171, 541-565.	4.4	72
46	Modeling phase equilibrium with a modified Wong-Sandler mixing rule for natural gas hydrates: Experimental validation. Applied Energy, 2017, 205, 749-760.	5.1	33
47	Formulating formation mechanism of natural gas hydrates. Scientific Reports, 2017, 7, 6392.	1.6	24
48	Internally heat integrated batch distillation: Vapor recompression and nonlinear control. Separation and Purification Technology, 2017, 189, 267-278.	3.9	12
49	Multiphase Vortex Flow Patterns in Slab Caster Mold: Experimental Study. ISIJ International, 2017, 57, 1553-1562.	0.6	19
50	A comparative performance of thermodynamic models for a quaternary (HIâ€“H 2 Oâ€“I 2 â€“H 2) HIx system: Experimental verification. International Journal of Hydrogen Energy, 2016, 41, 13350-13358.	3.8	2
51	A new divided-wall heat integrated distillation column (HIDiC) for batch processing: Feasibility and analysis. Applied Energy, 2016, 172, 199-206.	5.1	39
52	Dynamic simulation, numerical control and analysis of a novel bottom flashing scheme in batch distillation. Computers and Chemical Engineering, 2016, 89, 166-171.	2.0	12
53	Modeling Growth Kinetics of Gas Hydrate in Porous Media: Experimental Validation. Energy & Fuels, 2016, 30, 7656-7665.	2.5	28
54	Dynamic vapor recompression in a reactive batch rectifier: Analysis and nonlinear control. Energy, 2016, 115, 60-66.	4.5	3

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55	Dividing wall column: Improving thermal efficiency, energy savings and economic performance. Applied Thermal Engineering, 2016, 106, 1033-1041.	3.0	34
56	Predicting phase equilibrium of a ternary feed to the hydroiodic acid section of SI thermochemical cycle. International Journal of Hydrogen Energy, 2015, 40, 15381-15388.	3.8	2
57	An energyâ€efficient costâ€effective transient batch rectifier with bottom flashing: Process dynamics and control. AICHE Journal, 2015, 61, 3699-3707.	1.8	9
58	Introducing vapor recompression mechanism in heatâ€integrated distillation column: Impact of internal energy driven intermediate and bottom reboiler. AICHE Journal, 2015, 61, 118-131.	1.8	30
59	Predicting wellbore dynamics in a steam-assisted gravity drainage system: Numeric and semi-analytic model, and validation. Applied Thermal Engineering, 2015, 91, 679-686.	3.0	19
60	Assessing the performance improvement of an intensified heat integration scheme: Reactive pressure-swing distillation. Applied Thermal Engineering, 2015, 76, 509-520.	3.0	23
61	A novel energy-efficient batch stripper: Thermodynamic feasibility, cost analysis and CO 2 emissions. Applied Thermal Engineering, 2015, 84, 292-300.	3.0	18
62	Advances in heat pump assisted distillation column: A review. Energy Conversion and Management, 2014, 77, 287-297.	4.4	115
63	Impact of vapor recompression in batch distillation on energy consumption, cost and CO2 emission: Open-loop versus closed-loop operation. Applied Thermal Engineering, 2014, 62, 365-374.	3.0	21
64	A novel multistage vapor recompression reactive distillation system with intermediate reboilers. AICHE Journal, 2013, 59, 761-771.	1.8	61
65	A novel combination of internal and external heat integrations in batch distillation: Application to a reactive system. Applied Thermal Engineering, 2013, 59, 405-413.	3.0	5
66	Improving energy efficiency and cost-effectiveness of batch distillation for separating wide boiling constituents. II: Internal versus external heat integration. Chemical Engineering and Processing: Process Intensification, 2013, 72, 122-129.	1.8	9
67	Reducing total annualized cost and CO₂ emissions in batch distillation: Dynamics and control. AICHE Journal, 2013, 59, 2821-2832.	1.8	22
68	Differential Geometry-Based Adaptive Nonlinear Control Law: Application to an Industrial Refinery Process. IEEE Transactions on Industrial Informatics, 2013, 9, 2014-2022.	7.2	26
69	Assessment of the implementation of vapor recompression technique in batch distillation. Separation and Purification Technology, 2013, 107, 1-10.	3.9	18
70	Intensified thermal integration in batch reactive distillation. Applied Energy, 2013, 103, 290-297.	5.1	29
71	Improving Energy Efficiency and Cost-Effectiveness of Batch Distillation for Separating Wide Boiling Constituents. 1. Vapor Recompression Column. Industrial & Engineering Chemistry Research, 2012, 51, 15413-15422.	1.8	14
72	Comparative control study of a simulated batch rectifier. Computers and Chemical Engineering, 2012, 36, 265-272.	2.0	3

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73	A novel intensified heat integration in multicomponent distillation. Energy, 2012, 41, 443-453.	4.5	63
74	Performance investigation of a variable speed vapor recompression reactive batch rectifier. AICHE Journal, 2011, 57, 3238-3242.	1.8	29
75	Heat integrated distillation operation. Applied Energy, 2010, 87, 1477-1494.	5.1	222
76	Dynamic simulation and nonlinear control of a rigorous batch reactive distillation. ISA Transactions, 2010, 49, 130-137.	3.1	26
77	A Hybrid FLC-EKF Scheme for Temperature Control of a Refinery Debutanizer Column. IEEE Transactions on Industrial Informatics, 2010, 6, 25-35.	7.2	17
78	A nonlinear exponential observer for a batch distillation. , 2010, , .		2
79	Nonlinear state estimation and control of a batch reactive distillation. Chemical Engineering Journal, 2009, 150, 516-526.	6.6	23
80	A partially heat integrated reactive distillation: Feasibility and analysis. Separation and Purification Technology, 2009, 70, 136-139.	3.9	32
81	Nonlinear state estimation and control of a refinery debutanizer column. Computers and Chemical Engineering, 2009, 33, 1484-1490.	2.0	7
82	Nonlinear model-based control algorithm for a distillation column using software sensor. ISA Transactions, 2005, 44, 259-271.	3.1	12
83	Globally linearized control on diabatic continuous stirred tank reactor: a case study. ISA Transactions, 2005, 44, 423-44.	3.1	11