

Alirio E. Rodrigues

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777
papers

27,053
citations

77
h-index

123
g-index

805
ext. papers

30,035
ext. citations

4.7
avg, IF

7.47
L-index

#	Paper	IF	Citations
777	Adsorption Equilibrium of Methane, Carbon Dioxide, and Nitrogen on Zeolite 13X at High Pressures. <i>Journal of Chemical & Engineering Data</i> , 2004 , 49, 1095-1101	2.8	864
776	Insight into steam reforming of ethanol to produce hydrogen for fuel cells. <i>Chemical Engineering Journal</i> , 2006 , 117, 39-49	14.7	520
775	Adsorption of basic dyes on granular activated carbon and natural zeolite. <i>Water Research</i> , 2001 , 35, 3357-66	12.5	436
774	Controlled reducibility of a metal-organic framework with coordinatively unsaturated sites for preferential gas sorption. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 5949-52	16.4	430
773	A Microporous Metal-Organic Framework for Separation of CO ₂ /N ₂ and CO ₂ /CH ₄ by Fixed-Bed Adsorption. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 1575-1581	3.8	398
772	Adsorption of carbon dioxide at high temperature – review. <i>Separation and Purification Technology</i> , 2002 , 26, 195-205	8.3	393
771	Ethyl lactate as a solvent: Properties, applications and production processes – review. <i>Green Chemistry</i> , 2011 , 13, 2658	10	325
770	An integrated process to produce vanillin and lignin-based polyurethanes from Kraft lignin. <i>Chemical Engineering Research and Design</i> , 2009 , 87, 1276-1292	5.5	314
769	Adsorption of Carbon Dioxide onto Hydrotalcite-like Compounds (HTLcs) at High Temperatures. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 204-209	3.9	244
768	Reverse shape selectivity in the adsorption of hexane and xylene isomers in MOF UiO-66. <i>Microporous and Mesoporous Materials</i> , 2011 , 139, 67-73	5.3	220
767	Separation of CH ₄ /CO ₂ /N ₂ mixtures by layered pressure swing adsorption for upgrade of natural gas. <i>Chemical Engineering Science</i> , 2006 , 61, 3893-3906	4.4	218
766	Glycerol Reforming for Hydrogen Production: A Review. <i>Chemical Engineering and Technology</i> , 2009 , 32, 1463-1469	2	211
765	Vanillin production from lignin oxidation in a batch reactor. <i>Chemical Engineering Research and Design</i> , 2010 , 88, 1024-1032	5.5	209
764	Optimization Study of Lignin Oxypropylation in View of the Preparation of Polyurethane Rigid Foams. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 2583-2589	3.9	204
763	Removal of Carbon Dioxide from Natural Gas by Vacuum Pressure Swing Adsorption. <i>Energy & Fuels</i> , 2006 , 20, 2648-2659	4.1	194
762	CO ₂ sorption on hydrotalcite and alkali-modified (K and Cs) hydrotalcites at high temperatures. <i>Separation and Purification Technology</i> , 2008 , 62, 137-147	8.3	189
761	Hydrotalcite-like compounds as adsorbents for carbon dioxide. <i>Energy Conversion and Management</i> , 2002 , 43, 1865-1876	10.6	183

760	Microencapsulation of essential oils with biodegradable polymeric carriers for cosmetic applications. <i>Chemical Engineering Journal</i> , 2014 , 245, 191-200	14.7	181
759	Adsorption of propane, propylene and isobutane on a metal-organic framework: Molecular simulation and experiment. <i>Chemical Engineering Science</i> , 2009 , 64, 3246-3259	4.4	177
758	Kinetic separation of hexane isomers by fixed-bed adsorption with a microporous metal-organic framework. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 6101-3	3.4	162
757	Scentfashion [®] : Microencapsulated perfumes for textile application. <i>Chemical Engineering Journal</i> , 2009 , 149, 463-472	14.7	161
756	Propylene/propane separation by vacuum swing adsorption using 13X zeolite. <i>AICHE Journal</i> , 2001 , 47, 341-357	3.6	159
755	Modeling strategies for enantiomers separation by SMB chromatography. <i>AICHE Journal</i> , 1998 , 44, 561-569	3.6	158
754	Metal Organic Framework Adsorbent for Biogas Upgrading. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 6333-6335	3.9	157
753	A parametric study of layered bed PSA for hydrogen purification. <i>Chemical Engineering Science</i> , 2008 , 63, 5258-5273	4.4	154
752	Sorption-enhanced reaction process with reactive regeneration. <i>Chemical Engineering Science</i> , 2002 , 57, 3893-3908	4.4	149
751	Treatment of textile wastewater by heterogeneous Fenton process using a new composite Fe ₂ O ₃ /carbon. <i>Chemical Engineering Journal</i> , 2006 , 118, 77-82	14.7	141
750	Suitability of Cu-BTC extrudates for propane-propylene separation by adsorption processes. <i>Chemical Engineering Journal</i> , 2011 , 167, 1-12	14.7	135
749	Activated carbon for hydrogen purification by pressure swing adsorption: Multicomponent breakthrough curves and PSA performance. <i>Chemical Engineering Science</i> , 2011 , 66, 303-317	4.4	133
748	Adsorption of H ₂ , CO ₂ , CH ₄ , CO, N ₂ and H ₂ O in Activated Carbon and Zeolite for Hydrogen Production. <i>Separation Science and Technology</i> , 2009 , 44, 1045-1073	2.5	131
747	Insights into Oxidative Conversion of Lignin to High-Added-Value Phenolic Aldehydes. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 741-748	3.9	130
746	Upgrade of Methane from Landfill Gas by Pressure Swing Adsorption. <i>Energy & Fuels</i> , 2005 , 19, 2545-2555	4.2	129
745	Intraparticle-forced convection effect in catalyst diffusivity measurements and reactor design. <i>AICHE Journal</i> , 1982 , 28, 541-546	3.6	126
744	Adsorption equilibria and kinetics of CO ₂ and N ₂ on activated carbon beads. <i>Chemical Engineering Journal</i> , 2010 , 160, 398-407	14.7	125
743	Phenol biodegradation by <i>Pseudomonas putida</i> DSM 548 in a batch reactor. <i>Biochemical Engineering Journal</i> , 2000 , 6, 45-49	4.2	125

742	Kinetics of Vanillin Production from Kraft Lignin Oxidation. <i>Industrial & Engineering Chemistry Research</i> , 1996 , 35, 28-36	3.9	123
741	Multi-bed Vacuum Pressure Swing Adsorption for carbon dioxide capture from flue gas. <i>Separation and Purification Technology</i> , 2011 , 81, 307-317	8.3	122
740	Carbon dioxide–nitrogen separation through adsorption on activated carbon in a fixed bed. <i>Chemical Engineering Journal</i> , 2011 , 169, 11-19	14.7	122
739	Adsorption Equilibria and Kinetics for Propylene and Propane over 13X and 4A Zeolite Pellets. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 2051-2057	3.9	120
738	Adsorption of Carbon Dioxide on Chemically Modified High Surface Area Carbon-Based Adsorbents at High Temperature. <i>Adsorption</i> , 2001 , 7, 41-50	2.6	113
737	Lignins as macromonomers for polyurethane synthesis: A comparative study on hydroxyl group determination. <i>Journal of Applied Polymer Science</i> , 2008 , 109, 3008-3017	2.9	108
736	A General Package for the Simulation of Cyclic Adsorption Processes. <i>Adsorption</i> , 1999 , 5, 229-244	2.6	105
735	Design of a simulated moving bed in the presence of mass-transfer resistances. <i>AICHE Journal</i> , 1999 , 45, 956-966	3.6	105
734	Adsorption of CO ₂ , CH ₄ , and N ₂ in Activated Carbon Honeycomb Monolith. <i>Journal of Chemical & Engineering Data</i> , 2008 , 53, 2311-2317	2.8	104
733	Optimization of ultrasound-assisted extraction to obtain mycosterols from <i>Agaricus bisporus</i> L. by response surface methodology and comparison with conventional Soxhlet extraction. <i>Food Chemistry</i> , 2016 , 197 Pt B, 1054-63	8.5	103
732	Understanding and revamping of industrial scale SMB units for p-xylene separation. <i>AICHE Journal</i> , 2007 , 53, 138-149	3.6	102
731	Residence time distribution of inert and linearly adsorbed species in a fixed bed containing large-pore supports: applications in separation engineering. <i>Chemical Engineering Science</i> , 1991 , 46, 2765-2773	4.4	102
730	Cosmetics Preservation: A Review on Present Strategies. <i>Molecules</i> , 2018 , 23,	4.8	101
729	Simulated moving bed reactor for isomerization and separation of p-xylene. <i>Chemical Engineering Journal</i> , 2008 , 140, 305-323	14.7	99
728	Reverse shape selectivity in the liquid-phase adsorption of xylene isomers in zirconium terephthalate MOF UiO-66. <i>Langmuir</i> , 2012 , 28, 5715-23	4	98
727	Adsorption and Desorption Behavior of Lithium Ion in Spherical PVC–MnO ₂ Ion Sieve. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 10921-10929	3.9	96
726	Separation of 1,1'-bi-2-naphthol enantiomers by continuous chromatography in simulated moving bed. <i>Chemical Engineering Science</i> , 1997 , 52, 245-257	4.4	95
725	Dynamics of natural gas adsorption storage systems employing activated carbon. <i>Carbon</i> , 1997 , 35, 1259-1270	14.7	94

724	Propane/Propylene Separation by Pressure Swing Adsorption Using Zeolite 4A. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 8815-8829	3.9	94
723	Review for the Direct Synthesis of Dimethyl Carbonate. <i>ChemBioEng Reviews</i> , 2014 , 1, 214-229	5.2	93
722	Importance of intraparticle convection in the performance of chromatographic processes. <i>Journal of Chromatography A</i> , 1992 , 590, 93-100	4.5	93
721	Microencapsulation of Limonene for Textile Application. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 4142-4147	3.9	92
720	Kinetics of Steam Reforming of Ethanol over a Ru/Al ₂ O ₃ Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 6614-6618	3.9	92
719	Comparative study of the adsorption of phenol and salicylic acid from aqueous solution onto nonionic polymeric resins. <i>Separation and Purification Technology</i> , 2005 , 45, 86-95	8.3	88
718	CO ₂ Capture from Flue Gas in an Existing Coal-Fired Power Plant by Two Successive Pilot-Scale VPSA Units. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 7947-7955	3.9	87
717	Adsorption of salicylic acid onto polymeric adsorbents and activated charcoal. <i>Reactive and Functional Polymers</i> , 2004 , 60, 203-213	4.6	87
716	Sorption and kinetics of CO ₂ and CH ₄ in binderless beads of 13X zeolite. <i>Microporous and Mesoporous Materials</i> , 2012 , 158, 219-228	5.3	86
715	Permeable packings and perfusion chromatography in protein separation. <i>Biomedical Applications</i> , 1997 , 699, 47-61		86
714	Two-Stage VPSA Process for CO ₂ Capture from Flue Gas Using Activated Carbon Beads. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 5011-5021	3.9	85
713	Hydrogen Production via Sorption Enhanced Steam Methane Reforming Process Using Ni/CaO Multifunctional Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 13662-13671	3.9	84
712	Monitoring of lignin-based polyurethane synthesis by FTIR-ATR. <i>Industrial Crops and Products</i> , 2008 , 27, 168-174	5.9	83
711	Fructose-glucose separation in a SMB pilot unit: Modeling, simulation, design, and operation. <i>AIChE Journal</i> , 2001 , 47, 2042-2051	3.6	83
710	Modeling and Simulation of a Simulated Moving Bed for the Separation of p-Xylene. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 3454-3461	3.9	83
709	Lithium ion recovery from brine using granulated polyacrylamide-MnO ₂ ion-sieve. <i>Chemical Engineering Journal</i> , 2015 , 279, 659-666	14.7	82
708	Experimental and modeling investigation on post-combustion carbon dioxide capture using zeolite 13X-APG by hybrid VTSA process. <i>Chemical Engineering Journal</i> , 2012 , 197, 151-161	14.7	82
707	What's wrong with Lagergreen pseudo first order model for adsorption kinetics?. <i>Chemical Engineering Journal</i> , 2016 , 306, 1138-1142	14.7	81

706	Single- and Multicomponent Vapor-Phase Adsorption of Xylene Isomers and Ethylbenzene in a Microporous Metal-Organic Framework. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 13173-13179	3.8	81
705	Biogas to Fuel by Vacuum Pressure Swing Adsorption I. Behavior of Equilibrium and Kinetic-Based Adsorbents. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 4595-4605	3.9	80
704	Diffusion and convection in chromatographic processes using permeable supports with a bidisperse pore structure. <i>Chemical Engineering Science</i> , 1993 , 48, 3927-3935	4.4	80
703	Recovery of Vanillin and Syringaldehyde from Lignin Oxidation: A Review of Separation and Purification Processes. <i>Separation and Purification Reviews</i> , 2016 , 45, 227-259	7.3	78
702	Adsorption of Carbon Dioxide on Basic Alumina at High Temperatures. <i>Journal of Chemical & Engineering Data</i> , 2000 , 45, 1093-1095	2.8	78
701	Modeling, simulation and operation of a simulated moving bed for continuous chromatographic separation of 1,1'-bi-2-naphthol enantiomers. <i>Journal of Chromatography A</i> , 1997 , 769, 25-35	4.5	77
700	Production of rose geranium oil using supercritical fluid extraction. <i>Journal of Supercritical Fluids</i> , 2007 , 41, 50-60	4.2	77
699	Thermodynamic Equilibrium and Reaction Kinetics for the Esterification of Lactic Acid with Ethanol Catalyzed by Acid Ion-Exchange Resin. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 1453-1463	3.9	76
698	Production of dextransucrase, dextran and fructose from sucrose using <i>Leuconostoc mesenteroides</i> NRRL B512(f). <i>Biochemical Engineering Journal</i> , 2000 , 4, 177-188	4.2	76
697	Propane/propylene separation with Li-exchanged zeolite 13X. <i>Chemical Engineering Journal</i> , 2010 , 160, 207-214	14.7	75
696	Peak resolution in linear chromatography. <i>Journal of Chromatography A</i> , 1993 , 653, 189-198	4.5	75
695	Propylene/propane separation by vacuum swing adsorption using Cu-BTC spheres. <i>Separation and Purification Technology</i> , 2012 , 90, 109-119	8.3	73
694	Catechin-based extract optimization obtained from <i>Arbutus unedo</i> L. fruits using maceration/microwave/ultrasound extraction techniques. <i>Industrial Crops and Products</i> , 2017 , 95, 404-415	5.9	72
693	Onsite CO ₂ Capture from Flue Gas by an Adsorption Process in a Coal-Fired Power Plant. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 7355-7363	3.9	72
692	Oxidation of Lignin from <i>Eucalyptus globulus</i> Pulping Liquors to Produce Syringaldehyde and Vanillin. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 4421-4428	3.9	72
691	Propane/propylene separation by adsorption using shaped copper trimesate MOF. <i>Microporous and Mesoporous Materials</i> , 2012 , 157, 101-111	5.3	71
690	Steam methane reforming in a Ni/Al ₂ O ₃ catalyst: Kinetics and diffusional limitations in extrudates. <i>Canadian Journal of Chemical Engineering</i> , 2009 , 87, 945-956	2.3	71
689	Vacuum Swing Adsorption for Propylene/Propane Separation with 4A Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 5758-5774	3.9	71

688	Modeling of the fixed - bed adsorption of carbon dioxide and a carbon dioxide - nitrogen mixture on zeolite 13X. <i>Brazilian Journal of Chemical Engineering</i> , 2011 , 28, 533-544	1.7	70
687	Design methodology and operation of a simulated moving bed reactor for the inversion of sucrose and glucose/fructose separation. <i>Chemical Engineering Journal</i> , 2001 , 82, 95-107	14.7	70
686	Characterization of ulvan extracts to assess the effect of different steps in the extraction procedure. <i>Carbohydrate Polymers</i> , 2012 , 88, 537-546	10.3	69
685	Adsorption of Pure and Binary CO ₂ , CH ₄ , and N ₂ Gas Components on Activated Carbon Beads. <i>Journal of Chemical & Engineering Data</i> , 2015 , 60, 2684-2693	2.8	68
684	Light olefins/paraffins separation with 13X zeolite binderless beads. <i>Separation and Purification Technology</i> , 2014 , 133, 452-475	8.3	68
683	Separation of Methane and Nitrogen by Adsorption on Carbon Molecular Sieve. <i>Separation Science and Technology</i> , 2005 , 40, 2721-2743	2.5	68
682	Recovery of vanillin from lignin/vanillin mixture by using tubular ceramic ultrafiltration membranes. <i>Journal of Membrane Science</i> , 2007 , 301, 221-237	9.6	67
681	Simulated moving bed technology: old and new. <i>Adsorption</i> , 2006 , 12, 375-392	2.6	67
680	Adsorption of Xylenes on Faujasite-Type Zeolite. <i>Chemical Engineering Research and Design</i> , 2004 , 82, 667-681	5.5	67
679	Design of simulated moving bed and Varicol processes for preparative separations with a low number of columns. <i>Journal of Chromatography A</i> , 2003 , 1006, 33-44	4.5	67
678	Adsorption of Propane and Propylene in Pellets and Crystals of 5A Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 2002 , 41, 85-92	3.9	67
677	Adsorption of Off-Gases from Steam Methane Reforming (H ₂ , CO ₂ , CH ₄ , CO and N ₂) on Activated Carbon. <i>Separation Science and Technology</i> , 2008 , 43, 1338-1364	2.5	66
676	Design of cyclic fixed-bed adsorption processes. Part I: Phenol adsorption on polymeric adsorbents. <i>AIChE Journal</i> , 1985 , 31, 1645-1654	3.6	65
675	Sieving di-branched from mono-branched and linear alkanes using ZIF-8: experimental proof and theoretical explanation. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 8795-804	3.6	64
674	Carbon dioxide/nitrogen separation through pressure swing adsorption. <i>Chemical Engineering Journal</i> , 2011 , 172, 698-704	14.7	64
673	Separation of ternary mixtures by pseudo-simulated moving bed chromatography. <i>Journal of Chromatography A</i> , 2001 , 939, 23-40	4.5	64
672	Design of a gas phase simulated moving bed for propane/propylene separation. <i>Chemical Engineering Science</i> , 2009 , 64, 1336-1357	4.4	63
671	Molecular simulation of propane/propylene separation on the metal-organic framework CuBTC. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010 , 357, 27-34	5.1	63

670	Sorption and Diffusion of n-Pentane in Pellets of 5A Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 1997 , 36, 493-500	3.9	63
669	Adsorption equilibrium and kinetics of branched hexane isomers in pellets of BETA zeolite. <i>Microporous and Mesoporous Materials</i> , 2005 , 79, 145-163	5.3	63
668	Kinetic study of the formation of lignin-based polyurethanes in bulk. <i>Reactive and Functional Polymers</i> , 2011 , 71, 863-869	4.6	62
667	Methane steam reforming in large pore catalyst. <i>Chemical Engineering Science</i> , 2010 , 65, 1539-1550	4.4	62
666	Adsorption Equilibrium and Kinetics of Water Vapor on Different Adsorbents. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 7019-7026	3.9	62
665	Simulation of five-step one-bed sorption-enhanced reaction process. <i>AIChE Journal</i> , 2002 , 48, 2817-2832	3.6	62
664	Aroma-Loaded Microcapsules with Antibacterial Activity for Eco-Friendly Textile Application: Synthesis, Characterization, Release, and Green Grafting. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 5516-5526	3.9	61
663	Kinetic study for the direct synthesis of dimethyl carbonate from methanol and CO ₂ over CeO ₂ at high pressure conditions. <i>Applied Catalysis A: General</i> , 2013 , 455, 219-226	5.1	61
662	Electric swing adsorption as emerging CO ₂ capture technique. <i>Energy Procedia</i> , 2009 , 1, 1219-1225	2.3	61
661	Lignin-based rigid polyurethane foams with improved biodegradation. <i>Journal of Cellular Plastics</i> , 2014 , 50, 81-95	1.5	59
660	A Complete Separation of Hexane Isomers by a Functionalized Flexible Metal Organic Framework. <i>Advanced Functional Materials</i> , 2014 , 24, 7666-7673	15.6	59
659	Simulated Moving Bed Chromatography: From Concept to Proof-of-Concept. <i>Chemical Engineering and Technology</i> , 2012 , 35, 17-34	2	59
658	New generalized strategy for improving sorption-enhanced reaction process. <i>Chemical Engineering Science</i> , 2003 , 58, 3425-3437	4.4	59
657	Experimental evaluation of adsorption technology for CO ₂ capture from flue gas in an existing coal-fired power plant. <i>Chemical Engineering Science</i> , 2013 , 101, 615-619	4.4	58
656	Binary adsorption of CO ₂ /CH ₄ in binderless beads of 13X zeolite. <i>Microporous and Mesoporous Materials</i> , 2014 , 187, 100-107	5.3	58
655	K-Promoted Hydrotalcites for CO ₂ Capture in Sorption Enhanced Reactions. <i>Chemical Engineering and Technology</i> , 2013 , 36, 567-574	2	58
654	Adsorption and Desorption of Carbon Dioxide and Nitrogen on Zeolite 5A. <i>Separation Science and Technology</i> , 2011 , 46, 434-451	2.5	58
653	Separation of enantiomers of a chiral epoxide by simulated moving bed chromatography. <i>Journal of Chromatography A</i> , 1998 , 827, 215-233	4.5	58

652	Novel process for diethylacetal synthesis. <i>AIChE Journal</i> , 2005 , 51, 2752-2768	3.6	58
651	Ethane/ethylene separation on a copper benzene-1,3,5-tricarboxylate MOF. <i>Separation and Purification Technology</i> , 2015 , 149, 445-456	8.3	57
650	H ₂ purification by pressure swing adsorption using CuBTC. <i>Separation and Purification Technology</i> , 2013 , 118, 744-756	8.3	57
649	Adsorption of Carbon Dioxide onto Activated Carbon and Nitrogen-Enriched Activated Carbon: Surface Changes, Equilibrium, and Modeling of Fixed-Bed Adsorption. <i>Separation Science and Technology</i> , 2009 , 45, 73-84	2.5	57
648	Adsorption of propane and propylene onto carbon molecular sieve. <i>Carbon</i> , 2003 , 41, 2533-2545	10.4	57
647	Hydrogen production from steam methane reforming coupled with in situ CO ₂ capture: Conceptual parametric study. <i>Fuel</i> , 2005 , 84, 1778-1789	7.1	56
646	Steam reforming of ethanol on a Ni/Al ₂ O ₃ catalyst coupled with a hydrotalcite-like sorbent in a multilayer pattern for CO ₂ uptake. <i>Canadian Journal of Chemical Engineering</i> , 2012 , 90, 1514-1526	2.3	55
645	Kinetic studies in a batch reactor using ion exchange resin catalysts for oxygenates production: Role of mass transfer mechanisms. <i>Chemical Engineering Science</i> , 2006 , 61, 316-331	4.4	55
644	Adsorption of propane and propylene in zeolite 4A honeycomb monolith. <i>Chemical Engineering Science</i> , 2006 , 61, 3053-3067	4.4	55
643	Multisite Langmuir Model Applied to the Interpretation of Sorption of n-Paraffins in 5A Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 1999 , 38, 2434-2438	3.9	55
642	Sorption-enhanced steam reforming of ethanol on NiMgAl multifunctional materials: Experimental and numerical investigation. <i>Chemical Engineering Journal</i> , 2013 , 231, 36-48	14.7	54
641	Capture of CO ₂ from flue gas by vacuum pressure swing adsorption using activated carbon beads. <i>Adsorption</i> , 2011 , 17, 179-188	2.6	54
640	Pressure Swing Adsorption for Biogas Upgrading. Effect of Recycling Streams in Pressure Swing Adsorption Design. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 974-985	3.9	54
639	New pi-complexation adsorbents for propane-propylene separation. <i>Langmuir</i> , 2004 , 20, 5291-7	4	54
638	Intraparticle diffusion of phenol in macroreticular adsorbents: Modelling and experimental study of batch and CSTR adsorbers. <i>Chemical Engineering Science</i> , 1985 , 40, 983-993	4.4	54
637	Thermophysical Properties of the Pure Ionic Liquid 1-Butyl-1-methylpyrrolidinium Dicyanamide and Its Binary Mixtures with Alcohols. <i>Journal of Chemical & Engineering Data</i> , 2013 , 58, 1440-1448	2.8	53
636	New 13X zeolite for propylene/propane separation by vacuum swing adsorption. <i>Separation and Purification Technology</i> , 2013 , 103, 60-70	8.3	53
635	Synthesis, structure, and catalytic performance in cyclooctene epoxidation of a molybdenum oxide/bipyridine hybrid material: [[MoO ₃ (bipy)][MoO ₃ (H ₂ O)]] _n . <i>Inorganic Chemistry</i> , 2010 , 49, 6865-73	5.1	53

634	Vacuum Pressure Swing Adsorption to Produce Polymer-Grade Propylene. <i>Separation Science and Technology</i> , 2010 , 45, 1252-1259	2.5	53
633	Two-level optimization of an existing SMB for p-xylene separation. <i>Computers and Chemical Engineering</i> , 2005 , 29, 2215-2228	4	53
632	Bioseparations with permeable particles. <i>Biomedical Applications</i> , 1995 , 664, 233-40		53
631	Production of dextran and fructose from carob pod extract and cheese whey by <i>Leuconostoc mesenteroides</i> NRRL B512(F). <i>Biochemical Engineering Journal</i> , 2005 , 25, 1-6	4.2	52
630	Chitosan-based Pickering emulsions and their applications: A review. <i>Carbohydrate Polymers</i> , 2020 , 250, 116885	10.3	52
629	Separation of C3/C4 hydrocarbon mixtures by adsorption using a mesoporous iron MOF: MIL-100(Fe). <i>Microporous and Mesoporous Materials</i> , 2012 , 153, 178-190	5.3	51
628	Solvent properties governing protein partitioning in polymer/polymer aqueous two-phase systems. <i>Journal of Chromatography A</i> , 2011 , 1218, 1379-84	4.5	51
627	Microencapsulation of thyme oil by coacervation. <i>Journal of Microencapsulation</i> , 2009 , 26, 667-75	3.4	51
626	Single and Multicomponent Sorption of CO ₂ , CH ₄ and N ₂ in a Microporous Metal-Organic Framework. <i>Separation Science and Technology</i> , 2008 , 43, 3494-3521	2.5	51
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