

# Ajay K. Ray

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/9486313/ajay-k-ray-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

200  
papers

8,299  
citations

50  
h-index

84  
g-index

210  
ext. papers

8,988  
ext. citations

4.8  
avg, IF

6.28  
L-index

#	Paper	IF	Citations
200	Photodegradation kinetics of 4-nitrophenol in TiO <sub>2</sub> suspension. <i>Water Research</i> , <b>1998</b> , 32, 3223-3234	12.5	410
199	Adsorption of arsenate and arsenite on titanium dioxide suspensions. <i>Journal of Colloid and Interface Science</i> , <b>2004</b> , 278, 270-5	9.3	346
198	Removal of toxic metal ions from wastewater by semiconductor photocatalysis. <i>Chemical Engineering Science</i> , <b>2001</b> , 56, 1561-1570	4.4	317
197	Photocatalytic kinetics of phenol and its derivatives over UV irradiated TiO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , <b>1999</b> , 23, 143-157	21.8	267
196	Photocatalytic oxidation of arsenic(III): evidence of hydroxyl radicals. <i>Environmental Science &amp; Technology</i> , <b>2005</b> , 39, 1827-34	10.3	259
195	APPLICATIONS OF MULTI-OBJECTIVE OPTIMIZATION IN CHEMICAL ENGINEERING. <i>Reviews in Chemical Engineering</i> , <b>2000</b> , 16, 1-54	5	238
194	Removal of Aqueous Cr(VI) by a Combination of Photocatalytic Reduction and Coprecipitation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2004</b> , 43, 1665-1672	3.9	221
193	Nonylphenol, octylphenol, and bisphenol-A in the aquatic environment: a review on occurrence, fate, and treatment. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , <b>2009</b> , 44, 423-42	2.3	162
192	Photodegradation of Benzoic Acid over Metal-Doped TiO <sub>2</sub> . <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 3503-3511	3.9	161
191	Development of a new photocatalytic reactor for water purification. <i>Catalysis Today</i> , <b>1998</b> , 40, 73-83	5.3	157
190	Visible-Solar-Light-Driven Photocatalytic Degradation of Phenol with Dye-Sensitized TiO <sub>2</sub> : Parametric and Kinetic Study. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2012</b> , 51, 4523-4532	3.9	152
189	Multiobjective optimization of SMB and varicol process for chiral separation. <i>AIChE Journal</i> , <b>2002</b> , 48, 2800-2816	3.6	121
188	Effect of mass transfer and catalyst layer thickness on photocatalytic reaction. <i>AIChE Journal</i> , <b>2000</b> , 46, 1034-1045	3.6	118
187	Ferrates (iron(VI) and iron(V)): Environmentally friendly oxidants and disinfectants. <i>Journal of Water and Health</i> , <b>2005</b> , 3, 45-58	2.2	117
186	Photo-reduction of hexavalent chromium in aqueous solution in the presence of zinc oxide as semiconductor catalyst. <i>Chemical Engineering Journal</i> , <b>2009</b> , 153, 86-93	14.7	114
185	Multiobjective Optimization of Steam Reformer Performance Using Genetic Algorithm. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2000</b> , 39, 706-717	3.9	110
184	Novel photocatalytic reactor for water purification. <i>AIChE Journal</i> , <b>1998</b> , 44, 477-483	3.6	102

183	External and internal mass transfer effect on photocatalytic degradation. <i>Catalysis Today</i> , <b>2001</b> , 66, 475-485	3.5	99
182	Enhancement of photocatalytic activity of P25 TiO <sub>2</sub> by vanadium-ion implantation under visible light irradiation. <i>Journal of Colloid and Interface Science</i> , <b>2007</b> , 311, 497-501	9.3	98
181	Multi-objective optimization of industrial hydrogen plants. <i>Chemical Engineering Science</i> , <b>2001</b> , 56, 999-1010	10.1	96
180	Preparation and Characterization of Polycrystalline Bismuth Titanate Bi <sub>2</sub> TiO <sub>5</sub> and Its Photocatalytic Properties under Visible Light Irradiation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2007</b> , 46, 745-749	3.9	95
179	Kinetic Studies of Photocatalytic Degradation in a TiO <sub>2</sub> Slurry System: Distinguishing Working Regimes and Determining Rate Dependences. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 2273-2281	3.9	93
178	Determination of adsorption and kinetic parameters for methyl acetate esterification and hydrolysis reaction catalyzed by Amberlyst 15. <i>Applied Catalysis A: General</i> , <b>2004</b> , 260, 191-205	5.1	91
177	Design, modelling and experimentation of a new large-scale photocatalytic reactor for water treatment. <i>Chemical Engineering Science</i> , <b>1999</b> , 54, 3113-3125	4.4	91
176	Photocatalytic reduction of Hg(II) on two commercial TiO <sub>2</sub> catalysts. <i>Electrochimica Acta</i> , <b>2004</b> , 49, 1435-1444	4.44	82
175	Kinetic assessment of the potassium ferrate(VI) oxidation of antibacterial drug sulfamethoxazole. <i>Chemosphere</i> , <b>2006</b> , 62, 128-34	8.4	75
174	Macro kinetic studies for photocatalytic degradation of benzoic acid in immobilized systems. <i>Chemosphere</i> , <b>2005</b> , 60, 1427-36	8.4	74
173	Enhanced Solar Photocatalytic Degradation of Phenol with Coupled Graphene-Based Titanium Dioxide and Zinc Oxide. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 18824-18832	3.9	71
172	Experimental investigation of Taylor vortex photocatalytic reactor for water purification. <i>Chemical Engineering Science</i> , <b>2004</b> , 59, 5249-5259	4.4	71
171	Kinetic Studies for Photocatalytic Degradation of Eosin B on a Thin Film of Titanium Dioxide. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 6020-6033	3.9	71
170	Optimal design and operation of SMB bioreactor: production of high fructose syrup by isomerization of glucose. <i>Biochemical Engineering Journal</i> , <b>2004</b> , 21, 111-121	4.2	67
169	Multiobjective optimization of an industrial wiped-film pet reactor. <i>AIChE Journal</i> , <b>2000</b> , 46, 1046-1058	3.6	66
168	Sacrificial Hydrogen Generation from Formaldehyde with Pt/TiO <sub>2</sub> Photocatalyst in Solar Radiation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 5023-5029	3.9	65
167	Multi-objective Optimization of the Operation of an Industrial Low-Density Polyethylene Tubular Reactor Using Genetic Algorithm and Its Jumping Gene Adaptations. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 3182-3199	3.9	65
166	Novel swirl-flow reactor for kinetic studies of semiconductor photocatalysis. <i>AIChE Journal</i> , <b>1997</b> , 43, 2571-2578	3.6	64

165	Review of kinetics of chemical and photocatalytic oxidation of Arsenic(III) as influenced by pH. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , <b>2007</b> , 42, 997-1004	2.3	63
164	Pharmaceuticals and pesticides in secondary effluent wastewater: Identification and enhanced removal by acid-activated ferrate(VI). <i>Water Research</i> , <b>2019</b> , 148, 272-280	12.5	63
163	The simulated countercurrent moving bed chromatographic reactor: a novel reactor-separator. <i>Chemical Engineering Science</i> , <b>1994</b> , 49, 469-480	4.4	62
162	Enhanced oxidative transformation of organic contaminants by activation of ferrate(VI): Possible involvement of FeV/FeIV species. <i>Chemical Engineering Journal</i> , <b>2017</b> , 307, 513-517	14.7	61
161	Heterogeneous Photocatalysis in Environmental Remediation. <i>Asia-Pacific Journal of Chemical Engineering</i> , <b>2008</b> , 8, 505-550		61
160	Multiobjective Optimization of an Industrial Ethylene Reactor Using a Nondominated Sorting Genetic Algorithm. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2005</b> , 44, 124-141	3.9	60
159	Multi-objective optimization of membrane separation modules using genetic algorithm. <i>Journal of Membrane Science</i> , <b>2000</b> , 176, 177-196	9.6	58
158	Experimental study of a laboratory-scale simulated countercurrent moving bed chromatographic reactor. <i>Chemical Engineering Science</i> , <b>1995</b> , 50, 2195-2202	4.4	58
157	Modeling, Simulation, and Multi-objective Optimization of an Industrial Hydrocracking Unit. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 1354-1372	3.9	57
156	Ferrate(VI): green chemistry oxidant for degradation of cationic surfactant. <i>Chemosphere</i> , <b>2006</b> , 63, 1785-1790	3.9	56
155	Enhanced photocatalytic degradation of atenolol using graphene TiO <sub>2</sub> composite. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2017</b> , 332, 182-187	4.7	53
154	Multiobjective optimization of an industrial styrene reactor. <i>Computers and Chemical Engineering</i> , <b>2003</b> , 27, 111-130	4	53
153	Dynamic Model of an Industrial Steam Reformer and Its Use for Multiobjective Optimization. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 4028-4042	3.9	52
152	Photocatalytic activities of Pt/ZIF-8 loaded highly ordered TiO <sub>2</sub> nanotubes. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 10241		50
151	Visible-solar-light-driven photo-reduction and removal of cadmium ion with Eosin Y-sensitized TiO <sub>2</sub> in aqueous solution of triethanolamine. <i>Separation and Purification Technology</i> , <b>2017</b> , 174, 109-115	8.3	49
150	Multiobjective optimization of an industrial wiped film poly(ethylene terephthalate) reactor: some further insights. <i>Computers and Chemical Engineering</i> , <b>2001</b> , 25, 391-407	4	49
149	First-Principles, Data-Based, and Hybrid Modeling and Optimization of an Industrial Hydrocracking Unit. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 7807-7816	3.9	48
148	Multiobjective optimization of an industrial styrene monomer manufacturing process. <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 347-363	4.4	47

147	Design stage optimization of an industrial low-density polyethylene tubular reactor for multiple objectives using NSGA-II and its jumping gene adaptations. <i>Chemical Engineering Science</i> , <b>2007</b> , 62, 2346-2365	4.4	46
146	Optimal Operation of an Industrial-Scale Parex Process for the Recovery of p-Xylene from a Mixture of C8 Aromatics. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2005</b> , 44, 5703-5714	3.9	46
145	A new photocatalytic reactor for destruction of toxic water pollutants by advanced oxidation process. <i>Catalysis Today</i> , <b>1998</b> , 44, 357-368	5.3	45
144	Optimization of reactive SMB and Varicol systems. <i>Computers and Chemical Engineering</i> , <b>2003</b> , 27, 1883-1901	10.1	44
143	Application of Simulated Countercurrent Moving-Bed Chromatographic Reactor for MTBE Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 5305-5316	3.9	44
142	Mechanistic modeling of vacuum UV advanced oxidation process in an annular photoreactor. <i>Water Research</i> , <b>2014</b> , 64, 209-225	12.5	43
141	Photocatalytic degradation of nonionic surfactant, Brij 35 in aqueous TiO <sub>2</sub> suspensions. <i>Chemosphere</i> , <b>2010</b> , 79, 205-9	8.4	41
140	Optimal design and operation of SMB bioreactor for sucrose inversion. <i>Chemical Engineering Journal</i> , <b>2005</b> , 108, 19-33	14.7	39
139	Enhanced photocatalytic degradation of ofloxacin by co-doped titanium dioxide under solar irradiation. <i>Separation and Purification Technology</i> , <b>2016</b> , 161, 1-7	8.3	38
138	Optimization of Simulated Moving Bed and Varicol Processes for Glucose/Fructose Separation. <i>Chemical Engineering Research and Design</i> , <b>2003</b> , 81, 549-567	5.5	38
137	Modeling, Simulation, and Experimental Study of a Simulated Moving Bed Reactor for the Synthesis of Methyl Acetate Ester. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 6743-6754	3.9	38
136	The simulated countercurrent moving bed chromatographic reactor. <i>Chemical Engineering Science</i> , <b>1990</b> , 45, 2431-2437	4.4	38
135	Sacrificial hydrogen generation from aqueous triethanolamine with Eosin Y-sensitized Pt/TiO <sub>2</sub> photocatalyst in UV, visible and solar light irradiation. <i>Chemosphere</i> , <b>2015</b> , 121, 54-61	8.4	37
134	Factorial design analysis for dye-sensitized hydrogen generation from water. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 13442-13451	6.7	36
133	Modeling of the adsorption breakthrough behaviors of Pb <sup>2+</sup> in a fixed bed of ETS-10 adsorbent. <i>Journal of Colloid and Interface Science</i> , <b>2008</b> , 325, 57-63	9.3	36
132	Multiobjective Optimization of Simulated Countercurrent Moving Bed Chromatographic Reactor (SCMCR) for MTBE Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2002</b> , 41, 3213-3232	3.9	36
131	Silica gel-enhanced oxidation of caffeine by ferrate(VI). <i>Chemical Engineering Journal</i> , <b>2017</b> , 330, 987-994	14.7	35
130	Preparation and Characterization of the TiO <sub>2</sub> Immobilized Polymeric Photocatalyst for Degradation of Aspirin under UV and Solar Light. <i>Processes</i> , <b>2014</b> , 2, 12-23	2.9	35

129	Determination of Adsorption and Kinetic Parameters for Methyl tert-Butyl Ether Synthesis from tert-Butyl Alcohol and Methanol. <i>Journal of Catalysis</i> , <b>2001</b> , 200, 209-221	7.3	35
128	Catalytic reaction in a circulating fluidized bed downer: Ozone decomposition. <i>Chemical Engineering Science</i> , <b>2011</b> , 66, 4615-4623	4.4	34
127	Enantio-separation of racemic pindolol on . <i>Chemical Engineering Science</i> , <b>2007</b> , 62, 1364-1375	4.4	34
126	Photocatalytic Decomposition of Formic Acid Under Visible Light Irradiation Over V-ion-implanted TiO <sub>2</sub> Thin Film Photocatalysts Prepared on Quartz Substrate by Ionized Cluster Beam (ICB) Deposition Method. <i>Catalysis Letters</i> , <b>2006</b> , 106, 67-70	2.8	34
125	A Taylor Vortex Photocatalytic Reactor for Water Purification. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 5268-5281	3.9	34
124	Optimal operation of a Pseudo-SMB process for ternary separation under non-ideal conditions. <i>Separation and Purification Technology</i> , <b>2006</b> , 51, 387-403	8.3	31
123	Multiobjective optimization of the continuous casting process for poly (methyl methacrylate) using adapted genetic algorithm. <i>Journal of Applied Polymer Science</i> , <b>2000</b> , 78, 1439-1458	2.9	31
122	Multi-objective optimization of an industrial penicillin V bioreactor train using non-dominated sorting genetic algorithm. <i>Biotechnology and Bioengineering</i> , <b>2007</b> , 98, 586-98	4.9	30
121	Applications of Genetic Algorithm in Polymer Science and Engineering. <i>Materials and Manufacturing Processes</i> , <b>2003</b> , 18, 523-532	4.1	30
120	The fabrication of highly ordered and visible-light-responsive Fe-C-N-codoped TiO <sub>2</sub> nanotubes. <i>Nanotechnology</i> , <b>2010</b> , 21, 055706	3.4	29
119	Solar photocatalytic degradation of caffeine with titanium dioxide and zinc oxide nanoparticles. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2019</b> , 377, 1-7	4.7	28
118	Oxidation of caffeine by acid-activated ferrate(VI): Effect of ions and natural organic matter. <i>AICHE Journal</i> , <b>2017</b> , 63, 4998-5006	3.6	28
117	Application of Multiobjective Optimization in the Design and Operation of Reactive SMB and Its Experimental Verification. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 6823-6831	3.9	28
116	A comparative study on hydrodynamics of circulating fluidized bed riser and downer. <i>Powder Technology</i> , <b>2013</b> , 247, 235-259	5.2	27
115	Multi-objective optimization of simulated moving bed and Varicol processes for enantio-separation of racemic pindolol. <i>Separation and Purification Technology</i> , <b>2009</b> , 65, 311-321	8.3	27
114	Numerical simulation of a simulated countercurrent moving bed chromatographic reactor. <i>Chemical Engineering Science</i> , <b>1995</b> , 50, 3033-3041	4.4	27
113	Dye-Sensitized Photocatalytic Water Splitting and Sacrificial Hydrogen Generation: Current Status and Future Prospects. <i>Inorganics</i> , <b>2017</b> , 5, 34	2.9	26
112	Inactivation of Murine Norovirus and Fecal Coliforms by Ferrate(VI) in Secondary Effluent Wastewater. <i>Environmental Science &amp; Technology</i> , <b>2020</b> , 54, 1878-1888	10.3	26

111	Optimization of reactive simulated moving bed and Varicol systems for hydrolysis of methyl acetate. <i>Chemical Engineering Journal</i> , <b>2005</b> , 112, 57-72	14.7	25
110	Mechanism of Acetyl Salicylic Acid (Aspirin) Degradation under Solar Light in Presence of a TiO <sub>2</sub> -Polymeric Film Photocatalyst. <i>Processes</i> , <b>2016</b> , 4, 13	2.9	24
109	Sustainable Bio-Based Phenol-Formaldehyde Resoles Using Hydrolytically Depolymerized Kraft Lignin. <i>Molecules</i> , <b>2017</b> , 22,	4.8	23
108	Modified reactive SMB for production of high concentrated fructose syrup by isomerization of glucose to fructose. <i>Biochemical Engineering Journal</i> , <b>2007</b> , 35, 341-351	4.2	23
107	Comparative Study of Modified Simulated Moving Bed Systems at Optimal Conditions for the Separation of Ternary Mixtures under Nonideal Conditions. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 3902-3915	3.9	22
106	Simulation and Multiobjective Optimization of an Industrial Hydrogen Plant Based on Refinery Off-Gas. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2002</b> , 41, 2248-2261	3.9	22
105	Solar photocatalytic degradation of Zn <sup>2+</sup> using graphene based TiO <sub>2</sub> . <i>Separation and Purification Technology</i> , <b>2016</b> , 168, 294-301	8.3	22
104	Determination of competitive adsorption isotherm of enantiomers on preparative chromatographic columns using inverse method. <i>Journal of Chromatography A</i> , <b>2013</b> , 1273, 49-56	4.5	21
103	Determination of competitive adsorption isotherm parameters of pindolol enantiomers on alpha1-acid glycoprotein chiral stationary phase. <i>Journal of Chromatography A</i> , <b>2006</b> , 1131, 176-84	4.5	21
102	Optimal operating mode for enantioseparation of SB-553261 racemate based on simulated moving bed technology. <i>Biotechnology and Bioengineering</i> , <b>2004</b> , 87, 704-22	4.9	21
101	Self-Assembled Au/TiO <sub>2</sub> /CNTs Ternary Nanocomposites for Photocatalytic Applications. <i>Science of Advanced Materials</i> , <b>2010</b> , 2, 503-513	2.3	21
100	Photoelectrochemical water splitting for hydrogen generation on highly ordered TiO <sub>2</sub> nanotubes fabricated by using Ti as cathode. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 103-108	6.7	20
99	Intrinsic Kinetic Study for Photocatalytic Degradation of Diclofenac under UV and Visible Light. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 18637-18646	3.9	19
98	Measurement and prediction of phase diagrams of the enantiomeric 3-chloromandelic acid system. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 192-197	4.4	19
97	Rapid removal of acesulfame potassium by acid-activated ferrate(VI) under mild alkaline conditions. <i>Chemosphere</i> , <b>2019</b> , 230, 416-423	8.4	18
96	Optimization and modeling of coagulation-flocculation to remove algae and organic matter from surface water by response surface methodology. <i>Frontiers of Environmental Science and Engineering</i> , <b>2019</b> , 13, 1	5.8	18
95	Dye-Sensitized Photocatalyst: A Breakthrough in Green Energy and Environmental Detoxification. <i>ACS Symposium Series</i> , <b>2013</b> , 231-266	0.4	18
94	Modeling and simulation of liquid-solid circulating fluidized bed ion exchange system for continuous protein recovery. <i>Biotechnology and Bioengineering</i> , <b>2009</b> , 104, 111-26	4.9	18

93	Multi-objective optimization in solid oxide fuel cell for oxidative coupling of methane. <i>Chemical Engineering Journal</i> , <b>2010</b> , 165, 639-648	14.7	18
92	Applications of the Non-Dominated Sorting Genetic Algorithm (NSGA) in Chemical Reaction Engineering. <i>International Journal of Chemical Reactor Engineering</i> , <b>2003</b> , 1,	1.2	18
91	In-situ grown molybdenum sulfide on TiO <sub>2</sub> for dye-sensitized solar photocatalytic hydrogen generation. <i>Chemical Engineering Science</i> , <b>2016</b> , 152, 35-44	4.4	17
90	A novel nanoengineered VO <sub>x</sub> catalyst supported on highly ordered TiO <sub>2</sub> nanotube arrays for partial oxidation reactions. <i>Applied Catalysis A: General</i> , <b>2012</b> , 417-418, 13-18	5.1	17
89	Improved performance for continuous separation of 1,1'-bi-2-naphthol racemate based on simulated moving bed technology. <i>Separation and Purification Technology</i> , <b>2005</b> , 46, 168-191	8.3	17
88	Catalytic reaction in a circulating fluidized bed riser: Ozone decomposition. <i>Powder Technology</i> , <b>2013</b> , 242, 65-73	5.2	16
87	Chromatographic resolution and isotherm determination of (R,S)-mandelic acid on Chiralcel-OD column. <i>Journal of Separation Science</i> , <b>2012</b> , 35, 2273-81	3.4	16
86	A study of finding many desirable solutions in multiobjective optimization of chemical processes. <i>Computers and Chemical Engineering</i> , <b>2007</b> , 31, 1257-1271	4	16
85	Optimization of nonvaporizing nylon 6 reactors with stopping conditions and end-point constraints. <i>Polymer Engineering and Science</i> , <b>1986</b> , 26, 1033-1044	2.3	16
84	Multi-objective optimization of simulated countercurrent moving bed chromatographic reactor for oxidative coupling of methane. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 4137-4149	4.4	15
83	Oxidation of X-ray compound ditrizoic acid by ferrate(VI). <i>Environmental Technology (United Kingdom)</i> , <b>2011</b> , 32, 261-7	2.6	15
82	Multiobjective Optimization of Industrial Petroleum Processing Units Using Genetic Algorithms. <i>Procedia Chemistry</i> , <b>2014</b> , 10, 7-14		14
81	Photocatalytic Reactor Configurations for Water Purification. <i>Advances in Chemical Engineering</i> , <b>2009</b> , 36, 145-184	0.6	14
80	Numerical determination of competitive adsorption isotherm of mandelic acid enantiomers on cellulose-based chiral stationary phase. <i>Journal of Chromatography A</i> , <b>2008</b> , 1202, 34-9	4.5	14
79	Comparative Study of Modified Simulated Moving Bed Systems at Optimal Conditions for the Separation of Ternary Mixtures of Xylene Isomers. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2006</b> , 45, 6251-6265	3.9	14
78	Integration of photocatalytic and biological processes for treatment of pharmaceutical effluent. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2018</b> , 364, 322-327	4.7	14
77	Study of solar photocatalytic degradation of Acesulfame K to limit the outpouring of artificial sweeteners. <i>Separation and Purification Technology</i> , <b>2018</b> , 207, 51-57	8.3	13
76	Modeling and simulation of simulated countercurrent moving bed chromatographic reactor for oxidative coupling of methane. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 5143-5152	4.4	13



75	Optimal design of liquid-solid circulating fluidized bed for continuous protein recovery. <i>Powder Technology</i> , <b>2010</b> , 199, 32-47	5.2	13
74	Coagulation and disinfection by-products formation potential of extracellular and intracellular matter of algae and cyanobacteria. <i>Chemosphere</i> , <b>2020</b> , 245, 125669	8.4	13
73	Direct UV photolysis of pharmaceutical compounds: Determination of pH-dependent quantum yield and full-scale performance. <i>Chemical Engineering Journal</i> , <b>2020</b> , 380, 122460	14.7	13
72	Solar degradation of diclofenac using Eosin-Y-activated TiO <sub>2</sub> : cost estimation, process optimization and parameter interaction study. <i>Environmental Technology (United Kingdom)</i> , <b>2017</b> , 38, 933-944	2.6	12
71	Modeling of the sheet-molding process for poly(methyl methacrylate). <i>Journal of Applied Polymer Science</i> , <b>2001</b> , 81, 1951-1971	2.9	12
70	Performance Improvement of Activated Sludge Wastewater Treatment by Nonlinear Natural Oscillations. <i>Chemical Engineering and Technology</i> , <b>2000</b> , 23, 1115-1122	2	12
69	Hydrogen production from aqueous triethanolamine solution using Eosin Y-sensitized ZnO photocatalyst doped with platinum. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 11097-11107	6.7	11
68	Degradation of anionic and cationic surfactants in a monolithic swirl-flow photoreactor. <i>Separation and Purification Technology</i> , <b>2012</b> , 92, 43-49	8.3	11
67	Multiobjective Optimization of a Porous Ceramic Membrane Reactor for Oxidative Coupling of Methane. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2010</b> , 49, 6469-6481	3.9	10
66	Multiobjective Optimization of Simulated Moving Bed Reactor and its Modification Varicol Process. <i>Canadian Journal of Chemical Engineering</i> , <b>2008</b> , 82, 590-598	2.3	10
65	Modelling, simulation, and experimental study of a simulated moving bed reactor for the synthesis of biodiesel. <i>Canadian Journal of Chemical Engineering</i> , <b>2016</b> , 94, 913-923	2.3	9
64	Nucleation and Growth Kinetics of (R)-Mandelic Acid from Aqueous Solution in the Presence of the Opposite Enantiomer. <i>Crystal Growth and Design</i> , <b>2010</b> , 10, 2879-2887	3.5	9
63	Optimal operation of reactive simulated moving bed and Varicol systems. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2003</b> , 78, 287-293	3.5	9
62	Assessment of Khibiny Alkaline Massif groundwater quality using statistical methods and water quality index. <i>Canadian Journal of Chemical Engineering</i> , <b>2020</b> , 98, 205-212	2.3	9
61	Determination of adsorption and kinetic parameters for methyl oleate (biodiesel) esterification reaction catalyzed by Amberlyst 15 resin. <i>Canadian Journal of Chemical Engineering</i> , <b>2016</b> , 94, 738-744	2.3	9
60	Multiobjective Feature Selection Approach to Quantitative Structure Property Relationship Models for Predicting the Octane Number of Compounds Found in Gasoline. <i>Energy &amp; Fuels</i> , <b>2017</b> , 31, 5828-5839	4.1	8
59	Degradation of methyl orange by TiO <sub>2</sub> /polymeric film photocatalyst. <i>Canadian Journal of Chemical Engineering</i> , <b>2014</b> , 92, 1661-1666	2.3	8
58	Photocatalytic Performance of Titanium Dioxide Thin Films from Polymer-Encapsulated Titania. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 17800-17811	3.9	8

57	Optimization of Lactoperoxidase and Lactoferrin Separation on an Ion-Exchange Chromatography Step. <i>Separations</i> , <b>2017</b> , 4, 10	3.1	8
56	Treatment of combined sewer overflows using ferrate (VI). <i>Water Environment Research</i> , <b>2014</b> , 86, 2202-18		8
55	Multiobjective optimization of the operation of a liquid-solid circulating fluidized bed ion-exchange system for continuous protein recovery. <i>Biotechnology and Bioengineering</i> , <b>2009</b> , 103, 873-90	4.9	8
54	MODELING OF AN INDUSTRIAL WIPED FILM POLY(ETHYLENE TEREPHTHALATE) REACTOR. <i>Polymer-Plastics Technology and Engineering</i> , <b>2001</b> , 9, 71-99		8
53	Triple-Objective Optimization of an Industrial Hydrogen Plant.. <i>Journal of Chemical Engineering of Japan</i> , <b>2001</b> , 34, 1341-1355	0.8	8
52	Optimization of nonvaporizing nylon 6 reactors with stopping conditions. <i>Journal of Applied Polymer Science</i> , <b>1985</b> , 30, 4529-4550	2.9	8
51	Photocatalytic degradation of atenolol with graphene oxide/zinc oxide composite: Optimization of process parameters using statistical method. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2021</b> , 409, 113136	4.7	8
50	Determination of adsorption isotherm parameters for minor whey proteins by gradient elution preparative liquid chromatography. <i>Journal of Chromatography A</i> , <b>2015</b> , 1412, 67-74	4.5	7
49	Multi-objective optimization of non-isothermal simulated moving bed reactor: Methyl acetate synthesis. <i>Chemical Engineering Journal</i> , <b>2020</b> , 395, 125041	14.7	7
48	Degradation of Phenolic Compounds Through UV and Visible- Light-Driven Photocatalysis: Technical and Economic Aspects <b>2017</b> ,		7
47	Rotational asymmetry of reactant concentration and its evolution in a circulating fluidized bed riser. <i>Particuology</i> , <b>2012</b> , 10, 573-581	2.8	7
46	Kinetics of (R,S)- and (R)-mandelic acid in an unseeded cooling batch crystallizer. <i>Journal of Crystal Growth</i> , <b>2010</b> , 312, 3340-3348	1.6	7
45	Multi-objective optimization of sequential simulated moving bed for the purification of xylo-oligosaccharides. <i>Chemical Engineering Science</i> , <b>2020</b> , 211, 115279	4.4	7
44	Equilibrium and kinetic differences of XOS2-XOS7 in xylo-oligosaccharides and their effects on the design of simulated moving bed purification process. <i>Separation and Purification Technology</i> , <b>2019</b> , 215, 360-367	8.3	6
43	Nanoscale Optimization and Statistical Modeling of Photoelectrochemical Water Splitting Efficiency of N-Doped TiO <sub>2</sub> Nanotubes. <i>Topics in Catalysis</i> , <b>2015</b> , 58, 114-122	2.3	6
42	Multi-variable operational characteristic studies of on-column oxidative protein refolding at high loading concentrations. <i>Journal of Chromatography A</i> , <b>2014</b> , 1359, 70-5	4.5	6
41	Numerical simulation and optimisation of unconventional three-section simulated countercurrent moving bed chromatographic reactor for oxidative coupling of methane reaction. <i>Canadian Journal of Chemical Engineering</i> , <b>2012</b> , 90, 1502-1513	2.3	6
40	Removal of arsenic(III) from aqueous solution by concrete-based adsorbents. <i>Canadian Journal of Chemical Engineering</i> , <b>2020</b> , 98, 353-359	2.3	6

39	Morphology-Controlled Synthesis of ZnO Nanostructures for Caffeine Degradation and Escherichia coli Inactivation in Water. <i>Catalysts</i> , <b>2021</b> , 11, 63	4	6
38	A comparison between simulated moving bed and sequential simulated moving bed system based on multi-objective optimization. <i>Chemical Engineering Science</i> , <b>2020</b> , 219, 115562	4.4	5
37	Removal of aluminum from aqueous solution by adsorption on montmorillonite K10, TiO <sub>2</sub> , and SiO <sub>2</sub> : kinetics, isotherms, and effect of ions. <i>Adsorption</i> , <b>2019</b> , 25, 1575-1583	2.6	5
36	Analysis of a nonisothermal simulated moving-bed reactor. <i>AIChE Journal</i> , <b>2013</b> , 59, 4705-4714	3.6	5
35	Size-dependent adsorption and conformational changes induced in bovine serum albumin (BSA) on exposure to titanium dioxide (TiO <sub>2</sub> ) nanoparticles. <i>Separation Science and Technology</i> , <b>2017</b> , 52, 421-434 <sup>2.5</sup>		5
34	Analysis of a Model for Ethanol Production through Continuous Fermentation: Ethanol Productivity. <i>International Journal of Chemical Reactor Engineering</i> , <b>2010</b> , 8,	1.2	5
33	A multi-platform, multi-language environment for process modelling, simulation and optimisation. <i>International Journal of Computer Applications in Technology</i> , <b>2007</b> , 30, 197	0.7	5
32	Performance enhancement of a chemical reactor utilizing flow instability. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2003</b> , 78, 314-320	3.5	5
31	A microsieve-based filtration process for combined sewer overflow treatment with nutrient control: Modeling and experimental studies. <i>Water Research</i> , <b>2020</b> , 170, 115328	12.5	5
30	Removal of As(V) using low cost adsorbents: aerocrete and vermiculite modified with iron oxy-hydroxide. <i>Adsorption</i> , <b>2020</b> , 26, 387-396	2.6	4
29	Response surface optimization of the photocatalytic degradation of atenolol using immobilized graphene-TiO <sub>2</sub> composite. <i>Canadian Journal of Chemical Engineering</i> , <b>2020</b> , 98, 1767-1775	2.3	4
28	Oxidative protein refolding on size exclusion chromatography at high loading concentrations: fundamental studies and mathematical modeling. <i>Journal of Chromatography A</i> , <b>2014</b> , 1370, 147-55	4.5	4
27	Photocatalytic Processes for the Removal of Dye <b>2015</b> , 119-137		4
26	Oxidative protein refolding on size exclusion chromatography: From batch single-column to multi-column counter-current continuous processing. <i>Chemical Engineering Science</i> , <b>2015</b> , 138, 375-384	4.4	4
25	A Review on Ferrate(VI) and Photocatalysis as Oxidation Processes for the Removal of Organic Pollutants in Water and Wastewater <b>2017</b> , 331-390		3
24	Enantioseparation of racemic mandelic acid by simulated moving bed chromatography using Chiralcel-OD column. <i>Canadian Journal of Chemical Engineering</i> , <b>2014</b> , 92, 1283-1292	2.3	3
23	An innovative approach to synthesize highly-ordered TiO <sub>2</sub> nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 1079-83	1.3	3
22	Photocatalytic Activity of Aeroxide TiO <sub>2</sub> Sensitized by Natural Dye Extracted from Mangosteen Peel. <i>Catalysts</i> , <b>2020</b> , 10, 917	4	3

21	Study of aluminium in groundwater using chemometric methods. <i>Environmental Technology (United Kingdom)</i> , <b>2020</b> , 41, 1691-1699	2.6	3
20	Conceptual Approach in Multi-Objective Optimization of Packed Bed Membrane Reactor for Ethylene Epoxidation Using Real-coded Non-Dominating Sorting Genetic Algorithm NSGA-II. <i>International Journal of Chemical Reactor Engineering</i> , <b>2017</b> , 15,	1.2	2
19	Computational studies of 4-nitrophenyl- and 2-benzothiazolyl-substituted formazans and tetrazolium salts. <i>Chemical Physics</i> , <b>2020</b> , 535, 110790	2.3	2
18	Performance Improvement and Dynamical Behaviour Analysis of a Cascade of Two CSTRs. <i>International Journal of Chemical Reactor Engineering</i> , <b>2007</b> , 5,	1.2	2
17	Optimization of Styrene Reactor Design for Two Objectives using a Genetic Algorithm. <i>International Journal of Chemical Reactor Engineering</i> , <b>2003</b> , 1,	1.2	2
16	Performance improvement of a chemical reactor by non-linear natural oscillations. <i>The Chemical Engineering Journal and the Biochemical Engineering Journal</i> , <b>1995</b> , 59, 169-175		2
15	Removal of aluminum from alkaline aqueous solution by adsorption on Degussa P25 TiO <sub>2</sub> and vermiculite concrete-supported ferric oxyhydroxide. <i>Canadian Journal of Chemical Engineering</i> , <b>2020</b> , 98, 373-383	2.3	2
14	Photocatalytic Degradation of Diazo Dye over Suspended and Immobilized TiO <sub>2</sub> Catalyst in Swirl Flow Reactor: Kinetic Modeling. <i>Processes</i> , <b>2021</b> , 9, 1741	2.9	2
13	Performance Enhancement of Photocatalytic Reactor Utilizing Flow Instability. <i>International Journal of Chemical Reactor Engineering</i> , <b>2003</b> , 1,	1.2	1
12	Combined sewer overflow treatment: Assessing chemical pre-treatment and microsieve-based filtration in enhancing the performance of UV disinfection. <i>Science of the Total Environment</i> , <b>2022</b> , 807, 150725	10.2	1
11	Impact of operating conditions on chromatographic column performance: experimental studies on adsorption of high-value minor whey proteins. <i>AIMS Bioengineering</i> , <b>2017</b> , 4, 223-238	3.4	1
10	Modeling of Degradation of Diazo Dye in Swirl-Flow Photocatalytic Reactor: Response Surface Approach. <i>Catalysts</i> , <b>2020</b> , 10, 1418	4	1
9	Statistical study of Khibiny Alkaline Massif (Kola Peninsula) groundwater quality with respect to elevated aluminum concentrations. <i>Environmental Technology (United Kingdom)</i> , <b>2021</b> , 1-9	2.6	1
8	Multi-Objective Optimizations of Non-Isothermal Simulated Moving Bed Reactor: Parametric Analyses. <i>Processes</i> , <b>2021</b> , 9, 360	2.9	1
7	Multi-Objective Optimisation of Biodiesel Synthesis in Simulated Moving Bed Reactor. <i>Separations</i> , <b>2021</b> , 8, 127	3.1	1
6	Quantifying ultraviolet inactivation kinetics in nearly opaque fluids. <i>Water Quality Research Journal of Canada</i> , <b>2015</b> , 50, 34-46	1.7	0
5	4. Application of multi-objective optimization in the design and operation of industrial catalytic reactors and processes <b>2015</b> , 134-173		
4	Application of multi-objective optimization in the design of SMB in chemical process industry. <i>Computer Aided Chemical Engineering</i> , <b>2003</b> , 15, 1118-1122	0.6	

- 3 Application of multiobjective optimization in the design of chiral drug separators based on SMB technology. *Computer Aided Chemical Engineering*, **2003**, 14, 1145-1150 0.6
- 2 Modeling of the sheet-molding process for poly(methyl methacrylate). *Journal of Applied Polymer Science*, **2001**, 82, 783-783 2.9
- 1 Design and development of two large-scale photocatalytic reactors for treatment of toxic organic chemicals in wastewater **2000**, 155-171