Jyeshtharaj Joshi

List of Publications by Citations

524 papers	15,353 citations	58 h-index	95 g-index
542 ext. papers	16,882 ext. citations	4.6 avg, IF	6.83 L-index

#	Paper	IF	Citations
524	Wet Air Oxidation. *Industrial & Engineering Chemistry Research*, **1995**, 34, 2-48	3.9	638
523	Bubble Formation and Bubble Rise Velocity in Gas–liquid Systems: A Review. *Industrial & Engineering Chemistry Research*, **2005**, 44, 5873-5931	3.9	485
522	Catalytic carbon dioxide hydrogenation to methanol: A review of recent studies. *Chemical Engineering Research and Design*, **2014**, 92, 2557-2567	5.5	381
521	Computational flow modelling and design of bubble column reactors. *Chemical Engineering Science*, **2001**, 56, 5893-5933	4.4	312
520	CFD simulation of bubble column—An analysis of interphase forces and turbulence models. *Chemical Engineering Journal*, **2008**, 139, 589-614	14.7	251
519	Effect of impeller design on the flow pattern and mixing in stirred tanks. *Chemical Engineering Journal*, **2006**, 115, 173-193	14.7	207
518	Mechanically agitated gas-liquid reactors. *Chemical Engineering Science*, **1982**, 37, 813-844	4.4	206
517	Kinetics of wet air oxidation of phenol and substituted phenols. *Water Research*, **1991**, 25, 135-145	12.5	162
516	Assessment of standard . *Chemical Engineering Science*, **2008**, 63, 5468-5495	4.4	157
515	CFD simulation of bubble columns incorporating population balance modeling. *Chemical Engineering Science*, **2008**, 63, 2267-2282	4.4	155
514	Sparged loop reactors. *Canadian Journal of Chemical Engineering*, **1990**, 68, 705-741	2.3	138
513	Lipase-Catalyzed Esterification. *Catalysis Reviews - Science and Engineering*, **2000**, 42, 439-480	12.6	133
512	CFD simulations of gas–liquid–solid stirred reactor: Prediction of critical impeller speed for solid suspension. *Chemical Engineering Science*, **2007**, 62, 7184-7195	4.4	129
511	Mixing in mechanically agitated gas-liquid contactors, bubble columns and modified bubble columns. *Chemical Engineering Science*, **1983**, 38, 1189-1215	4.4	128
510	CFD simulation of stirred tanks: Comparison of turbulence models. Part I: Radial flow impellers. *Canadian Journal of Chemical Engineering*, **2011**, 89, 23-82	2.3	117
509	Petroleum Residue Upgrading Via Delayed Coking: A Review. *Canadian Journal of Chemical Engineering*, **2007**, 85, 1-24	2.3	116
508	Petroleum Residue Upgradation via Visbreaking: A Review. *Industrial & Engineering Chemistry Research*, **2008**, 47, 8960-8988	3.9	114

507	Critical impeller speed for solid suspension in mechanically agitated contactors. *AICHE Journal*, **1988**, 34, 1332-1340	3.6	111
506	FLOW GENERATED BY PITCHED BLADE TURBINES I: MEASUREMENTS USING LASER DOPPLER ANEMOMETER. *Chemical Engineering Communications*, **1989**, 81, 197-224	2.2	110
505	Liquid-Phase Mixing in Stirred Vessels:Turbulent Flow Regime. *Industrial & Engineering Chemistry Research*, **2003**, 42, 2661-2698	3.9	99
504	CFD simulations of bubble column reactors: 1D, 2D and 3D approach. *Chemical Engineering Science*, **2005**, 60, 6733-6746	4.4	99
503	INVITED REVIEW ABSORPTION OF NOX GASES. *Chemical Engineering Communications*, **1985**, 33, 1-92	2.2	99
502	Characterization of flow phenomena induced by ultrasonic horn. *Chemical Engineering Science*, **2006**, 61, 7410-7420	4.4	97
501	Coherent flow structures in bubble column reactors. *Chemical Engineering Science*, **2002**, 57, 3157-3183	4.4	96
500	FLOW GENERATED BY PITCHED BLADE TURBINES II: SIMULATION USING MODEL. *Chemical Engineering Communications*, **1989**, 81, 225-248	2.2	95
499	Critical impeller speed for solid suspension in mechanically agitated three-phase reactors. 1. Experimental part. *Industrial & Engineering Chemistry Research*, **1991**, 30, 1770-1784	3.9	93
498	Behaviour of solid particles in viscous non-newtonian solutions: Settling velocity, wall effects and bed expansion in solid-liquid fluidized beds. *Powder Technology*, **1989**, 57, 39-50	5.2	91
497	hydrolysis of fatty oils: effect of cavitation. *Chemical Engineering Science*, **1993**, 48, 3440-3442	4.4	90
496	CFD modelling and mixing in stirred tanks. *Chemical Engineering Science*, **1999**, 54, 2285-2293	4.4	89
495	Computational Fluid Dynamics for Designing Process Equipment:Expectations, Current Status, and Path Forward. *Industrial & Engineering Chemistry Research*, **2003**, 42, 1115-1128	3.9	88
494	Relation between Flow Pattern and Blending in Stirred Tanks. *Industrial & Engineering Chemistry Research*, **1999**, 38, 3131-3143	3.9	88
493	Fluid mechanics and blending in agitated tanks. *Chemical Engineering Science*, **1991**, 46, 1883-1893	4.4	88
492	CFD analysis of flow pattern and heat transfer in direct contact steam condensation. *Chemical Engineering Science*, **2006**, 61, 5204-5220	4.4	87
491	Regime transition in bubble columns: experimental and predictions. *Experimental Thermal and Fluid Science*, **2004**, 28, 423-430	3	87
490	Fluidized bed synthesis of carbon nanotubes A review. *Chemical Engineering Journal*, **2011**, 171, 841-869	14.7	86

489	Sorption and permeation of binary water-alcohol systems through PVA membranes crosslinked with multifunctional crosslinking agents. *Separation and Purification Technology*, **1997**, 12, 145-156	8.3	86
488	Effect of Sparger Design and Height to Diameter Ratio on Fractional Gas Hold-up in Bubble Columns. *Chemical Engineering Research and Design*, **1998**, 76, 823-834	5.5	84
487	Droplet impact dynamics on a spherical particle. *Chemical Engineering Science*, **2013**, 100, 105-119	4.4	83
486	A review of the mechanisms and models of bubble-particle detachment in froth flotation. *Separation and Purification Technology*, **2016**, 170, 155-172	8.3	77
485	Petroleum coke gasification: A review. *Canadian Journal of Chemical Engineering*, **2014**, 92, 441-468	2.3	76
484	CFD simulation of stirred tanks: Comparison of turbulence models (Part II: Axial flow impellers, multiple impellers and multiphase dispersions). *Canadian Journal of Chemical Engineering*, **2011**, 89, 754-816	2.3	75
483	Advanced PIV/LIF and shadowgraphy system to visualize flow structure in two-phase bubbly flows. *Chemical Engineering Science*, **2010**, 65, 2431-2442	4.4	72
482	Development of New Synthetic Membranes for Separation of Benzene□Cyclohexane Mixtures by Pervaporation: A Solubility Parameter Approach. *Industrial & Engineering Chemistry Research*, **1997**, 36, 5265-5276	3.9	72
481	Studies on the lipozyme-catalyzed synthesis of butyl laurate. *Biotechnology and Bioengineering*, **1995**, 46, 1-12	4.9	72
480	CFD modeling of solid□liquid fluidized beds of mono and binary particle mixtures. *Chemical Engineering Science*, **2009**, 64, 3641-3658	4.4	71
479	Application of multiresolution analysis for simultaneous measurement of gas and liquid velocities and fractional gas hold-up in bubble column using LDA. *Chemical Engineering Science*, **2001**, 56, 5037-5048	4.4	70
478	Cellulase deactivation in a stirred reactor. *Biochemical Engineering Journal*, **2000**, 4, 137-141	4.2	70
477	Annular Centrifugal Contactors□A Review. *Chemical Engineering Research and Design*, **2006**, 84, 522-542	5.5	68
476	Dehydration of acetic acid by pervaporation. *Journal of Membrane Science*, **1998**, 138, 1-17	9.6	67
475	Three Phase Sparged Reactors □Some Design Aspects. *Reviews in Chemical Engineering*, **1984**, 2, 1-84	5	67
474	Mass transfer and hydrodynamic characteristics of gas inducing type of agitated contactors. *Canadian Journal of Chemical Engineering*, **1977**, 55, 683-695	2.3	66
473	Analysis of flow through an orifice meter: CFD simulation. *Chemical Engineering Science*, **2012**, 71, 300-309	4.4	63
472	On the development of flow pattern in a bubble column reactor: Experiments and CFD. *Chemical Engineering Science*, **2007**, 62, 1049-1072	4.4	62

471	CFD simulation of bubble column reactors: importance of drag force formulation. *Chemical Engineering Science*, **1999**, 54, 5055-5060	4.4	62
470	Shear deactivation of cellulase, exoglucanase, endoglucanase, and beta-glucosidase in a mechanically agitated reactor. *Biotechnology Progress*, **2001**, 17, 1166-8	2.8	61
469	Design of a gas distributor: Three-dimensional CFD simulation of a coupled system consisting of a gas chamber and a bubble column. *Chemical Engineering Journal*, **2007**, 125, 149-163	14.7	60
468	Criteria for the transition from the homogeneous to the heterogeneous regime in two-dimensional bubble column reactors. *International Journal of Multiphase Flow*, **1992**, 18, 705-726	3.6	60
467	CFD simulations of a bubble column with and without internals by using OpenFOAM. *Chemical Engineering Journal*, **2017**, 317, 157-174	14.7	58
466	Pervaporative Dehydration of Organic Solvents. *Separation Science and Technology*, **1997**, 32, 1335-1349	2.5	58
465	Investigation of flow and temperature patterns in direct contact condensation using PIV, PLIF and CFD. *Chemical Engineering Science*, **2010**, 65, 4606-4620	4.4	57
464	Comparison of axial flow impellers using a laser Doppler anemometer. *Industrial & Engineering Chemistry Research*, **1992**, 31, 2370-2379	3.9	57
463	Role of hydrodynamic shear in the cultivation of animal, plant and microbial cells. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1996**, 62, 121-141		56
462	Regeneration of spent activated carbon by wet air oxidation. *Canadian Journal of Chemical Engineering*, **1991**, 69, 1149-1159	2.3	56
461	HEAT TRANSFER IN MULTIPHASE CONTACTORS. *Chemical Engineering Communications*, **1980**, 6, 257-271	2.2	56
460	Use of Hydrodynamic Cavitation for Large Scale Microbial Cell Disruption. *Food and Bioproducts Processing*, **1997**, 75, 41-49	4.9	55
459	Kinetics of reactions between carbon dioxide and alkanolamines. *Separation and Purification Technology*, **1988**, 2, 50-64		55
458	A review of CFD modelling studies on the flotation process. *Minerals Engineering*, **2018**, 127, 153-177	4.9	54
457	Design of Gas-Inducing Reactors. *Industrial & Engineering Chemistry Research*, **1999**, 38, 49-80	3.9	54
456	Microbial cell disruption: role of cavitation. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1994**, 55, B67-B72		54
455	CFD Simulation of Bubble Column Reactor Using Population Balance. *Industrial & Engineering Chemistry Research*, **2008**, 47, 8505-8516	3.9	53
454	CFD modeling of pressure drop and drag coefficient in fixed and expanded beds. *Chemical Engineering Research and Design*, **2008**, 86, 444-453	5.5	53

453	INVITED REVIEW HYDRODYNAMIC AND MIXING MODELS FOR BUBBLE COLUMN REACTORS. *Chemical Engineering Communications*, **1981**, 11, 165-199	2.2	53
452	High Performance Fibers from Carbon Nanotubes: Synthesis, Characterization, and Applications in Composites A Review. *Industrial & Engineering Chemistry Research*, **2017**, 56, 12407-12437	3.9	52
451	Analysis of flow pattern and heat transfer in direct contact condensation. *Chemical Engineering Science*, **2009**, 64, 1719-1738	4.4	52
450	Two-Dimensional CFD Model for the Prediction of Flow Pattern, Pressure Drop and Heat Transfer Coefficient in Bubble Column Reactors. *Chemical Engineering Research and Design*, **2004**, 82, 689-707	5.5	52
449	Measurement of Gas Hold-Up Profiles by Gamma Ray Tomography. *Chemical Engineering Research and Design*, **1999**, 77, 303-317	5.5	52
448	CFD simulations of shell-side flow in a shell-and-tube type heat exchanger with and without baffles. *Chemical Engineering Science*, **2016**, 143, 314-340	4.4	51
447	Dynamics of Flow Structures and Transport Phenomena, 1. Experimental and Numerical Techniques for Identification and Energy Content of Flow Structures. *Industrial & Engineering Chemistry Research*, **2009**, 48, 8244-8284	3.9	51
446	Specificity of a Lipase in Ester Synthesis: Effect of Alcohol. *Biotechnology Progress*, **1995**, 11, 282-287	2.8	51
445	Solar thermal technologies as a bridge from fossil fuels to renewables. *Nature Climate Change*, **2015**, 5, 1007-1013	21.4	49
444	Comparative evaluation of hydrogen storage behavior of Pd doped carbon nanotubes prepared by wet impregnation and polyol methods. *International Journal of Hydrogen Energy*, **2015**, 40, 3268-3276	6.7	49
443	CFD simulation of sparger design and height to diameter ratio on gas hold-up profiles in bubble column reactors. *Experimental Thermal and Fluid Science*, **2004**, 28, 407-421	3	49
442	Liquid phase backmixing in sparged contactors. *Canadian Journal of Chemical Engineering*, **1978**, 56, 116-119	1.3	49
441	Submerged Gas Jet into a Liquid Bath: A Review. *Industrial & Engineering Chemistry Research*, **2007**, 46, 3188-3218	3.9	48
440	LIQUID PHASE MIXING IN MECHANICALLY AGITATED VESSELS. *Chemical Engineering Communications*, **1988**, 74, 1-25	2.2	48
439	Analysis of dominant flow structures and their flow dynamics in chemical process equipment using snapshot proper orthogonal decomposition technique. *Chemical Engineering Science*, **2008**, 63, 3695-3715	4.4	47
438	Kinetics of Oxidation of Benzyl Alcohol with Dilute Nitric Acid. *Industrial & Engineering Chemistry Research*, **2005**, 44, 325-333	3.9	47
437	Hydrodynamic stability of multiphase reactors. *Advances in Chemical Engineering*, **2001**, 1-130	0.6	47
436	Effect of fine particles on gas hold-up in three-phase sparged reactors. *The Chemical Engineering Journal*, **1990**, 44, 11-25		45

435	CFD modeling of pressure drop and drag coefficient in fixed beds: Wall effects. *Particuology*, **2010**, 8, 37-43	2.8	44
434	Insight into Theories of Heat and Mass Transfer at the Solid–Fluid Interface Using Direct Numerical Simulation and Large Eddy Simulation. *Industrial & Engineering Chemistry Research*, **2007**, 46, 8525-8537	3.9	42
433	Gas hold-up behavior of mechanically agitated gas-liquid reactors using pitched blade downflow turbines. *Canadian Journal of Chemical Engineering*, **1993**, 71, 226-237	2.3	42
432	Development and validation of a new drag law using mechanical energy balance approach for DEM–CFD simulation of gas–solid fluidized bed. *Chemical Engineering Journal*, **2016**, 302, 395-405	14.7	41
431	Performance analysis of a novel and cost effective CPC system. *Energy Conversion and Management*, **2013**, 66, 56-65	10.6	41
430	Sorption and permeation of acetic acid through zeolite filled membrane. *Journal of Membrane Science*, **1995**, 107, 23-33	9.6	41
429	Hydrodynamics and mixing in highly viscous pseudo-plastic non-newtonian solutions in bubble columns. *Chemical Engineering Science*, **1986**, 41, 2321-2331	4.4	41
428	Pressure and flow distribution in pipe and ring spargers: Experimental measurements and CFD simulation. *Chemical Engineering Journal*, **2007**, 133, 173-186	14.7	40
427	Modeling and simulation of NOX absorption in pilot-scale packed columns. *AICHE Journal*, **1991**, 37, 323-339	3.8	40
426	Cost effective design of compound parabolic collector for steam generation. *Solar Energy*, **2013**, 90, 43-50	3.8	39
425	CFD simulation for steam distribution in header and tube assemblies. *Chemical Engineering Research and Design*, **2012**, 90, 487-506	5.5	39
424	Large Eddy Simulation for Dispersed Bubbly Flows: A Review. *International Journal of Chemical Engineering*, **2013**, 2013, 1-22	2.2	39
423	Residence Time Distribution and Flow Patterns in the Single-Phase Annular Region of Annular Centrifugal Extractor. *Industrial & Engineering Chemistry Research*, **2009**, 48, 37-46	3.9	39
422	CFD Simulation of Flow and Axial Dispersion in External Loop Airlift Reactor. *Chemical Engineering Research and Design*, **2006**, 84, 677-690	5.5	39
421	Kinetic Studies of Low Severity Visbreaking. *Industrial & Engineering Chemistry Research*, **2004**, 43, 1373-1387	3.9	39
420	Enzyme and protein mass transfer coefficient in aqueous two-phase systems— Spray extraction columns. *Chemical Engineering Science*, **1992**, 47, 57-68	4.4	39
419	EFFECT OF IMPELLER DESIGN ON LIQUID PHASE MIXING IN MECHANICALLY AGITATED REACTORS. *Chemical Engineering Communications*, **1991**, 102, 1-33	2.2	39
418	Segregation and dispersion of binary solids in liquid fluidised beds: A CFD-DEM study. *Chemical Engineering Science*, **2016**, 152, 65-83	4.4	39

417	Void fraction, bubble size and interfacial area measurements in co-current downflow bubble column reactor with microbubble dispersion. *Chemical Engineering Science*, **2017**, 168, 403-413	4.4	38
416	3D CFD simulations of air cooled condenser-III: Thermal–hydraulic characteristics and design optimization under forced convection conditions. *International Journal of Heat and Mass Transfer*, **2016**, 93, 1227-1247	4.9	38
415	Dispersed phase hold-up, effective interfacial area and Sauter mean drop diameter in annular centrifugal extractors. *Chemical Engineering Research and Design*, **2009**, 87, 1379-1389	5.5	38
414	Hollow self-inducing impellers: Flow visualization and CFD simulation. *Chemical Engineering Science*, **2007**, 62, 3839-3848	4.4	38
413	CFD modeling of heat transfer in turbulent pipe flows. *AICHE Journal*, **2000**, 46, 1798-1812	3.6	38
412	CFD simulation of heat transfer in a two-dimensional vertical enclosure. *Chemical Engineering Research and Design*, **2009**, 87, 711-727	5.5	37
411	Studies in Coking of Arabian Mix Vacuum Residue. *Chemical Engineering Research and Design*, **2007**, 85, 481-491	5.5	37
410	Axial mixing in laminar pipe flows. *Chemical Engineering Science*, **2004**, 59, 3929-3944	4.4	37
409	Effect of flow pattern on cellulase deactivation in stirred tank bioreactors. *Chemical Engineering Science*, **2005**, 60, 1067-1083	4.4	37
408	POWER CONSUMPTION IN MECHANICALLY AGITATED CONTACTORS USING PITCHED BLADED TURBINE IMPELLERS. *Chemical Engineering Communications*, **1990**, 88, 69-90	2.2	37
407	Computational Modeling of Multiphase Reactors. *Annual Review of Chemical and Biomolecular Engineering*, **2015**, 6, 347-78	8.9	36
406	Kinetics of cooking of rice: A review. *Journal of Food Engineering*, **2014**, 123, 113-129	6	36
405	Design and selection of sparger for bubble column reactor. Part I: Performance of different spargers. *Chemical Engineering Research and Design*, **2011**, 89, 1972-1972	5.5	36
404	Computational Flow Modeling and Visualization in the Annular Region of Annular Centrifugal Extractor. *Industrial & Engineering Chemistry Research*, **2007**, 46, 8343-8354	3.9	36
403	Development of support vector regression (SVR)-based correlation for prediction of overall gas hold-up in bubble column reactors for various gas–liquid systems. *Chemical Engineering Science*, **2007**, 62, 7078-7089	4.4	36
402	Identification and characterization of flow structures in chemical process equipment using multiresolution techniques. *Chemical Engineering Science*, **2008**, 63, 5330-5346	4.4	36
401	Hydrodynamic and mass transfer characteristics of annular centrifugal extractors. *Chemical Engineering Research and Design*, **2008**, 86, 233-244	5.5	36
400	Unified model for NOX absorption in aqueous alkaline and dilute acidic solutions. *AICHE Journal*, **2003**, 49, 2728-2748	3.6	36

399	Simulation of Flow in Stirred Vessel with Axial Flow Impeller: Zonal Modeling and Optimization of Parameters. *Industrial & Engineering Chemistry Research*, **1998**, 37, 2116-2130	3.9	36
398	Gas Inducing Type Mechanically Agitated Contactors. *Industrial & Engineering Chemistry Research*, **1994**, 33, 2226-2241	3.9	36
397	On wetting characteristics of droplet on a spherical particle in film boiling regime. *Chemical Engineering Science*, **2016**, 149, 181-203	4.4	36
396	Comparative analysis of liquid hydrodynamics in a co-current flow-through bubble column with densely packed internals via radiotracing and Radioactive Particle Tracking (RPT). *Chemical Engineering Science*, **2017**, 170, 332-346	4.4	35
395	A comparison of thermal-hydraulic performance of various fin patterns using 3D CFD simulations. *International Journal of Heat and Mass Transfer*, **2017**, 109, 336-356	4.9	35
394	Computational fluid dynamic modelling of FCC riser: A review. *Chemical Engineering Research and Design*, **2016**, 111, 403-448	5.5	35
393	Liquid phase axial mixing in solid–liquid circulating multistage fluidized bed: CFD modeling and RTD measurements. *Chemical Engineering Journal*, **2012**, 191, 475-490	14.7	35
392	Axial mixing in pipe flows: turbulent and transition regions. *Chemical Engineering Science*, **2003**, 58, 2715-2724	4.4	35
391	Simulation of Flow in Stirred Vessels with Axial Flow Impellers: Effects of Various Numerical Schemes and Turbulence Model Parameters. *Industrial & Engineering Chemistry Research*, **1995**, 34, 626-639	3.9	35
390	Turbulent shear stress effect on mammalian cell culture and measurement using laser Doppler anemometer. *Chemical Engineering Science*, **1995**, 50, 2431-2440	4.4	35
389	Experimental study on bubble departure characteristics in subcooled nucleate pool boiling. *International Journal of Multiphase Flow*, **2017**, 89, 163-176	3.6	34
388	Two phase natural convection: CFD simulations and PIV measurement. *Chemical Engineering Science* , **2011**, 66, 3152-3171	4.4	34
387	Hollow self-inducing impellers for gas–liquid–solid dispersion: Experimental and computational study. *Chemical Engineering Journal*, **2008**, 141, 332-345	14.7	34
386	Critical impeller speed for the onset of gas induction in gas-inducing types of agitated contactors. *The Chemical Engineering Journal*, **1979**, 18, 87-91		34
385	Effect of Internals on the Flow Pattern and Mixing in Stirred Tanks. *Industrial & Engineering Chemistry Research*, **2005**, 44, 9951-9961	3.9	33
384	Role of hydrodynamic shear on activity and structure of proteins. *Advances in Biochemical Engineering/Biotechnology*, **1998**, 59, 47-71	1.7	33
383	Bubble generated turbulence and direct numerical simulations. *Chemical Engineering Science*, **2017**, 157, 26-75	4.4	32
382	Comparison of turbulence models for bubble column reactors. *Chemical Engineering Science*, **2017**, 164, 34-52	4.4	32

381	Some industrial applications of gamma-ray tomography. *Journal of the Taiwan Institute of Chemical Engineers*, **2009**, 40, 602-612	5.3	32
380	Dehydration of ethylene glycol by pervaporation using hydrophilic IPNs of PVA, PAA and PAAM membranes. *Separation and Purification Technology*, **1998**, 13, 47-56	8.3	32
379	Determination of bubble size distributions in bubble columns using LDA. *AICHE Journal*, **2004**, 50, 3068-3084	3.8	32
378	Rice bran lipase: extraction, activity, and stability. *Biotechnology Progress*, **1999**, 15, 1083-9	2.8	32
377	Gas phase dispersion in bubble columns. *The Chemical Engineering Journal*, **1982**, 24, 213-216		32
376	Interaction of bubbles rising inline in quiescent liquid. *Chemical Engineering Science*, **2017**, 166, 1-10	4.4	31
375	Collision behaviour of a smaller particle into a larger stationary droplet. *Advanced Powder Technology*, **2015**, 26, 280-295	4.6	31
374	Dynamics of Flow Structures and Transport Phenomena, 2. Relationship with Design Objectives and Design Optimization. *Industrial & Engineering Chemistry Research*, **2009**, 48, 8285-8311	3.9	31
373	Flow Visualization and Three-Dimensional CFD Simulation of the Annular Region of an Annular Centrifugal Extractor. *Industrial & Engineering Chemistry Research*, **2008**, 47, 3677-3686	3.9	31
372	Measurement of Gas Hold-up Profiles in Bubble Column by Gamma Ray Tomography. *Chemical Engineering Research and Design*, **2000**, 78, 425-434	5.5	31
371	Optimum gas sparger design for bubble columns with a low height-to-diameter ratio. *The Chemical Engineering Journal*, **1986**, 33, 63-69		31
370	Inclined solar chimney for power production. *Energy Conversion and Management*, **2011**, 52, 3096-3102	10.6	30
369	Computational Fluid Dynamics Simulation and Experimental Investigation: Study of Two-Phase Liquid□liquid Flow in a Vertical Taylor□Couette Contactor. *Industrial & Engineering Chemistry Research*, **2010**, 49, 14-28	3.9	30
368	Hydrodynamic and mass transfer characteristics of asymmetric rotating disc extractors. *Chemical Engineering Research and Design*, **2009**, 87, 756-769	5.5	30
367	Estimation of heat transfer coefficient in bubble column reactors using support vector regression. *Chemical Engineering Journal*, **2010**, 160, 302-310	14.7	30
366	Stability analysis of bubble columns: Predictions for regime transition. *Chemical Engineering Science* , **2005**, 60, 4493-4507	4.4	30
365	Gas hold-up profiles in foaming liquids in bubble columns. *Chemical Engineering Journal*, **2001**, 84, 247-256	14.7	30
364	Simultaneous measurement of hold-up profiles and interfacial area using LDA in bubble columns: predictions by multiresolution analysis and comparison with experiments. *Chemical Engineering Science*, **2001**, 56, 6437-6445	4.4	30

363	Methanol selective membranes for separation of methanol–ethylene glycol mixtures by pervaporation. *Journal of Membrane Science*, **1999**, 154, 1-13	9.6	30
362	Stability analysis in solid–liquid fluidized beds: Experimental and computational. *Chemical Engineering Journal*, **2014**, 256, 169-186	14.7	29
361	Computational and experimental fluid dynamics of jet loop reactor. *AICHE Journal*, **2009**, 55, 2526-2544	3.6	29
360	Laser Doppler Anemometer Measurements in Bubble Column: Effect of Sparger. *Industrial & Engineering Chemistry Research*, **2006**, 45, 9201-9207	3.9	29
359	Gas-Inducing-Type Mechanically Agitated Contactors: Hydrodynamic Characteristics of Multiple Impellers. *Industrial & Engineering Chemistry Research*, **1995**, 34, 2499-2514	3.9	29
358	Hydrodynamics and mass transfer in two-phase aqueous extraction using spray columns. *Biotechnology and Bioengineering*, **1990**, 36, 109-15	4.9	29
357	Nature of the Pd–CNT interaction in Pd nanoparticles dispersed on multi-walled carbon nanotubes and its implications in hydrogen storage properties. *RSC Advances*, **2015**, 5, 41468-41474	3.7	28
356	Forces acting on a single introduced particle in a solid–liquid fluidised bed. *Chemical Engineering Science*, **2014**, 116, 49-70	4.4	28
355	MODIFICATIONS IN THE DESIGN OF GAS INDUCING IMPELLER. *Chemical Engineering Communications*, **1980**, 5, 109-114	2.2	28
354	Spatially resolved mass transfer coefficient for moderate Reynolds number flows in packed beds: Wall effects. *International Journal of Heat and Mass Transfer*, **2017**, 110, 406-415	4.9	27
353	Direct numerical simulation study of end effects and D/d ratio on mass transfer in packed beds. *International Journal of Heat and Mass Transfer*, **2018**, 127, 234-244	4.9	27
352	Comparison of k–RSM and LES models for the prediction of flow pattern in jet loop reactor. *Chemical Engineering Science*, **2015**, 127, 323-333	4.4	27
351	Optimization of non-evacuated receiver of solar collector having non-uniform temperature distribution for minimum heat loss. *Energy Conversion and Management*, **2014**, 85, 70-84	10.6	27
350	Adsorption equilibrium data for substituted phenols on activated carbon. *Journal of Chemical & Engineering Data*, **1992**, 37, 175-179	2.8	27
349	Role of sparger design on gas dispersion in mechanically agitated gas-liquid contactors. *Canadian Journal of Chemical Engineering*, **1993**, 71, 278-291	2.3	27
348	Kinetics of Oxydesulfurization of Upper Freeport Coal. *Industrial & Engineering Chemistry Process Design and Development*, **1980**, 19, 294-300		27
347	Comparison of void fraction measurements using different techniques in two-phase flow bubble column reactors. *International Journal of Multiphase Flow*, **2018**, 102, 119-129	3.6	26
346	Bubbles in viscous liquids: Time dependent behaviour and wake characteristics. *Chemical Engineering Science*, **2016**, 144, 298-309	4.4	26

345	Fluidized bed synthesis of carbon nanotubes: Reaction mechanism, rate controlling step and overall rate of reaction. *AICHE Journal*, **2014**, 60, 2882-2892	3.6	26
344	Characterization of turbulence in rectangular bubble column. *Chemical Engineering Science*, **2013**, 100, 52-68	4.4	26
343	Design of ring and spider type spargers for bubble column reactor: Experimental measurements and CFD simulation of flow and weeping. *Chemical Engineering Research and Design*, **2009**, 87, 1612-1630	5.5	26
342	Design of stirred vessels with gas entrained from free liquid surface. *Canadian Journal of Chemical Engineering*, **1998**, 76, 339-364	2.3	26
341	A low Reynolds number k□model for the prediction of flow pattern and pressure drop in bubble column reactors. *Chemical Engineering Science*, **2002**, 57, 3235-3250	4.4	26
340	CFD Simulation of Mixing and Dispersion in Bubble Columns. *Chemical Engineering Research and Design*, **2003**, 81, 987-1002	5.5	26
339	Investigation of hydrodynamics in bubble column with internals using radioactive particle tracking (RPT). *AICHE Journal*, **2017**, 63, 4881-4894	3.6	25
338	Effect of drag models on CFD□DEM predictions of bubbling fluidized beds with Geldart D particles. *Advanced Powder Technology*, **2018**, 29, 2658-2669	4.6	25
337	Study of crystallization and morphology of ammonium diuranate and uranium oxide. *Journal of Nuclear Materials*, **2012**, 424, 94-100	3.3	25
336	Purification of Lactic Acid via Esterification of Lactic Acid Using a Packed Column, Followed by Hydrolysis of Methyl Lactate Using Three Continuously Stirred Tank Reactors (CSTRs) in Series: A Continuous Pilot Plant Study. *Industrial & Engineering Chemistry Research*, **2012**, 51, 1506-1514	3.9	25
335	Optimisation of vertical axis wind turbine: CFD simulations and experimental measurements. *Canadian Journal of Chemical Engineering*, **2012**, 90, 1186-1201	2.3	25
334	Simultaneous measurement of flow pattern and mass transfer coefficient in bubble columns. *Chemical Engineering Science*, **2004**, 59, 271-281	4.4	25
333	IMPROVEMENTS IN GAS INDUCING IMPELLER DESIGN. *Chemical Engineering Communications*, **1987**, 54, 241-264	2.2	25
332	Mass transfer and hydrodynamic characteristics of the Denver type of flotation cells. *The Chemical Engineering Journal*, **1981**, 21, 11-19		25
331	Mass-Transfer Characteristics of Surface Aerators and Gas-Inducing Impellers. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2765-2774	3.9	24
330	The role of convection and turbulent dispersion in blending. *Chemical Engineering Science*, **2003**, 58, 2951-2962	4.4	24
329	Wavelet transform of velocity-time data for the analysis of turbulent structures in a bubble column. *Chemical Engineering Science*, **2001**, 56, 5305-5315	4.4	24
328	Enzyme and protein mass transfer coefficient in aqueous two-phase systems□. York-Scheibel extraction column. *Chemical Engineering Science*, **1992**, 47, 69-73	4.4	24

327	Critical impeller speed for solid suspension in mechanically agitated three-phase reactors. 2. Mathematical model. *Industrial & Engineering Chemistry Research*, **1991**, 30, 1784-1791	3.9	24
326	Liquid-phase mixing and power consumption in mechanically agitated solid–liquid contactors. *The Chemical Engineering Journal*, **1988**, 39, 111-124		24
325	3D CFD simulations of air cooled condenser-II: Natural draft around a single finned tube kept in a small chimney. *International Journal of Heat and Mass Transfer*, **2016**, 92, 507-522	4.9	23
324	Recent developments in experimental (PIV) and numerical (DNS) investigation of solid–liquid fluidized beds. *Chemical Engineering Science*, **2013**, 92, 1-12	4.4	23
323	CFD Simulation of RTD and Mixing in the Annular Region of a Taylor–Couette Contactor. *Industrial & Engineering Chemistry Research*, **2006**, 45, 6360-6367	3.9	23
322	PRESSURE DROP IN FIXED, EXPANDED AND FLUIDIZED BEDS, PACKED COLUMNS AND STATIC MIXERS - A UNIFIED APPROACH. *Reviews in Chemical Engineering*, **1998**, 14,	5	23
321	Optimization of impeller design for gas inducing type mechanically agitated contactors. *Canadian Journal of Chemical Engineering*, **1995**, 73, 161-172	2.3	23
320	Simulation and optimization of NOx absorption system in nitric acid manufacture. *AICHE Journal*, **1994**, 40, 944-956	3.6	23
319	Role of sparger design in mechanically agitated gas-liquid reactors. Part I: Power consumption. *Chemical Engineering and Technology*, **1991**, 14, 333-347	2	23
318	3D CFD simulation of air cooled condenser-I: Natural convection over a circular cylinder. *International Journal of Heat and Mass Transfer*, **2014**, 78, 1265-1283	4.9	22
317	Kinetics of extraction of uranium from phosphoric acid by D2EHPA–TBP and D2EHPA–TOPO systems using constant interfacial area stirred cell. *Chemical Engineering Science*, **2014**, 110, 169-184	4.4	22
316	Reduction in thermal stratification in two phase natural convection in rectangular tanks: CFD simulations and PIV measurements. *Chemical Engineering Science*, **2013**, 100, 300-325	4.4	22
315	Power Consumption in Gas-Inducing-Type Mechanically Agitated Contactors. *Industrial & Engineering Chemistry Research*, **1996**, 35, 1583-1602	3.9	22
314	Fractional gas hold-up in gas inducing type of mechanically agitated contactors. *Canadian Journal of Chemical Engineering*, **1996**, 74, 16-30	2.3	22
313	Critical gas velocity for suspension of solid particles in three-phase bubble columns. *Industrial & Engineering Chemistry Research*, **1992**, 31, 1136-1147	3.9	22
312	Kinetic study of single-walled carbon nanotube synthesis by thermocatalytic decomposition of methane using floating catalyst chemical vapour deposition. *Chemical Engineering Science*, **2019**, 196, 91-103	4.4	22
311	Effect of in-situ boron doping on hydrogen adsorption properties of carbon nanotubes. *International Journal of Hydrogen Energy*, **2019**, 44, 18193-18204	6.7	21
310	Hydrodynamics and heat transfer characteristics of passive decay heat removal systems: CFD simulations and experimental measurements. *Chemical Engineering Science*, **2010**, 65, 3457-3473	4.4	21

309	Multicomponent gas absorption with multiple reactions: modelling and simulation of NOx absorption in nitric acid manufacture. *Chemical Engineering Science*, **1997**, 52, 4569-4591	4.4	21
308	Numerical predictions of flow patterns due to natural convection in a vertical slot. *Chemical Engineering Science*, **2007**, 62, 4479-4495	4.4	21
307	Local Gas Holdup Measurement in Sparged and Aerated Tanks by X-Ray Attenuation Technique. *Industrial & Engineering Chemistry Research*, **2004**, 43, 5389-5399	3.9	21
306	Effluent treatment for alcohol distillery: Thermal pretreatment with energy recovery. *Environmental Progress*, **1989**, 8, 245-252		21
305	Interactions in droplet and particle system of near unity size ratio. *Chemical Engineering Science*, **2017**, 170, 154-175	4.4	20
304	A discrete element method study of granular segregation in non-circular rotating drums. *Powder Technology*, **2015**, 283, 549-560	5.2	20
303	CFD Simulation of Annular Centrifugal Extractors. *International Journal of Chemical Engineering*, **2012**, 2012, 1-31	2.2	20
302	Critical impeller speed for solid suspension in gas inducing type mechanically agitated contactors. *Canadian Journal of Chemical Engineering*, **1997**, 75, 664-676	2.3	20
301	Liquid phase axial mixing in bubble columns operated at high pressures. *Chemical Engineering Science*, **2005**, 60, 3573-3586	4.4	20
300	Absorption of NOx gases in plate column: Selective manufacture of sodium nitrite. *Chemical Engineering Science*, **2000**, 55, 1269-1282	4.4	20
299	Absorption of NOx gases in aqueous NaOH solutions: Selectivity and optimization. *AICHE Journal*, **1999**, 45, 38-50	3.6	20
298	A review of granular flow in screw feeders and conveyors. *Powder Technology*, **2020**, 366, 369-381	5.2	19
297	Study of calcinations of ammonium diuranate at different temperatures. *Journal of Nuclear Materials*, **2012**, 426, 229-232	3.3	19
296	Effect of impeller design and power consumption on crystal size distribution. *AICHE Journal*, **2014**, 60, 3596-3613	3.6	19
295	Axial mixing in annular centrifugal extractors. *Chemical Engineering Journal*, **2012**, 207-208, 462-472	14.7	19
294	Solid–Liquid Circulating Multistage Fluidized Bed: Hydrodynamic Study. *Industrial & Engineering Chemistry Research*, **2009**, 48, 4592-4602	3.9	19
293	Analysis of Particle Segregation and Intermixing in Solid–Liquid Fluidized Beds. *Industrial & Engineering Chemistry Research*, **2008**, 47, 8458-8470	3.9	19
292	MOMENTUM, MASS AND HEAT TRANSFER IN SINGLE-PHASE TURBULENT FLOW. *Reviews in Chemical Engineering*, **2002**, 18, 83-293	5	19

291	MEASUREMENT OF HYDRODYNAMIC PARAMETERS IN MULTIPHASE SPARGED REACTORS. *Reviews in Chemical Engineering*, **1990**, 6,	5	19
290	Sectionalised bubble column: Gas hold-up and wall side solid□liquid mass transfer coefficient. *Canadian Journal of Chemical Engineering*, **1984**, 62, 228-232	2.3	19
289	Some design features of radial baffles in sectionalised bubble columns. *Canadian Journal of Chemical Engineering*, **1979**, 57, 375-377	2.3	19
288	Numerical investigation of three-dimensional natural circulation phenomenon in passive safety systems for decay heat removal in large pools. *International Journal of Heat and Mass Transfer*, **2015**, 81, 659-680	4.9	18
287	Experimental study and CFD simulation of the multiphase flow conditions encountered in a Novel Down-flow bubble column. *Chemical Engineering Journal*, **2018**, 350, 507-522	14.7	18
286	Effect of turbulence on particle and bubble slip velocity. *Chemical Engineering Science*, **2013**, 100, 120-136	4.4	18
285	Use of ultrasound in petroleum residue upgradation. *Canadian Journal of Chemical Engineering*, **2009**, 87, 329-342	2.3	18
284	SVR-based prediction of point gas hold-up for bubble column reactor through recurrence quantification analysis of LDA time-series. *International Journal of Multiphase Flow*, **2008**, 34, 1099-1107	3.6	18
283	CFD Simulation of Residence Time Distribution and Mixing in Bubble Column Reactors. *Canadian Journal of Chemical Engineering*, **2008**, 81, 669-676	2.3	18
282	Surface Aerators. *Chemical Engineering Research and Design*, **2006**, 84, 977-992	5.5	18
281	CFD simulation of steady state heat transfer in bubble columns. *Chemical Engineering Journal*, **2005**, 108, 117-125	14.7	18
280	Design of Sieve Plate Spargers for Bubble Columns: Role of Weeping. *Chemical Engineering and Technology*, **2001**, 24, 815-828	2	18
279	Sorption and permeation of aqueous picolines in elastomeric membranes. *Journal of Membrane Science*, **1994**, 91, 163-171	9.6	18
278	Mechanism of dissolution of nuclear fuel in nitric acid relevant to nuclear fuel reprocessing. *Journal of Radioanalytical and Nuclear Chemistry*, **2017**, 312, 141-149	1.5	17
277	Study of two phase thermal stratification in cylindrical vessels: CFD simulations and PIV measurements. *Chemical Engineering Science*, **2013**, 98, 125-151	4.4	17
276	Direct numerical simulation of free falling sphere in creeping flow. *International Journal of Computational Fluid Dynamics*, **2010**, 24, 109-120	1.2	17
275	A hybridized snapshot proper orthogonal decomposition-discrete wavelet transform technique for the analysis of flow structures and their time evolution. *Chemical Engineering Science*, **2009**, 64, 4319-4340	4.4	17
274	Effect of Flow Structures on Heat Transfer in Single and Multiphase Jet Reactors. *Industrial & Engineering Chemistry Research*, **2009**, 48, 9428-9440	3.9	17

273	Direct numerical simulations of a freely falling sphere using fictitious domain method: Breaking of axisymmetric wake. *Chemical Engineering Science*, **2010**, 65, 2159-2171	4.4	17
272	Hydrodynamic and Mass Transfer Characteristics of Single and Multiple Impeller Hollow Self-Inducing Reactors. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2829-2841	3.9	17
271	Modeling Flow Pattern Induced by Ultrasound: The Influence of Modeling Approach and Turbulence Models. *Industrial & Engineering Chemistry Research*, **2007**, 46, 2936-2950	3.9	17
270	Gas Induction Characteristics of Hollow Self-Inducing Impeller. *Chemical Engineering Research and Design*, **2006**, 84, 124-132	5.5	17
269	Studies on mixing time in bubble columns with pseudoplastic (carboxymethyl)cellulose solutions. *Industrial & Engineering Chemistry Research*, **1987**, 26, 82-86	3.9	17
268	Flow past a single stationary sphere, 1. Experimental and numerical techniques. *Powder Technology*, **2020**, 365, 115-148	5.2	17
267	Segregation and dispersion studies in binary solid-liquid fluidised beds: A theoretical and computational study. *Powder Technology*, **2017**, 314, 400-411	5.2	16
266	In-situ nitrogen doping in carbon nanotubes using a fluidized bed reactor and hydrogen storage behavior of the doped nanotubes. *International Journal of Hydrogen Energy*, **2017**, 42, 10047-10056	6.7	16
265	Comparison of specific energy dissipation rate calculation methodologies utilising 2D PIV velocity measurement. *Chemical Engineering Science*, **2015**, 137, 752-767	4.4	16
264	Numerical study of heat loss from a non-evacuated receiver of a solar collector. *Energy Conversion and Management*, **2014**, 78, 617-626	10.6	16
263	Particle-liquid mass transfer in solid□quid fluidized beds. *Chemical Engineering Journal*, **2014**, 245, 323-341	14.7	16
262	Development of Efficient Designs of Cooking Systems. II. Computational Fluid Dynamics and Optimization. *Industrial & Engineering Chemistry Research*, **2012**, 51, 1897-1922	3.9	16
261	Design and selection of sparger for bubble column reactor. Part II: Optimum sparger type and design. *Chemical Engineering Research and Design*, **2011**, 89, 1986-1986	5.5	16
260	Investigation of flow structures and transport phenomena in bubble columns using particle image velocimetry and miniature pressure sensors. *Chemical Engineering Science*, **2011**, 66, 3087-3107	4.4	16
259	Development of Correlations for Overall Gas Hold-up, Volumetric Mass Transfer Coefficient, and Effective Interfacial Area in Bubble Column Reactors Using Hybrid Genetic Algorithm-Support Vector Regression Technique: Viscous Newtonian and Non-Newtonian Liquids. *Industrial & Engineering Chemistry Research*, **2009**, 48, 9631-9654	3.9	16
258	Optimization of parameters by Taguchi method for controlling purity of carbon nanotubes in chemical vapour deposition technique. *Journal of Nanoscience and Nanotechnology*, **2010**, 10, 4030-7	1.3	16
257	Relation between flow pattern and de-activation of enzymes in stirred reactors. *Chemical Engineering Science*, **2001**, 56, 443-452	4.4	16
256	Identification of the principal time scales in bubble column by wavelet analysis. *Chemical Engineering Science*, **2001**, 56, 5739-5747	4.4	16

255	Transport phenomena in bubble colunm reactor II: Pressure drop. *The Chemical Engineering Journal*, **1992**, 48, 153-166		16
254	Flow past a single stationary sphere, 2. Regime mapping and effect of external disturbances. *Powder Technology*, **2020**, 365, 215-243	5.2	16
253	Synthesis of boron and nitrogen co-doped carbon nanotubes and their application in hydrogen storage. *International Journal of Hydrogen Energy*, **2020**, 45, 13406-13413	6.7	15
252	Mixing in a co-current upflow bubble column reactors with and without internals. *Canadian Journal of Chemical Engineering*, **2018**, 96, 1957-1971	2.3	15
251	3D CFD simulation of passive decay heat removal system under boiling conditions: Role of bubble sliding motion on inclined heated tubes. *Chemical Engineering Science*, **2016**, 145, 245-265	4.4	15
250	Measurement of drop size characteristics in annular centrifugal extractors using phase Doppler particle analyzer (PDPA). *Chemical Engineering Research and Design*, **2012**, 90, 985-997	5.5	15
249	Experimental and computational fluid dynamic study of reacting gas jet in liquid: Flow pattern and heat transfer. *Chemical Engineering Science*, **2010**, 65, 827-849	4.4	15
248	Perstraction of Phenolic Compounds from Aqueous Solution Using a Nonporous Membrane. *Separation Science and Technology*, **1997**, 32, 2669-2683	2.5	15
247	Effect of superficial gas velocity on gas hold-up profiles in foaming liquids in bubble column reactors. *Chemical Engineering Journal*, **2004**, 99, 53-58	14.7	15
246	Deactivation of lipase at gas□quid interface in stirred vessel. *Chemical Engineering Science*, **2001**, 56, 3401-3408	4.4	15
245	Pressure Drop Studies in Bubble Columns. *Industrial & Engineering Chemistry Research*, **2001**, 40, 3675-3688	3.9	15
244	Modeling and Simulation of a Spray Column for NOx Absorption. *Computers and Chemical Engineering*, **1992**, 16, 11-25	4	15
243	Studies on gas holdup and bubble parameters in bubble columns with (carboxymethyl)cellulose solutions. *Industrial & Engineering Chemistry Research*, **1987**, 26, 86-91	3.9	15
242	Regeneration of spent earth by wet oxidation. *JAOCS, Journal of the American Oil ChemistsnSociety*, **1988**, 65, 1536	1.8	15
241	Modeling of three phase reactors: A case of oxydesulfurization of coal. *AICHE Journal*, **1981**, 27, 937-945	3.6	15
240	Estimation of Bubble Properties in Bubbling Fluidized Bed Using ECVT Measurements. *Industrial & Engineering Chemistry Research*, **2018**, 57, 8319-8333	3.9	15
239	Expansion behaviour of a binary solid-liquid fluidised bed with different solid mass ratio. *Advanced Powder Technology*, **2017**, 28, 3111-3129	4.6	14
238	CFD simulation and comparison of industrial crystallizers. *Canadian Journal of Chemical Engineering*, **2014**, 92, 2138-2156	2.3	14

237	Development of Unified Correlations for Volumetric Mass-Transfer Coefficient and Effective Interfacial Area in Bubble Column Reactors for Various Gas–Liquid Systems Using Support Vector Regression. *Industrial & Engineering Chemistry Research*, **2009**, 48, 4216-4236	3.9	14
236	Hydrodynamics of a Stirred Vessel Equipped with a Gas-Inducing Impeller. *Industrial & Engineering Chemistry Research*, **1997**, 36, 3904-3914	3.9	14
235	Three-Dimensional CFD Simulation of Stratified Two-Fluid Taylor-Couette Flow. *Canadian Journal of Chemical Engineering*, **2008**, 84, 279-288	2.3	14
234	Three-dimensional CFD Simulation of Rayleigh–Benard Convection for Low Prandtl Number Fluids. *Chemical Engineering Research and Design*, **2006**, 84, 29-37	5.5	14
233	Enzyme deactivation in a bubble column, a stirred vessel and an inclined plane. *Chemical Engineering Science*, **2003**, 58, 5125-5134	4.4	14
232	CFD modeling of flow, macro-mixing and axial dispersion in a bubble column. *Canadian Journal of Chemical Engineering*, **1999**, 77, 826-837	2.3	14
231	New salt-polyethylene-glycol systems for two-phase aqueous extraction. *The Chemical Engineering Journal*, **1991**, 46, B31-B34		14
230	Role of sparger design in mechanically agitated gas-liquid reactors. Part II: Liquid phase mixing. *Chemical Engineering and Technology*, **1991**, 14, 386-393	2	14
229	Experimental study of bubble departure characteristics in forced convective subcooled nucleate boiling. *Experimental Heat Transfer*, **2018**, 31, 194-218	2.4	14
228	Boron doped carbon nanotubes: Synthesis, characterization and emerging applications – A review. *Chemical Engineering Journal*, **2022**, 427, 131616	14.7	14
227	Kinetics of extraction of nitric acid into binary mixture of tri-n-butyl phosphate and normal paraffin hydrocarbon. *Chemical Engineering Research and Design*, **2016**, 111, 492-503	5.5	13
226	Performance of annular centrifugal extractors: CFD simulation of flow pattern, axial mixing and extraction with chemical reaction. *Chemical Engineering Science*, **2014**, 110, 134-143	4.4	13
225	Dissolution kinetics of Indian PHWR natural UO2 fuel pellets in nitric acid – Effect of initial acidity and temperature. *Progress in Nuclear Energy*, **2015**, 83, 52-58	2.3	13
224	Development of Efficient Designs of Cooking Systems. III. Kinetics of Cooking and Quality of Cooked Food, Including Nutrients, Anti-Nutrients, Taste, and Flavor. *Industrial & Engineering Chemistry Research*, **2012**, 51, 1923-1937	3.9	13
223	A numerical study of liquid sloshing in a two-dimensional tank under external excitations. *Journal of Marine Science and Application*, **2012**, 11, 305-310	1.2	13
222	Enzyme mass transfer coefficient in aqueous two-phase systems: Modified spray extraction columns. *Canadian Journal of Chemical Engineering*, **1997**, 75, 751-758	2.3	13
221	Solid Dispersion Studies in Expanded Beds. *Industrial & Engineering Chemistry Research*, **2007**, 46, 1836-1842	3.9	13
220	Population balance modeling for bubble columns operating in the homogeneous regime. *AICHE Journal*, **2007**, 53, 579-588	3.6	13

219	CFD simulation of flow pattern and plume dimensions in submerged condensation and reactive gas jets into a liquid bath. *Chemical Engineering Science*, **2008**, 63, 2420-2435	4.4	13
218	Disengagement of the gas phase in bubble columns. *International Journal of Multiphase Flow*, **1995**, 21, 1191-1201	3.6	13
217	Enzyme mass transfer coefficient in aqueous two phase system using a packed extraction column. *Canadian Journal of Chemical Engineering*, **1991**, 69, 548-556	2.3	13
216	STUDIES ON BUBBLE RISE VELOCITY IN BUBBLE COLUMNS EMPLOYING NON-NEWTONIAN SOLUTIONS. *Chemical Engineering Communications*, **1988**, 73, 31-42	2.2	13
215	Valorization of solid waste using advanced thermo-chemical process: A review. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105434	6.8	13
214	A review on the thermal hydraulic characteristics of the air-cooled heat exchangers in forced convection. *Sadhana - Academy Proceedings in Engineering Sciences*, **2015**, 40, 673-755	1	12
213	Extraction kinetics of ruthenium in the mixture of tri-n-butyl phosphate and n-dodecane. *Progress in Nuclear Energy*, **2016**, 86, 50-62	2.3	12
212	Entrainment phenomenon in gas–liquid two-phase flow: A review. *Sadhana - Academy Proceedings in Engineering Sciences*, **2013**, 38, 1173-1217	1	12
211	Hydrodynamic and heat transfer characteristics of a centrally heated cylindrical enclosure: CFD simulations and experimental measurements. *Chemical Engineering Research and Design*, **2011**, 89, 2024-2037	5.5	12
210	Analysis of flow structures and energy spectra in chemical process equipment. *Journal of Turbulence*, **2010**, 11, N5	2.1	12
209	CFD study of mixing characteristics of bubble column and external loop airlift reactor. *Asia-Pacific Journal of Chemical Engineering*, **2008**, 3, 97-105	1.3	12
208	Lipozyme deactivation by butanol and temperature. *Enzyme and Microbial Technology*, **1995**, 17, 373-380	3.8	12
207	Immobilization of Mucor miehei lipase on ion exchange resins. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1996**, 61, 149-156		12
206	EFFECT OF DRAG REDUCING ADDITIVES ON MASS TRANSFER CHARACTERISTICS OF GAS-LIQUID CONTACTORS-GAS INDUCING CONTACTORS. *Chemical Engineering Communications*, **1979**, 3, 15-19	2.2	12
205	Characteristics of energy production and dissipation around a bubble rising in water. *Chemical Engineering Science*, **2019**, 193, 38-52	4.4	12
204	Kinetic study of multi-walled carbon nanotube synthesis by thermocatalytic decomposition of methane using floating catalyst chemical vapour deposition. *Chemical Engineering Journal*, **2019**, 377, 119895	14.7	12
203	Insights into the physics of dominating frequency modes for flow past a stationary sphere: Direct numerical simulations. *Physics of Fluids*, **2019**, 31, 045108	4.4	11
202	Comparison of vaporization models for feed droplet in fluid catalytic cracking risers. *Chemical Engineering Research and Design*, **2015**, 101, 82-97	5.5	11

201	Chemical hydrodynamics of a downward microbubble flow for intensification of gas-fed bioreactors. *AICHE Journal*, **2018**, 64, 1399-1411	3.6	11
200	Multiscale flow in an electro-hydrodynamically driven oil-in-oil emulsion. *Soft Matter*, **2016**, 12, 1759-64	3.6	11
199	Development of Efficient Designs of Cooking Systems. I. Experimental. *Industrial & Engineering Chemistry Research*, **2012**, 51, 1878-1896	3.9	11
198	CFD Simulation of Heat Transfer in Turbulent Pipe Flow. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2816-2829	3.9	11
197	Measurement of Gas Hold-up Profiles in Stirred Tank Reactors by Gamma Ray Attenuation Technique. *Chemical Engineering Research and Design*, **2001**, 79, 684-688	5.5	11
196	Prediction of Flow Pattern in Stirred Tanks: New Constitutive Equation for Eddy Viscosity. *Industrial & Engineering Chemistry Research*, **2001**, 40, 1755-1772	3.9	11
195	Kinetics of wet air oxidation of diethanolamine and morpholine. *Water Research*, **1994**, 28, 1601-1608	12.5	11
194	Evaporation of a suspended binary mixture droplet in a heated flowing gas stream. *Experimental Thermal and Fluid Science*, **2018**, 91, 329-344	3	11
193	Settling/rising of a foreign particle in solid-liquid fluidized beds: Application of dynamic mesh technique. *Chemical Engineering Science*, **2017**, 170, 139-153	4.4	10
192	Experimental investigation on modulation of homogeneous and isotropic turbulence in the presence of single particle using time-resolved PIV. *Chemical Engineering Science*, **2016**, 153, 308-329	4.4	10
191	Alternative designs of evacuated receiver for parabolic trough collector. *Energy*, **2018**, 155, 66-76	7.9	10
190	Effect of Schmidt number and D/d ratio on mass transfer through gas-solid and liquid-solid packed beds: Direct numerical simulations. *Powder Technology*, **2019**, 354, 529-539	5.2	10
189	Prediction of regime transition in three-phase sparged reactors using linear stability analysis. *Chemical Engineering Journal*, **2014**, 235, 307-330	14.7	10
188	HYDRODYNAMIC STUDY OF FLOW IN THE ROTOR REGION OF ANNULAR CENTRIFUGAL CONTACTORS USING CFD SIMULATION. *Chemical Engineering Communications*, **2013**, 200, 471-493	2.2	10
187	Evaluation of Local Turbulent Energy Dissipation Rate using PIV in Jet Loop Reactor. *Industrial & Engineering Chemistry Research*, **2009**, 48, 5046-5057	3.9	10
186	A Comprehensive One-Dimensional Model for Prediction of Flow Pattern in Bubble Columns. *Chemical Engineering Research and Design*, **2002**, 80, 499-512	5.5	10
185	Measurement of eddy diffusivity in bubble column and validation based on the intermittency models. *Chemical Engineering Science*, **2005**, 60, 6146-6159	4.4	10
184	Sorption and Permeation of Aqueous Alkyl Piperazines through Hydrophilic and Organophilic Membranes: A Transport Analysis. *Separation Science and Technology*, **1998**, 33, 311-331	2.5	10

183	ENZYME MASS TRANSFER COEFFICIENT IN AQUEOUS TWO PHASE SYSTEMS: SPRAY EXTRACTION COLUMNS. *Chemical Engineering Communications*, **1993**, 122, 151-169	2.2	10
182	Transport phenomena in bubble column reactors I: Flow pattern. *The Chemical Engineering Journal*, **1992**, 48, 141-151		10
181	Modelling of air-lift fluidized bed: Optimization of mass transfer with respect to design and operational parameters. *The Chemical Engineering Journal*, **1992**, 49, 89-105		10
180	Regeneration of spent earth in aqueous medium. *JAOCS, Journal of the American Oil Chemistsn Society*, **1988**, 65, 1917-1921	1.8	10
179	Modelling of Three Phase Sparged Reactors. *Reviews in Chemical Engineering*, **1985**, 3,	5	10
178	Lowering greenhouse gas (GHG) emissions: techno-economic analysis of biomass conversion to biofuels and value-added chemicals **2019**, 9, 454-473		9
177	Modeling, simulation and optimization: Mono pressure nitric acid process. *Chemical Engineering Journal*, **2008**, 138, 556-577	14.7	9
176	Mechanism of Gas Induction in a Self-Inducting Impeller. *Industrial & Engineering Chemistry Research*, **2005**, 44, 1322-1328	3.9	9
175	Simulation of NOx gas absorption under adiabatic condition and comparison with plant data. *Chemical Engineering Science*, **2002**, 57, 4831-4844	4.4	9
174	Pervaporative separation of carboxylic acid-water mixtures. *Separation and Purification Technology*, **1995**, 5, 259-263		9
173	Waste Treatment of an Aqueous Waste Stream from a Cyclohexane Oxidation Unit. *Chemical Engineering Research and Design*, **1996**, 74, 265-272	5.5	9
172	Particle size effects on oxidation of pyrite in air/water chemical coal cleaning. *Fuel Processing Technology*, **1983**, 7, 173-190	7.2	9
171	Gas hold-up and mass transfer characteristics of packed bubble columns. *The Chemical Engineering Journal*, **1979**, 18, 143-149		9
170	3D CFD simulations to study the effect of inclination of condenser tube on natural convection and thermal stratification in a passive decay heat removal system. *Nuclear Engineering and Design*, **2016**, 305, 582-603	1.8	9
169	Study of the Changes in Composition of Ammonium Diuranate with Progress of Precipitation, and Study of the Properties of Ammonium Diuranate and its Subsequent Products Produced from both Uranyl Nitrate and Uranyl Fluoride Solutions. *Nuclear Engineering and Technology*, **2017**, 49, 541-548	2.6	8
168	Design, optimization and optical performance study of tripod heliostat for solar power tower plant. *Energy*, **2017**, 135, 610-624	7.9	8
167	Process intensification in manufacture of nitric acid: NOx absorption using enriched and pure oxygen. *Chemical Engineering Journal*, **2015**, 278, 430-446	14.7	8
166	Reform of the drift-flux model of multiphase flow in pipes, wellbores, and reactor vessels. *Chemical Engineering Science*, **2018**, 184, 251-258	4.4	8

165	Design and development of energy efficient continuous cooking system. *Journal of Food Engineering*, **2016**, 168, 231-239	6	8
164	Evaporation of a sessile binary droplet on a heated spherical particle. *Experimental Thermal and Fluid Science*, **2018**, 99, 558-571	3	8
163	An energy model on particle detachment in the turbulent field. *Minerals Engineering*, **2014**, 69, 165-169	4.9	8
162	Bubble Dynamics of a Single Condensing Vapor Bubble from Vertically Heated Wall in Subcooled Pool Boiling System: Experimental Measurements and CFD Simulations. *International Journal of Chemical Engineering*, **2012**, 2012, 1-11	2.2	8
161	Unified correlation for overall gas hold-up in bubble column reactors for various gas□quid systems using hybrid genetic algorithm-support vector regression technique. *Canadian Journal of Chemical Engineering*, **2010**, 88, 758-776	2.3	8
160	Effect of nozzle diameter and its orientation on the flow pattern and plume dimensions in gas□quid jet reactors. *Chemical Engineering Science*, **2007**, 62, 7471-7483	4.4	8
159	CFD simulation of homogeneous reactions in turbulent pipe flows□ubular non-catalytic reactors. *Chemical Engineering Journal*, **2006**, 117, 23-29	14.7	8
158	Optimum Design of Multiple-Impeller Self-Inducing System. *Industrial & Engineering Chemistry Research*, **2003**, 42, 1261-1265	3.9	8
157	Role of hydrodynamic flow parameters in lipase deactivation in bubble column reactor. *Chemical Engineering Science*, **2005**, 60, 6320-6335	4.4	8
156	Kinetics of Aerobic Biological Oxidation of Purified Terephthalic Acid Plant Waste. *Chemical Engineering Research and Design*, **2005**, 83, 224-230	5.5	8
155	Hydrodynamic Characterization of Dispersed Two-Phase Flows by Laser Doppler Velocimeter. *Chemical Engineering Research and Design*, **2000**, 78, 903-910	5.5	8
154	Turbulence structure in bubble disengagement zone: Role of polymer addition. *AICHE Journal*, **1995**, 41, 1329-1332	3.6	8
153	Pressure drop in solid□quid fluidised beds. *Powder Technology*, **1989**, 59, 129-140	5.2	8
152	Gas hold-up in highly viscous pseudoplastic non-newtonian solutions in three phase sparged reactors. *Canadian Journal of Chemical Engineering*, **1987**, 65, 406-411	2.3	8
151	Mass transfer characteristics of horizontal agitated contactors. *Canadian Journal of Chemical Engineering*, **1976**, 54, 560-565	2.3	8
150	Interaction dynamics of a spherical particle with a suspended liquid film. *AICHE Journal*, **2016**, 62, 295-314	3.6	8
149	Experimental and CFD simulations of fluid flow and temperature distribution in a natural circulation driven Passive Moderator Cooling System of an advanced nuclear reactor. *Chemical Engineering Science*, **2016**, 155, 45-64	4.4	8
148	Few layered graphene by floating catalyst chemical vapour deposition and its extraordinary H 2 O 2 sensing property. *Materials Letters*, **2017**, 199, 180-183	3.3	7

147	Kinetic study of nitrogen doped carbon nanotubes in a fixed bed. *Chemical Engineering Science*, **2017**, 170, 756-766	4.4	7
146	Selective synthesis of metallic and semi-conducting single-walled carbon nanotube by floating catalyst chemical vapour deposition. *Diamond and Related Materials*, **2019**, 97, 107432	3.5	7
145	Modulation of turbulent flow field in an oscillating grid system owing to single bubble rise. *Chemical Engineering Science*, **2018**, 185, 26-49	4.4	7
144	Computational fluid dynamics **2019**, 21-238		7
143	Heat transfer and flow pattern in co-current downward steam condensation in vertical pipes-I: CFD simulation and experimental measurements. *Canadian Journal of Chemical Engineering*, **2013**, 91, 959-973	2.3	7
142	Role of nitrous acid decomposition in absorber and bleacher in nitric acid plant. *Chemical Engineering Journal*, **2009**, 155, 851-858	14.7	7
141	Data-Driven Dynamic Modeling and Control of a Surface Aeration System. *Industrial & Engineering Chemistry Research*, **2007**, 46, 8607-8613	3.9	7
140	Estimation of Hydrodynamic and Heat Transfer Characteristics of Bubble Column by Analysis of Wall Pressure Measurements and CFD Simulations. *Chemical Engineering Research and Design*, **2006**, 84, 601-609	5.5	7
139	Optimization of gas□quid reactor using computational fluid dynamics. *Chemical Engineering Science*, **2005**, 60, 3081-3089	4.4	7
138	A low reynolds number k-? modelling of turbulent pipe flow: Flow pattern and energy balance. *Canadian Journal of Chemical Engineering*, **2001**, 79, 214-226	2.3	7
137	Affinity Partitioning Of Enzymes Using Unbound Triazine Dyes In Peg/Phosphate System. *Separation Science and Technology*, **1995**, 30, 2989-3000	2.5	7
136	Counter-current absorption using wire gauze packings. *Chemical Engineering Science*, **1982**, 37, 367-374	4.4	7
135	Chronological development of innovations in reflector systems of parabolic trough solar collector (PTC) - A review. *Renewable and Sustainable Energy Reviews*, **2021**, 145, 111002	16.2	7
134	Kinetics of reverse water-gas shift reaction over Pt/Al2O3 catalyst. *Canadian Journal of Chemical Engineering*, **2016**, 94, 101-106	2.3	7
133	CFD simulation of boiling flows inside fuel rod bundle of a natural circulation BWR during SBO. *Nuclear Engineering and Design*, **2018**, 338, 300-329	1.8	7
132	Kinetic study of boron doped carbon nanotubes synthesized using chemical vapour deposition. *Chemical Engineering Science*, **2019**, 207, 1341-1352	4.4	6
131	Behavior of particle swarms at low and moderate Reynolds numbers using computational fluid dynamics□discrete element model. *Physics of Fluids*, **2020**, 32, 073304	4.4	6
130	Bubble departure characteristics in a horizontal tube bundle under cross flow conditions. *International Journal of Multiphase Flow*, **2018**, 100, 143-154	3.6	6

129	Flow and temperature patterns in an inductively coupled plasma reactor: Experimental measurements and CFD simulations. *AICHE Journal*, **2014**, 60, 3647-3664	3.6	6
128	A method for calculating the surface area of numerically simulated aggregates. *Advanced Powder Technology*, **2015**, 26, 56-65	4.6	6
127	Preparation of Pure Methyl Esters from Corresponding Alkali Metal Salts of Carboxylic Acids Using Carbon Dioxide and Methanol. *Industrial & Engineering Chemistry Research*, **2012**, 51, 1498-1505	3.9	6
126	SIMULTANEOUS MEASUREMENTS OF GAS AND LIQUID PHASE VELOCITIES AND GAS HOLD-UP USING LASER-DOPPLER VELOCIMETER. *Chemical Engineering Communications*, **1997**, 162, 151-168	2.2	6
125	Flow generated by a disc turbine in aqueous solutions of polyacrylamide. *Chemical Engineering Journal*, **1998**, 71, 11-21	14.7	6
124	Computational Fluid Dynamics Simulations in Bubble-Column Reactors: Laminar and Transition Regimes. *Industrial & Engineering Chemistry Research*, **2005**, 44, 1413-1423	3.9	6
123	Process Development Aspects of Production of Dibenzyl Ether. *Organic Process Research and Development*, **1999**, 3, 17-27	3.9	6
122	Protein extraction in a spray column using a polyethylene glycol-maltodextrin two-phase polymer system. *The Chemical Engineering Journal*, **1991**, 46, B75-B81		6
121	Comments on flow mapping in bubble columns using CARPT. *Chemical Engineering Science*, **1992**, 47, 508-509	4.4	6
120	Underutilization of bubble column reactors due to desorption. *Chemical Engineering Science*, **1989**, 44, 543-558	4.4	6
119	Computational Fluid Dynamics Study of Biomass Cook Stoves: Part 1: Hydrodynamics and Homogeneous Combustion. *Industrial & Engineering Chemistry Research*, **2020**, 59, 4161-4176	3.9	6
118	Deformation and optics based structural design and cost optimization of cylindrical reflector system. *Solar Energy*, **2017**, 158, 687-700	6.8	5
117	Experimental Study on the Mechanism and Kinetics of CuCl2 Hydrolysis Reaction of the CuCl Thermochemical Cycle in a Fluidized Bed Reactor. *Industrial & Engineering Chemistry Research*, **2020**, 59, 12028-12037	3.9	5
116	3D CFD simulation of turbulent flow distribution and pressure drop in a dividing manifold system using openfoam. *International Journal of Heat and Mass Transfer*, **2020**, 151, 119420	4.9	5
115	Kinetics of interphase transfer of zirconium between nitric acid and tributyl phosphate solutions. *Journal of Radioanalytical and Nuclear Chemistry*, **2017**, 314, 1991-2001	1.5	5
114	Analysis of Turbulence Energy Spectrum by Using Particle Image Velocimetry. *Procedia Engineering*, **2014**, 90, 320-326		5
113	Extraction of Amino Acids Using an Immobilized Liquid Membrane. *Biotechnology Progress*, **1997**, 13, 493-496	2.8	5
112	OPTIMUM DESIGN OF STATOR-ROTOR ASSEMBLY IN GAS INDUCING TYPE MECHANICALLY AGITATED REACTORS. *Chemical Engineering Communications*, **1999**, 174, 215-231	2.2	5

111	Liquid-phase axial mixing in two-phase horizontal pipe flow. *International Journal of Multiphase Flow*, **1987**, 13, 815-821	3.6	5
110	Effect of physical properties on the suspension of solid particles in three-phase sparged reactors. *International Journal of Multiphase Flow*, **1987**, 13, 415-427	3.6	5
109	Mass transfer coefficients in two-phase aqueous extraction. *The Chemical Engineering Journal*, **1988** , 39, B1-B6		5
108	LDA Measurements of Flow in Stirred Gas-Liquid Reactors. *Fluid Mechanics and Its Applications*, **1992**, 217-224	0.2	5
107	A micro-jet array for economic intensification of gas transfer in bioreactors. *Biotechnology Progress*, **2019**, 35, e2710	2.8	5
106	Scale-up of a downflow bubble column: Experimental investigations. *Chemical Engineering Journal*, **2020**, 386, 121447	14.7	5
105	Dynamics of bubbles rising in pseudo-2D bubble column: Effect of confinement and inertia. *Chemical Engineering Journal*, **2021**, 405, 126615	14.7	5
104	Impact of Dense Internals on Fluid Dynamic Parameters in Bubble Column. *International Journal of Chemical Reactor Engineering*, **2018**, 16,	1.2	5
103	Image analysis based validation and kinetic parameter estimation of rice cooking. *Journal of Food Process Engineering*, **2017**, 40, e12552	2.4	4
102	Analysis of kinetic data for the dissolution of UO2 fuel pellets in nitric acid. *Journal of Radioanalytical and Nuclear Chemistry*, **2020**, 324, 211-218	1.5	4
101	Study on the Kinetics of Catalytic Hydrogenation of U(VI) in Nitric Acid Solution Using a Bubble Reactor. *Industrial & Engineering Chemistry Research*, **2018**, 57, 3482-3488	3.9	4
100	Study of crystal growth and effect of temperature and mixing on properties of sodium diuranate. *Progress in Nuclear Energy*, **2016**, 91, 132-139	2.3	4
99	Study on effect of process parameters and mixing on morphology of ammonium diuranate. *Journal of Radioanalytical and Nuclear Chemistry*, **2016**, 310, 287-299	1.5	4
98	Hydrodynamics under the jet-array of a downflow microbubble column: Performance intensification. *Chemical Engineering and Processing: Process Intensification*, **2018**, 130, 326-331	3.7	4
97	Thermal hydraulics of natural circulation loop in beam-down solar power tower. *Energy*, **2018**, 159, 1088-1101	7.1	4
96	Dissolution of nuclear materials in aqueous acid solutions. *Reviews in Chemical Engineering*, **2019**, 35, 707-734	5	4
95	Formation of bamboo-shaped carbon nanotubes on carbon black in a fluidized bed. *Journal of Nanoparticle Research*, **2012**, 14, 1	2.3	4
94	Visbreaking Studies in the Presence of Soaker Internals. *Industrial & Engineering Chemistry Research*, **2010**, 49, 11221-11231	3.9	4

93	Permeation in filled membranes: Role of solute-filter interactions. *Journal of Membrane Science*, **1997**, 134, 225-233	9.6	4
92	CFD Simulation of Gas Chamber for Gas Distributor Design. *Canadian Journal of Chemical Engineering*, **2008**, 81, 677-683	2.3	4
91	Effect of Liquid Velocity on Axial Mixing in Gas-Liquid Dispersions: A CFD Simulation. *Chemical Engineering and Technology*, **2006**, 29, 1034-1041	2	4
90	Combined effect of hydrodynamic and interfacial flow parameters on lysozyme deactivation in a stirred tank bioreactor. *Biotechnology Progress*, **2006**, 22, 660-72	2.8	4
89	Drop volumes and terminal velocities in aqueous two phase systems. *Canadian Journal of Chemical Engineering*, **1996**, 74, 852-860	2.3	4
88	Solid-phase mixing in three-phase sparged reactors.. *Journal of Chemical Engineering of Japan*, **1989**, 22, 125-130	0.8	4
87	EFFECT OF VISCOSITY AND DRAG REDUCING AGENTS ON MASS TRANSFER IN LIQUID-LIQUID SPRAY COLUMNS. *Solvent Extraction and Ion Exchange*, **1990**, 8, 669-694	2.5	4
86	MODELLING OF THREE PHASE REACTIONS: ROLE OF FINE BUBBLES. *Chemical Engineering Communications*, **1987**, 58, 311-338	2.2	4
85	Modelling of Three Phase Sparged Catalytic Reactors. *Reviews in Chemical Engineering*, **1988**, 5,	5	4
84	Effect of pH on the removal of pyritic sulfur from coal by oxydesulfurization. *Industrial & Engineering Chemistry Process Design and Development*, **1982**, 21, 594-600		4
83	Mass transfer characteristics of horizontal agitated contactors. *Canadian Journal of Chemical Engineering*, **1976**, 54, 560-565	2.3	4
82	Estimation of dispersion coefficient in a solid-liquid fluidised bed system. *Powder Technology*, **2020**, 374, 560-576	5.2	4
81	Valorisation of biomass pellets to renewable fuel and chemicals using pyrolysis: characterisation of pyrolysis products and its application. *Indian Chemical Engineer*, **2020**, 62, 78-91	1	4
80	Effect of bubble on the pressure spectra of oscillating grid turbulent flow at low Taylor-Reynolds number. *Chemical Engineering Science*, **2018**, 190, 28-39	4.4	4
79	Kinetics of cooking of unsoaked and presoaked split peas (Cajanus cajan). *Journal of Food Process Engineering*, **2017**, 40, e12527	2.4	3
78	Dissolution behaviour of simulated MOX nuclear fuel pellets in nitric acid medium. *Progress in Nuclear Energy*, **2019**, 116, 1-9	2.3	3
77	Kinetics of Ozonation of Phenol and Substituted Phenols. *Industrial & Engineering Chemistry Research*, **2019**, 58, 7461-7466	3.9	3
76	CFD simulations of moderator flow inside Calandria of the Passive Moderator Cooling System of an advanced reactor. *Nuclear Engineering and Design*, **2015**, 292, 193-203	1.8	3

75	Light-weight thermal insulating fly ash cenosphere ceramics. *International Journal of Applied Ceramic Technology*, **2018**, 15, 1467-1477	2	3
74	Bubble Detachment from a Steel Ball in Turbulent Field: Application to Mineral Flotation Systems. *Procedia Engineering*, **2015**, 102, 1046-1055		3
73	Heat transfer and flow pattern in co-current downward steam condensation in vertical pipes-II: Comparison with published work. *Canadian Journal of Chemical Engineering*, **2013**, 91, 974-991	2.3	3
72	Core safety of Indian nuclear power plants (NPPs) under extreme conditions. *Sadhana - Academy Proceedings in Engineering Sciences*, **2013**, 38, 945-970	1	3
71	Investigations of natural convection and circulation in Passive Moderator Cooling System of an advanced reactor in a scaled test facility. *Nuclear Engineering and Design*, **2017**, 322, 55-67	1.8	3
70	Growth of carbon octopus-like structures from carbon black in a fluidized bed. *Materials Express*, **2013**, 3, 51-60	1.3	3
69	Reply to Comments on Dynamics of Flow Structures and Transport Phenomena Part I: Experimental and Numerical Techniques for Identification and Energy Content of Flow Structures *Industrial & Engineering Chemistry Research*, **2010**, 49, 4471-4473	3.9	3
68	LDA measurements and CFD simulations of flow generated by impellers in mechanically agitated reactors. *Sadhana - Academy Proceedings in Engineering Sciences*, **1998**, 23, 505-539	1	3
67	CFD Simulation of the Flow Pattern for Drag Reducing Fluids in Turbulent Pipe Flows. *Journal of Chemical Engineering of Japan*, **2007**, 40, 304-311	0.8	3
66	Comments by I. Fort on article Hollow self-inducing impellers: Flow visualization and CFD simulation *Chemical Engineering Science*, **2008**, 63, 4031-4032	4.4	3
65	Reply to the Comments by I. Fort on The role of convection and turbulent dispersion in blending *Chemical Engineering Science*, **2004**, 59, 729	4.4	3
64	Flow pattern in the civinity of gas-liquid interface in a stirred cell.. *Journal of Chemical Engineering of Japan*, **1996**, 29, 568-576	0.8	3
63	Enzyme mass transfer coefficient in a sieve plate extraction column. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1994**, 55, B1-B17		3
62	Thermal pretreatment of concentrated distillery spent wash. *Water Environment Research*, **1992**, 64, 248-257	2.8	3
61	Effect of addition of alcohol on the design parameters of mechanically agitated three-phase reactors. *The Chemical Engineering Journal*, **1992**, 49, 107-117		3
60	Power consumption and homogenization time for oleoresin suspensions. *The Chemical Engineering Journal*, **1984**, 28, 25-38		3
59	A techno-economic comparison between piston steam engines as dispatchable power generation systems for renewable energy with concentrated solar harvesting and thermal storage against solar photovoltaics with battery storage. *Energy*, **2020**, 213, 118732	7.9	3
58	Mechanistic and kinetic study of thermolysis reaction with hydrolysis step products in Cu Cl thermochemical cycle. *International Journal of Hydrogen Energy*, **2021**, 46, 12672-12681	6.7	3

57	Valorization of plastic wastes for production of fuels and value-added chemicals through pyrolysis A review. *Thermal Science and Engineering Progress*, **2022**, 32, 101316	3.6	3
56	Instabilities due to turbulence through inlet jet in plunging jet bubble column. *Chemical Engineering Science*, **2017**, 157, 76-87	4.4	2
55	Separation Characteristics of Liquid Liquid Dispersions: Gravity and Centrifugal Settlers. *Industrial & Engineering Chemistry Research*, **2017**, 56, 7814-7823	3.9	2
54	Experimental Investigations on Carryover in a Gravity Separation-Based Steam Drum. *Journal of Nuclear Engineering and Radiation Science*, **2019**, 5,	1.1	2
53	Computational Fluid Dynamics (CFD) Simulations and Experimental Measurements in an Inductively-Coupled Plasma Generator Operating at Atmospheric Pressure: Performance Analysis and Parametric Study. *Processes*, **2019**, 7, 133	2.9	2
52	CFD analysis of moderator flow and temperature fields inside a vertical calandria vessel of nuclear reactor. *Nuclear Engineering and Design*, **2015**, 287, 95-107	1.8	2
51	Process Intensification: A Case Study. *Indian Chemical Engineer*, **2015**, 57, 202-218	1	2
50	Design Modification in the Stationary Bowl of Annular Centrifugal Extractors to Handle Adverse Conditions. *Industrial & Engineering Chemistry Research*, **2020**, 59, 11757-11766	3.9	2
49	Air Water Loop for investigaion of flow dynamics in a steam drum: Steady state two-phase natural circulation experiments and validation. *Nuclear Engineering and Design*, **2018**, 328, 266-282	1.8	2
48	Air Water Loop for investigation of flow dynamics in a steam drum: Carryover experiments and CFD simulation. *Nuclear Engineering and Design*, **2018**, 333, 145-160	1.8	2
47	Experimental and numerical study to optimize a design of passive moderator cooling system of an advanced nuclear reactor. *Nuclear Engineering and Design*, **2019**, 352, 110127	1.8	2
46	Poison injection in AHWR calandria: Flow pattern and mixing characteristics. *International Journal of Heat and Mass Transfer*, **2017**, 105, 359-375	4.9	2
45	A novel method to improve the efficiency of a cooking device via thermal insulation. *Canadian Journal of Chemical Engineering*, **2012**, 90, 1212-1223	2.3	2
44	A low reynolds number reynolds stress modeling of turbulent pipe flow: Flow pattern and energy balance. *Chemical Engineering Communications*, **2002**, 189, 759-785	2.2	2
43	Oxidation of Dibenzyl Ethers by Dilute Nitric Acid. *Organic Process Research and Development*, **2001**, 5, 152-157	3.9	2
42	Kinetics of oxidation of aqueous sulphite solution by nitric oxide. *Water Research*, **1992**, 26, 997-1003	12.5	2
41	Underutilization of loop reactors due to desorption. *Chemical Engineering Science*, **1993**, 48, 3631-3645	4.4	2
40	Modelling of three-phase sparged reactor: Non-uniform solid concentration profile. *The Chemical Engineering Journal*, **1988**, 38, 81-96		2

39	KINETICS OF OXYDESULFURIZATION OF MINSHALL, INDIANA COAL. *Chemical Engineering Communications*, **1981**, 11, 201-218	2.2	2
38	Conversion of refuse derived fuel from municipal solid waste into valuable chemicals using advanced thermo-chemical process. *Journal of Cleaner Production*, **2021**, 329, 129653	10.3	2
37	Hydrogen storage in boron-doped carbon nanotubes: Effect of dopant concentration. *International Journal of Hydrogen Energy*, **2021**,	6.7	2
36	Computational Fluid Dynamic Study of Biomass Cook Stove: Part 2: Devolatilization and Heterogeneous Combustion. *Industrial & Engineering Chemistry Research*, **2020**, 59, 14507-14521	3.9	2
35	Elucidation of Thermal Degradation Model for Low and High Density Polyethylene by Statistical Parameters. *ChemistrySelect*, **2020**, 5, 14153-14160	1.8	2
34	Study of granular self-organization inside a cylinder driven by an orbital-shaker using discrete element method. *Chemical Engineering Science*, **2019**, 209, 115194	4.4	1
33	Controlling the carbon nanotube type with processing parameters synthesized by floating catalyst chemical vapour deposition. *Materials Today: Proceedings*, **2019**, 18, 1039-1043	1.4	1
32	Deactivation of immobilized Lipozyme: Effect of butanol, temperature and water content. *Chemical Engineering Journal*, **1997**, 65, 159-164	14.7	1
31	Reply to the Comments by I. Fort on "Effect of Internals on the Flow Pattern and Mixing in Stirred Tanks". *Industrial & Engineering Chemistry Research*, **2006**, 45, 4850-4850	3.9	1
30	Two phase aqueous extraction. *Biotechnology Letters*, **1989**, 3, 125-130		1
29	Liquid- and solid-phase mixing in sectionalized bubble column slurry reactor. *Industrial & Engineering Chemistry Research*, **1990**, 29, 1503-1509	3.9	1
28	Partition coefficient of bovine serum albumin in two-phase aqueous systems. *Biotechnology Letters*, **1988**, 2, 41-46		1
27	Hydrodynamics and liquid phase axial mixing in orifice pipe reactor. *Canadian Journal of Chemical Engineering*, **1988**, 66, 182-191	2.3	1
26	Perspectives on Manufacturing Innovation in Chemical Process Industries. *ACS Engineering Au*,		1
25	Dynamics of a single bubble rising in a quiescent medium. *Experimental Thermal and Fluid Science*, **2022**, 132, 110546	3	1
24	Steady state flow analysis of two-phase natural circulation in multiple parallel channel loop. *Nuclear Engineering and Design*, **2016**, 305, 706-716	1.8	1
23	Transition metal compounds as solar selective material. *Reviews in Chemical Engineering*, **2019**,	5	1
22	Development of inexpensive, simple and environment-friendly solar selective absorber using copper nanoparticle. *International Journal of Chemical Reactor Engineering*, **2021**, 19, 727-737	1.2	1

21	In situ tuning of graphene oxide morphology by electrochemical exfoliation. *Journal of Materials Science*,1	4.3	1
20	Exfoliated graphene and its derivatives from liquid phase and their role in performance enhancement of epoxy matrix composite. *Composites Part A: Applied Science and Manufacturing*, **2022**, 156, 106886	8.4	1
19	Kinetic modelling of pyrolysis of cellulose using CPD model: effect of salt. *Journal of Thermal Analysis and Calorimetry*,1	4.1	0
18	Valorisation of End-of-Life tyres for generating valuable resources under circular economy. *Fuel*, **2022**, 314, 123138	7.1	0
17	Influence of the concentration of nitric acid on the composition of NOX gas evolved during the dissolution of nuclear fuel and its implications on the PUREX process. *Progress in Nuclear Energy*, **2021**, 135, 103704	2.3	0
16	Temperature-induced pH changes govern hydrate transformation during cooling crystallization of potassium acid phthalate. *Chemical Engineering Research and Design*, **2021**, 174, 463-470	5.5	0
15	Controlling the Flow Structure in Fluidized Bed: A CFD-DEM Approach. *Springer Proceedings in Physics*, **2017**, 619-626	0.2	
14	Development of helical coil based fluidic diode pump for liquid pumping. *Canadian Journal of Chemical Engineering*, **2018**, 96, 62-67	2.3	
13	CFD model development for two-phase flows **2019**, 239-335		
12	Conclusions and future recommendation **2019**, 835-849		
11	Design of passive safety systems for advanced reactors using CFD **2019**, 387-485		
10	Reply to the comments to CFD simulation of stirred tanks: Comparison of turbulence models. Part I: Radial flow impellers and part II: Axial flow impellers, multiple impellers and multiphase dispersions *Canadian Journal of Chemical Engineering*, **2012**, 90, 3-6	2.3	
9	Comments on the paper Destabilisation of homogeneous bubbly flow in an annular gap bubble column by Fahd M. Al-Oufi, Ian W. Cumming, Chris D. Rielly, Can. J. Chem. Eng. 88(4), 482490 (2010). *Canadian Journal of Chemical Engineering*, **2011**, 89, 1321-1323	2.3	
8	Comments on Flow characteristics of axial high speed impellers (Chem. Process Eng., 2010, 31, 661). *Chemical and Process Engineering - Inzynieria Chemiczna I Procesowa*, **2012**, 33, 311-315		
7	Reply to comments on modelling of air-lift fluidized bed: optimization of mass transfer with respect to design and operational parameters *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1994**, 55, 145-146		
6	Modelling of a Bioreactor: Optimization of a Loop Reactor for Biochemical Systems **1992**, 425-428		
5	Effect of crystallizer design and operational parameters on the batch crystallization of ibuprofen I: experimental. *Indian Chemical Engineer*, **2020**, 1-13	1	
4	Instabilities of a freely moving spherical particle in a Newtonian fluid: Direct Numerical Simulation. *International Journal of Chemical Reactor Engineering*, **2021**, 19, 699-715	1.2	

3 Numerical simulations of jacket side thermal-hydraulic performance for large stirred vessels. *Numerical Heat Transfer; Part A: Applications*, **2021**, 79, 513-536 2.3

2 Multiphase Flows: Flow Regimes, Lower Order Models, and Correlations **2022**, 23-94

1 Thermal performance analysis of novel receiver for parabolic trough solar collector. *Energy*, **2022**, 124343 7.9