

Klavs F Jensen

List of Publications by Citations

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

521
papers

40,226
citations

105
h-index

184
g-index

550
ext. papers

44,934
ext. citations

6.7
avg, IF

7.9
L-index

#	Paper	IF	Citations
521	(CdSe)ZnS CoreShell Quantum Dots: Synthesis and Characterization of a Size Series of Highly Luminescent Nanocrystallites. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 9463-9475	3.4	3565
520	Cells on chips. <i>Nature</i> , 2006 , 442, 403-11	50.4	1791
519	Microreaction engineering ¶s small better?. <i>Chemical Engineering Science</i> , 2001 , 56, 293-303	4.4	936
518	Deciding whether to go with the flow: evaluating the merits of flow reactors for synthesis. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 7502-19	16.4	752
517	Multiphase microfluidics: from flow characteristics to chemical and materials synthesis. <i>Lab on A Chip</i> , 2006 , 6, 1487-503	7.2	748
516	Full Color Emission from II¶ Semiconductor Quantum Dot¶ Polymer Composites. <i>Advanced Materials</i> , 2000 , 12, 1102-1105	24	644
515	On-demand continuous-flow production of pharmaceuticals in a compact, reconfigurable system. <i>Science</i> , 2016 , 352, 61-7	33.3	578
514	Synthesis of micro and nanostructures in microfluidic systems. <i>Chemical Society Reviews</i> , 2010 , 39, 1183-382	38.2	546
513	In vitro and ex vivo strategies for intracellular delivery. <i>Nature</i> , 2016 , 538, 183-192	50.4	489
512	End-to-end continuous manufacturing of pharmaceuticals: integrated synthesis, purification, and final dosage formation. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 12359-63	16.4	426
511	Microchemical systems for continuous-flow synthesis. <i>Lab on A Chip</i> , 2009 , 9, 2495-507	7.2	421
510	Transport and reaction in microscale segmented gas-liquid flow. <i>Lab on A Chip</i> , 2004 , 4, 278-86	7.2	411
509	The role of flow in green chemistry and engineering. <i>Green Chemistry</i> , 2013 , 15, 1456	10	373
508	Synthesis of Luminescent Thin-Film CdSe/ZnSe Quantum Dot Composites Using CdSe Quantum Dots Passivated with an Overlayer of ZnSe. <i>Chemistry of Materials</i> , 1996 , 8, 173-180	9.6	373
507	Next-generation optical imaging with short-wave infrared quantum dots. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	360
506	Micromixing of miscible liquids in segmented gas-liquid flow. <i>Langmuir</i> , 2005 , 21, 1547-55	4	359
505	Microfabricated Multiphase Packed-Bed Reactors: Characterization of Mass Transfer and Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2001 , 40, 2555-2562	3.9	358

504	Microfluidic synthesis of colloidal silica. <i>Langmuir</i> , 2004 , 20, 8604-11	4	357
503	Multistep continuous-flow microchemical synthesis involving multiple reactions and separations. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 5704-8	16.4	337
502	Prediction of Organic Reaction Outcomes Using Machine Learning. <i>ACS Central Science</i> , 2017 , 3, 434-443	16.8	325
501	Microfluidic shear devices for quantitative analysis of cell adhesion. <i>Analytical Chemistry</i> , 2004 , 76, 5257-63	6.8	319
500	Integrated continuous microfluidic liquid-liquid extraction. <i>Lab on A Chip</i> , 2007 , 7, 256-63	7.2	314
499	Integrated microreactors for reaction automation: new approaches to reaction development. <i>Annual Review of Analytical Chemistry</i> , 2010 , 3, 19-42	12.5	303
498	A Continuum Model of DC and RF Discharges. <i>IEEE Transactions on Plasma Science</i> , 1986 , 14, 78-91	1.3	298
497	A vector-free microfluidic platform for intracellular delivery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 2082-7	11.5	293
496	Intracellular Delivery by Membrane Disruption: Mechanisms, Strategies, and Concepts. <i>Chemical Reviews</i> , 2018 , 118, 7409-7531	68.1	280
495	A robotic platform for flow synthesis of organic compounds informed by AI planning. <i>Science</i> , 2019 , 365,	33.3	271
494	A microfluidic electroporation device for cell lysis. <i>Lab on A Chip</i> , 2005 , 5, 23-9	7.2	256
493	Machine Learning in Computer-Aided Synthesis Planning. <i>Accounts of Chemical Research</i> , 2018 , 51, 1281-1289	12.89	255
492	Flow chemistry: Microreaction technology comes of age. <i>AIChE Journal</i> , 2017 , 63, 858-869	3.6	249
491	Analyzing Learned Molecular Representations for Property Prediction. <i>Journal of Chemical Information and Modeling</i> , 2019 , 59, 3370-3388	6.1	247
490	A graph-convolutional neural network model for the prediction of chemical reactivity. <i>Chemical Science</i> , 2019 , 10, 370-377	9.4	237
489	Flow-induced deformation of shallow microfluidic channels. <i>Lab on A Chip</i> , 2006 , 6, 500-7	7.2	233
488	A microfabricated gas-liquid segmented flow reactor for high-temperature synthesis: the case of CdSe quantum dots. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 5447-51	16.4	230
487	Micromachined reactors for catalytic partial oxidation reactions. <i>AIChE Journal</i> , 1997 , 43, 3059-3069	3.6	221

486	Mass transport and surface reactions in microfluidic systems. <i>Chemical Engineering Science</i> , 2006 , 61, 1102-1121	4.4	213
485	A Continuous-Flow Microcapillary Reactor for the Preparation of a Size Series of CdSe Nanocrystals. <i>Advanced Materials</i> , 2003 , 15, 1858-1862	24	207
484	Reconfigurable system for automated optimization of diverse chemical reactions. <i>Science</i> , 2018 , 361, 1220-1225	33.3	207
483	Accelerating reactions with microreactors at elevated temperatures and pressures: profiling aminocarbonylation reactions. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 1734-7	16.4	195
482	Size-controlled flow synthesis of gold nanoparticles using a segmented flow microfluidic platform. <i>Langmuir</i> , 2012 , 28, 7007-13	4	194
481	Overcoming the Challenges of Solid Bridging and Constriction during Pd-Catalyzed C-N Bond Formation in Microreactors. <i>Organic Process Research and Development</i> , 2010 , 14, 1347-1357	3.9	194
480	Convolutional Embedding of Attributed Molecular Graphs for Physical Property Prediction. <i>Journal of Chemical Information and Modeling</i> , 2017 , 57, 1757-1772	6.1	191
479	Design and global optimization of high-efficiency thermophotovoltaic systems. <i>Optics Express</i> , 2010 , 18 Suppl 3, A314-34	3.3	189
478	Microfluidic systems with on-line UV detection fabricated in photodefinable epoxy. <i>Journal of Micromechanics and Microengineering</i> , 2001 , 11, 263-269	2	183
477	Insights into the kinetics of semiconductor nanocrystal nucleation and growth. <i>Journal of the American Chemical Society</i> , 2009 , 131, 4479-89	16.4	182
476	Photochemical reactions and on-line UV detection in microfabricated reactors. <i>Lab on A Chip</i> , 2001 , 1, 22-8	7.2	181
475	Palladium-catalyzed amination reactions in flow: overcoming the challenges of clogging via acoustic irradiation. <i>Chemical Science</i> , 2011 , 2, 287-290	9.4	179
474	Complex flow phenomena in MOCVD reactors. <i>Journal of Crystal Growth</i> , 1986 , 77, 108-119	1.6	179
473	An integrated microreactor system for self-optimization of a Heck reaction: from micro- to mesoscale flow systems. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 7076-80	16.4	175
472	Membrane-aerated microbioreactor for high-throughput bioprocessing. <i>Biotechnology and Bioengineering</i> , 2004 , 87, 243-54	4.9	171
471	Design and fabrication of microfluidic devices for multiphase mixing and reaction. <i>Journal of Microelectromechanical Systems</i> , 2002 , 11, 709-717	2.5	171
470	Feedback in Flow for Accelerated Reaction Development. <i>Accounts of Chemical Research</i> , 2016 , 49, 1786-2163	21.6	166
469	Reactive polymer coatings: a first step toward surface engineering of microfluidic devices. <i>Analytical Chemistry</i> , 2003 , 75, 2117-22	7.8	165

468	Microchemical systems: Status, challenges, and opportunities. <i>AIChE Journal</i> , 1999 , 45, 2051-2054	3.6	164
467	Microfabricated Multiphase Reactors for the Selective Direct Fluorination of Aromatics. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 698-710	3.9	163
466	Tools for chemical synthesis in microsystems. <i>Lab on A Chip</i> , 2014 , 14, 3206-12	7.2	154
465	A reaction-transport model for AlGaN MOVPE growth. <i>Journal of Crystal Growth</i> , 1998 , 195, 733-739	1.6	154
464	Photo-oxidation of polymers used in electroluminescent devices. <i>Synthetic Metals</i> , 1995 , 73, 195-199	3.6	153
463	Flow Phenomena in Chemical Vapor Deposition of Thin Films. <i>Annual Review of Fluid Mechanics</i> , 1991 , 23, 197-232	22	152
462	Reactive Polymer Coatings: A Platform for Patterning Proteins and Mammalian Cells onto a Broad Range of Materials. <i>Langmuir</i> , 2002 , 18, 3632-3638	4	150
461	A fully automated flow-based approach for accelerated peptide synthesis. <i>Nature Chemical Biology</i> , 2017 , 13, 464-466	11.7	148
460	Microreactor-based reaction optimization in organic chemistry--glycosylation as a challenge. <i>Chemical Communications</i> , 2005 , 578-80	5.8	147
459	The bifurcation behavior of tubular reactors. <i>Chemical Engineering Science</i> , 1982 , 37, 199-222	4.4	147
458	Three-Dimensional Flow Effects in Silicon CVD in Horizontal Reactors. <i>Journal of the Electrochemical Society</i> , 1988 , 135, 459-471	3.9	146
457	Pro und kontra Strömungsreaktoren in der Synthese. <i>Angewandte Chemie</i> , 2011 , 123, 7642-7661	3.6	145
456	In-situ encapsulation of quantum dots into polymer microspheres. <i>Langmuir</i> , 2006 , 22, 3782-90	4	142
455	Design and Scaling Up of Microchemical Systems: A Review. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017 , 8, 285-305	8.9	141
454	Continuous manufacturing [The Green Chemistry promise?]. <i>Green Chemistry</i> , 2019 , 21, 3481-3498	10	140
453	Suzuki-Miyaura cross-coupling reactions in flow: multistep synthesis enabled by a microfluidic extraction. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 5943-6	16.4	140
452	Density functional theory study of ligand binding on CdSe (0001), (0001), and (1120) single crystal relaxed and reconstructed surfaces: implications for nanocrystalline growth. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 18007-16	3.4	140
451	Design and Packaging of Microreactors for High Pressure and High Temperature Applications. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 11310-11320	3.9	139

450	Measurement of residence time distribution in microfluidic systems. <i>Chemical Engineering Science</i> , 2005 , 60, 5729-5737	4.4	138
449	Supercritical Continuous-Microflow Synthesis of Narrow Size Distribution Quantum Dots. <i>Advanced Materials</i> , 2008 , 20, 4830-4834	24	135
448	Continuous dielectrophoretic size-based particle sorting. <i>Analytical Chemistry</i> , 2006 , 78, 5019-25	7.8	135
447	Transport phenomena in vertical reactors for metalorganic vapor phase epitaxy. <i>Journal of Crystal Growth</i> , 1990 , 102, 441-470	1.6	134
446	In situ mass spectroscopy and thermogravimetric studies of GaAs MOCVD gas phase and surface reactions. <i>Journal of Crystal Growth</i> , 1987 , 85, 165-174	1.6	134
445	Development of a Multi-Step Synthesis and Workup Sequence for an Integrated, Continuous Manufacturing Process of a Pharmaceutical. <i>Organic Process Research and Development</i> , 2014 , 18, 402-409	3.9	133
444	Membrane-Based, Liquid-Liquid Separator with Integrated Pressure Control. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 10802-10808	3.9	132
443	Using Machine Learning To Predict Suitable Conditions for Organic Reactions. <i>ACS Central Science</i> , 2018 , 4, 1465-1476	16.8	131
442	Rapid Determination of Reaction Kinetics with an Automated Microfluidic System. <i>Organic Process Research and Development</i> , 2011 , 15, 398-407	3.9	129
441	Toward high-energy-density, high-efficiency, and moderate-temperature chip-scale thermophotovoltaics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 5309-14	11.5	128
440	Microfluidics-based assessment of cell deformability. <i>Analytical Chemistry</i> , 2012 , 84, 6438-43	7.8	127
439	Trimethylamine complexes of alane as precursors for the low-pressure chemical vapor deposition of aluminum. <i>Chemistry of Materials</i> , 1989 , 1, 339-343	9.6	126
438	Investigation of high-temperature degradation of platinum thin films with an in situ resistance measurement apparatus. <i>Journal of Microelectromechanical Systems</i> , 1998 , 7, 128-135	2.5	125
437	Mixing and Dispersion in Small-Scale Flow Systems. <i>Organic Process Research and Development</i> , 2012 , 16, 976-981	3.9	124
436	In situ characterization of the oxidative degradation of a polymeric light emitting device. <i>Journal of Applied Physics</i> , 1997 , 81, 3716-3720	2.5	121
435	Microfabricated Multiphase Reactors for the Direct Synthesis of Hydrogen Peroxide from Hydrogen and Oxygen. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 1153-1160	3.9	121
434	CVD in Stagnation Point Flow: An Evaluation of the Classical 1D Treatment. <i>Journal of the Electrochemical Society</i> , 1986 , 133, 961-970	3.9	120
433	Flow Distribution and Ozonolysis in Gas-Liquid Multichannel Microreactors. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 8036-8042	3.9	119

432	Multistep microchemical synthesis enabled by microfluidic distillation. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 899-903	16.4	118
431	Cathodoluminescence and photoluminescence of highly luminescent CdSe/ZnS quantum dot composites. <i>Applied Physics Letters</i> , 1997 , 70, 2132-2134	3.4	118
430	Development of a multiplexed microbioreactor system for high-throughput bioprocessing. <i>Lab on A Chip</i> , 2005 , 5, 819-26	7.2	118
429	Aminolysis of Epoxides in a Microreactor System: A Continuous Flow Approach to β -Amino Alcohols. <i>Organic Process Research and Development</i> , 2010 , 14, 432-440	3.9	117
428	Investigation of indium phosphide nanocrystal synthesis using a high-temperature and high-pressure continuous flow microreactor. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 627-30	16.4	116
427	Computer-Assisted Retrosynthesis Based on Molecular Similarity. <i>ACS Central Science</i> , 2017 , 3, 1237-1245	6.8	112
426	. <i>Journal of Microelectromechanical Systems</i> , 2003 , 12, 600-612	2.5	112
425	A Teflon microreactor with integrated piezoelectric actuator to handle solid forming reactions. <i>Lab on A Chip</i> , 2011 , 11, 2488-92	7.2	111
424	Distillation in microchemical systems using capillary forces and segmented flow. <i>Lab on A Chip</i> , 2009 , 9, 1843-9	7.2	111
423	Fabrication and structural characterization of self-supporting electrolyte membranes for a micro solid-oxide fuel cell. <i>Journal of Materials Research</i> , 2004 , 19, 2604-2615	2.5	111
422	Automated Multitrajectory Method for Reaction Optimization in a Microfluidic System using Online IR Analysis. <i>Organic Process Research and Development</i> , 2012 , 16, 1409-1415	3.9	110
421	An Automated Microfluidic System for Online Optimization in Chemical Synthesis. <i>Organic Process Research and Development</i> , 2010 , 14, 1169-1176	3.9	110
420	Microfabricated packed-bed reactor for phosgene synthesis. <i>AIChE Journal</i> , 2001 , 47, 1639-1647	3.6	109
419	Achieving continuous manufacturing: technologies and approaches for synthesis, workup, and isolation of drug substance. May 20-21, 2014 Continuous Manufacturing Symposium. <i>Journal of Pharmaceutical Sciences</i> , 2015 , 104, 781-91	3.9	108
418	Complex flow phenomena in vertical MOCVD reactors: Effects on deposition uniformity and interface abruptness. <i>Journal of Crystal Growth</i> , 1987 , 85, 154-164	1.6	106
417	High-throughput Nuclear Delivery and Rapid Expression of DNA via Mechanical and Electrical Cell-Membrane Disruption. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	105
416	Silicon-Based Microchemical Systems: Characteristics and Applications. <i>MRS Bulletin</i> , 2006 , 31, 101-107	3.2	105
415	Scalability of mass transfer in liquid-liquid flow. <i>Chemical Engineering Science</i> , 2014 , 116, 1-8	4.4	102

414	Microfluidic Synthesis of Titania Shells on Colloidal Silica. <i>Advanced Materials</i> , 2007 , 19, 2556-2560	24	102
413	A microfabricated device for subcellular organelle sorting. <i>Analytical Chemistry</i> , 2004 , 76, 5705-12	7.8	102
412	Rapid flow-based peptide synthesis. <i>ChemBioChem</i> , 2014 , 15, 713-20	3.8	101
411	"Batch" kinetics in flow: online IR analysis and continuous control. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 470-3	16.4	101
410	Microchemostat-microbial continuous culture in a polymer-based, instrumented microbioreactor. <i>Lab on A Chip</i> , 2006 , 6, 906-13	7.2	101
409	Gas-Phase and Surface Reaction Mechanisms in MOCVD of GaAs with Trimethyl-Gallium and Arsine. <i>Journal of the Electrochemical Society</i> , 1991 , 138, 2426-2439	3.9	100
408	Flow and heat transfer in CVD reactors: Comparison of Raman temperature measurements and finite element model predictions. <i>Journal of Crystal Growth</i> , 1990 , 100, 577-599	1.6	96
407	Estimation of effective transport coefficients in porous solids based on percolation concepts. <i>Chemical Engineering Science</i> , 1985 , 40, 1723-1734	4.4	96
406	Scaled-Out Multilayer Gas-Liquid Microreactor with Integrated Velocimetry Sensors. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 8997-9013	3.9	94
405	SCScore: Synthetic Complexity Learned from a Reaction Corpus. <i>Journal of Chemical Information and Modeling</i> , 2018 , 58, 252-261	6.1	90
404	A Microfabricated Gas-Liquid Segmented Flow Reactor for High-Temperature Synthesis: The Case of CdSe Quantum Dots. <i>Angewandte Chemie</i> , 2005 , 117, 5583-5587	3.6	88
403	Microfluidic electrochemistry for single-electron transfer redox-neutral reactions. <i>Science</i> , 2020 , 368, 1352-1357	33.3	87
402	Suzuki-Miyaura cross-coupling optimization enabled by automated feedback. <i>Reaction Chemistry and Engineering</i> , 2016 , 1, 658-666	4.9	87
401	Microfabricated Differential Reactor for Heterogeneous Gas Phase Catalyst Testing. <i>Journal of Catalysis</i> , 2002 , 209, 401-412	7.3	85
400	Percolation concepts in modelling of gas-solid reactions—Application to char gasification in the kinetic regime. <i>Chemical Engineering Science</i> , 1986 , 41, 333-343	4.4	84
399	In situ mass spectroscopy studies of the decomposition of organometallic arsenic compounds in the presence of Ga(CH ₃) ₃ and Ga(C ₂ H ₅) ₃ . <i>Journal of Crystal Growth</i> , 1988 , 93, 134-142	1.6	83
398	Development of an automated microfluidic reaction platform for multidimensional screening: reaction discovery employing bicyclo[3.2.1]octanoid scaffolds. <i>Journal of Organic Chemistry</i> , 2009 , 74, 6169-80	4.2	82
397	Estimation of the molecular weight distribution in batch polymerization. <i>AIChE Journal</i> , 1988 , 34, 1341-1363	3.63	82

396	Characterization of Indium Phosphide Quantum Dot Growth Intermediates Using MALDI-TOF Mass Spectrometry. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13469-13472	16.4	81
395	A Rapid Total Synthesis of Ciprofloxacin Hydrochloride in Continuous Flow. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 8870-8873	16.4	80
394	Multiscale modeling of chemical vapor deposition. <i>Journal of Applied Physics</i> , 1998 , 83, 524-530	2.5	80
393	Detailed models of the MOVPE process. <i>Journal of Crystal Growth</i> , 1991 , 107, 1-11	1.6	80
392	A New Method toward Microengineered Surfaces Based on Reactive Coating. <i>Angewandte Chemie - International Edition</i> , 2001 , 40, 3166-3169	16.4	79
391	Transition Metals for Selective Chemical Vapor Deposition of Parylene-Based Polymers. <i>Chemistry of Materials</i> , 2000 , 12, 1305-1313	9.6	79
390	Mass Transport and Reactions in the Tube-in-Tube Reactor. <i>Organic Process Research and Development</i> , 2013 , 17, 927-933	3.9	78
389	Low Pressure CVD of Silicon Nitride. <i>Journal of the Electrochemical Society</i> , 1987 , 134, 1777-1785	3.9	78
388	Synthesis of control structures by singular value analysis: Dynamic measures of sensitivity and interaction. <i>AIChE Journal</i> , 1985 , 31, 427-439	3.6	78
387	Live-cell protein labelling with nanometre precision by cell squeezing. <i>Nature Communications</i> , 2016 , 7, 10372	17.4	77
386	A well-mixed, polymer-based microbioreactor with integrated optical measurements. <i>Biotechnology and Bioengineering</i> , 2006 , 93, 286-96	4.9	76
385	Autonomous Discovery in the Chemical Sciences Part I: Progress. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 22858-22893	16.4	75
384	Cell stimulus and lysis in a microfluidic device with segmented gas-liquid flow. <i>Analytical Chemistry</i> , 2005 , 77, 3629-36	7.8	74
383	Kinetic and Scale-Up Investigations of Epoxide Aminolysis in Microreactors at High Temperatures and Pressures. <i>Organic Process Research and Development</i> , 2011 , 15, 131-139	3.9	73
382	Electromigration of aluminum cathodes in polymer-based electroluminescent devices. <i>Applied Physics Letters</i> , 1996 , 69, 3941-3943	3.4	72
381	Facile Soft-Templated Synthesis of High-Surface Area and Highly Porous Carbon Nitrides. <i>Chemistry of Materials</i> , 2017 , 29, 1496-1506	9.6	71
380	An Automated Continuous-Flow Platform for the Estimation of Multistep Reaction Kinetics. <i>Organic Process Research and Development</i> , 2012 , 16, 1770-1782	3.9	71
379	Micro-reaction engineering applications of reaction engineering to processing of electronic and photonic materials. <i>Chemical Engineering Science</i> , 1987 , 42, 923-958	4.4	70

378	On-line molecular weight distribution estimation and control in batch polymerization. <i>AIChE Journal</i> , 1994 , 40, 445-462	3.6	69
377	Analysis of MOCVD of GaAs on patterned substrates. <i>Journal of Crystal Growth</i> , 1991 , 114, 581-592	1.6	69
376	Microfluidic based single cell microinjection. <i>Lab on A Chip</i> , 2008 , 8, 1258-61	7.2	68
375	Properties of the CdSe(0001), (0001), and (1120) single crystal surfaces: Relaxation, reconstruction, and adatom and admolecule adsorption. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 19320-8	3.4	68
374	Electroluminescent Materials with Feature Sizes as Small as 5 nm Using Elastomeric Membranes as Masks for Dry Lift-Off. <i>Advanced Materials</i> , 1999 , 11, 546-552	24	68
373	Photoredox Iridium-Nickel Dual-Catalyzed Decarboxylative Arylation Cross-Coupling: From Batch to Continuous Flow via Self-Optimizing Segmented Flow Reactor. <i>Organic Process Research and Development</i> , 2018 , 22, 542-550	3.9	67
372	Direct oxidative amidation of aromatic aldehydes using aqueous hydrogen peroxide in continuous flow microreactor systems. <i>Green Chemistry</i> , 2012 , 14, 1471	10	67
371	Nonendocytic delivery of functional engineered nanoparticles into the cytoplasm of live cells using a novel, high-throughput microfluidic device. <i>Nano Letters</i> , 2012 , 12, 6322-7	11.5	66
370	Simulation of carbon doping of GaAs during MOVPE. <i>Journal of Crystal Growth</i> , 1992 , 124, 483-492	1.6	64
369	Gas-Liquid Flow and Mass Transfer in an Advanced-Flow Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 8996-9010	3.9	63
368	Electrospray organometallic chemical vapor deposition—a novel technique for preparation of III-V quantum dot composites. <i>Applied Physics Letters</i> , 1994 , 65, 2795-2797	3.4	63
367	Large-area fabrication of high aspect ratio tantalum photonic crystals for high-temperature selective emitters. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2013 , 31, 011802	1.3	62
366	Surfactant-enhanced liquid-liquid extraction in microfluidic channels with inline electric-field enhanced coalescence. <i>Lab on A Chip</i> , 2005 , 5, 531-5	7.2	62
365	An Evaluation of Density Functional Theory and ab Initio Predictions for Bridge-Bonded Aluminum Compounds. <i>Journal of Physical Chemistry A</i> , 1998 , 102, 2613-2623	2.8	62
364	Autonomous Discovery in the Chemical Sciences Part II: Outlook. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 23414-23436	16.4	62
363	Oscillatory Microprocessor for Growth and in Situ Characterization of Semiconductor Nanocrystals. <i>Chemistry of Materials</i> , 2015 , 27, 6131-6138	9.6	61
362	Microfluidic squeezing for intracellular antigen loading in polyclonal B-cells as cellular vaccines. <i>Scientific Reports</i> , 2015 , 5, 10276	4.9	61
361	Hydrodynamics of Liquid-Liquid Dispersion in an Advanced-Flow Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 16251-16262	3.9	61

360	Application of Continuous Crystallization in an Integrated Continuous Pharmaceutical Pilot Plant. <i>Crystal Growth and Design</i> , 2014 , 14, 2148-2157	3.5	60
359	The Unexpected Influence of Precursor Conversion Rate in the Synthesis of III-V Quantum Dots. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 14299-303	16.4	60
358	Sample dispersion for segmented flow in microchannels with rectangular cross section. <i>Analytical Chemistry</i> , 2008 , 80, 1558-67	7.8	60
357	Simulation of micromachined chemical reactors for heterogeneous partial oxidation reactions. <i>Chemical Engineering Science</i> , 2000 , 55, 3-13	4.4	60
356	Analysis of Multicomponent LPCVD Processes: Deposition of Pure and In Situ Doped Poly-Si. <i>Journal of the Electrochemical Society</i> , 1985 , 132, 448-454	3.9	60
355	Simulations and analysis of multiphase transport and reaction in segmented flow microreactors. <i>Chemical Engineering Science</i> , 2017 , 169, 106-116	4.4	59
354	Advanced Continuous Flow Platform for On-Demand Pharmaceutical Manufacturing. <i>Chemistry - A European Journal</i> , 2018 , 24, 2776-2784	4.8	59
353	Percolation concepts in modelling of gas-solid reactionsII. Application to char gasification in the diffusion regime. <i>Chemical Engineering Science</i> , 1986 , 41, 345-354	4.4	59
352	BigSMILES: A Structurally-Based Line Notation for Describing Macromolecules. <i>ACS Central Science</i> , 2019 , 5, 1523-1531	16.8	58
351	Simultaneous solvent screening and reaction optimization in microliter slugs. <i>Chemical Communications</i> , 2015 , 51, 13290-3	5.8	58
350	Shape-controlled continuous synthesis of metal nanostructures. <i>Nanoscale</i> , 2016 , 8, 7534-43	7.7	57
349	Heterogeneous catalysis with continuous flow microreactors. <i>Catalysis Science and Technology</i> , 2012 , 2, 2134	5.5	57
348	Silicon Micromixers with Infrared Detection for Studies of Liquid-Phase Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 2351-2358	3.9	57
347	End-to-End Continuous Manufacturing of Pharmaceuticals: Integrated Synthesis, Purification, and Final Dosage Formation. <i>Angewandte Chemie</i> , 2013 , 125, 12585-12589	3.6	56
346	Microfluidic preparative free-flow isoelectric focusing: system optimization for protein complex separation. <i>Analytical Chemistry</i> , 2010 , 82, 1253-60	7.8	56
345	Rice-Ramsperger-Kassel-Marcus theoretical prediction of high-pressure Arrhenius parameters by nonlinear regression: application to silane and disilane decomposition. <i>The Journal of Physical Chemistry</i> , 1987 , 91, 5732-5739		54
344	A segmented flow platform for on-demand medicinal chemistry and compound synthesis in oscillating droplets. <i>Chemical Communications</i> , 2017 , 53, 6649-6652	5.8	53
343	Current and Future Roles of Artificial Intelligence in Medicinal Chemistry Synthesis. <i>Journal of Medicinal Chemistry</i> , 2020 , 63, 8667-8682	8.3	53

342	Suzuki-Miyaura Cross-Coupling Reactions in Flow: Multistep Synthesis Enabled by a Microfluidic Extraction. <i>Angewandte Chemie</i> , 2011 , 123, 6065-6068	3.6	53
341	Use of Microcontact Printing for Generating Selectively Grown Films of Poly(p-phenylene vinylene) and Parylenes Prepared by Chemical Vapor Deposition. <i>Langmuir</i> , 2000 , 16, 8495-8500	4	52
340	Transport phenomena and chemical reaction issues in OMVPE of compound semiconductors. <i>Journal of Crystal Growth</i> , 1989 , 98, 148-166	1.6	52
339	Bifurcation phenomena in CSTR dynamics: A system with extraneous thermal capacitance. <i>Chemical Engineering Science</i> , 1986 , 41, 1497-1523	4.4	52
338	Modeling of pyrolytic laser-assisted chemical vapor deposition: Mass transfer and kinetic effects influencing the shape of the deposit. <i>Journal of Applied Physics</i> , 1988 , 63, 198-206	2.5	52
337	Effect of Trace Water on the Growth of Indium Phosphide Quantum Dots. <i>Chemistry of Materials</i> , 2015 , 27, 5058-5063	9.6	51
336	Oscillatory multiphase flow strategy for chemistry and biology. <i>Lab on A Chip</i> , 2016 , 16, 2775-84	7.2	51
335	Multiscale modeling of thin film growth. <i>Current Opinion in Solid State and Materials Science</i> , 1998 , 3, 562-569	12	50
334	Cyclotrigallazane, [H ₂ GaNH ₂] ₃ . Its preparation, structure, and conversion to cubic gallium nitride at 150.degree.C. <i>Chemistry of Materials</i> , 1990 , 2, 342-343	9.6	50
333	CARS in situ diagnostics in MOVPE: The thermal decomposition of AsH ₃ and PH ₃ . <i>Journal of Crystal Growth</i> , 1988 , 93, 151-158	1.6	50
332	Surface reactions of dimethylaminoarsine during MOMBE of GaAs. <i>Journal of Crystal Growth</i> , 1992 , 124, 16-22	1.6	49
331	A pH-Sensitive Laser-Induced Fluorescence Technique To Monitor Mass Transfer in Multiphase Flows in Microfluidic Devices. <i>Industrial & Engineering Chemistry Research</i> , 2012 , 51, 8999-9006	3.9	48
330	Microreactor System for High-Pressure Continuous Flow Homogeneous Catalysis Measurements. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 11013-11022	3.9	47
329	Nonlinear model reduction strategies for rapid thermal processing systems. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 1998 , 11, 266-275	2.6	47
328	Sensitive power compensated scanning calorimeter for analysis of phase transformations in small samples. <i>Review of Scientific Instruments</i> , 2005 , 76, 065104	1.7	47
327	Continuous-flow precipitation of hydroxyapatite in ultrasonic microsystems. <i>Chemical Engineering Journal</i> , 2013 , 215-216, 979-987	14.7	46
326	Teflon-coated silicon microreactors: impact on segmented liquid-liquid multiphase flows. <i>Langmuir</i> , 2011 , 27, 6519-27	4	46
325	Micro free-flow IEF enhanced by active cooling and functionalized gels. <i>Electrophoresis</i> , 2006 , 27, 4960-93.6	93.6	46

324	Microfabricated cross-flow chemical reactor for catalyst testing. <i>Sensors and Actuators B: Chemical</i> , 2002 , 82, 297-306	8.5	46
323	Multistage Microfluidic Platform for the Continuous Synthesis of III-V Core/Shell Quantum Dots. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 10915-10918	16.4	46
322	Plasma membrane recovery kinetics of a microfluidic intracellular delivery platform. <i>Integrative Biology (United Kingdom)</i> , 2014 , 6, 470-5	3.7	45
321	Design issues for membrane-based, gas phase microchemical systems. <i>Chemical Engineering Science</i> , 2000 , 55, 3065-3075	4.4	45
320	A miniature CSTR cascade for continuous flow of reactions containing solids. <i>Reaction Chemistry and Engineering</i> , 2016 , 1, 501-507	4.9	45
319	Nanoengineering a library of metallic nanostructures using a single microfluidic reactor. <i>Nanoscale</i> , 2016 , 8, 15288-95	7.7	45
318	RDChiral: An RDKit Wrapper for Handling Stereochemistry in Retrosynthetic Template Extraction and Application. <i>Journal of Chemical Information and Modeling</i> , 2019 , 59, 2529-2537	6.1	43
317	An Integrated Microreactor System for Self-Optimization of a Heck Reaction: From Micro- to Mesoscale Flow Systems. <i>Angewandte Chemie</i> , 2010 , 122, 7230-7234	3.6	43
316	Combined experimental and modeling studies of laser-assisted chemical vapor deposition of copper from copper(I)-hexafluoroacetylacetonate trimethylvinylsilane. <i>Journal of Applied Physics</i> , 1994 , 75, 2240-2250	2.5	43
315	High quality epitaxial ZnSe and the relationship between electron mobility and photoluminescence characteristics. <i>Applied Physics Letters</i> , 1989 , 54, 353-355	3.4	43
314	One-step continuous synthesis of biocompatible gold nanorods for optical coherence tomography. <i>Chemical Communications</i> , 2012 , 48, 6654-6	5.8	42
313	Flow-through comb electroporation device for delivery of macromolecules. <i>Analytical Chemistry</i> , 2013 , 85, 1637-41	7.8	42
312	Synthesis and Kinetics of Highly Energetic Intermediates by Micromixers: Direct Multistep Synthesis of Sodium Nitrotetrazolate. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 4132-4139	3.9	42
311	Computational chemistry predictions of reaction processes in organometallic vapor phase epitaxy. <i>Progress in Crystal Growth and Characterization of Materials</i> , 1997 , 35, 117-149	3.5	42
310	Solder-based chip-to-tube and chip-to-chip packaging for microfluidic devices. <i>Lab on A Chip</i> , 2007 , 7, 1309-14	7.2	42
309	Infrared spectroscopy for chemically specific sensing in silicon-based microreactors. <i>Analytical Chemistry</i> , 2004 , 76, 6476-83	7.8	42
308	Computational Chemistry Predictions of Kinetics and Major Reaction Pathways for Germane Gas-Phase Reactions. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 2646-2654	3.9	42
307	Optimum catalyst selection over continuous and discrete process variables with a single droplet microfluidic reaction platform. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 301-311	4.9	41

306	Efficient kinetic experiments in continuous flow microreactors. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 94-101	4.9	41
305	Molecular Engineering of Trifunctional Supported Catalysts for the Aerobic Oxidation of Alcohols. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 11044-8	16.4	41
304	Increasing Productivity of Microreactors for Fast Gas-Liquid Reactions: The Case of Direct Fluorination of Toluene. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 1428-1434	3.9	41
303	Characteristics of GaSb growth using various gallium and antimony precursors. <i>Journal of Crystal Growth</i> , 1997 , 170, 55-60	1.6	41
302	Selective Growth of Poly(p-phenylene vinylene) Prepared by Chemical Vapor Deposition. <i>Advanced Materials</i> , 1999 , 11, 814-820	24	41
301	Gas-Phase Decomposition Reactions of Tris(dimethylamino)phosphine, -Arsine, and -Stibine Reagents. <i>Chemistry of Materials</i> , 1995 , 7, 507-516	9.6	41
300	Thermophoresis of solid particles in horizontal chemical vapor deposition reactors. <i>Journal of Crystal Growth</i> , 1990 , 102, 743-761	1.6	41
299	Design of Multistage Counter-Current Liquid-Liquid Extraction for Small-Scale Applications. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 4095-4103	3.9	40
298	Scale-Up Investigation of the Continuous Phase-Transfer-Catalyzed Hypochlorite Oxidation of Alcohols and Aldehydes. <i>Organic Process Research and Development</i> , 2014 , 18, 1476-1481	3.9	40
297	Temperature programmed desorption investigations of hydrogen and ammonia reactions on GaN. <i>Surface Science</i> , 1997 , 381, L581-L588	1.8	40
296	OpenFOAM Computational Fluid Dynamic Simulations of Two-Phase Flow and Mass Transfer in an Advanced-Flow Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 6649-6659	3.9	39
295	Synthesis, assembly and reaction of a nanocatalyst in microfluidic systems: a general platform. <i>Lab on A Chip</i> , 2012 , 12, 4080-4	7.2	39
294	Chemical vapor deposition of thin polymer films used in polymer-based light emitting diodes. <i>Advanced Materials</i> , 1997 , 9, 490-493	24	39
293	Palladium-Based Micromembranes for Hydrogen Separation: Device Performance and Chemical Stability. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 7083-7091	3.9	39
292	In-situ reflectance monitoring of GaSb substrate oxide desorption. <i>Journal of Crystal Growth</i> , 2001 , 225, 420-425	1.6	39
291	MOVPE of AlN and GaN by using novel precursors. <i>Journal of Crystal Growth</i> , 1991 , 107, 376-380	1.6	39
290	Gas phase and surface reactions in Si doping of GaAs by silanes. <i>Journal of Crystal Growth</i> , 1988 , 93, 594-601	1.6	39
289	Ex vivo cytosolic delivery of functional macromolecules to immune cells. <i>PLoS ONE</i> , 2015 , 10, e0118803	3.7	38

288	Gene expression analysis of Escherichia coli grown in miniaturized bioreactor platforms for high-throughput analysis of growth and genomic data. <i>Applied Microbiology and Biotechnology</i> , 2005 , 68, 518-32	5.7	38
287	Infrared Spectroscopic Study of Decomposition of Ti(N(CH ₃) ₂) ₄ . <i>Journal of the Electrochemical Society</i> , 2001 , 148, G178	3.9	38
286	An integrated multiphase flow sensor for microchannels. <i>Experiments in Fluids</i> , 2004 , 36, 819-832	2.5	37
285	A Combustion-Based MEMS Thermoelectric Power Generator 2001 , 30-33		37
284	Catalytic hydrogenation of N-4-nitrophenyl nicotinamide in a micro-packed bed reactor. <i>Green Chemistry</i> , 2018 , 20, 886-893	10	36
283	Preparation of III-VI quantum dot composites by electro-spray organometallic chemical vapor deposition. <i>Journal of Crystal Growth</i> , 1994 , 145, 714-720	1.6	36
282	A Continuous Stirred-Tank Reactor (CSTR) Cascade for Handling Solid-Containing Photochemical Reactions. <i>Organic Process Research and Development</i> , 2019 , 23, 2699-2706	3.9	35
281	Chemical vapor deposition of poly (p-phenylene vinylene) based light emitting diodes with low turn-on voltages. <i>Applied Physics Letters</i> , 1997 , 71, 2091-2093	3.4	35
280	Miniaturization and integration of photoacoustic detection. <i>Journal of Applied Physics</i> , 2002 , 92, 1555-1563	2.9	35
279	Poly(p-phenylene vinylene) Prepared by Chemical Vapor Deposition: Influence of Monomer Selection and Reaction Conditions on Film Composition and Luminescence Properties. <i>Macromolecules</i> , 1998 , 31, 6789-6793	5.5	35
278	The effect of patterns on thermal stress during rapid thermal processing of silicon wafers. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 1998 , 11, 99-107	2.6	35
277	Chemical Vapor Deposition. <i>Advances in Chemistry Series</i> , 1989 , 199-263		35
276	Biphasic Catalytic Hydrogen Peroxide Oxidation of Alcohols in Flow: Scale-up and Extraction. <i>Organic Process Research and Development</i> , 2016 , 20, 1677-1685	3.9	35
275	Hydrodynamics of gas-liquid flow in micropacked beds: Pressure drop, liquid holdup, and two-phase model. <i>AIChE Journal</i> , 2017 , 63, 4694-4704	3.6	34
274	Isotropic etching of silicon in fluorine gas for MEMS micromachining. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 384-392	2	34
273	Cascaded free-flow isoelectric focusing for improved focusing speed and resolution. <i>Analytical Chemistry</i> , 2007 , 79, 9364-71	7.8	34
272	Oscillatory three-phase flow reactor for studies of bi-phasic catalytic reactions. <i>Chemical Communications</i> , 2015 , 51, 8916-9	5.8	33
271	Process intensification and optimization for hydroxyapatite nanoparticles production. <i>Chemical Engineering Science</i> , 2013 , 100, 352-359	4.4	33

270	Material-Efficient Microfluidic Platform for Exploratory Studies of Visible-Light Photoredox Catalysis. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 9847-9850	16.4	33
269	Multistep synthesis of amides from alcohols and amines in continuous flow microreactor systems using oxygen and urea hydrogen peroxide as oxidants. <i>Green Chemistry</i> , 2013 , 15, 1538	10	33
268	Development of a Photochemical Microfluidics Platform. <i>Journal of Flow Chemistry</i> , 2011 , 1, 53-55	3.3	33
267	Synthesis of CdSe quantum dot/ZnS matrix thin films via electrospray organometallic chemical vapor deposition. <i>Journal of Crystal Growth</i> , 1998 , 195, 564-568	1.6	33
266	Simulation of flow and growth phenomena in a close-spaced reactor. <i>Journal of Crystal Growth</i> , 1998 , 195, 725-732	1.6	33
265	Analysis of Transition Regime Flows in Low Pressure Chemical Vapor Deposition Reactors Using the Direct Simulation Monte Carlo Method. <i>Journal of the Electrochemical Society</i> , 1992 , 139, 2264-2273	3.9	33
264	MOCVD in inverted stagnation point flow. <i>Journal of Crystal Growth</i> , 1986 , 77, 120-127	1.6	33
263	Continuous N-Hydroxyphthalimide (NHPI)-Mediated Electrochemical Aerobic Oxidation of Benzylic C-H Bonds. <i>Chemistry - A European Journal</i> , 2018 , 24, 10260	4.8	33
262	Multistage extraction platform for highly efficient and fully continuous purification of nanoparticles. <i>Nanoscale</i> , 2017 , 9, 7703-7707	7.7	32
261	In situ measurement of bioluminescence and fluorescence in an integrated microbioreactor. <i>Biotechnology and Bioengineering</i> , 2006 , 93, 40-7	4.9	32
260	High-Purity Hydrogen Generation in a Microfabricated 23 wt % Ag/Pd Membrane Device Integrated with 8:1 LaNi _{0.95} Co _{0.05} O ₃ /Al ₂ O ₃ Catalyst. <i>Advanced Materials</i> , 2006 , 18, 1701-1704	24	32
259	Estimation of the Arrhenius parameters for silane + hydrogen and .DELTA.Hfo(SiH ₂) by a nonlinear regression analysis of the forward and reverse reaction rate data. <i>The Journal of Physical Chemistry</i> , 1991 , 95, 145-154		32
258	Microfluidic Continuous Seeded Crystallization: Extraction of Growth Kinetics and Impact of Impurity on Morphology. <i>Crystal Growth and Design</i> , 2012 , 12, 6260-6266	3.5	31
257	Continuous flow metal-free oxidation of picolines using air. <i>Chemical Communications</i> , 2012 , 48, 2086-8	5.8	31
256	Differential gene expression profiles and real-time measurements of growth parameters in <i>Saccharomyces cerevisiae</i> grown in microliter-scale bioreactors equipped with internal stirring. <i>Biotechnology Progress</i> , 2006 , 22, 710-7	2.8	31
255	Tertiarybutylaluminum as an organometallic source for epitaxial growth of AlGaSb. <i>Applied Physics Letters</i> , 1995 , 67, 1384-1386	3.4	31
254	Simulation of Rarefied Gas Transport and Profile Evolution in Nonplanar Substrate Chemical Vapor Deposition. <i>Journal of the Electrochemical Society</i> , 1994 , 141, 2545-2551	3.9	31
253	Gas phase and surface reactions in the MOCVD of GaAs from triethylgallium, trimethylgallium, and tertiarybutylarsine. <i>Journal of Crystal Growth</i> , 1988 , 93, 20-28	1.6	31

252	Batch Kinetics in Flow: Online IR Analysis and Continuous Control. <i>Angewandte Chemie</i> , 2014 , 126, 480-483	3.5	30
251	Miniaturization and integration of photoacoustic detection with a microfabricated chemical reactor system. <i>Journal of Microelectromechanical Systems</i> , 2001 , 10, 232-237	2.5	30
250	The Effect of Multilayer Patterns on Temperature Uniformity during Rapid Thermal Processing. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 1142-1151	3.9	30
249	Estimation of Arrhenius parameters for the 1,1 elimination of hydrogen from disilane and the role of chemically activated disilane in silane pyrolysis. <i>The Journal of Physical Chemistry</i> , 1992 , 96, 7695-7703		30
248	One Click to controlled bifunctional supported catalysts for the Cu/TEMPO-catalyzed aerobic oxidation of alcohols. <i>RSC Advances</i> , 2016 , 6, 36602-36605	3.7	30
247	Continuous Nanofiltration and Recycle of an Asymmetric Ketone Hydrogenation Catalyst. <i>ACS Catalysis</i> , 2015 , 5, 2615-2622	13.1	29
246	Automated measurements of gas-liquid mass transfer in micropacked bed reactors. <i>AIChE Journal</i> , 2018 , 64, 564-570	3.6	29
245	Rapid Wolff-Kishner reductions in a silicon carbide microreactor. <i>Green Chemistry</i> , 2014 , 16, 176-180	10	29
244	Microfluidic production of perfluorocarbon-alginate core-shell microparticles for ultrasound therapeutic applications. <i>Langmuir</i> , 2014 , 30, 12391-9	4	29
243	Chemical/surface mechanistic considerations in the design of novel precursors for metalorganic molecular beam epitaxy. <i>Journal of Crystal Growth</i> , 1994 , 136, 118-126	1.6	29
242	Determination of the Arrhenius parameters for disilane + silane + silicon dihydride and ΔH of SiH_2 by RRKM analysis for forward and reverse reaction rate data. <i>The Journal of Physical Chemistry</i> , 1992 , 96, 7683-7695		29
241	Percolation concepts in modelling of gas-solid reactions-III. Application to sulphation of calcined limestone. <i>Chemical Engineering Science</i> , 1987 , 42, 565-574	4.4	29
240	Portable Thermoelectric Power Generator Based on a Microfabricated Silicon Combustor with Low Resistance to Flow. <i>Industrial & Engineering Chemistry Research</i> , 2011 , 50, 8468-8475	3.9	28
239	A chemical mechanism for in situ boron doping during silicon chemical vapor deposition. <i>Thin Solid Films</i> , 2000 , 365, 231-241	2.2	28
238	Modeling of metal thin film growth: Linking angstrom-scale molecular dynamics results to micron-scale film topographies. <i>Physical Review B</i> , 2000 , 62, 2869-2878	3.3	28
237	A microscopic model for catalytic surfaces: Catalytic wires and gauzes. <i>Chemical Engineering Science</i> , 1980 , 35, 2439-2457	4.4	28
236	In-Situ Microfluidic Study of Biphasic Nanocrystal Ligand-Exchange Reactions Using an Oscillatory Flow Reactor. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 16333-16337	16.4	27
235	Compact and Integrated Approach for Advanced End-to-End Production, Purification, and Aqueous Formulation of Lidocaine Hydrochloride. <i>Organic Process Research and Development</i> , 2016 , 20, 1347-1353	3.9	27

234	Continuous synthesis of palladium nanorods in oxidative segmented flow. <i>AIChE Journal</i> , 2016 , 62, 373-380	3.8	27
233	Investigation of Indium Phosphide Nanocrystal Synthesis Using a High-Temperature and High-Pressure Continuous Flow Microreactor. <i>Angewandte Chemie</i> , 2011 , 123, 653-656	3.6	27
232	A Systematic Approach to Simulating Rapid Thermal Processing Systems. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 2035-2043	3.9	26
231	n-AlGaSb and GaSb/AlGaSb double-heterostructure lasers grown by organometallic vapor phase epitaxy. <i>Applied Physics Letters</i> , 1996 , 68, 400-402	3.4	26
230	Kinetics analysis and automated online screening of aminocarbonylation of aryl halides in flow. <i>Reaction Chemistry and Engineering</i> , 2016 , 1, 272-279	4.9	25
229	Use of a Droplet Platform To Optimize Pd-Catalyzed C-N Coupling Reactions Promoted by Organic Bases. <i>Organic Process Research and Development</i> , 2019 , 23, 1594-1601	3.9	25
228	Dissociation reactions of CuI(hfac)L compounds relevant to the chemical vapor deposition of copper. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 2818	3.6	25
227	Blue Electroluminescent Copolymers by Parylene-Based Chemical Vapor Deposition. <i>Macromolecules</i> , 2000 , 33, 5336-5339	5.5	25
226	MOVPE of ZnSe using organometallic allyl selenium precursors. <i>Journal of Crystal Growth</i> , 1991 , 107, 390-395	1.6	25
225	A computational study of gas-phase and surface reactions in deposition and etching of GaAs and AlAs in the presence of HCl. <i>Journal of Crystal Growth</i> , 2004 , 268, 76-95	1.6	24
224	In situ concentration monitoring in a vertical OMVPE reactor by fiber-optics-based Fourier transform infrared spectroscopy. <i>Journal of Crystal Growth</i> , 1996 , 169, 443-449	1.6	24
223	Computation of transition and molecular diffusivities in fibrous media. <i>AIChE Journal</i> , 1992 , 38, 56-66	3.6	24
222	Models for catalytic pore plugging: application to hydrodemetallation. <i>Chemical Engineering Science</i> , 1989 , 44, 649-663	4.4	24
221	Multiphase Oscillatory Flow Strategy for in Situ Measurement and Screening of Partition Coefficients. <i>Analytical Chemistry</i> , 2015 , 87, 11130-6	7.8	23
220	Automated in Situ Measurement of Gas Solubility in Liquids with a Simple Tube-in-Tube Reactor. <i>Analytical Chemistry</i> , 2017 , 89, 8524-8530	7.8	23
219	Sphingomyelinase-induced phase transformations: causing morphology switches and multiple-time-domain ceramide generation in model raft membranes. <i>Langmuir</i> , 2010 , 26, 344-56	4	23
218	Synthesis of Ge nanocrystals embedded in a Si host matrix. <i>Journal of Applied Physics</i> , 1994 , 76, 8201-8203	3.5	23
217	SAXS investigation of model carbon pore structure and its change with gasification. <i>Carbon</i> , 1991 , 29, 271-282	10.4	23

216	Mechanistic Insights and Controlled Synthesis of Radioluminescent ZnSe Quantum Dots Using a Microfluidic Reactor. <i>Chemistry of Materials</i> , 2018 , 30, 8562-8570	9.6	22
215	Characterization and modeling of multiphase flow in structured microreactors: a post microreactor case study. <i>Lab on A Chip</i> , 2015 , 15, 3232-41	7.2	21
214	Olefin Autoxidation in Flow. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 601-608	3.9	21
213	A new view of ignition, extinction, and oscillations on supported catalyst surfaces. <i>Chemical Engineering Science</i> , 1980 , 35, 241-248	4.4	21
212	Sulfur dioxide oxidation on supported molten V ₂ O ₅ /K ₂ S ₂ O ₇ catalyst Influence of liquid diffusion resistance. <i>Journal of Catalysis</i> , 1976 , 45, 216-230	7.3	21
211	Regio-selectivity prediction with a machine-learned reaction representation and on-the-fly quantum mechanical descriptors. <i>Chemical Science</i> , 2020 , 12, 2198-2208	9.4	21
210	Continuous purification of active pharmaceutical ingredients utilizing polymer membrane surface wettability. <i>Chemical Communications</i> , 2017 , 54, 70-73	5.8	21
209	Cell squeezing as a robust, microfluidic intracellular delivery platform. <i>Journal of Visualized Experiments</i> , 2013 , e50980	1.6	20
208	A Microfluidic System for the Continuous Recycling of Unmodified Homogeneous Palladium Catalysts through Liquid/Liquid Phase Separation. <i>ChemCatChem</i> , 2013 , 5, 1729-1733	5.2	20
207	Temperature variations in electrical and photoluminescence properties of ZnSe grown by MOCVD. <i>Journal of Crystal Growth</i> , 1990 , 104, 291-296	1.6	20
206	Toward Machine Learning-Enhanced High-Throughput Experimentation. <i>Trends in Chemistry</i> , 2021 , 3, 120-132	14.8	20
205	Continuous Production of Five Active Pharmaceutical Ingredients in Flexible Plug-and-Play Modules: A Demonstration Campaign. <i>Organic Process Research and Development</i> , 2020 , 24, 2183-2196	3.9	19
204	Thermoformed fluoropolymer tubing for in-line mixing. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 707-713	4.9	19
203	Continuous Nanofiltration and Recycle of a Metathesis Catalyst in a Microflow System. <i>ChemCatChem</i> , 2014 , 6, 3004-3011	5.2	19
202	Thermal Chemical Vapor Deposition 1991 , 283-368		19
201	Carbon incorporation in ZnSe grown by metalorganic chemical vapor deposition. <i>Applied Physics Letters</i> , 1989 , 55, 463-465	3.4	19
200	New Precursors for the Organometallic Chemical Vapor Deposition of Aluminum Nitride. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 131, 447		19
199	Iterative experimental design based on active machine learning reduces the experimental burden associated with reaction screening. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 1963-1972	4.9	19

198	Direct Observation of Early-Stage Quantum Dot Growth Mechanisms with High-Temperature Ab Initio Molecular Dynamics. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 2472-2483	3.8	18
197	Mass transfer characteristics of ozonolysis in microreactors and advanced-flow reactors. <i>Journal of Flow Chemistry</i> , 2015 , 5, 160-165	3.3	18
196	Microfluidic jet injection for delivering macromolecules into cells. <i>Journal of Micromechanics and Microengineering</i> , 2013 , 23,	2	18
195	Gas diffusion in random-fiber substrates. <i>AIChE Journal</i> , 1989 , 35, 1942-1952	3.6	18
194	Investigation of carbon incorporation in ZnSe: Effects on morphology, electrical, and photoluminescence properties. <i>Journal of Electronic Materials</i> , 1990 , 19, 453-462	1.9	18
193	The Open Reaction Database. <i>Journal of the American Chemical Society</i> , 2021 , 143, 18820-18826	16.4	18
192	A Size-Selective Intracellular Delivery Platform. <i>Small</i> , 2016 , 12, 5873-5881	11	18
191	A Rapid Total Synthesis of Ciprofloxacin Hydrochloride in Continuous Flow. <i>Angewandte Chemie</i> , 2017 , 129, 8996-8999	3.6	17
190	Scalable thin-layer membrane reactor for heterogeneous and homogeneous catalytic gas-liquid reactions. <i>Green Chemistry</i> , 2018 , 20, 3867-3874	10	17
189	The Unexpected Influence of Precursor Conversion Rate in the Synthesis of III-V Quantum Dots. <i>Angewandte Chemie</i> , 2015 , 127, 14507-14511	3.6	17
188	Design, Execution, and Analysis of Time-Varying Experiments for Model Discrimination and Parameter Estimation in Microreactors. <i>Organic Process Research and Development</i> , 2014 , 18, 1461-1467	3.9	17
187	Engineering the synthesis of silica-gold nano-urchin particles using continuous synthesis. <i>Nanoscale</i> , 2014 , 6, 13228-35	7.7	17
186	Structural and enzymatic investigation of the <i>Sulfolobus solfataricus</i> uridylyl transferase shows competitive UTP inhibition and the lack of GTP stimulation. <i>Biochemistry</i> , 2007 , 46, 2745-57	3.2	17
185	Combined Experimental and Modeling Study of Spatial Effects in Plasma Etching: CF_4/O_2 Etching of Silicon. <i>Journal of the Electrochemical Society</i> , 1990 , 137, 1062-1078	3.9	17
184	Microfluidic Assisted Synthesis of Hybrid Au@Pd Dumbbell-like Nanostructures: Sequential Addition of Reagents and Ultrasonic Radiation. <i>Crystal Growth and Design</i> , 2017 , 17, 2700-2710	3.5	16
183	Ligand-Mediated Nanocrystal Growth. <i>Langmuir</i> , 2018 , 34, 3307-3315	4	16
182	Microfluidic preparative free-flow isoelectric focusing in a triangular channel: system development and characterization. <i>Electrophoresis</i> , 2010 , 31, 1606-14	3.6	16
181	In situ monitoring of GaSb, GaInAsSb, and AlGaAsSb. <i>Journal of Crystal Growth</i> , 1998 , 195, 181-186	1.6	16

180	Pyrolytic laser assisted chemical vapor deposition of Al from dimethylethylamine-alane: Characterization and a new two-step writing process. <i>Applied Physics Letters</i> , 1994 , 64, 425-427	3.4	16
179	Limitations to the omvpe growth of Hg compounds due to hydrodynamic effects. <i>Materials Letters</i> , 1988 , 6, 123-128	3.3	16
178	A Multifunctional Microfluidic Platform for High-Throughput Experimentation of Electroorganic Chemistry. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 20890-20894	16.4	16
177	Multitask prediction of site selectivity in aromatic C ₆ H ₅ functionalization reactions. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 896-902	4.9	16
176	Liquid-liquid extraction in flow of the radioisotope titanium-45 for positron emission tomography applications. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 898-904	4.9	16
175	OpenFOAM Computational Fluid Dynamic Simulations of Single-Phase Flows in an Advanced-Flow Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 7543-7553	3.9	15
174	Data Augmentation and Pretraining for Template-Based Retrosynthetic Prediction in Computer-Aided Synthesis Planning. <i>Journal of Chemical Information and Modeling</i> , 2020 , 60, 3398-3407	6.1	15
173	High-performance miniature CSTR for biphasic C-C bond-forming reactions. <i>Chemical Engineering Journal</i> , 2018 , 335, 936-944	14.7	15
172	SOI-Supported Microdevice for Hydrogen Purification Using Palladium-Silver Membranes. <i>Journal of Microelectromechanical Systems</i> , 2010 , 19, 402-409	2.5	15
171	The effect of surface roughness on the radiative properties of patterned silicon wafers. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 1998 , 11, 607-614	2.6	15
170	Integrated Microreactor System for Gas-Phase Catalytic Reactions. 1. Scale-up Microreactor Design and Fabrication. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 8292-8305	3.9	15
169	Design of a silicon-based microscale trickle-bed system for singlet-oxygen production. <i>AIChE Journal</i> , 2008 , 54, 2441-2455	3.6	15
168	Catalyst surface characterization in microfabricated reactors using pulse chemisorption. <i>Chemical Communications</i> , 2004 , 2610-1	5.8	15
167	A multiscale study of the selective MOVPE of Al _x Ga _{1-x} As in the presence of HCl. <i>Journal of Crystal Growth</i> , 2003 , 248, 411-416	1.6	15
166	Monitoring of gas-phase species in metalorganic vapor phase epitaxy by fiber-optics based Fourier transform infrared spectroscopy. <i>Journal of Crystal Growth</i> , 1994 , 145, 28-35	1.6	15
165	Monte Carlo simulations of very low pressure chemical vapor deposition. <i>Journal of Computer-Aided Materials Design</i> , 1993 , 1, 3-26		15
164	Ready, Set, Flow! Automated Continuous Synthesis and Optimization. <i>Trends in Chemistry</i> , 2021 , 3, 373-388	14.8	15
163	Direct fluorination of carbon monoxide in microreactors. <i>Journal of Fluorine Chemistry</i> , 2012 , 142, 19-23	2.1	14

162	Effects of C incorporation on the luminescence properties of ZnSe grown by metalorganic chemical vapor deposition. <i>Journal of Crystal Growth</i> , 1994 , 138, 338-345	1.6	14
161	Continuous flow SuzukiMiyaura couplings in water under micellar conditions in a CSTR cascade catalyzed by Fe/ppm Pd nanoparticles. <i>Green Chemistry</i> , 2020 , 22, 3441-3444	10	13
160	High-Speed Vapor Transport Deposition of Perovskite Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 32928-32936	9.5	13
159	Fourier transform infrared studies of polyimide and poly(methyl-methacrylate) surfaces during downstream microwave plasma etching. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1991 , 9, 2948-2962	2.9	13
158	A finite element solution of three-dimensional mixed convection gas flows in horizontal channels using preconditioned iterative matrix methods. <i>International Journal for Numerical Methods in Fluids</i> , 1992 , 14, 817-841	1.9	13
157	The importance of free radical recombination reactions in CF ₄ /O ₂ plasma etching of silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 1648-1653	2.9	13
156	Application of Specific Deuterium Labeling and Nuclear Magnetic Resonance Spectroscopy to the Study of the Mechanism of Pyrolysis of tert- Butylarsine and tert-Butylarsine-d ₂ . <i>Chemistry of Materials</i> , 1990 , 2, 499-505	9.6	13
155	Kinetic model for metal-organic chemical vapor deposition of gallium arsenide with organometallic-arsenic precursors. <i>Chemistry of Materials</i> , 1990 , 2, 39-49	9.6	13
154	A microscopic model for catalyst surfacesII. <i>Chemical Engineering Science</i> , 1982 , 37, 1387-1410	4.4	13
153	Continuous Thermal Oxidation of Alkenes with Nitrous Oxide in a Packed Bed Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 4166-4173	3.9	12
152	A clock reaction based on molybdenum blue. <i>Journal of Physical Chemistry A</i> , 2013 , 117, 4343-51	2.8	12
151	Integrated Microreactor System for Gas-Phase Catalytic Reactions. 3. Microreactor System Design and System Automation. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 8319-8335	3.9	12
150	A Monte Carlo Simulation Study of Radiation Heat Transfer in the Multiwafer LPCVD Reactor. <i>Journal of the Electrochemical Society</i> , 1994 , 141, 496-501	3.9	12
149	Effect of operating conditions and precursors on optoelectronic properties of OMVPE grown ZnSe. <i>Journal of Crystal Growth</i> , 1990 , 101, 111-117	1.6	12
148	Evaluation of changeover control policies by singular value analysisEffects of scaling. <i>AIChE Journal</i> , 1985 , 31, 135-146	3.6	12
147	Towards efficient discovery of green synthetic pathways with Monte Carlo tree search and reinforcement learning. <i>Chemical Science</i> , 2020 , 11, 10959-10972	9.4	12
146	Realization of a salt bridge-free microfluidic reference electrode. <i>Lab on A Chip</i> , 2012 , 12, 1431-3	7.2	11
145	14 Microreactors for measuring catalyst activity and determining reaction kinetics. <i>Studies in Surface Science and Catalysis</i> , 2003 , 145, 97-102	1.8	11

144	The roles of supersaturation, terrace width, and impurities on the formation of macrosteps on crystal surfaces using the terrace-ledge-kink model. <i>Surface Science</i> , 1992 , 262, 359-370	1.8	11
143	A new reactor system for MOCVD of ZnSe: Modelling and experimental results for growth from dimethylzinc and diethylselenide. <i>Journal of Crystal Growth</i> , 1990 , 104, 629-640	1.6	11
142	Modelling of reactors for plasma processing I. Silicon etching by CF ₄ in a radial flow reactor. <i>Chemical Engineering Science</i> , 1986 , 41, 653-660	4.4	11
141	Palladium Membrane Microreactors 2000 , 267-276		11
140	Portable, Constriction-Expansion Blood Plasma Separation and Polymerization-Based Malaria Detection. <i>Analytical Chemistry</i> , 2016 , 88, 7627-32	7.8	11
139	Characterization and Modeling of the Operating Curves of Membrane Microseparators. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 12184-12191	3.9	10
138	Investigation of Petasis and Ugi reactions in series in an automated microreactor system. <i>RSC Advances</i> , 2014 , 4, 63627-63631	3.7	10
137	Directed growth of poly(isobenzofuran) films by chemical vapor deposition on patterned self-assembled monolayers as templates. <i>Langmuir</i> , 2007 , 23, 2483-91	4	10
136	Integrated Microreactor System for Gas-Phase Catalytic Reactions. 2. Microreactor Packaging and Testing. <i>Industrial & Engineering Chemistry Research</i> , 2007 , 46, 8306-8318	3.9	10
135	Systematic Study of Surface Chemistry and Comprehensive Two-Dimensional Tertiary Current Distribution Model for Copper Electrochemical Deposition. <i>Journal of the Electrochemical Society</i> , 2006 , 153, C761	3.9	10
134	Chemisorption and decomposition of tris(dimethylamino) phosphine on GaAs(100). <i>Surface Science</i> , 1995 , 339, 310-322	1.8	10
133	Low pressure OMVPE of ZnSe with hydrogen selenide and dimethylzinc-triethylamine. <i>Journal of Electronic Materials</i> , 1993 , 22, 509-514	1.9	10
132	Small angle X-ray scattering investigations of pore structure changes during coal gasification. <i>Fuel</i> , 1990 , 69, 88-96	7.1	10
131	Formation of electric triple layers by interdiffusion of two electrolytes. <i>Journal of the Chemical Society, Faraday Transactions 2</i> , 1975 , 71, 1805-1811		10
130	Novel Liquid Phase Microreactors for Safe Production of Hazardous Specialty Chemicals 2000 , 171-180		10
129	Assessing multidimensional mixing via 3D printing and showerhead micromixer design. <i>AIChE Journal</i> , 2020 , 66, e16873	3.6	10
128	Evaluating and clustering retrosynthesis pathways with learned strategy. <i>Chemical Science</i> , 2020 , 12, 1469-1478	9.4	10
127	Multistage Microfluidic Platform for the Continuous Synthesis of III-V Core/Shell Quantum Dots. <i>Angewandte Chemie</i> , 2018 , 130, 11081-11084	3.6	10

126	High throughput synthesis of uniform biocompatible polymer beads with high quantum dot loading using microfluidic jet-mode breakup. <i>Langmuir</i> , 2014 , 30, 2216-22	4	9
125	Material-Efficient Microfluidic Platform for Exploratory Studies of Visible-Light Photoredox Catalysis. <i>Angewandte Chemie</i> , 2017 , 129, 9979-9982	3.6	9
124	Simulation of Rapid Thermal Processing Equipment and Processes. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 303, 197		9
123	Study of silicon incorporation from SiH ₄ in GaAs layers grown by metalorganic vapor phase epitaxy using tertiarybutylarsine. <i>Journal of Crystal Growth</i> , 1994 , 145, 397-402	1.6	9
122	New allyl selenide and trialkylphosphine selenide precursors for metalorganic vapor phase epitaxy of ZnSe. <i>Journal of Crystal Growth</i> , 1994 , 145, 530-536	1.6	9
121	Ftir Studies Of Organometallic Surface Chemistry Relevant To Atomic Layer Epitaxy.. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 222, 81		9
120	Models and Mechanisms of III-V Compound Semiconductor Growth by Movpe. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 145, 107		9
119	Microchemical Systems for Direct Fluorination of Aromatics 2001 , 60-67		9
118	Continuous Multistage Synthesis and Functionalization of Sub-100 nm Silica Nanoparticles in 3D-Printed Continuous Stirred-Tank Reactor Cascades. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 6699-6706	9.5	9
117	An automated flow platform for accurate determination of gas-liquid-solid reaction kinetics. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 1751-1758	4.9	9
116	Adding Crystals To Minimize Clogging in Continuous Flow Synthesis. <i>Crystal Growth and Design</i> , 2019 , 19, 98-105	3.5	9
115	Flow Toolkit for Measuring Gas Diffusivity in Liquids. <i>Analytical Chemistry</i> , 2019 , 91, 4004-4009	7.8	8
114	Optimization of Grignard Addition to Esters: Kinetic and Mechanistic Study of Model Phthalide Using Flow Chemistry. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 4859-4866	3.9	8
113	Molecular Engineering of Trifunctional Supported Catalysts for the Aerobic Oxidation of Alcohols. <i>Angewandte Chemie</i> , 2016 , 128, 11210-11214	3.6	8
112	Modeling of the formation kinetics and size distribution evolution of II-VI quantum dots. <i>Reaction Chemistry and Engineering</i> , 2017 , 2, 567-576	4.9	8
111	Electrode Placement and Fluid Flow Rates in Microfluidic Electrochemical Devices. <i>Journal of the Electrochemical Society</i> , 2012 , 159, H853-H856	3.9	8
110	The Potential Effect of Multilayer Patterns on Temperature Uniformity During Rapid Thermal Processing. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 387, 21		8
109	Interpreting scattering from random porous solids: A model of fully penetrable spherical voids. <i>Journal of Colloid and Interface Science</i> , 1990 , 135, 132-146	9.3	8

108	Reduction of Dispersion in Ultrasonically-Enhanced Micropacked Beds. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 122-128	3.9	8
107	Revealing the Formation Mechanism of Alloyed Pd-Ru Nanoparticles: A Conversion Measurement Approach Utilizing a Microflow Reactor. <i>Langmuir</i> , 2019 , 35, 2236-2243	4	7
106	Automation in Microreactor Systems 2013 , 81-100		7
105	A MEMS Singlet Oxygen Generator Part II: Experimental Exploration of the Performance Space. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 1492-1505	2.5	7
104	Synthesis and Characterization of Poly(isobenzofuran) Films by Chemical Vapor Deposition. <i>Macromolecules</i> , 2006 , 39, 4400-4410	5.5	7
103	Design of a MEMS-based microchemical oxygen-iodine laser (μ COIL) system. <i>IEEE Journal of Quantum Electronics</i> , 2004 , 40, 1041-1055	2	7
102	Gas-Phase Reaction Pathways of Aluminum Organometallic Compounds with Dimethylaluminum Hydride and Alane as Model Systems. <i>Journal of Physical Chemistry A</i> , 2000 , 104, 7881-7891	2.8	7
101	Monte Carlo Simulation of Radiative Heat Transfer in Rapid Thermal Processing (RTP) Systems. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 342, 425		7
100	Multiplicities and periodic behavior in laser direct-write metallization. <i>Chemical Engineering Science</i> , 1989 , 44, 1879-1891	4.4	7
99	In-Situ Ftir and Mass Spectrometric Studies of Gallium Arsenide Metalorganic Chemical Vapor Deposition: Trimethyl Gallium and Tertiary-Butyl Arsine on GaAs(100). <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 53		7
98	Microwave plasma generation of arsine from hydrogen and solid arsenic. <i>Applied Physics Letters</i> , 1990 , 57, 2543-2545	3.4	7
97	Modeling of catalytic char gasification. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1984 , 23, 223-229		7
96	Analysis and simulation of multiphase hydrodynamics in capillary microseparators. <i>Lab on A Chip</i> , 2019 , 19, 706-715	7.2	6
95	Continuous, on-demand generation and separation of diphenylphosphoryl azide. <i>Tetrahedron</i> , 2018 , 74, 3137-3142	2.4	6
94	Two-dimensional solvent-mediated phase transformation in lipid membranes induced by sphingomyelinase. <i>Langmuir</i> , 2011 , 27, 10050-60	4	6
93	Structure and Morphology of Poly(isobenzofuran) Films Grown by Hot-Filament Chemical Vapor Deposition. <i>Chemistry of Materials</i> , 2006 , 18, 6339-6344	9.6	6
92	Disproportionation of dimethylalane on aluminum surfaces. Part I. Experimental studies. <i>Surface Science</i> , 2001 , 488, 286-302	1.8	6
91	Decomposition of allylselenium sources in the metalorganic chemical vapor deposition of zinc selenide. <i>Chemistry of Materials</i> , 1993 , 5, 305-310	9.6	6

90	On the origin of return flows in horizontal chemical vapor deposition reactors. <i>Journal of Crystal Growth</i> , 1993 , 132, 483-490	1.6	6
89	A Kinetic Model for Metalorganic Chemical Vapor Deposition of GaAs from Trimethylgallium and Arsine. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 131, 117		6
88	Integrated Gas Phase Microreactors 1998 , 463-468		6
87	Determination of fast gas-liquid reaction kinetics in flow. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 51-57	4.9	6
86	Characterization of reaction enthalpy and kinetics in a microscale flow platform. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 2115-2122	4.9	6
85	On-Demand Continuous Manufacturing of Ciprofloxacin in Portable Plug-and-Play Factories: Development of a Highly Efficient Synthesis for Ciprofloxacin. <i>Organic Process Research and Development</i> , 2021 , 25, 1524-1533	3.9	6
84	In-Situ Microfluidic Study of Biphasic Nanocrystal Ligand-Exchange Reactions Using an Oscillatory Flow Reactor. <i>Angewandte Chemie</i> , 2017 , 129, 16551-16555	3.6	5
83	A MEMS Singlet Oxygen Generator Part I: Device Fabrication and Proof of Concept Demonstration. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 1482-1491	2.5	5
82	Mikrostrukturierung von Oberflächen durch reaktive Polymerbeschichtungen. <i>Angewandte Chemie</i> , 2001 , 113, 3273-3276	3.6	5
81	Gas-Phase and Surface Decomposition of Tris-Dimethylamino Arsenic. <i>Materials Research Society Symposia Proceedings</i> , 1993 , 334, 169		5
80	Laser Assisted Chemical Vapor Deposition of Cu from a New Cu Organometallic Complex. <i>Materials Research Society Symposia Proceedings</i> , 1991 , 236, 97		5
79	Rice-Ramsperger-Kassel-Marcus theoretical prediction of high-pressure Arrhenius parameters by nonlinear regression. <i>The Journal of Physical Chemistry</i> , 1987 , 91, 5726-5732		5
78	Development of Methods for On-Line Chemical Detection with Liquid-Phase Microchemical Reactors Using Conventional and Unconventional Techniques 2000 , 155-158		5
77	Autonome Entdeckung in den chemischen Wissenschaften, Teil I: Fortschritt. <i>Angewandte Chemie</i> , 2020 , 132, 23054-23091	3.6	5
76	Low oxygen and carbon incorporation in AlGaAs using tritertiarybutylaluminum in organometallic vapor phase epitaxy. <i>Journal of Electronic Materials</i> , 1996 , 25, 771-774	1.9	4
75	OMVPE of Compound Semiconductors 1991 , 369-442		4
74	MOCVD of Wide Bandgap III-V Semiconductors by using Novel Precursors. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 162, 605		4
73	Ftir and Xps Studies of Polyimide/Metal Interface Formation. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 153, 285		4

72	Theoretical and Computational Problems in Modeling Glow Discharges. <i>Materials Research Society Symposia Proceedings</i> , 1986 , 68, 219		4
71	Photoredox Iridium-Nickel Dual Catalyzed Cross-Electrophile Coupling: From a Batch to a Continuous Stirred-Tank Reactor via an Automated Segmented Flow Reactor. <i>Organic Process Research and Development</i> , 2021 , 25, 2323-2330	3.9	4
70	Expansion of Microreactor Capabilities through Improved Thermal Management and Catalyst Deposition 2000 , 197-206		4
69	Identifying the roles of acid-base sites in formation pathways of tolualdehydes from acetaldehyde over MgO-based catalysts. <i>Catalysis Science and Technology</i> , 2020 , 10, 536-548	5.5	4
68	Combining retrosynthesis and mixed-integer optimization for minimizing the chemical inventory needed to realize a WHO essential medicines list. <i>Reaction Chemistry and Engineering</i> , 2020 , 5, 367-376	4.9	3
67	Ozonolysis of quinoline and quinoline derivatives in a Corning low flow reactor. <i>Reaction Chemistry and Engineering</i> , 2017 , 2, 696-702	4.9	3
66	Silicon-Based Microreactors. <i>ACS Symposium Series</i> , 2005 , 2-22	0.4	3
65	Disproportionation of dimethylalane on aluminum surfaces. Part II. Quantum chemistry studies. <i>Surface Science</i> , 2001 , 488, 303-324	1.8	3
64	Designing Reduced-Order Models for Rapid Thermal Processing Systems. <i>Journal of the Electrochemical Society</i> , 1998 , 145, 3974-3981	3.9	3
63	tert-Butyl(trifluoromethyl)tellurium: a novel organometallic chemical vapor deposition source for zinc telluride. <i>Chemistry of Materials</i> , 1993 , 5, 1321-1326	9.6	3
62	Monte Carlo Simulation of Optical Temperature Sensors in RTP Systems. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 387, 143		3
61	Application of percolation theory concepts to the analysis of gas-solid reactions. <i>Solid State Ionics</i> , 1989 , 32-33, 833-842	3.3	3
60	New Chemical Routes to Metal Nitrides. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 180, 1017		3
59	Rice-Ramsperger-Kassel-Marcus theoretical prediction of high-pressure Arrhenius parameters by nonlinear regression: application to silane and disilane decomposition [Erratum to document cited in CA107(20):184462J]. <i>The Journal of Physical Chemistry</i> , 1988 , 92, 4254-4254		3
58	Miniaturization and Integration of Photoacoustic Detection with a Microfabricated Chemical Reactor System 2000 , 49-52		3
57	Direct Optimization across Computer-Generated Reaction Networks Balances Materials Use and Feasibility of Synthesis Plans for Molecule Libraries. <i>Journal of Chemical Information and Modeling</i> , 2021 , 61, 493-504	6.1	3
56	A high-temperature continuous stirred-tank reactor cascade for the multistep synthesis of InP/ZnS quantum dots. <i>Reaction Chemistry and Engineering</i> , 2021 , 6, 459-464	4.9	3
55	Electroluminescent Materials with Feature Sizes as Small as 5 nm Using Elastomeric Membranes as Masks for Dry Lift-Off 1999 , 11, 546		3

54	Preparation of Sodium Nitrotetrazolate Using Microreactor Technology 2005 ,		2
53	The Effect of Multilayer Patterns on Thermal Stress During Rapid Thermal Processing. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 429, 43		2
52	Laser Assisted CVD of Aluminum from a Novel Liquid Alane Precursor. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 282, 173		2
51	Microelectronics Processing. <i>Advances in Chemistry Series</i> , 1989 , 1-33		2
50	A Model for Chemical Vapor Infiltration of Fibrous Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 168, 67		2
49	Growth of Compound Semiconductors and Superlattices by Organometallic Chemical Vapor Deposition. <i>ACS Symposium Series</i> , 1987 , 353-375	0.4	2
48	On-Line Estimation of Molecular Weight Distributions in Methyl Methacrylate Polymerization 1986 ,		2
47	A Novel Cross-Flow Microreactor for Kinetic Studies of Catalytic Processes 2001 , 414-423		2
46	Kinetic Modeling of the Gas Phase Decomposition of Germane by Computational Chemistry Techniques. <i>European Physical Journal Special Topics</i> , 1995 , 05, C5-71-C5-77		2
45	A Multifunctional Microfluidic Platform for High-Throughput Experimentation of Electroorganic Chemistry. <i>Angewandte Chemie</i> , 2020 , 132, 21076-21080	3.6	2
44	Integrated Microreactor System for Gas Phase Reactions 363-406		2
43	Generative models for molecular discovery: Recent advances and challenges. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> ,	7.9	2
42	Development of a Versatile Modular Flow Chemistry Benchtop System. <i>Organic Process Research and Development</i> , 2020 , 24, 2105-2112	3.9	1
41	Intracellular Delivery of Biomolecules by Mechanical Deformation 2016 , 143-176		1
40	Nested potassium hydroxide etching and protective coatings for silicon-based microreactors. <i>Journal of Micromechanics and Microengineering</i> , 2014 , 24, 035011	2	1
39	Evaluation of nucleation activation energy in metal CVD processes. <i>Korean Journal of Chemical Engineering</i> , 1997 , 14, 129-135	2.8	1
38	. <i>IEEE Transactions on Plasma Science</i> , 1995 , 23, 780-787	1.3	1
37	Modeling of transport and film growth over patterned substrates 1993 ,		1

36	Infrared spectroscopic determination of substitutional carbon in MOVPE grown films of GaAs. <i>Journal of Crystal Growth</i> , 1991 , 107, 248-253	1.6	1
35	Chemistry at Polyimide-Metal Interfaces: In Situ FTIR Studies of Polymer Curing Processes and Thermal Stability. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 282, 581		1
34	MOCVD of GaN Using Diethylgalliumazide and Ammonia. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 101		1
33	Analysis of the Physical and Chemical Factors Determining Compositional Variations in the MOCVD Growth of Indium Gallium Arsenide. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 207		1
32	Trimethylamine Gallane as a Precursor to Cubic Gallium Nitride and Gallium Arsenide. Metal Hydride Chemical Vapor Deposition. <i>Materials Research Society Symposia Proceedings</i> , 1990 , 204, 83		1
31	Optically induced bifurcations in laser direct-write metallization. <i>Chemical Engineering Science</i> , 1990 , 45, 2511-2518	4.4	1
30	Modelling of Pyrolytic Laser Direct-Writing from Thin Metalorganic Films. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 129, 107		1
29	Effects of the Selenium Precursor on the Growth of ZnSe by Metalorganic Chemical Vapor Deposition. <i>Materials Research Society Symposia Proceedings</i> , 1988 , 131, 63		1
28	Modeling of Chemical Vapor Deposition Reactors for the Fabrication of Microelectronic Devices. <i>ACS Symposium Series</i> , 1984 , 197-213	0.4	1
27	Machine learned prediction of reaction template applicability for data-driven retrosynthetic predictions of energetic materials 2020 ,		1
26	Gas-Liquid Flows in Microchemical Systems 2002 , 353-355		1
25	Device Level Integration to form a Parallel Microfluidic Reactor System 2001 , 661-663		1
24	Dispersion in coiled tubular reactors: A CFD and experimental analysis on the effect of pitch. <i>Chemical Engineering Science</i> , 2021 , 233, 116393	4.4	1
23	Design of dynamic trajectories for efficient and data-rich exploration of flow reaction design spaces. <i>Reaction Chemistry and Engineering</i> ,	4.9	1
22	Autonome Entdeckung in den chemischen Wissenschaften, Teil II: Ausblick. <i>Angewandte Chemie</i> , 2020 , 132, 23620-23643	3.6	0
21	Design and operation of an enhanced pervaporation device with static mixers. <i>AIChE Journal</i> , e17455	3.6	0
20	Nanocrystal synthesis, fluidic sample dilution and direct extraction of single emission linewidths in continuous flow. <i>Lab on A Chip</i> , 2020 , 20, 1975-1980	7.2	
19	Micro Reaction Technology in Organic Synthesis. Von Charlotte Wiles und Paul Watts.. <i>Angewandte Chemie</i> , 2012 , 124, 1548-1549	3.6	

- 18 Mikroreaktoren zur Synthese und Reaktionsoptimierung. *Nachrichten Aus Der Chemie*, **2005**, 53, 628-632.0.1
- 17 Computational Investigation of Selective MOVPE of Al_xGa_{1-x}As in Presence of HCl. *Materials Research Society Symposia Proceedings*, **2001**, 696, 1
- 16 Computational Investigation of Selective MOVPE of Al_xGa_{1-x}As in Presence of HCl. *Materials Research Society Symposia Proceedings*, **2001**, 701, 341
- 15 Nonlinear Model Reduction Strategies for Rapid Thermal Processing Systems. *Materials Research Society Symposia Proceedings*, **1996**, 429, 57
- 14 Fiber optics based in-situ FTIR monitoring of organometallic chemical vapor deposition of compound semiconductors **1993**, 2069, 132
- 13 The Potential Effect of Multilayer Patterns on Temperature Uniformity During Rapid Thermal Processing. *Materials Research Society Symposia Proceedings*, **1995**, 389, 293
- 12 Analysis of TPD Spectra on Semiconductor Surfaces by Monte Carlo Simulations. *Materials Research Society Symposia Proceedings*, **1995**, 399, 109
- 11 19 Chemical Engineering in the Processing of Electronic and Optical Materials: A Discussion. *Advances in Chemical Engineering*, **1991**, 16, 395-412 0.6
- 10 Monte Carlo Simulations of Film Profile Evolution During Nonplanar CVD Processes. *Materials Research Society Symposia Proceedings*, **1992**, 280, 169
- 9 Characterization of Fluorinated Polyimide Films. *Materials Research Society Symposia Proceedings*, **1992**, 264, 263
- 8 FTIR and XPS Studies of Polyimide/Metal Interface Formation. *Materials Research Society Symposia Proceedings*, **1989**, 154, 329
- 7 FTIR Investigations of Plasma Modified Polymer Surfaces and Their Interfaces with Plasma Deposited Tungsten. *Materials Research Society Symposia Proceedings*, **1989**, 165, 239
- 6 Thermocapillary Effects in Laser Direct-Write Metallization. *Materials Research Society Symposia Proceedings*, **1990**, 201, 495
- 5 Comments on chemical vapor deposition of silicon under reduced pressure in hot-wall reactors. *Chemical Engineering Science*, **1988**, 43, 983 4.4
- 4 Gas Phase and Surface Reactions in MOCVD of GaAs from Triethylgallium, Trimethylgallium, and Organometallic Arsenic Precursors. *Materials Research Society Symposia Proceedings*, **1988**, 131, 103
- 3 Photochemical Reactions and Online Product Detection in Microfabricated Reactors **2001**, 175-184
- 2 Towards Integrated Microsystems for Chemical Synthesis **2002**, 642-645
- 1 Functionalized Parylene Coatings for Microfluidic Applications **2002**, 443-445

