The following (non-exhaustive) list of papers shows peer reviewed work that has been published using the Vapourtec R-Series and E-Series flow chemistry systems. As new work is continually published, please check on our website for updates.

**C(sp3)–H functionalizations of light hydrocarbons using decatungstate photocatalysis in flow**
Gabriele Laudadio1*, Yuchao Deng1,2,3,*, Klaas van der Wal1, Davide Ravelli1, Manuel Nuño5, Maurizio Fagnoni4, Duncan Guthrie5, Yuhan Sun2,3, Timothy Noël1,∗

1Micro Flow Chemistry and Synthetic Methodology, Department of Chemical Engineering and Chemistry, Eindhoven University of Technology, Eindhoven, Netherlands.
2School of Physical Science and Technology, ShanghaiTech University, Shanghai 201210, P. R. China.
3Shanghai Advanced Research Institute, Chinese Academy of Sciences, Shanghai 201210, P. R. China.
4PhotoGreen Lab, Department of Chemistry, University of Pavia, Pavia 27100, Italy.
5Vapourtec, Fornham St Genevieve, Bury St Edmunds, Suffolk IP28 6TS, UK.

https://science.sciencemag.org/content/369/6499/92

**Preparation of Diorganomagnesium Reagents by Halogen–Lithium Exchange of Functionalized Heteroaryl Halides and Subsequent in situ Trapping with MgCl2·LiCl in Continuous Flow**
Rodolfo Hideki Vicente Nishimuraa, Niels Weidmannb, Paul Knochelab

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bLudwig-Maximilians-Universität München, Department Chemie, Butenandtstraße 5–13, 81377 München, Germany


**Process of Manufacturing Surfactants and Lubricants**
Assingnees: Dow Global Technologies LLC (Midland, MI, US), Northwestern University (Evaston, IL, US)


**Disposable cartridge concept for the on-demand synthesis of turbo Grignards, Knochel–Hauser amides, and magnesium alkoxides**
Mateo Berton1, Kevin Sheehan2, Andrea Adamo2, D. Tyler McQuade1

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2Zaiput Flow Technologies, 300 2nd Avenue, Waltham, MA 02451, USA

https://www.beilstein-journals.org/bjoc/articles/16/115

**Flow Chemistry System for Carbohydrate Analysis by Rapid Labeling of Saccharides after Glycan Hydrolysis**
Wei-Ting Hung1, Yi-Ting Chen1, Chung-Hsuan Chen1, Yuan Chuan Lee2, Jim-Min Fang1, 3, Wen-Bin Yang1

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2Department of Biology, Johns Hopkins University, Baltimore, MD, USA
3Department of Chemistry, National Taiwan University, Taipei

https://journals.sagepub.com/doi/full/10.1177/2472630320924620

**Continuous-Flow Approach for the Multi-Gram Scale Synthesis of C2-Alkyl- or β-Amino Functionalized 1,3-Dicarbonyl Derivatives and Ondansetron Drug Using 1,3-Dicarbonyls**
Nirmala Mohant, Krishna Nair, Dasharath Vambar Sutar, Boopathy Gnanaprakasam∗
Preparation of Mono- and Diisocyanates in Flow from Renewable Carboxylic Acids
Michael D. Burkar1, Thien An Phung Hai1, Laurent J. S. De Backer2, Nicholas D. P. Cosford2
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2Cancer Metabolism & Signaling Networks Program, NCI-Designated Cancer Center, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, California 92037, United States

https://pubs.acs.org/doi/full/10.1021/acs.oprd.0c00167

Accelerating Electrochemical Synthesis through Automated Flow: Efficient Synthesis of Chalcogenophosphites
Nasser Amri, Thomas Wirth*
School of Chemistry, Cardiff University, Park Place, Cardiff, CF10 3AT, UK


Rearrangement of 3-Hydroxyazetidines into 2-Oxazolines
Ian R. Baxendale1, Michele Ruggeri1, Amanda W. Dombrowski2, Stevan W. Djuric3
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3Discovery Chemistry and Technology Consulting LLC, New Bern, North Carolina 28562, United States

https://pubs.acs.org/doi/abs/10.1021/acs.joc.0c00656

Selective DIBAL-H Monoreduction of a Diester Using Continuous Flow Chemistry: From Benchtop to Kilo Lab
Nick Uhlig1, Andrew Martins1, Detian Gao2
1Process Development, Gilead Alberta ULC, Edmonton, Alberta T6S 1A1, Canada
2Commercial API Process Optimization, Gilead Alberta ULC, Edmonton, Alberta T6S 1A1, Canada

https://pubs.acs.org/doi/abs/10.1021/acs.oprd.0c00158

Flow Reactor Synthesis of Bio-Based Polyol from Soybean Oil for the Production of Rigid Polyurethane Foam
Kai Guo1, Zheng Fang2, Wei He2, Peng Kang3, Jingying Hao4, Hao Wu2, Yuchen Zhu5
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https://pubs.acs.org/doi/full/10.1021/acs.iecr.0c01175

Ir/Ni Photoredox Dual Catalysis with Heterogeneous Base Enabled by an Oscillatory Plug Flow Photoreactor
Wouter Debrouwer,a*, Wim Kimpea, Ruben Dangreau,a, Kevin Huvaere,a, Hannes P.L. Gemoets,b, Milad Mottaghi,c, Simon Kuhn,c, Koen Van Akenab
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https://pubs.acs.org/doi/abs/10.1021/acs.oprd.0c00150

Visible Light Mediated N-Desulfonylation of N-Heterocycles using a Heteroleptic Copper (I) Complex as a Photocatalyst
Cameron J. Hunter, Michael J. Boyd, Gregory D. May, Robert Fimognari*
Vertex Pharmaceuticals Incorporated, 50 Northern Avenue, Boston, Massachusetts 02210, United States

https://pubs.acs.org/doi/abs/10.1021/acs.joc.0c00983
A Flow Process Built upon a Batch Foundation—Preparation of a Key Amino Alcohol Intermediate via Multistage Continuous Synthesis
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Streamlined Synthesis of Fluoroquinolones
Gupton, Frank B. (Midlothian, VA, US) Tosso, Perrer N. (Glen Allen, VA, US)
VIRGINIA COMMONWEALTH UNIVERSITY (Richmond, VA, US)

Continuous-Flow Accelerated Sulfation of Heparan Sulfate Intermediates
Saurabh Anand, Sandhya Mardhekar, Rakesh Raigawali, Nirmala Mohanta, Prashant Jain, Chethan D. Shanthamurthy & Boopathy Gnanaprakasam* & Raghavendra Kikkeri*
Indian Institute of Science Education and Research, Dr. Homi Bhabha Road, Pune-411 008, India

Development of a Large-Scale Cyanation Process Using Continuous Flow Chemistry en Route to the Synthesis of Remdesivir
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Tropylium-promoted prenylation reactions of phenols in continuous flow
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Making electrochemistry easily accessible to the synthetic chemist
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Scale-up and Optimization of a Continuous Flow Synthesis of an α-Thio-β-chloroacrylamide
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Automated Glycan Assembly in a Variable-Bed Flow Reactor Provides Insights into Oligosaccharide–Resin Interactions
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Photocatalytic α-Tertiary Amine Synthesis via C–H Alkylation of Unmasked Primary Amines

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Electrochemistry in continuous systems
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Dynamic Crystallization Pathways of Polymorphic Pharmaceuticals Revealed in Segmented Flow with Inline Powder XRD
Mark Alan Levenstein1, 2, Lois E Wayment1, 4, 5, C. Daniel Scott1, 6, Ruth A Lunt1, 6, Pierre-Baptiste Flandrin3, Sarah Day5, Chiu Tang5, Chick C. Wilson2, Fiona C. Meldrum3 & Nikil Kapur1

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6Centre for Sustainable Chemical Technologies, University of Bath, Claverton Down, Bath BA2 7AY, UK

A Metallaphotoredox Method for the Expansion of Benzyl SAR on Electron-Deficient Amines
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Management of the Heat of Reaction under Continuous Flow Conditions Using In-Line Monitoring Technologies
Masahiro Hosoya, Shogo Nishijima & Noriyuki Kurose
API R&D Laboratory, CMC R&D Division, Shionogi and Co., Ltd., 1-3, Kuise Terajima 2-chome, Amagasaki, Hyogo 660-0813, Japan

Use of Photon Equivalents as a Parameter for Scaling Photoredox Reactions in Flow: the translation of a photocatalytic C-N cross-coupling from lab scale to multikilogram scale
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Disposable Cartridge Concept for On-Demand Synthesis of Turbo Grignards, Knochel-Hauser Amides and Magnesium Alkoxides
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A Flow Process Built upon a Batch Foundation—Preparation of a Key Amino Alcohol Intermediate via Multistage Continuous Synthesis


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https://www.beilstein-journals.org/xiv/preprints/202040

A Continuous Flow Sulfuryl Chloride Based Reaction – Synthesis of a Key Intermediate in a New Route Toward Emtricitabine and Lamivudine

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Department of Chemical and Life Science Engineering, Virginia Commonwealth University, Richmond, VA, 23284-3068, USA.

https://pubs.acs.org/doi/full/10.1021/acs.oprd.9b00478

Automated radial synthesis of organic molecules

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https://pubs.acs.org/doi/10.1021/acs.oprd.0c00146

An Enzymatic Flow-Based Preparative Route to Vidarabine

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https://www.mdpi.com/1420-3049/25/5/1223

Continuous-flow synthesis and application of polymer-supported BODIPY Photosensitisers for the generation of singlet oxygen; process optimised by in-line NMR spectroscopy

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Preparation of 5-Hydroxymethylfurfural from High Fructose Corn Syrup Using Organic Weak Acid in Situ as Catalyst


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https://pubs.acs.org/doi/abs/10.1021/acs.iecr.9b06602

Amino Alcohol Acrylonitriles as Activators of the Aryl hydrocarbon Receptor Pathway, An Unexpected MTT Phenotypic
Screening Outcome
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Continuous flow aminolysis under high temperature and pressure
Bryan Li, Scott Bader, Steve M. Guinness, Sally Gut Ruggeri, Cheryl M. Hayward, Steve Hoagland, John Lucas, Ruizhi Li, David Limburg, J. Christopher McWilliams, Jeffrey Raggon & John Van Alsten
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Worldwide Research and Development, Pfizer Inc., Eastern Point Road, Groton, CT, 06340, USA
Rhodes Technologies, 498 Washington Street, Coventry, RI, USA

Continuous Flow Photochemistry for the Preparation of Bioactive Molecules
Mara Di Filippo, Cormac Bracken and Marcus Baumann*
School of Chemistry, University College Dublin, Science Centre South, Belfield, Dublin 4, Ireland
https://www.mdpi.com/1420-3049/25/2/356

Development of a Continuous Flow Photoisomerization Reaction Converting Isoxazoles into Diverse Oxazole Products
Cormac Bracken, Marcus Baumann*
School of Chemistry, University College Dublin, Science Centre South, Belfield, Dublin 4, Ireland
https://pubs.acs.org/doi/abs/10.1021/acs.joc.9b03399

Continuous-Flow Biocatalytic Process for the Synthesis of the Best Stereoisomers of the Commercial Fragrances Leather Cyclohexanol (4-Isopropylcyclohexanol) and Woody Acetate (4-(Tert-Butyl)Cyclohexyl Acetate)
Francesca Tentori1,†, Elisabetta Brenna1,2,‡, Michele Crottì1, Giuseppe Pedrocchi-Fantoni2, Maria Chiara Ghezzi1 and Davide Tessaro1
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https://www.mdpi.com/2073-4344/10/1/102

Visible Light-Mediated (Hetero)aryl Amination Using Ni(II) Salts and Photoredox Catalysis in Flow: A Synthesis of Tetracaine
Boyoung Y. Park, Michael T. Pirnot and Stephen L. Buchwald*
Department of Chemistry, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, United States
https://pubs.acs.org/doi/abs/10.1021/acs.joc.9b03107

In-Line Purification: A Key Component to Facilitate Drug Synthesis and Process Development in Medicinal Chemistry
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https://pubs.acs.org/doi/abs/10.1021/acsmedchemlett.9b00491

In-line purification: A key component to facilitate drug synthesis and process development in medicinal chemistry
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https://pubs.acs.org/doi/abs/10.1021/acsmedchemlett.9b00491

Use of Immobilized Amine Transaminase from Vibrio fluvialis under Flow Conditions for the Synthesis of (S)-1-(5-Fluoropyrimidin-2-yl)-ethanamine

Flow Chemistry Publications - 6 -
www.vapourtec.co.uk/publications
Continuous Flow Enables Metallaphotoredox Catalysis in a Medicinal Chemistry Setting: Accelerated Optimization and Library Execution of a Reductive Coupling between Benzylic Chlorides and Aryl Bromides
Zachary G. Brill,*† Casey B. Ritts, † Umar Faruk Mansoor, Nunzio Sciammetta
Department of Discovery Chemistry, MRL, Merck & Co., Inc., 33 Avenue Louis Pasteur, Boston, MA 02115 USA.

Continuous Flow Synthesis of Methyl Oximino Acetoacetate: Accessing Greener Purification Methods with Inline Liquid-Liquid Extraction and Membrane Separation Technology
René Lebl, Trevor Murray, Andrea Adamo, David Cantillo, C. Oliver Kappe

Cellulose fast pyrolysis for platform chemicals: assessment of potential targets and suitable reactor technology
Anurag Parihar, Sankar Bhattacharya
Department of Chemical Engineering, Monash University, Clayton, VIC, Australia

Continuous and green microflow synthesis of azobenzene compounds catalyzed by consecutively prepared tetrahedron CuBr
Hong Qin¹, Chengkou Liu¹, Niuniu Lv¹, Wei He¹, Jingjing Meng², Zheng Fang², Kai Guo²
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Safe and Scalable Continuous Flow Azidophenylselenylation of Galactal to Prepare Galactosamine Building Blocks
Mónica Guberman, Bartholomäus Pieber, Peter H. Seeberger*
Department of Biomolecular Systems, Max Planck Institute of Colloids and Interfaces, Am Mühlenberg 1, 14476 Potsdam, Germany

A Practical Method for Continuous Production of sp3-Rich Compounds from (Hetero)Aryl Halides and Redox-Active Esters
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Metal-Free Visible-Light-Mediated Hydrotrifluoromethylation of Unactivated Alkenes and Alkynes in Continuous Flow
Anne-Laure Barthelemy, Guillaume Dagoussset, Emmanuel Magnier
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Stereospecific Amination of Mesylated Cyclobutanol in Continuous Flow
Matthieu Tissot, Jérôme Jacq, Patrick Pasau
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Stereospecific Amination of Mesylated Cyclobutanol in Continuous Flow  
Matthieu Tissot, Jérôme Jacq, Patrick Pasau  
UCB Biopharma SPRL, Avenue de l’industrie, 1420 Braine l’Alleud, Belgium  
https://pubs.acs.org/doi/abs/10.1021/acs.oprd.9b00381

A new formulation for symbolic regression to identify physico-chemical laws from experimental data  
Pascal Neumannab, Liwei Caob, Danilo Russob, Vassilios S. Vassiliadisb, Alexei A. Lapkinbc  
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c Cambridge Centre for Advanced Research and Education in Singapore, CARES Ltd., 1 CREATE Way, CREATE Tower #05-05, 138602 Singapore, Singapore  

Real-Time Monitoring of Solid-Phase Peptide Synthesis Using a Variable Bed Flow Reactor  
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https://pubs.rsc.org/en/content/articlelanding/2019/CC/C9CC08421E#!divAbstract

Electroorganic Synthesis under Flow Conditions  
Mohamed Elsherbinib, Thomas Wirth  
School of Chemistry, Cardiff University, Main Building, Park Place, Cardiff CF10 3AT, United Kingdom  
https://pubs.acs.org/doi/abs/10.1021/acs.accounts.9b00497

Lilly Research Award Program (LRAP): A Successful Academia–Industry Partnership Model in the Context of Flow Chemistry for Drug Discovery  
Mateos, Carlos  
https://www.ingentaconnect.com/content/scs/chimia/2019/00000073/00000010/art00003

In situ non-invasive Raman spectroscopic characterisation of succinic acid polymorphism during segmented flow crystallisation  
Anuradha R. Pallipuratha, Pierre-Baptiste Flandrina, Lois E. Waymentab, c, Chick C. Wilsonac, b, Karen Robertsona  
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https://pubs.rsc.org/en/content/articlelanding/2019/me/c9me00103d#!divAbstract

Microfluidic synthesis of fatty acid esters: Integration of dynamic combinatorial chemistry and scale effect  
Wei Hea, Yuan Gaoa, Guiqin Zhua, Hao Wu, Zheng Fangb, Kai Guoa  
acollege of Biotechnology and Pharmaceutical Engineering, Nanjing Tech University, Nanjing 211816, PR China  
State Key Laboratory of Materials-Oriented Chemical Engineering, Nanjing Tech University, Nanjing 210009, PR China  

Continuous Flow Aminolysis of RAFT Polymers Using Multistep Processing and Inline Analysis  
CSIRO Manufacturing Flagship, Bag 33, Clayton South, Victoria 3169, Australia  
https://pubs.acs.org/doi/10.1021/ma501628f

Development of a continuous flow synthesis of propranolol: tackling a competitive side reaction  
Sonia De Angelis1, 2, Paolo Celestini3, Rosa Purgatorio3, Leonardo Degennaro1, 2, Gabriele Rebuzzini9, Renzo Luisi1, 2, Claudia Carlucci1, 2  
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Flow Chemistry Publications - 8 - www.vapourtec.co.uk/publications
Photochemical flow synthesis of 3-hydroxyazetidines
Michele Ruggeri 1, Amanda Worthy Dombrowski 2, Stevan W. Djuric 2, Ian Richard Baxendale 1
1 University of Durham, Department of Chemistry, South Road, DH1 3LE Durham, UNITED KINGDOM
2 AbbVie, Inc., 1 North Waukegan Road, North Chicago, IL 60064 Chicago, UNITED STATES

Flow nanoprecipitation of size-controlled D-leucine nanoparticles for spray-drying formulations
Bruno Cerra, Gabriele Mosca, Maurizio Ricci, Aurélie Schoubben and Antimo Gioiello
https://pubs.rsc.org/en/content/articlelanding/2019/re/c9re00242a/unauth#!divAbstract

Visible-Light-Mediated Cross-Couplings and C–H Activation via Dual Photoredox/Transition-Metal Catalysis in Continuous-Flow Processes
Soo Dong Kim, Jonghyun Lee, Nam-Jung Kim, Boyoung Park
Kyung Hee University, Department of Pharmacy, Kyungheedaero 26, 02447 Seoul, Republic of Korea

A flow platform for degradation-free CuAAC bioconjugation
Marine Z. C. Hatit1, Linus F. Reichenbach1, John M. Tobin2, Filipe Vilela2, Glenn A. Burley3, Allan J. B. Watson3
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3School of Chemistry, University of St Andrews, North Haugh, St Andrews, UK
https://www.nature.com/articles/s41467-018-06551-0

Batch Versus Flow Lithiation-Substitution of 1,3,4-Oxadiazoles: Exploitation of Unstable Intermediates Using Flow Chemistry
Jeff Y. F. Wong, John M. Tobin, Filipe Vilela and Graeme Barker*
Institute of Chemical Sciences, Heriot-Watt University, Edinburgh EH11 4AS, Scotland, UK.

A Photoredox Coupling Reaction of Benzylboronic Esters and Carbonyl Compounds in Batch and Flow
Yiding Chen†, Oliver May†, David C. Blakemore‡ and Steven V. Ley†*
† Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, U.K.
‡ Medicine Design, Pfizer Inc., Eastern Point Road, Groton, Connecticut 06340, United States
https://pubs.acs.org/doi/full/10.1021/acs.orglett.9b02307

Heumann Indole Flow Chemistry Process
Cynthia Crifar, Fenja Leena Därker, Sacha Nguyen Thanh, Vanessa Kairouz, William D. Lubell
https://pubs.acs.org/doi/abs/10.1021/acs.joc.9b01516

Integrated plug flow synthesis and crystallisation of pyrazinamide
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Conjugated porous polymers for photocatalytic applications
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In-Flow Flash Nanoprecipitation of Size-Controlled D-Leucine Nanoparticles for Spray-Drying Formulations
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https://chemrxiv.org/articles/In-Flow_Flash_Nanoprecipitation_of_Size-Controlled_D-Leucine_Nanoparticles_for_Spray-Drying_Formulations/8074508

The Role of Single-Atom Catalysis in Potentially Disruptive Technologies
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A Simple and Efficient Flow Preparation of Pyocyanin a Virulence Factor of Pseudomonas Aeruginosa
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Electrophilic Bromination in Flow: A safe and Sustainable Alternative to the Use of Molecular Bromine in Batch
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Continuous process intensification for synthesis and formulation in the pharmaceutical industry
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Continuous flow chemo-enzymatic Baeyer-Villiger oxidation with superactive and extra-extra stable enzyme/carbon nanotube catalytic: an efficient upgrade from batch to flow
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Synthetic route design of AZD4635, an A2AR antagonist
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Continuous flow knitting of a triptycene hypercrosslinked polymer
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Transaminase-catalyzed continuous synthesis of biogenic aldehydes
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A Novel and Efficient Continuous-Flow Route To Prepare Trifluoromethylated N-Fused Heterocycles for Drug Discovery and Pharmaceutical Manufacturing
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Flow Hydrodediazoniation of Aromatic Heterocycles
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Continuous-Flow Electrochemical Generator of Hypervalent Iodine Reagents: Synthetic Applications
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Definitive screening designs for multistep kinetic models in flow
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Visible light-promoted Fe-catalyzed Csp2-Csp3 Kumada cross-coupling in flow
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Experimental Methods in Chemical Engineering: Micro-Reactors
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Continuous Flow Synthesis of Highly Substituted Tetrahydrofurans
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Peroxidation of 2-oxindole and barbituric acid derivatives under batch and continuous flow using an eco-friendly ethyl acetate solvent
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https://pubs.rsc.org/en/content/articlelanding/2019/cc/c9cc03731d#idivAbstract
Rapid and Multigram Synthesis of Vinylogous Esters under Continuous Flow: An Access to Transetherification and Reverse Reaction of Vinylogous Esters
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Continuous manufacturing – the Green Chemistry promise?
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Practical and regioselective amination of arenes using alkyl amines
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The Influence of Residence Time Distribution on Continuous-Flow Polymerization
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https://chemrxiv.org/articles/The_Influence_of_Residence_Time_Distribution_on_Continuous_Flow_Polymerization/772616

Additive manufacturing of photoactive polymers for visible light harvesting
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Modeling and Design of a Flow-Microreactor-Based Process for Synthesizing Ionic Liquids
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Synthesis of a Renewable Macro cyclic Musk: Evaluation of Batch, Microwave, and Continuous Flow Strategies
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Bioprocess Intensification Using Flow Reactors: Stereoselective Oxidation of Achiral 1,3-diols with Immobilized Acetobacter Aceti
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Reversible chemoselective transesterification of vinylogous esters using Fe-catalyst under additive free conditions  
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Investigation of a Weak Temperature–Rate Relationship in the Carbamoylation of a Barbituric Acid Pharmaceutical Intermediate  
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Rapid and Multigram Synthesis of Vinylogous Esters under Continuous Flow: An Access to Transesterification and Reverse Reaction of Vinylogous Esters  
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Protection-Group-Free Synthesis of Sequence-Defined Macromolecules via Precision λ-Orthogonal Photochemistry  
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Decarboxylative Intramolecular Arene Alkylation Using N-(Acyloxy)phthalimides, an Organic Photocatalyst, and Visible Light  
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Flow Electrochemical Cyclizations via Amidyl Radicals: Easy Access to Cyclic Ureas  
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Efficient Flow Electrochemical Alkoxylation of Pyrrolidine-1-Carbaldehyde  
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Overcoming Water Insolubility in Flow: Enantioselective Hydrolysis of Naproxen Ester
A solid-supported arylboronic acid catalyst for direct amidation
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Visible Light-Promoted Beckmann Rearrangements: Separating Sequential Photochemical and Thermal Phenomena in a Continuous Flow Reactor
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A Consolidated and Continuous Synthesis of Ciprofloxacin from a Vinyllogous Cyclopropyl Amide
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Emerging Trends in Flow Chemistry and Applications to the Pharmaceutical Industry
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Towards a Scalable Synthesis of 2-Oxabicyclo[2.2.0]hex-5-en-3-one Using Flow Photochemistry
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Continuous flow processing as a tool for the generation of terpene-derived monomer libraries
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Rapid Photochemical Reaction Studies under Continuous-flow Conditions in the Vapourtec UV-150 Reactor-A Technical Note
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Enabling synthesis in fragment-based drug discovery by reactivity mapping: photoredox-mediated cross-dehydrogenative heteroarylation of cyclic amines
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Enhanced mixing of biphasic liquid-liquid systems for the synthesis of gem-dihalocyclopropanes using packed bed reactors
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Deprotection of N-Boc Groups Under Continuous Flow High Temperature Conditions
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A Laser Driven Flow Chemistry Platform for Scaling Photochemical Reactions with Visible Light
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De novo design of organic photocatalysts: bithiophene derivatives for the visible-light induced C-H functionalization of heteroarenes
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Integrating reactive distillation with continuous flow processing
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Enabling tools for continuous-flow biphasic liquid-liquid reaction
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High-Throughput Template-Free Continuous Flow Synthesis of Polyaniline Nanofibers
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A Continuous Flow Strategy for the Facile Synthesis and Elaboration of Semi-Saturated Heterobicyclic Fragments
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Continuous Flow Chlorination of Alkenyl Iodides Promoted by Copper Tubing
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Continuous flow palladium-catalyzed trifluoromethylthiolation of C-H bonds
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Continuous preparation for rifampicin
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Using Carbon Dioxide as a Building Block in Continuous Flow Synthesis
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Chemoselective Synthesis of Amines from Ammonium Hydroxide and Hydroxylamine in Continuous Flow
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Enantiospecific cyclization of methyl N-(tert-butoxycarbonyl)-N-(3-chloropropyl)-D-alaninate to 2-methylproline derivative via 'memory of chirality' in flow
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Mg-Catalyzed OPPenauer Oxidation—Application to the Flow Synthesis of a Natural Pheromone
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Dehydration of an Insoluble Urea Byproduct Enables the Condensation of DCC and Malonic Acid in Flow
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Self-Sufficient Flow-Biocatalysis by Coimmobilization of Pyridoxal 5′-Phosphate and ω-Transaminases onto Porous Carriers
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A Convergent Continuous Multistep Process for the Preparation of C4-Oxime-Substituted Thiazoles
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Additive Free Fe-Catalyzed Conversion of Nitro to Aldehyde under Continuous Flow Module
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Recent Advances in Photodecarboxylations Involving Phthalimides
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Catalytic Static Mixers for the Continuous Flow Hydrogenation of a Key Intermediate of Linezolid (Zyvox)
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Photoinduced Palladium Negishi Cross-Coupling Through Visible Light Absorption of Palladium-Organozinc complexes
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Three-component assembly of multiply substituted homoallylic alcohols and amines using a flow chemistry photoreactor
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Mild Homologation of Esters via Continuous Flow Chloroacetate Claisen Reactions
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Regioselective Chlorination of Quinoline Derivatives via Fluorine Mediation in a Microfluidic Reactor
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https://pubs.acs.org/doi/abs/10.1021/acs.orglett.8b02907
Continuous flow synthesis of a carbon-based molecular cage macrocycle via a three-fold homocoupling reaction
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https://pubs.rsc.org/en/content/articlelanding/2015/cc/c5cc05181a#divAbstract

Flow-based biocatalysis: Application to peracyetylated arabinofuranosyl-1,5-arabinofuranose synthesis
Teodora Bavaro,a Andrea Pintob, Federica Dall’Oglioc, Maria J. Hernáizd, Carlo F. Morellic, Paolo Zambellic, Carlo De Michelic, Paola Contid, Lucia Tamborinid, Marco Terreni

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Continuous Flow Photochemical Benzylic Bromination of a Key Intermediate in the Synthesis of a 2-Oxazolidinone
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Native Chemical Ligation–Photodesulfurization in Flow
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Reactive aminations using a 3D printed supported metal(0) catalyst system
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Flow Synthesis of Coumalic Acid and its Derivatization
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https://pubs.rsc.org/en/content/articlelanding/2018/re/c8re00116b#divAbstract

Combining CH functionalisation and flow photochemical heterocyclic metamorphosis (FP-HM) for the synthesis of benzo [1, 3] oxazepines
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Studies toward the scaling of gas-liquid photocycloadditions
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P-121: Successive and scalable synthesis of highly stable CsPbBr₃ perovskite microcrystal by microfluidic system and their application in backlight display
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Self-sustaining closed-loop multienzyme-mediated conversion of amines into alcohols in continuous reactions
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https://www.nature.com/articles/s41929-018-0082-9

Dichlorophenylacrylonitriles as AhR Ligands displaying selective breast cancer cytotoxicity in vitro
Jennifer R Selective Oxidation of Sulfides in Flow Chemistry
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Combining C-H functionalisation and flow photochemical heterocyclic metamorphosis (FP-HM) for the synthesis of benzo[1,3]oxazepines
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Multistep Continuous-Flow Processes for the Preparation of Heterocyclic Active Pharmaceutical Ingredients
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https://link.springer.com/chapter/10.1007/7081_2018_21

Flow Chemistry Approaches Applied to the Synthesis of Saturated Heterocycles
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An efficient benzoxaborole one-pot synthesis by SiliaCat DPP-Pd heterogeneous catalysis using diboronic acid
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Total Synthesis of Neomarchantin A: Key Bond Constructions Performed Using Continuous Flow Methods
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https://pubs.acs.org/doi/10.1021/acs.orglett.7b01127
In situ epoxide generation by dimethyldioxirane oxidation and the use of epichlorohydrin in the flow synthesis of a library of β-amino alcohols
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Safe Use of Hazardous Chemicals in Flow
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https://link.springer.com/chapter/10.1007/7081_2018_17

Photochemical Synthesis of Heterocycles: Merging Flow Processing and Metal-Catalyzed Visible Light Photoredox Transformations
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https://link.springer.com/chapter/10.1007/7081_2018_20

Flow Chemistry as a Drug Discovery Tool: A Medicinal Chemistry Perspective
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https://link.springer.com/chapter/10.1007/7081_2018_24

Copper mediated, heterogeneous, enantioselective intramolecular Buchner reactions of α-diazoketones using continuous flow processing
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Functionalization of Heteroarenes Under Continuous Flow
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https://link.springer.com/chapter/10.1007/7081_2018_22

Photoredox Iridium–Nickel Dual-Catalyzed Decarboxylative Arylation Cross-Coupling: From Batch to Continuous Flow via Self-Optimizing Segmented Flow Reactor
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A combination of flow and batch mode processes for the efficient preparation of mGlu2/3 receptor negative allosteric modulators (NAMs)
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On-demand synthesis of organozinc halides under continuous flow conditions
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https://www.nature.com/articles/nprot.2017.141
Generation of Diversity Sets with High sp3 Fraction Using the Photoredox Coupling of Organotrifluoroborates and Organosilicates with Heteroaryl/Aryl Bromides in Continuous Flow
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Iron-Catalyzed Batch/Continuous Flow C-H Functionalization Module for the Synthesis of Anticancer Peroxides
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http://pubs.acs.org/doi/abs/10.1021/acs.joc.7b02854

Selective N-monomethylation of primary anilines with dimethyl carbonate in continuous flow
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Continuous flow multistep synthesis of α-functionalized esters via lithium enolate intermediates
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A concise flow synthesis of indole-3-carboxylic ester and its derivatisation to an auxin mimic
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https://www.beilstein-journals.org/bjoc/articles/13/251

Synthesis, physicochemical properties, and biological activity of bile acids 3-glucuronides: Novel insights into bile acid signalling and detoxification
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Conjugated polymers via direct arylation polymerization in continuous flow: minimizing the cost and batch-to-batch variations for high-throughput energy conversion
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Recent advances of microfluidics technologies in the field of medicinal chemistry
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Sustainable flow synthesis of a versatile cyclopentenone building block
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http://pubs.acs.org/doi/abs/10.1021/acs.oprd.7b00328
Auto-tandem catalysis: Pd(II)-catalysed dehydrogenation/oxidative Heck of Cyclopentane-1,3-diones
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Exploring effects of intermittent light upon visible light promoted water oxidations
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Telescoped continuous flow generation of a library of highly substituted 3-thio-1,2,4-triazoles.
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Targeting a mirabegron precursor by BH3-mediated continuous flow reduction process
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In situ preparation and consumption of O-Mesitylsulfonylhydroxylamine (MSH) in continuous flow for the amination of pyridines
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Highly efficient oxidation of amines to aldehydes with flow-based biocatalysis
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Novel polystyrene-immobilized chiral amino alcohols as heterogeneous ligands for the enantioselective Arylation of Aldehydes in Batch and Continuous Flow Regime
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An efficient and green pathway for continuous Friedel-Crafts acylation over α-Fe2O3 and CaCO3 nanoparticles prepared in the microreactors
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A nanoporous graphene analog for superfast heavy metal removal and continuous-flow visible-light photoredox catalysis
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A novel micro-flow system under microwave irradiation for continuous synthesis of 1, 4-dihydropyridines in the absence of solvents via Hantzsch reaction
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Methanolysis of epoxidized soybean oil in continuous flow conditions
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Visible-light-induced trifluoromethylation of highly functionalized arenes and heteroarenes in continuous flow
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Continuous preparation and use of dibromoformaldoxime as a reactive intermediate for the synthesis of 3-bromoisoxazolines
Claudio Battilocchio, Francesco Bosica, Sam M. Rowe, Bruna Lacerda Abreu, Edouard Godineau, Matthias Lehmann, and Steven V Ley
http://pubs.acs.org/doi/abs/10.1021/acs.oprd.7b00229

Chemoenzymatic synthesis in flow reactors: a rapid and convenient preparation of captopril
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Preparation of polyfunctional diorgano-magnesium and - zinc reagents using in situ trapping halogen-lithium exchange of highly functionalized (hetero)aryl halides in continuous flow
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Flow assisted synthesis: a key fragment of SR 142948A
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Singlet oxygen oxidations in homogeneous continuous flow using a gas–liquid membrane reactor
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A convenient, mild and green synthesis of NH-sulfoximines in flow reactors
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A Continuous flow method for the desulfurization of substituted thioimidazoles applied to the synthesis of new etomidate derivatives
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High throughput photo-oxidations in a packed bed reactor system
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Phase separation macrocyclization in a complex pharmaceutical setting: application toward the synthesis of Vaniprevir
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Grignard Reagents on a Tab: Direct Magnesium Insertion under Flow Conditions
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Co-production of HMF and gluconic acid from sucrose by chemo-enzymatic method
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Efficient synthesis of 5-(chloromethyl) furfural (CMF) from high fructose corn syrup (HFCS) using continuous flow processing
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Barbier continuous flow preparation and reactions of carbamoyllithiums for nucleophilic amidation
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Polymer-supported photosensitizers for oxidative organic transformations in flow and under visible light Irradiation
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Direct valorisation of waste cocoa butter triglycerides via catalytic epoxidation, ring-opening and polymerisation

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Hydrogen sulfide chemistry in continuous flow: Efficient synthesis of 2-oxopropanethioamide

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Automating multistep flow synthesis: approach and challenges in integrating chemistry, machines and logic

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Utilizing on- and off-line monitoring tools to follow a kinetic resolution step during flow synthesis

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Flow Synthesis of Cyclobutanones via [2+2] Cycloaddition of Keteneiminium Salts and Ethylene Gas

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Continuous Flow α-Arylation of N,N-Dialkylhydrazones under Visible-Light Photoredox Catalysis

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Utilization of flow chemistry in catalysis: New avenues for the selective synthesis of Bis(indolyl)methanes

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Continuous-flow synthesis of highly functionalized imidazo-oxadiazoles facilitated by microfluidic extraction

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Preparation of Forced Gradient Copolymers Using Tube-in-Tube Continuous Flow Reactors
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A Continuous Flow Synthesis and Derivatization of 1,2,4-Thiadiazoles
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Self-optimisation and model-based design of experiments for developing a C–H activation flow process
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Diels–Alder reactions of myrcene using intensified continuous-flow reactors
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Active Site-Mapping of Xylan-Deconstructing Enzymes with Arabinoxylan Oligosaccharides Produced by Automated Glycan Assembly
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Mixed-Linkage Glucan Oligosaccharides Produced by Automated Glycan Assembly Serve as Tools to Determine the Substrate Specificity of Lichenase
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Improving the throughput of batch photochemical reactions using flow: Dual photoredox and nickel catalysis in flow for C(sp2) – C(sp3) cross-coupling
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Acridinium-Based Photocatalysts: A Sustainable Option in Photoredox Catalysis
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Halogenation of organic compounds using continuous flow and microreactor technology
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Application of the Photoredox Coupling of Trifluoroborates and Aryl Bromides to Analog Generation Using Continuous Flow

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Design and Development of Pd-catalyzed Aerobic N-Demethylation Strategies for the Synthesis of Noroxymorphone in Continuous Flow Mode

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β-Glutamyl-dipeptides: Easy tools to rapidly probe the stereoelectronic properties of the ionotropic glutamate receptor binding pocket

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Expedited access to thieno[3,2-c]quinolin-4(5H)-ones and benzo[h]-1,6-naphthyridin-5(6H)-ones via a continuous flow photocyclization method

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A benchtop NMR spectrometer as a tool for monitoring mesoscale continuous-flow organic synthesis: equipment interface and assessment in four organic transformations

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BODIPY-based conjugated microporous polymers as reusable heterogeneous photosensitisers in a photochemical flow reactor

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Reformatsky and Blaise reactions in flow as a tool for drug discovery. One pot diversity oriented synthesis of valuable intermediates and heterocycles

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Visible light activation of Boronic Esters enables efficient photoredox C(sp²)–C(sp³) cross-couplings in flow
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Engineering chemistry: integrating batch and flow reactions on a single, automated reactor platform
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http://pubs.rsc.org/en/content/articlelanding/2016/re/c6re00160b#!divAbstract

Triphenylphosphine-grafted, RAFT-synthesised, porous monoliths as catalysts for Michael addition in flow synthesis
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http://dx.doi.org/10.1016/j.reactfunctpolym.2015.09.008

Ethyl Lethiodiazoacetate: Extremely Unstable Intermediate Handled Efficiently in Flow
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A facile hybrid ‘flow and batch’ access to substituted 3,4-dihydro-2H-benzo[b][1,4]oxazinones
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http://pubs.rsc.org/is/content/articlelanding/2016/ob/c6ob01153e#!divAbstract

Continuous flow biocatalysis: production and in-line purification of amines by immobilised transaminase from Halomonas elongata
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http://pubs.rsc.org/en/content/articlelanding/2017/gc/c6gc01780k#!divAbstract

A laboratory-scale continuous flow chlorine generator for organic synthesis
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http://pubs.rsc.org/en/content/articlelanding/2016/re/c6re00135a/unauth#!divAbstract

Continuous processing and efficient in situ reaction monitoring of a hypervalent iodine (III) mediated cyclopropanation using benchtop NMR spectroscopy
Aryl amination using ligand-free Ni(II) salts and photoredox catalysis
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http://science.sciencemag.org/content/early/2016/06/22/science.aag0209

Catalytic Chan-Lam coupling using a ‘tube-in-tube’ reactor to deliver molecular oxygen as an oxidant
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http://www.beilstein-journals.org/bjoc/single/articleFullText.htm?publicId=1860-5397-12-115

An approach to the synthesis of 4-aryl and 5-aryl substituted thiazole-2(3H)-thiones employing flow processing
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http://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra15488c#!divAbstract

Flow carbonylation of sterically hindered ortho-substituted iodoarenes
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Exploring flow procedures for diazonium formation
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http://www.mdpi.com/1420-3049/21/7/918/htm

Catalytic macrocyclization strategies using continuous flow: formal total synthesis of ivorenolide A
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http://pubs.acs.org/doi/abs/10.1021/acs.joc.6b01500

Delivering enhanced efficiency in the synthesis of α-diazosulfoxides by exploiting the process control enabled in flow
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Continuous-flow synthesis and derivatization of aziridines through palladium-catalyzed C(sp2)—H activation
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Metal-free borylation of electron-rich aryl(pseudo)halides under continuous-flow photolytic conditions
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Difluorocarbene addition to alkenes and alkynes in continuous flow
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http://pubs.acs.org/doi/abs/10.1021/acs.orglett.6b00573?journalCode=orlef7

A simple setup for transfer hydrogenations in flow chemistry
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A scalable and operationally simple radical trifluoromethylation
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http://www.nature.com/ncomms/2015/150810/ncomms8919/full/ncomms8919.html

Photoactive and metal-free polyamide-based polymers for water and wastewater treatment under visible light irradiation
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Biodiesel synthesis using integrated acid and base catalysis in continuous flow
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The generation of a library of bromodomain-containing protein modulators expedited by continuous flow synthesis
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An efficient etherification of Ginkgo biloba extracts with fewer side effects in a micro-flow system
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Fine chemical syntheses under flow using SiliaCat catalysts
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http://pubs.rsc.org/en/content/articlelanding/2016/cy/c6cy0038j#!divAbstract

Continuous-flow synthesis of 2H-azirines and their diastereoselective transformation to aziridines
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http://community.dur.ac.uk/i.r.baxendale/papers/Synlett2016.27.159.pdf
Continuous flow magnesiation or zincation of acrylonitriles, acrylates, and nitroolefins. Application to the synthesis of butenolides
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Continuous flow photo-initiated RAFT polymerisation using a tubular photochemical reactor  
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Continuous flow photochemistry: a need for chemical engineering  
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Efficient metal-free photochemical borylation of aryl halides under batch and continuous-flow conditions†  
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http://pubs.rsc.org/en/content/articlehtml/2016/sc/c5sc04521e

Continuous flow photochemistry as an enabling synthetic technology: synthesis of substituted-6(5H)-phenanthridinones for use as poly (ADP-ribose) polymerase inhibitors  
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Controlled generation and use of CO in flow†‡  
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The solid copper-mediated C-N cross-coupling of phenylboronic acids under continuous flow conditions  
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Visible-light photoredox catalysis using a macromolecular ruthenium complex: reactivity and recovery by size-exclusion nanofiltration in continuous flow†  
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Integrating multicomponent flow synthesis and computational approaches for the generation of a tetrahydroquinoline compound based library  
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www.vapourtec.co.uk/publications
The expanding utility of continuous flow hydrogenation
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Highly efficient and safe procedure for the synthesis of aryl 1,2,3-triazoles from aromatic amine in a continuous flow reactor
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The changing face of organic synthesis
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A novel internet-based reaction monitoring, control and autonomous self-optimization platform for chemical synthesis
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Thermolysis of 1,3-dioxin-4-ones: fast generation of kinetic data using in-line analysis under flow
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Continuous heterogeneously catalyzed oxidation of benzyl alcohol in a ceramic membrane packed-bed reactor
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Automated glycan assembly of xylol glucan oligosaccharides
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Continuous flow Buchwald–Hartwig amination of a pharmaceutical intermediate

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An efficient continuous flow process for the synthesis of a non-conventional mixture of fructooligosaccharides

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Dynamic flow synthesis of porous organic cages

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Continuous photochemistry: the flow synthesis of ibuprofen via a photo-Favorskii rearrangement

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Making ends meet: flow synthesis as the answer to reproducible high-performance conjugated polymers on the scale that roll-to-roll processing demands

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Amination of aryl halides and esters using intensified continuous flow processing

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An integrated flow and microwave approach to a broad spectrum protein kinase inhibitor

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Light-induced C-H arylation of (hetero)arenes by in situ generated diazo anhydrides

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Photodecarboxylative benzylations of \(N\)-methoxyphthalimide under batch and continuous-flow conditions
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A short multi-step flow synthesis of a potential spirocyclic fragrance component
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Flow synthesis of 2-methylpyridines via \(\alpha\)-methylation
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The development of a short route to the API ropinirole hydrochloride
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A practical deca-gram scale ring expansion of (R)-(−)-carvone to (R)-(+) 3-methyl-6-isopropenyl-cyclohept-3-enone-1
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A flow-based synthesis of telmisartan
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Two-stage flow synthesis of coumarin via \(O\)-acetylation of salicylaldehyde
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The preparation of ethyl levulinate facilitated by flow processing: the catalyzed and uncatalyzed esterification of levulinic acid

Photodecarboxylations in an advanced meso-scale continuous flow photoreactor
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Generation and trapping of ketenes in flow
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A concise flow synthesis of efavirenz†
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A monolith immobilised iridium Cp* catalyst for hydrogen transfer reactions under flow conditions
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Development of a flow method for the hydroboration/oxidation of olefins
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Reevaluation of the 2-nitrobenzyl protecting group for nitrogen containing compounds: an application of flow photochemistry
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Flow synthesis of ethyl isocyanooacetate enabling the telescoped synthesis of 1,2,4-triazoles and pyrrolo-[1,2-c]pyrimidines
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Heterogenization of Pd–NHC complexes onto a silica support and their application in Suzuki–Miyaura coupling under batch and continuous flow conditions
Alberto Martínez,1 Jamin L. Krinsky,1 Itziar Peñafiel,1 Sergio Castillón,2 Konstantin Loponov,1 Alexei Lapkin,1 Cyril Godard,*1 Carmen Claver*1
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Efficient continuous-flow synthesis of macrocyclic triazoles
Anne-Catherine Bédard Jeffrey Santandrea Shawn Collins
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Factors Influencing the regioselectivity of the oxidation of asymmetric secondary amines with singlet oxygen
Dr. Dmitry B. Ushakov,† Matthew B. Plutschack,† Dr. Kerry Gilmore,‡ and Prof. Dr. Peter H. Seeberger,
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Glucuronidation of bile acids under flow conditions: design of experiments and Koenigs–Knorr reaction optimization
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Electroactive and photoactive poly[isoindigo-alt-EDOT] synthesized using direct (hetero)arylation polymerization in batch and in continuous flow
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Chemical assembly systems: layered control for divergent, continuous, multistep syntheses of active pharmaceutical ingredients
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Continuous reductions and reductive aminations using solid NaBH₄
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http://dx.doi.org/10.1021/op500310s

Versatile, high quality and scalable continuous flow production of metal-organic frameworks
Marta Rubio-Martinez, Michael P. Batten, Anastasios Polyzos, Keri-Constanti Carey, James I. Mardel, Kok-Seng Lim & Matthew R. Hill
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http://dx.doi.org/10.1038/srep05443

Flow synthesis and biological activity of aryl sulphonamides as selective carbonic anhydrase IX and XII inhibitors
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Facilitating biomimetic syntheses of borrarine derived alkaloids by means of flow-chemical methods.
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http://dx.doi.org/10.1071/CH14530

Synthesis of a carprofen analogue using a continuous flow UV-reactor
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http://dx.doi.org/10.1021/op5002148

Continuous synthesis of organozinc halides coupled to negishi reactions
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http://dx.doi.org/10.1002/adsc.201400243

Efficient synthesis of panaxadiol derivatives using continuous-flow microreactor and evaluation of anti-tumor activity
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http://dx.doi.org/10.1016/j.cclet.2014.1103

Continuous flow magnesiation of functionalized heterocycles and acrylates with TMPMgCl-LiCl
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http://dx.doi.org/10.1020/10.1002/anie.201404221

A continuous-flow approach to 3,3,3-trifluoromethylpropenes: bringing together Grignard addition, Peterson elimination, inline extraction, and solvent switching
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http://dx.doi.org/10.1021/op500190j

Development of a Grignard-type reaction for manufacturing in a continuous-flow reactor
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First example of alkyl-aryl Negishi cross-coupling in flow: mild, efficient and clean introduction of functionalized alkyl groups
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A general continuous flow method for palladium catalysed carboxylation reactions using single and multiple tube-in-tube gas-liquid microreactors
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Flow chemistry meets advanced functional materials
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Multistep flow synthesis of 5-amino-2-aryl-2H-[1,2,3]-triazole-4-carbonitriles
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The rapid synthesis of oxazolines and their heterogeneous oxidation to oxazoles under flow conditions
Steffen Glöckner, Duc N. Tran, Richard J. Ingham, Sabine Fenner, Zoe E. Wilson, Claudio Battilocchio and Steven V. Ley*
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First example of a continuous-flow carboxylation reaction using aryl formates as CO precursors
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Glycosylation with N-acetyl glycosamine donors using catalytic iron(III) triflate: from microwave batch chemistry to a scalable continuous-flow process
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The generation of a library of bromodomain-containing protein modulators expedited by continuous flow synthesis
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An efficient etherification of Ginkgo biloba extracts with fewer side effects in a micro-flow system
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Continuous flow synthesis of thieno[2,3-c]isoquinolin-5(4H)-one scaffold: a valuable source of PARP-1 inhibitors
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Regioselective synthesis of 3-aminoimidazo[1,2-α]-pyrimidines under continuous flow conditions
Ashlie J. E. Butler, Mark J. Thompson, Patrick J. Maydom, James A. Newby, Kai Guo, Harry Adams, and Beining Chen
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Microwave irradiation and flow chemistry for a straightforward synthesis of piano-stool iron complexes
Anastassiya Pagnoux-Ozherelyeva, David Bolien, Sylvain Gaillard, Flavie Peudru, Jean-François Lohier, Richard J. Whitby, and Jean-Luc Renaud
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Continuous flow macrocyclization at high concentrations: synthesis of macrocyclic lipids
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Continuous synthesis of artemisinin-derived medicines
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Consecutive oxygen-based oxidations convert amines to α-cyanoepoxides
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Continuous-flow oxidative cyanation of primary and secondary amines using singlet oxygen

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Flow synthesis of a versatile fructosamine mimic and quenching studies of a fructose transport probe
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http://dx.doi.org/10.1021/bjoc.9.238

Synthesis of all four stereoisomers of 3-(tert-Butoxycarbonyl)-3-azabicyclo[3.1.0]hexane-2-carboxylic acid
Bettina Bakonyi, Markus Furegati, Christian Kramer, Luigi La Vecchia, and Flavio Ossola
Doetsch Grether AG, Falkensteinerstrasse 37, 4132 Muttenz, Switzerland

http://dx.doi.org/10.1021/jo4013282

Seamless integration of dose-response screening and flow chemistry: efficient generation of structure–activity relationship data of β-Secretase (BACE1) inhibitors
Dr. Michael Werner, Christoph Kuratli, Dr. Rainer E. Martin, Dr. Remo Hochstrasser, David Wechsler, Dr. Thilo Enderle, Dr. Alexander I. Alanine and Prof. Dr. Horst Vogel
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http://dx.doi.org/10.1002/anie.201309301

Controlled synthesis of poly(3-hexylthiophene) in continuous flow
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http://dx.doi.org/10.3762/bjoc.9.170

Integration of enabling methods for the automated flow preparation of piperazine-2-carboxamide
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http://dx.doi.org/10.3762/bjoc.10.56

Robust and reusable supported palladium catalysts for cross-coupling reactions in flow
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http://dx.doi.org/10.1039/C3CY00836C

Investigating the continuous synthesis of a nicotinonitrile precursor to nevirapine
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http://dx.doi.org/10.3762/bjoc.9.292

Porous, functional, poly(styrene-co-divinylbenzene) monoliths by RAFT polymerization
Kristine J. Barlow (née Tan), Xiaojuan Hao, Timothy C. Hughes, Oliver E. Hutt, Anastasios Polyzos, Kathleen A. Turner, Graeme Moad
Commonwealth Scientific and Industrial Research Organisation (CSIRO), Materials Science & Engineering, Australia

http://dx.doi.org/10.1039/C3PY01015E

New insights into cyclobutenone rearrangements: a total synthesis of the natural ROS-generating anti-cancer agent cribrostatin 6†
Mubina Mohamed¹, Théo P. Gonçalves¹, Prof. Richard J. Whitby¹, Dr. Helen F. Sneddon², Prof. David C. Harrowven¹
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Hypervalent iodine/TEMPO-mediated oxidation in flow systems: a fast and efficient protocol for alcohol oxidation
Nida Ambreen, Ravi Kumar and Thomas Wirth
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The application of a monolithic triphenylphosphine reagent for conducting Ramirez gem-dibromoolefination reactions in flow
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http://dx.doi.org/10.3762/bjoc.9.207

Flow-based, cerium oxide enhanced, low-level palladium sonogashira and heck coupling reactions by perovskite catalysts
Claudio Battilocchio¹, Benjamin N. Bhowal¹, Rajeev Chorghade¹, Benjamin J. Deadman¹, Joel M. Hawkins², Steven V. Ley¹
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http://dx.doi.org/10.1002/ijch.201300049

The fit for purpose development of S1P₁ receptor agonist GSK2263167 using a Robinson annulation and Saegusa oxidation to access an advanced phenol intermediate
Robert M. Harris, Benjamin I. Andrews, Stacy Clark, Jason W. B. Cooke, John C. S. Gray, and Stephanie Q. Q. Ng
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http://dx.doi.org/10.1021/op400162p

Raman spectroscopy as a tool for monitoring mesoscale continuous-flow organic synthesis: Equipment interface and assessment in four medicinally-relevant reactions
Trevor A. Hamlin and Nicholas E. Leadbeater
Department of Chemistry, University of Connecticut, USA

http://dx.doi.org/10.3762/bjoc.9.215

Biotransformation with whole microbial systems in a continuous flow reactor: resolution of (RS)-flurbiprofen using Aspergillus oryzae by direct esterification with ethanol in organic solvent
Licia Tamborini¹, Diego Romano², Andrea Pinto², Martina Contente³, Maria C. Iannuzzi³, Paola Conti³, Francesco Molinari³
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Continuous flow synthesis of Coumarin
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http://dx.doi.org/10.3762/bjoc.9.215
Continuous flow-processing of organometallic reagents using an advanced peristaltic pumping system and the telescoped flow synthesis of (E/Z)-tamoxifen
Philip R D Murray, Duncan L Browne, Julio C Pastre, Chris Butters, Duncan Guthrie, Steven V Ley
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http://dx.doi.org/10.1021/op4001548

Integrated synthesis and testing of substituted xanthine based DPP4 inhibitors: application to drug discovery
Werngard Czechtizky, Jürgen Dedio, Bimbisar Desai, Karen Dixon, Elizabeth Farrant, Qixing Feng, Trevor Morgan, David M. Parry, Manoj K. Ramjee, Christopher N. Selway, Thorsten Schmidt, Gary J. Tarver, Adrian G. Wright
Sanofi-Aventis.
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http://dx.doi.org/10.1021/ml400171b

Applying flow chemistry: methods, materials, and multistep synthesis
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http://dx.doi.org/10.1021/jo400583m

Controlled synthesis of poly(3-hexylthiophene) in continuous flow
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http://dx.doi.org/10.3762/bjoc.9.170

Building a sulfonamide library by eco-friendly flow synthesis
Antimo Gioiello, Emiliano Rosatelli, Michela Teofrasti, Paolo Filipponi, and Roberto Pellicciari
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http://pubs.acs.org/doi/abs/10.1021/co400012m

The rapid generation of isocyanates in flow
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http://dx.doi.org/10.3762/bjoc.9.184

Continuous synthesis of pyridocarbazoles and initial photophysical and bioprobe characterization
D. Tyler McQuade, Alexander G. O’Brien, Markus Dörr, Rajathees Rajaratnam, Ursula Eisold, Bopanna Monnanda, Tomoya Nobuta, Hans-Gerd Löhmansröben, Eric Meggers, Peter H. Seeberger
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http://dx.doi.org/10.1039/C3SC51846A

Microwave heating and conventionally-heated continuous-flow processing as tools for performing cleaner palladium-catalyzed decarboxylative couplings using oxygen as the oxidant – a proof of principle study
Nicholas Leadbeater, DiAndra M. Rudzinski
Department of Chemistry, University of Connecticut.
http://dx.doi.org/10.1515/gps-2013-0043

Rapid discovery of a novel series of Abl kinase inhibitors by application of an integrated microfluidic synthesis and screening platform

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A multi-step continuous flow process for the N-demethylation of alkaloids
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http://dx.doi.org/10.1039/C3RA00125C

A two-stage continuous-flow synthesis of spirooxazine photochromic dyes
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http://dx.doi.org/10.1071/CH12435

Ozonolysis of some complex organic substrates in flow
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http://dx.doi.org/10.1039/C3RA00125C

Continuous synthesis and use of N-heterocyclic carbene copper(I) complexes from insoluble Cu2O
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http://dx.doi.org/10.1021/ol303442m

An expeditious synthesis of imatinib and analogues utilising flow chemistry methods
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http://dx.doi.org/10.1039/C2OB27002A

Continuous-flow generation of diazoesters and their direct use in S-H and P-H insertion reactions: synthesis of a-sulfanyl, a-sulfonyl and a-phosphono carboxylates
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http://dx.doi.org/10.1016/j.tet.2013.01.020

Synthesis of carbohydrate-functionalised sequence-defined oligo (amidoamine)s by photochemical thiol-ene coupling in a continuous flow reactor
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http://dx.doi.org/10.1002/chem.201203927

Synthesis of RAFT block copolymers in a multi-stage continuous flow process inside a tubular reactor
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CSIRO Materials Science & Engineering, Victoria, Australia.
http://dx.doi.org/10.1071/CH12479
Continuous flow synthesis of organic electronic materials: case studies in methodology translation and scale-up
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²Institute of Organic Chemistry II and Advanced Materials, University of Ulm, Germany.
http://dx.doi.org/10.1071/CH12406

Preparation of arene chromium tricarbonyl complexes using continuous-flow processing: (η6-C₆H₅CH₃)Cr(CO)₃ as an example
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http://dx.doi.org/10.1556/JFC-D-12-00018

Visible light-initiated preparation of functionalized polystyrene monoliths for flow chemistry
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http://dx.doi.org/10.1071/CH12405

Integrated continuous processing and flow characterization of RAFT polymerization in tubular flow reactors
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CSIRO Materials Science and Engineering, Victoria, Australia
http://dx.doi.org/10.1002/mren.201200029

Synthesis of an H3 antagonist via sequential one-pot additions of a magnesium ate complex and an amine to a 1,4-ketoester followed by carbonyl-directed fluoride addition
Pharmaceutical Sciences, Pfizer Inc., Groton, USA
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A "catch-react-release" method for the flow synthesis of 2-aminopyrimidines and preparation of the imatinib base
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Sustainable and efficient methodology for CLA synthesis and identification
Andres Moreno, Maria Moreno, Maria Victoria Gómez, Cristina Cebrian, Pilar Prieto, Antonio de la Hoz
Departamento de Química Inorgánica, , Universidad de Castilla-La Mancha, Ciudad Real, Spain.
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Continuous synthesis and purification by direct coupling of a flow reactor with simulated moving-bed chromatography
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A continuous flow process for the radical induced end group removal of RAFT polymers
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Continuous flow synthesis of secondary amides by tandem azidation-amidation of anilines
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Asymmetric homogeneous hydrogenation in flow using a tube-in-tube reactor
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Continuous flow hydrogenation using an on-demand gas delivery reactor
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An efficient method for the lipase-catalysed resolution and in-line purification of racemic flurbiprofen in a continuous-flow reactor
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Soluble polymer-supported flow synthesis: A green process for the preparation of heterocycles
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Continuous flow synthesis and scale-up of glycine- and taurine-conjugated bile salts
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Development of a continuous flow scale-up approach of reflux inhibitor AZD6906
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Phase-transfer catalysis under continuous flow conditions: an alternative approach to the biphasic liquid/liquid O-alkylation of phenols
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Continuous-flow synthesis of the anti-malaria drug artemisinin
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Continuous proline catalysis via leaching of solid proline
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Scale-up of flow-assisted synthesis of C2-symmetric chiral PyBox ligands
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Application of flow chemistry to the selective reduction of esters to aldehydes
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Synthesis of annulated pyridines by intramolecular inverse-electron-demand hetero-diels-alder reaction under superheated continuous flow conditions
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The application of a monolithic triphenylphosphine reagent for conducting appel reactions in flow microreactors
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Continuous preparation of arylmagnesium reagents in flow with inline IR monitoring
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New insights into cyclobutenone rearrangements: a total synthesis of the natural ROS-generating anti-cancer agent cribrostatin (ROS=reactive-oxygen species)
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The oxygen-mediated synthesis of 1,3-butadiynes in continuous flow: using teflon AF-2400 to effect gas/liquid contact
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Lead diversification 2: application to P38, gMTP and lead compounds
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A continuous-flow synthesis of annulated and polysubstituted furans from the reaction of ketones and a-haloketones
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Suzuki-Miyaura cross-coupling of heteroaryl halides and arylboronic acids in continuous flow
Timothy Noël and Andrew J. Musacchio
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http://dx.doi.org/10.1021/ol202052q

The oxygen-mediated synthesis of 1,3-butadiynes in continuous flow: using teflon AF-2400 to effect gas/liquid contact
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http://dx.doi.org/10.1002/cssc.201100339

Continuous flow synthesis of conjugated polymers
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http://dx.doi.org/10.1039/C1CC14315H

Continuous-flow, palladium-catalysed alkoxycarbonylation reactions using a prototype reactor in which it is possible to load gas and heat simultaneously
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http://dx.doi.org/10.1039/C1OB05808H

Teflon AF-2400 mediated gas–liquid contact in continuous flow methoxycarbonylations and in-line FTIR measurement of CO concentration
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http://dx.doi.org/10.1039/C1OB06017A

Rapid access to α-alkoxy and α-amino acid derivatives through safe continuous-flow generation of diazoesters
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http://dx.doi.org/10.1002/chem.201101590

Continuous flow photolysis of aryl azides: preparation of 3H-azepinones
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http://dx.doi.org/10.3762/bjoc.7.129

Ozonolysis in flow using capillary reactors
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http://dx.doi.org/10.1021/op200036d

Nitrile oxide 1,3-dipolar cycloaddition by dehydration of nitromethane derivatives under continuous flow conditions
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http://dx.doi.org/10.1071/CH11079

Nitration chemistry in continuous flow using fuming nitric acid in a commercially available flow reactor
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http://dx.doi.org/10.1021/op200055r
Synthesis of a drug-like focused library of trisubstituted pyrrolidines using integrated flow chemistry and batch methods
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Synthesis of (+)-dumetorine and congeners by using flow chemistry technologies
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Preparation of fluoxetine by multiple flow processing steps
Batoul Ahmed-Omer, Adam J. Sanderson
Eli Lilly and Co. Ltd., Lilly Research Centre, UK.

Oxidation reactions in segmented and continuous flow chemical processing using an N-(tert-Butyl) phenylsulfinimidoyl chloride monolith
Lange, Matthew J. Capener, Alexander X. Jones, Catherine J. Smith, Nikzad Nikbin, Ian R. Baxendale, Steven V. Ley*
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Decarboxylative biaryl synthesis in a continuous flow reactor
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Diastereoselective chain-elongation reactions using microreactors for applications in complex molecule assembly
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One-flow, multistep synthesis of nucleosides by Brønsted acid-catalyzed glycosylation
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An integrated flow and batch-based approach for the synthesis of o-methyl siphonazole
Marcus Baumann, Ian R. Baxendale, Malte Brasholz, John J. Hayward, Steven V. Ley, Nikzad Nikbin
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Flow synthesis of organic azides and the multistep synthesis of imines and amines using a new monolithic triphenylphosphine reagent
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A fully automated, multistep flow synthesis of 5-amino-4-cyano-1,2,3-triazoles
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A general, one-step synthesis of substituted indazoles using a flow reactor
Rob C. Wheeler, Emma Baxter, Ian B. Campbell, Simon J. F. Macdonald
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Continuous flow synthesis of fullerene derivatives
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Controlled RAFT polymerization in a continuous flow microreactor
Christian H. Hornung, Carlos Guerrero-Sanchez, Malte Brasholz, Simon Saubern, John Chieffari, Graeme Moad, Ezio Rizzardo, San H. Thang
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Highly efficient dehydration of carbohydrates to 5-(chloromethyl)furfural (CMF), 5-(hydroxymethyl)furfural (HMF) and levulinic acid by biphasic continuous flow processing
Malte Brasholz, Karin von Känel, Christian H. Hornung, Simon Saubern, John Tsanaktsidis
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Continuous flow thermolysis of azidoacrylates for the synthesis of heterocycles and pharmaceutical intermediates
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Safe and reliable synthesis of diazoketones and quinoxalines in a continuous flow reactor
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The continuous-flow synthesis of carboxylic acids using CO2 in a tube-in-tube gas permeable membrane reactor
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A breakthrough method for the accurate addition of reagents in multi-step segmented flow processing
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Continuous flow coupling and decarboxylation reactions promoted by copper tubing
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Synthesis of β-Keto esters in-flow and rapid access to substituted pyrimidines
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Synthesis of 3-aryl/benzyl-4,5,6,6a-tetrahydro-3aH-pyrrolo[3,4-d]isoxazole derivatives: a comparison between
conventional, microwave-assisted and flow-based methodologies

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Flow synthesis of tricyclic spiropiperidines as building blocks for the histrionicotoxin family of alkaloids

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Preparation of arylsulfonyl chlorides by chlorosulfonylation of in situ generated diazonium salts using a continuous flow reactor

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A continuous flow process using a sequence of microreactors with in-line IR analysis for the preparation of N,N-diethyl-4-(3-fluorophenylpiperidin-4-ylidemethyl)benzamide as a potent and highly selective δ-opioid receptor agonist

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KMnO₄-mediated oxidation as a continuous flow process

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Synthesis of highly substituted nitropyrrrolidines, nitropyrrrolizines and nitopyrroles via multicomponent-multistep sequences within a flow reactor

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A gram-scale batch and flow total synthesis of perhydrohistrionicotin

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Effect of phase transfer chemistry, segmented fluid flow, and sonication on the synthesis of cinnamic esters

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Continuous flow palladium (II)-catalyzed oxidative heck reactions with arylboronic acids

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Reaction of Grignard reagents with carbonyl compounds under continuous flow conditions

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http://dx.doi.org/10.1016/j.tet.2010.04.031
[3+2] Dipolar cycloadditions of an unstabilised azomethine ylide under continuous flow conditions
Mark Grafton, Andrew C. Mansfield and M. Jonathan Fray
Pfizer Global Research and Development, Sandwich, UK

http://dx.doi.org/10.1016/j.tet.2010.02.078

A highly efficient flow reactor process for the synthesis of N-Boc-3,4-dehydro-L-proline methyl ester
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Efficient continuous flow synthesis of hydroxamic acids and suberoylanilide hydroxamic acid preparation
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http://dx.doi.org/10.1016/j.tetasy.2009.12.023

The application of flow microreactors to the preparation of a family of casein kinase I inhibitors
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Multi-step synthesis by using modular flow reactors: the preparation of YneOnes and their use in heterocycle synthesis
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A flow process using microreactors for the preparation of a quinolone derivative as a potent 5HT1B antagonist
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A flow-based synthesis of Imatinib: the API of Gleevec
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ReactIR flow cell: a new analytical tool for continuous flow chemical processing
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A safe and reliable procedure for the iododeamination of aromatic and heteroaromatic amines in a continuous flow reactor
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Development of fluorination methods using continuous-flow microreactors
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Multistep synthesis using modular flow reactors: Bestmann-Ohira reagent for the formation of alkynes and triazoles
A bifurcated pathway to thiazoles and imidazoles using a modular flow microreactor

Ian R. Baxendale, Steven V. Ley, Christopher D. Smith, Lucia Tamborini and Ana-Florina Voica
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http://dx.doi.org/10.1002/anie.200900970

The use of diethylaminosulfur trifluoride (DAST) for fluorination in a continuous-flow microreactor

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A modular flow reactor for performing Curtius rearrangements as a continuous flow process

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[3 + 2] Cycloaddition of acetylenes with azides to give 1,4-disubstituted 1,2,3-triazoles in a modular flow reactor

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Azide monoliths as convenient flow reactors for efficient Curtius rearrangement reactions

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A microcapillary flow disc reactor for organic synthesis

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A flow reactor process for the synthesis of peptides utilizing immobilized reagents, scavengers and catch and release protocols

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Fully automated flow-through synthesis of secondary sulfonamides in a binary reactor system

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Fully automated continuous flow synthesis of 4,5-disubstituted oxazoles

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http://dx.doi.org/10.1021/ol061975c

Continuous flow ligand-free heck reactions using monolithic Pd [0] nanoparticles

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**Tagged phosphine reagents to assist reaction work-up by phase-switched scavenging using a modular flow reactor**
Christopher D. Smith, Ian Baxendale, Geoffrey Tranmer, Marcus Baumann, Stephen Smith, Russell Lewthwaite and Steven V. Ley
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**A flow process for the multi-step synthesis of the alkaloid natural product oxomaritidine: a new paradigm for molecular assembly**
Ian R. Baxendale, Jon Deeley, Charlotte M. Griffiths-Jones, Steven V. Ley, Steen Saaby and Geoffrey K. Tranmer
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