# Highlights from the Flow Chemistry Literature 2016 (Part 3)

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In this Section of the journal, the literature on continuous flow synthesis (primarily organic synthesis and functional materials) from the period of July – September 2016 is presented. All the publications are listed ordered by journal name, with 8 Review articles appearing at the end. In this quarter the number of papers on continuous flow organic synthesis is relatively more and with a few special issues planned in the coming months this number will increase significantly. There are many 'firsts' achieved in flow synthesis in the last quarter, but the most noticeable ones include the synthesis of Water-Stable Covalent Organic Frameworks and flow synthesis using in-situ generated chlorine!

## Highlighted Articles

**Flow Chemistry on Multigram Scale: Continuous Synthesis of Boronic Acids within 1 s**
Hafner, A.; Meisenbach, M.; Sedelmeier, J.

*Organic Letters* **2016**, *18,* 3630–3633

Organolithium chemistry on the multigram scale is presented in a very elegant manner. Conventionally, the reactions involving aryl lithium chemistry are carried out at very low temperatures (−50 to −100 °C), which help to increase the half-life of an aryl lithium intermediate that allows to have longer residence times. In such situations mixing is not as important as having a precise residence time. However an approach based on Flash Chemistry focuses on instantaneous mixing at noncryostatic temperature and extremely short residence times (<1 s) seem to help achieve a scalable flow synthesis approach. Short residence time helps to avoid operating the flow reactor in the regime that leads to channel blockages.

**Room Temperature Batch and Continuous Flow Synthesis of Water-Stable Covalent Organic Frameworks (COFs)**
Peng, Y.; Wong, W. K.; Hu, Z.; Cheng, Y.; Yuan, D.; Khan, S. A.; Zhao, D.

*Chemistry of Materials* **2016**, *28*, 5095–5101

This study reports the first example of flow synthesis of Water-Stable Covalent Organic Frameworks (COFs). Room temperature batch synthesis of three classical two-dimensional (2D) COFs with various types of linkage, namely, COF-LZU1 (imine-linked), TpPa-1 (enamine-linked), and N3-COF (azinelinked). The method has been transformed to flow synthesis for COF-LZU1 that gives very high space-time yield (703 kg/m$^3$/day) and can be extended for other similar materials.

**Flow Synthesis of Medium Molecular Weight Polyisobutylene Coinitiated by $AlCl_3$**
Zhu, S.; Lu, Y.; Wang, K.; Luo, G.

*European Polymer Journal* **2016**, *80*, 219–226

Flow synthesis of medium molecular weight polyisobutylene (MPIB, 10,000-100,000 g/mol) coinitiated by neat $AlCl_3$ using an appropriate solvent combination is demonstrated. The work is important because it identifies specific steps involved in the polymerization reaction that can help to control the molecular weight and also to quickly screen the conditions. The method is optimized to enhance the productivity. The role of mixing, residence time, reaction kinetics are tuned to control the molecular weight (over the range from 20,000 to 100,000 g/mol) with residence time as less as 6 s.

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**Temperature Distribution Monitoring of a Coiled Flow Channel in Microwave Heating Using an Optical Fiber Sensing Technique**
Wada, D.; Sugiyama, J.-i.; Zushi, H.; Murayama, H.,

*Sensors and Actuators B: Chemical* **2016**, *232*, 434–441

This is an interesting work relevant for microwave based flow chemistry, where the temperature distribution in a coiled flow channel is analyzed. Optical fiber sensing technique is used for the temperature distribution along the coiled flow channel, which identifies the inhomogeneous nature of the microwave heating. While the electric field inside the reactor is responsible for inhomogeneous heating, this observation is important for flow synthesis as it would lead to spatial variations in reaction kinetics which can affect the selectivity significantly. Thus while the mechanism of a reaction will always be the primary cause of variations in selectivity.

**Organic Synthesis**

"Toward the Synthesis of Noroxymorphone via Aerobic Palladium-Catalyzed Continuous Flow N-Demethylation Strategies"
Gutmann, B.; Elsner, P.; Cox, D. P.; Weigl, U.; Roberge, D. M.; Kappe, C. O.
*ACS Sustainable Chemistry & Engineering* **2016**, *4*, 6048–6061

"Synthesizing Bromobutyl Rubber by a Microreactor System"
Xie, P.; Wang, K.; Wang, P.; Xia, Y.; Luo, G.
*AIChE Journal* **2016**

"Continuous-Flow Synthesis and Derivatization of Aziridines through Palladium-Catalyzed C(sp3)−H Activation"
Zakrzewski, J.; Smalley, A. P.; Kabeshov, M. A.; Gaunt, M. J.; Lapkin, A. A.
*Angewandte Chemie International Edition* **2016**, *55*, 8878–8883

"Continuous-Flow Synthesis of Biaryls by Negishi Cross-Coupling of Fluoro- and Trifluoromethyl-Substituted (Hetero)arenes"
Roesner, S.; Buchwald, S. L.
*Angewandte Chemie International Edition* **2016**, *55*, 10463–10467

"Rapid Synthesis of Aryl Fluorides in Continuous Flow through the Balz–Schiemann Reaction"
Park, N. H.; Senter, T. J.; Buchwald, S. L.
*Angewandte Chemie International Edition* **2016**, *55*, 11907–11911

"C3 Alkylation of Indoles Catalyzed by Carbocations under Continuous-Flow Conditions"
Wan, L.; Zhu, W.; Qiao, K.; Sun, X.; Fang, Z.; Guo, K.
*Asian Journal of Organic Chemistry* **2016**, *5*, 920–926

"Continuous Multistep Synthesis of Perillic Acid from Limonene by Catalytic Biofilms under Segmented Flow"
Willrodt, C.; Halan, B.; Karthaus, L.; Rehdorf, J.; Julsing, M. K.; Buehler, K.; Schmid, A.
*Biotechnology and Bioengineering* **2016**, doi: 10.1002/bit.26071

"Silicone Microreactors for the Photocatalytic Generation of Hydrogen"
Castedo, A.; Mendoza, E.; Angurell, I.; Llorca, J.
*Catalysis Today* **2016**, *273*, 106–111

"Scale up Study of Capillary Microreactors in Solvent-Free Semihydrogenation of 2-Methyl-3-Butyn-2-Ol"
Cherkasov, N.; Al-Rawashdeh, M. M.; Ibhadon, A. O.; Rebrov, E. V.
*Catalysis Today* **2016**, *273*, 205–212

"A Direct and Sustainable Synthesis of Tertiary Butyl Esters Enabled by Flow Microreactors"
Degennaro, L.; Maggiulli, D.; Carlucci, C.; Fanelli, F.; Romanazzi, G.; Luisi, R.
*Chemical Communications* **2016**, *52*, 9554–9557

"Bromination of Aromatic Compounds using Bromine in a Microreactor"
Deng, Q.; Shen, R.; Ding, R.; Zhang, L.
*Chemical Engineering & Technology* **2016**, *39*, 1445–1450

"Development of a Multi-Layer Microreactor: Application to the Selective Hydrogenation of 1-Butyne"
García Colli, G.; Alves, J. A.; Martínez, O. M.; Barreto, G. F.
*Chemical Engineering and Processing: Process Intensification* **2016**, *105*, 38–45

"Measuring Enthalpy of Fast Exothermal Reaction with Infrared Thermography in a Microreactor"
Zhang, J. S.; Zhang, C. Y.; Liu, G. T.; Luo, G. S.
*Chemical Engineering Journal* **2016**, *295*, 384–390

"Parametric Studies of Electrolytic Decomposition of Hydroxylammonium Nitrate (HAN) Energetic Ionic Liquid in Microreactor Using Image Processing Technique"
Chai, W. S.; Cheah, K. H.; Koh, K. S.; Chin, J.; Chik, T. F. W. K.
*Chemical Engineering Journal* **2016**, *296*, 19–27

"Aldolase Catalyzed L-Phenylserine Synthesis in a Slug-Flow Microfluidic System – Performance and Diastereoselectivity Studies"
Čech, J.; Hessel, V.; Přibyl, M.
*Chemical Engineering Science* **2016**, doi: 10.1016/j.ces.2016.08.033

"Model-Based Optimal Design of Continuous-Flow Reactors for the Synthesis of Active Pharmaceutical Ingredients"
Emenike, V. N.; Krewer, U.
*Chemie Ingenieur Technik* **2016**, *88*, 1215–1216

"Photocatalysis with Visible Light – Optimization and Scale-up for the Falling-Film Microreactor"
Rehm, T. H.; Gros, S.; Renken, A.; Löb, P.
*Chemie Ingenieur Technik* **2016**, *88*, 1334–1335

"Batch- and Continuous-Flow Aerobic Oxidation of 14-Hydroxy Opioids to 1,3-Oxazolidines—A Concise Synthesis of Noroxymorphone"
Gutmann, B.; Weigl, U.; Cox, D. P.; Kappe, C. O.
*Chemistry – A European Journal* **2016**, *22*, 10393–10398

"A Sustainable, Semi-Continuous Flow Synthesis of Hydantoins"
Vukelić, S.; Koksch, B.; Seeberger, P. H.; Gilmore, K.
*Chemistry – A European Journal* **2016**, *22*, 13451–13454

"Highly Efficient Hosomi-Sakurai Reaction of Aromatic Aldehydes Catalyzed by Montmorillonite Doped with Simple Bismuth(III) Salts. Batch and Continuous Flow Studies"
Elizarov, N.; Pucheault, M.; Antoniotti, S.
*ChemistrySelect* **2016**, *1*, 3219–3222

"Safe, Selective, and High-Yielding Synthesis of Acryloyl Chloride in a Continuous-Flow System"
Movsisyan, M.; Heugebaert, T. S. A.; Dams, R.; Stevens, C. V.
*ChemSusChem* **2016**, *9*, 1945–1952

"Continuous UV-Flow Microsystem for Efficient Radical Generation from Organotrifluoroborates by Photoredox Catalysis"
El Achi, N.; Penhoat, M.; Bakkour, Y.; Rolando, C.; Chausset-Boissarie, L.
*European Journal of Organic Chemistry* **2016**, 4284–4288

"Anionic Flow Polymerizations toward Functional Polyphosphoesters in Microreactors: Polymerization and UV-Modification"
Baeten, E.; Vanslambrouck, S.; Jérôme, C.; Lecomte, P.; Junkers, T.
*European Polymer Journal* **2016**, *80*, 208–218

"Flow Synthesis of Medium Molecular Weight Polyisobutylene Coinitiated by $AlCl_3$"
Zhu, S.; Lu, Y.; Wang, K.; Luo, G.
*European Polymer Journal* **2016**, *80*, 219–226

"From Alcohol to 1,2,3-Triazole via A Multi-Step Continuous-Flow Synthesis of a Rufinamide Precursor"
Borukhova, S.; Noel, T.; Metten, B.; de Vos, E.; Hessel, V.
*Green Chemistry* **2016**, *18*, 4947–4953

"Optofluidics-Based Membrane Microreactor for Wastewater Treatment by Photocatalytic Ozonation"
He, X.; Chen, R.; Zhu, X.; Liao, Q.; An, L.; Cheng, X.; Li, L.
*Industrial & Engineering Chemistry Research* **2016**, *55*, 8627–8635

"On the Fly Multi-Modal Observation of Ligand Synthesis and Complexation of Cu Complexes in Flow with 'Benchtop' NMR and Mass Spectrometry"
Porwol, L.; Henson, A.; Kitson, P. J.; Long, D.-L.; Cronin, L.
*Inorganic Chemistry Frontiers* **2016**, *3*, 919–923

"Effects of Heterogeneous–Homogeneous Interaction on the Homogeneous Ignition in Hydrogen-Fueled Catalytic Microreactors"
Chen, J.; Liu, B.; Gao, X.; Yan, L.; Xu, D.
*International Journal of Hydrogen Energy* **2016**, *41*, 11441–11454

"Hetero-/Homogeneous Combustion of Premixed Hydrogen–Oxygen Mixture in a Micro-Reactor with Catalyst Segmentation"
Lu, Q.; Pan, J.; Hu, S.; Tang, A.; Shao, X.
*International Journal of Hydrogen Energy* **2016**, *41*, 12387–12396

"Direct Aldol and Nitroaldol Condensation in an Aminosilane-Grafted Si/Zr/Ti Composite Hollow Fiber as a Heterogeneous Catalyst and Continuous-Flow Reactor"
He, Y.; Jawad, A.; Li, X.; Atanga, M.; Rezaei, F.; Rownaghi, A. A.
*Journal of Catalysis* **2016**, *341*, 149–159

"Sunlight Assisted Synthesis of α-Aminonitrile Using Capillary Flow Microreactor: A New Approach"
Abdulkareem Yunus, I.; Basheer, C.; Al-Muallem, H. A.
*Journal of Environmental Chemical Engineering* **2016**, *4*, 2802–2806

"A Two-Step Continuous-Flow Procedure towards Ribociclib"
Pellegatti, L.; Hafner, A.; Sedelmeier, J.
*Journal of Flow Chemistry* **2016**, *6*, 198–201

"Safe Use of Nitromethane for Aldol Reactions in Flow"
Hutchings, M.; Wirth, T.
*Journal of Flow Chemistry* **2016**, *6*, 202–205

"Metal-Free, Visible Light-Promoted Aerobic Aldehydes Oxidation"
Hamami, Z. E.; Vanoye, L.; Fongarland, P.; de Bellefon, C.; Favre-Reguillon, A.
*Journal of Flow Chemistry* **2016**, *6*, 206–210

"One-Pot Synthesis of α-Haloketones Employing a Membrane-Based Semibatch Diazomethane Generator"
Garbarino, S.; Guerra, J.; Poechlauer, P.; Gutmann, B.; Kappe, C. O.
*Journal of Flow Chemistry* **2016**, *6*, 211–217

"Protected Diazonium Salts: A Continuous-Flow Preparation of Triazenes Including the Anticancer Compounds Dacarbazine and Mitozolomide"
Schotten, C.; Aldmairi, A. H.; Sagatov, Y.; Shepherd, M.; Browne, D. L.
*Journal of Flow Chemistry* **2016**, *6*, 218–225

"Delivering Enhanced Efficiency in the Synthesis of α-Diazosulfoxides by Exploiting the Process Control Enabled in Flow"
McCaw, P. G.; Deadman, B. J.; Maguire, A. R.; Collins, S. G.
*Journal of Flow Chemistry* **2016**, *6*, 226–233

"From Anilines to Aziridines: A Two-Step Synthesis under Continuous-Flow Conditions"
Rossi, S.; Puglisi, A.; Intrieri, D.; Gallo, E.
*Journal of Flow Chemistry* **2016**, *6*, 234–239

"Fischer Indole Reaction in Batch and Flow Employing a Sulfonic Acid Resin: Synthesis of Pyrido[2,3-a]Carbazoles"
Bosch, C.; López-Lledó, P.; Bonjoch, J.; Bradshaw, B.; Nieuwland, P. J.; Blanco-Ania, D.; Rutjes, F. P. J. T.
*Journal of Flow Chemistry* **2016**, *6*, 240–243

"Continuous Suzuki—Miyaura Reactions with Novel Ce—Sn—Pd Oxides and Integrated Crystallization as Continuous Downstream Protocol"
Lichtenegger, G. J.; Maier, M.; Khinast, J. G.; Gruber-Wölfler, H.
*Journal of Flow Chemistry* **2016**, *6*, 244–251

"Photo-Claisen Rearrangement of Allyl Phenyl Ether in Microflow: Influence of Phenyl Core Substituents and Vision on Orthogonality"
Shahbazali, E.; Noël, T.; Hessel, V.
*Journal of Flow Chemistry* **2016**, *6*, 252–259

"Photo-Induced Copper-Mediated Acrylate Polymerization in Continuous-Flow Reactors"
Railian, S.; Wenn, B.; Junkers, T.
*Journal of Flow Chemistry* **2016**, *6*, 260–267

"Microreactor Mixing-Unit Design for Fast Liquid—Liquid Reactions"
Mielke, E.; Roberge, D. M.; Macchi, A.
*Journal of Flow Chemistry* **2016**, *6*, 279–287

"Development of a Hollow Fiber Membrane Micro-Reactor for Biocatalytic Production of Formate from $CO_2$"
Wang, Y.-Z.; Zhao, Z.-P.; Li, M.-F.; Chen, Y.-Z.; Liu, W.-F.
*Journal of Membrane Science* **2016**, *514*, 44–52

"Catalytic Macrocyclization Strategies Using Continuous Flow: Formal Total Synthesis of Ivorenolide A"
de Léséleuc, M.; Godin, É.; Parisien-Collette, S.; Lévesque, A.; Collins, S. K.
*Journal of Organic Chemistry* **2016**, *81*, 6750–6756

"Synthesis of α-Nitro Carbonyls via Nitrations in Flow"
Chentsova, A.; Ushakov, D. B.; Seeberger, P. H.; Gilmore, K.
*Journal of Organic Chemistry* **2016**, *81*, 9415–9421

"Compartmented Microreactors for the Oligosaccharide-Synthesis by Means of Magnetic Enzyme Immobilisates"
Heinzler, R.; Hübner, J.; Franzreb, M.
*New Biotechnology* **2016**, *33*, S112

"Automated Library Synthesis of Cyclopropyl Boronic Esters Employing Diazomethane in a Tube-in-Tube Flow Reactor"
Koolman, H. F.; Kantor, S.; Bogdan, A. R.; Wang, Y.; Pan, J. Y.; Djuric, S. W.
*Organic & Biomolecular Chemistry* **2016**, *14*, 6591–6595

"Flow Chemistry on Multigram Scale: Continuous Synthesis of Boronic Acids within 1 s"
Hafner, A.; Meisenbach, M.; Sedelmeier, J.
*Organic Letters* **2016**, *18*, 3630–3633

"Remarkable Improvement of Organic Photoreaction Efficiency in the Flow Microreactor by the Slug Flow Condition Using Water"
Nakano, M.; Nishiyama, Y.; Tanimoto, H.; Morimoto, T.; Kakiuchi, K.
*Organic Process Research & Development* **2016**, *20*, 1626–1632

"A Small-Footprint, High-Capacity Flow Reactor for UV Photochemical Synthesis on the Kilogram Scale"
Elliott, L. D.; Berry, M.; Harji, B.; Klauber, D.; Leonard, J.; Booker-Milburn, K. I.
*Organic Process Research & Development* **2016**, *20*, 1806–1811

"Ultra-Fast Continuous-Flow Photo Degradation of Organic Peroxide Explosives for Their Efficient Conversion into Hydrogen Peroxide and Possible Application"
Mahbub, P.; Wilson, R.; Nesterenko, P. N.
*Propellants, Explosives, Pyrotechnics* **2016**, *41*, 757–763

"Self-Optimisation of the Final Stage in the Synthesis of EGFR Kinase Inhibitor AZD9291 Using an Automated Flow Reactor"
Holmes, N.; Akien, G. R.; Blacker, A. J.; Woodward, R. L.; Meadows, R. E.; Bourne, R. A.
*Reaction Chemistry & Engineering* **2016**, *1*, 366–371

"Continuous Flow Synthesis of the Iodination Agent 1,3-Diiodo-5,5-Dimethyl-Imidazolidine-2,4-Dione Telescoped with Semi-Continuous Product Isolation"
Ferreri, M.; Drageset, A.; Gambarotti, C.; Bjorsvik, H.-R.
*Reaction Chemistry & Engineering* **2016**, *1*, 379–386

"Continuous Flow Synthesis Concatenated with Continuous Flow Liquid-Liquid Extraction for Work-up and Purification: Selective Mono- and Di-Iodination of the Imidazole Backbone"
Drageset, A.; Bjorsvik, H.-R.
*Reaction Chemistry & Engineering* **2016**, *1*, 436–444

"A Laboratory-Scale Continuous Flow Chlorine Generator for Organic Synthesis"
Strauss, F. J.; Cantillo, D.; Guerra, J.; Kappe, C. O.
*Reaction Chemistry & Engineering* **2016**, *1*, 472–476

"An Approach to the Synthesis of 4-Aryl and 5-Aryl Substituted Thiazole-2(3H)-Thiones Employing Flow Processing"
Balti, M.; Miller, S. A.; Efrit, M. L.; Leadbeater, N. E.
*RSC Advances* **2016**, *6*, 72165–72169

"Synthesis of Unsaturated Secondary Amines by Direct Reductive Amination of Aliphatic Aldehydes with Nitroarenes over $Au/Al_2O_3$ Catalyst in Continuous Flow Mode"
Nuzhdin, A. L.; Artiukha, E. A.; Bukhtiyarova, G. A.; Zaytsev, S. Y.; Plyusnin, P. E.; Shubin, Y. V.; Bukhtiyarov, V. I.
*RSC Advances* **2016**, *6*, 88366–88372

"A Two-Step Continuous Flow Synthesis of 1,4-Disubstituted 1,2,3-Triazoles under Metal- and Azide-Free Conditions"
Gu, J.; Fang, Z.; Yang, Z.; Li, X.; Zhu, N.; Wan, L.; Wei, P.; Guo, K.
*RSC Advances* **2016**, *6*, 89073–89079

"Temperature Distribution Monitoring of a Coiled Flow Channel in Microwave Heating Using an Optical Fiber Sensing Technique"
Wada, D.; Sugiyama, J.-i.; Zushi, H.; Murayama, H.
*Sensors and Actuators B: Chemical* **2016**, *232*, 434–441

"Biodiesel Synthesis Using Integrated Acid and Base Catalysis in Continuous Flow"
Asadi, M.; Hooper, J. F.; Lupton, D. W.
*Tetrahedron* **2016**, *72*, 3729–3733

**Nanomaterials**

"High-Throughput Synthesis of Lignin Particles (~30 nm to ~2 μm) via Aerosol Flow Reactor: Size Fractionation and Utilization in Pickering Emulsions"
Ago, M.; Huan, S.; Borghei, M.; Raula, J.; Kauppinen, E. I.; Rojas, O. J.
*ACS Applied Materials & Interfaces* **2016**, *8*, 23302–23310

"Controllable Synthesis of Gold Nanoparticles in Aqueous Solution by Microwave Assisted Flow Chemistry"
Bayazit, M. K.; Yue, J.; Cao, E.; Gavriilidis, A.; Tang, J.
*ACS Sustainable Chemistry & Engineering* **2016**, *4*, 6435–6442

"Flow Microreactor Synthesis of Gold Nanoshells and Patchy Particles"
Watanabe, S.; Asahi, Y.; Omura, H.; Mae, K.; Miyahara, M. T.
*Advanced Powder Technology* **2016**, doi: 10.1016/j.apt.2016.08.013

"Room Temperature Batch and Continuous Flow Synthesis of Water-Stable Covalent Organic Frameworks (COFs)"
Peng, Y.; Wong, W. K.; Hu, Z.; Cheng, Y.; Yuan, D.; Khan, S. A.; Zhao, D.
*Chemistry of Materials* **2016**, *28*, 5095–5101

"Synthesis of Ultra-Small Platinum Nanoparticles in a Continuous Flow Microreactor"
Suryawanshi, P. L.; Gumfekar, S. P.; Kumar, P. R.; Kale, B. B.; Sonawane, S. H.
*Colloid and Interface Science Communications* **2016**, *13*, 6–9

"Microfluidic Assisted Synthesis of Silver Nanoparticle–Chitosan Composite Microparticles for Antibacterial Applications"
Yang, C.-H.; Wang, L.-S.; Chen, S.-Y.; Huang, M.-C.; Li, Y.-H.; Lin, Y.-C.; Chen, P.-F.; Shaw, J.-F.; Huang, K.-S.
*International Journal of Pharmaceutics* **2016**, *510*, 493–500

"Synthesis of Silver Nanoparticles Using a Microfluidic Impinging Jet Reactor"
Baber, R.; Mazzei, L.; Thanh, N. T. K.; Gavriilidis, A.
*Journal of Flow Chemistry* **2016**, 6, 268–278

"Co-Flow Microfluidic Synthesis of Liquid Crystalline Actuating Janus Particles"
Hessberger, T.; Braun, L. B.; Henrich, F.; Muller, C.; Gie; Serra, C.; Zentel, R.
*Journal of Materials Chemistry C* **2016**, *4*, 8778–8786

"Ionic Self-Assembly of a Giant Vesicle as a Smart Microcarrier and Microreactor"
Shen, J.; Xin, X.; Liu, T.; Wang, S.; Yang, Y.; Luan, X.; Xu, G.; Yuan, S.
*Langmuir* **2016**, *6*, 9548–9556

"Monolithic Hierarchical Gold Sponges for Efficient and Stable Catalysis in a Continuous-Flow Microreactor"
Yu, Y.; Xiao, W.; Zhou, T.; Zhang, P.; Yan, C.; Zheng, Z.
*Materials Chemistry Frontiers* **2016**, doi: 10.1039/C6QM00115G

"Titania-Silica Monolithic Multichannel Microreactors. Proof of Concept and Fabrication/Structure/Catalytic Properties in the Oxidation of 2,3,6-Trimethylphenol"
Koreniuk, A.; Maresz, K.; Odrozek, K.; Mrowiec-Białoń, J.
*Microporous and Mesoporous Materials* **2016**, *229*, 98–105

**Reviews**

"Chemical Reaction Engineering, Process Design and Scale-up Issues at the Frontier of Synthesis: Flow Chemistry"
Rossetti, I.; Compagnoni, M.
*Chemical Engineering Journal* **2016**, *296*, 56–70

"Advanced Polymer Flow Synthesis"
Junkers, T.; Hoogenboom, R.
*European Polymer Journal* **2016**, *80*, 175–176

"Flow Technology for Organometallic-Mediated Synthesis"
Degennaro, L.; Carlucci, C.; De Angelis, S.; Luisi, R.
*Journal of Flow Chemistry* **2016**, *6*, 136–166

"Concepts and Optimization Strategies of Experimental Design in Continuous-Flow Processing"
Gioiello, A.; Mancino, V.; Filipponi, P.; Mostarda, S.; Cerra, B.
*Journal of Flow Chemistry* **2016**, *6*, 167–180

"Separation Units and Equipment for Lab-Scale Process Development"
Hohmann, L.; Kurt, S. K.; Soboll, S.; Kockmann, N.
*Journal of Flow Chemistry* **2016**, *6*, 181–190

"Electrosynthesis in Extended Channel Length Microfluidic Electrolysis Cells"
Green, R. A.; Brown, R. C. D.; Pletcher, D.
*Journal of Flow Chemistry* **2016**, *6*, 191–197

"Towards Scalable and Controlled Synthesis of Metal-Organic Framework Materials Using Continuous Flow Reactors"
Dunne, P. W.; Lester, E.; Walton, R. I.
*Reaction Chemistry & Engineering* **2016**, *1*, 352–360

"Reaction Screening in Continuous Flow Reactors"
Mohamed, D. K. B.; Yu, X.; Li, J.; Wu, J.
*Tetrahedron Letters* **2016**, *57*, 3965–3977