

## Peer-Reviewed Publications Citing Vapourtec SF-10

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### 2023

Total publications as of November 2023: 55  
Year total as of November 2023: 16

- [55] J. H. Griwatz, M. L. Kessler, H. A. Wegner, "Continuous-Flow Synthesis of Cycloparaphenylene Building Blocks on a Large," *Scale Chemistry—A European Journal*, pp. e202302173, 2023.
- [54] S. Michałek, A. M. Maj, L. Gurba-Bryśkiewicz, W. Maruszak, M. Zagozda, Z. Ochal, K. Dubiel, M. Wieczorek, "Development and optimization of a continuous flow ester reduction with LiAlH<sub>4</sub> in the synthesis of a key intermediate for a PI3K $\delta$  inhibitor (CPL302415)," *Reaction Chemistry & Engineering*, vol. 8, no. 5, pp. 1117-1124, 2023.
- [53] A. J. Kukor, F. St-Jean, A. Stumpf, T. C. Malig, K. A. Piechowicz, K. Kurita, J. E. Hein, "Guided optimization of a crystallization-induced diastereomer transformation to access a key navoximod intermediate," *Reaction Chemistry & Engineering*, vol. 8, no. 6, pp. 1294-1299, 2023.
- [52] M. B. Chaudhari, P. Gupta, P. Llanes, M. A. Pericàs, "Polymer-Supported Phosphoric-Acid Catalysed Enantioselective Pictet-Spengler Cyclisation for the Synthesis of Quaternary Tryptolines in Batch/Continuous Flow," *Advanced Synthesis & Catalysis*, vol. 365, no. 4, pp. 527-534, 2023.
- [51] S. Hammer, F. Nanto, P. Canu, S. B. Otvos, C. O. Kappe, "Application of an Oscillatory Plug Flow Reactor to Enable Scalable and Fast Reactions in Water Using a Biomass-Based Polymeric Additive," *ChemSusChem*, pp. e202301149, 2023.
- [50] C. Lhoste, M. Bazzoni, J. Bonnet, A. Bernard, F. Felpin, P. Giraudeau, J. Dumez, "Broadband ultrafast 2D NMR spectroscopy for online monitoring in continuous flow," *Analyst*, 2023.
- [49] P. Sagmeister, M. Prieschl, D. Kaldre, C. Gadiyar, C. Moessner, J. Sedelmeier, J. D. Williams, C. O. Kappe, "Continuous Flow-Facilitated CB2 Agonist Synthesis, Part 1: Azidation and [3+2] Cycloaddition," *Organic Process Research & Development*, vol. 27, no. 4, pp. 592-600, 2023.
- [48] T. Maschmeyer, D. J. Russell, J. G Napolitano, J. E. Hein, "Reaction monitoring via benchtop nuclear magnetic resonance spectroscopy: A practical comparison of on-line stopped-flow and continuous-flow sampling methods," *Magnetic Resonance in Chemistry*, 2023.
- [47] Y. Sato, J. Liu, I. E. Ndukwe, M. V. S. Elipe, D. J. Griffin, J. I. Murray, J. E. Hein, "Liquid/liquid heterogeneous reaction monitoring: Insights into biphasic Suzuki-Miyaura cross-coupling," *Chem Catalysis*, vol. 3, no. 7, 2023.

- [46] F. Nanto, S. B. Otvos, C. O. Kappe, P. Canu, "Experimental and Computational Investigation of Fluid Dynamics and Solid Transport in Split-and-Recombine Oscillatory Flow Reactors Using Water as Medium," 2023.
- [45] D. L. Tarange, N. Nayak, A. Kumar, "Continuous Flow Synthesis of Substituted 3, 4-Propylenedioxythiophene Derivatives," *Organic Process Research & Development*, vol. 27, no. 2, pp. 358-366, 2023.
- [44] H. Kim, J. Lee, S. J. Lee, J. E. Oh, S. D. Kim, Y. R. Malpani, Y. Hwang, B. Y. Park, "Improving the sustainability and safety of ursodeoxycholic acid synthesis in continuous flow process with water," *Journal of Industrial and Engineering Chemistry*, vol. 119, pp. 327-334, 2023.
- [43] D. V. Sutar, N. U. Sarang, A. B. Jamdade, B. Gnanaprakasam, "Continuous Flow Inter- and Intramolecular Macrolactonization under High Dilution Conditions," *The Journal of Organic Chemistry*, vol. 88, no. 6, pp. 3740-3759, 2023.
- [42] S. Martinuzzi, M. Tranninger, P. Sagmeister, M. Horn, J. Williams, C. O. Kappe, "Dynamic Experiments in Flow Accelerate Reaction Network Definition in a Complex Hydrogenation Using Catalytic Static Mixers," 2023.
- [41] Y. Sato, "Development of process analytical technologies and application for complicated reaction conditions," 2023.
- [40] R. Ali, T. Patra, T. Wirth, "Alkene reactions with superoxide radical anions in flow electrochemistry," *Faraday Discussions*, 2023.

2022

Year total: 9

- [39] J. S. Sharley, G. Gambacorta, A. M. C. Pérez, E. S. Ferri, A. F. Miranda, I. F. Fernández, J. S. Quesada, I. R. Baxendale, "A simple one-pot oxidation protocol for the synthesis of dehydrohedione from Hedione," *Tetrahedron*, vol. 126, pp. 133068, 2022.
- [38] S. Michałek, L. Gurba-Bryśkiewicz, W. Maruszak, M. Zagozda, A. M. Maj, Z. Ochal, K. Dubiel, M. Wieczorek, "The design of experiments (DoE) in optimization of an aerobic flow Pd-catalyzed oxidation of alcohol towards an important aldehyde precursor in the synthesis of phosphatidylinositol 3-kinase inhibitor (CPL302415)," *RSC advances*, vol. 12, no. 52, pp. 33605-33611, 2022.
- [37] D. Kyprianou, G. Rarata, G. Emma, G. Diaconu, M. Vahcic, D. Anderson, "Flow chemistry and the synthesis of energetic materials," *1831*, vol. 9424, 2022.
- [36] F. Sommer, R. G. Aeschbacher, U. Thurnheer, C. O. Kappe, D. Cantillo, "Sustainable and Scalable Synthesis of Noroxymorphone via a Key Electrochemical N-Demethylation Step," 2022.

- [35] A. J. Kukor, N. Depner, I. Cai, J. L. Tucker, J. C. Culhane, J. E. Hein, "Enantioselective synthesis of (-)-tetrabenazine via continuous crystallization-induced diastereomer transformation," *Chemical Science*, vol. 13, no. 36, pp.10765-10772, 2022.
- [34] G. Gambacorta, I. R. Baxendale, "Continuous-flow Hofmann rearrangement using trichloroisocyanuric acid for the preparation of 2-benzoxazolinone," *Organic Process Research & Development*, vol. 26, no. 2, pp. 422-430, 2022.
- [33] T. Maschmeyer, L. P. E. Yunker, J. E. Hein, "Quantitative and convenient real-time reaction monitoring using stopped-flow benchtop NMR," vol. 7, no. 5, pp. 1061-1072, 2022.
- [32] A. Marchand, R. Mishra, A. Bernard, J. Dumez, "Online Reaction Monitoring with Fast and Flow-Compatible Diffusion NMR Spectroscopy," *Chemistry—A European Journal*, vol. 28, no. 52, pp. e202201175, 2022.
- [31] M. A. Levenstein, K. Robertson, T. D. Turner, L. Hunter, C. O'Brien, C. O'Shaughnessy, A. N. Kulak, P. Le Magueres, J. Wojciechowski, O. O. Mykhaylyk, "Serial small-and wide-angle X-ray scattering with laboratory sources," *IUCr*, vol. 9, no. 5, 2022.

2021

Year total: 15

- [30] M. Ivanova, J. Legros, T. Poisso, P. Jubault, "Continuous flow synthesis of Celecoxib from 2-bromo-3, 3, 3-trifluoropropene," *Journal of flow chemistry*, pp. 01-May, 2021.
- [29] B. Poznansky, S. E. Cleary, L. A. Thompson, H. A. Reeve, K. A. Vincent, "Boosting the productivity of H<sub>2</sub>-driven biocatalysis in a commercial hydrogenation flow reactor using H<sub>2</sub> from water electrolysis," *Frontiers in Chemical Engineering*, vol. 3, pp. 718257, 2021.
- [28] J. García-Lacuna, T. Fleiß, R. Munday, K. Leslie, A. O'Kearney-McMullan, C. A. Hone, C. O. Kappe, "Synthesis of the Lipophilic Amine Tail of Abediterol Enabled by Multiphase Flow Transformations," *Organic Process Research & Development*, vol. 25, no. 4, pp. 947-959, 2021.
- [27] M. B. Chaudhari, P. Gupta, P. Llanes, L. Zhou, N. Zanda, M. A. Pericàs, "enantio- and diastereoselective approach to indoloquinolizidines in continuous flow," *Organic & Biomolecular Chemistry*, vol. 20, no. 42, pp. 8273-8279, 2021.
- [26] K. Donnelly, M. Di Filippo, C. Bracken, M. Baumann, "4 Practical aspects of performing continuous flow chemistry," pp. 145, 2021.
- [25] B. Poznansky, "Developing ways of implementing biocatalytic hydrogenation reactions in flow," 2021.
- [24] T. P. F. Rosalba, S. S. A. Kas, A. B. S. Sampaio, C. E. M. Salvador, C. K. Z. Andrade, "The Ugly Duckling Metamorphosis: The Ammonia/Formaldehyde Couple Made Possible in Ugi Reactions," *European Journal of Organic Chemistry*, vol. 2021, no. 20, pp. 2831-2842, 2021.

- [23] F. Dedè, O. Piccolo, D. Vigo, "Dimethyl fumarate: heterogeneous catalysis for the development of an innovative flow synthesis," *Organic Process Research & Development*, vol. 25, no. 2, pp. 292-299, 2021.
- [22] D. Even, "Silicon-oxygen bond formation for the novel synthesis of siloxane molecules and structure," 2021.
- [21] M. H. Reis, "Reimagining Polymer Synthesis Through the Combination of Continuous-Flow Chemistry, Reactor Engineering, and Automation," 2021.
- [20] D. Polterauer, J. D. Williams, C. A. Hone, C. O. Kappe, "Telescoped lithiation, C-arylation and methoxylation in flow-batch hybrid toward the synthesis of canagliflozin," *Tetrahedron Letters*, vol. 82, pp. 153351, 2021.
- [19] O. M. Griffiths, H. A. Esteves, Y. Chen, K. Sowa, O. S. May, P. Morse, D. C. Blakemore, S. V. Ley, "Photoredox-catalyzed dehydrogenative Csp<sup>3</sup>-Csp<sup>2</sup> cross-coupling of arylarenes to aldehydes in flow," *The Journal of Organic Chemistry*, vol. 86, no. 19, pp. 13559-13571, 2021.
- [18] P. Bianchi, J. D. Williams, C. O. Kappe, "Continuous flow processing of bismuth-photocatalyzed atom transfer radical addition reactions using an oscillatory flow reactor," *Green Chemistry*, vol. 23, pp. 2685-2693, 2021.
- [17] A. Saib, A. Bara-Estaún, O. J. Harper, D. B. G. Berry, I. A. Thomlinson, R. Broomfield-Tagg, J. P. Lowe, C. L. Lyall, U. Hintermair, "Engineering aspects of FlowNMR spectroscopy setups for online analysis of solution-phase processes," *Reaction Chemistry & Engineering*, vol. 6, no. 9, pp. 1548-1573, 2021.
- [16] M. Wernik, G. Sipos, B. Buchholz, F. Darvas, Z. Novák, S. B. Ötvös, C. O. Kappe, "Continuous flow heterogeneous catalytic reductive aminations under aqueous micellar conditions enabled by an oscillatory plug flow reactor," *Green Chemistry*, vol. 23, no. 15 pp. 5625-5632, 2021.

## 2020

Year total: 6

- [15] M. Sezen-Edmonds, J. E. Tabora, B. M. Cohen, S. Zaretsky, E. M. Simmons, T. C. Sherwood, A. Ramirez, "Predicting performance of photochemical transformations for scaling up in different platforms by combining high-throughput experimentation with computational modeling *Organic Process Research & Development*," vol 24, no. 10, pp. 2128-2138, 2020.
- [14] M. Nuno, V. Laude, "Solid-phase peptide synthesis," *Chimica Oggi-Chemistry Today*, vol. 38, pp. 2, 2020.
- [13] T. Maschmeyer, P. L. Prieto, S. Grunert, J. E. Hein, "Exploration of continuous-flow benchtop NMR acquisition parameters and considerations for reaction monitoring," *Magnetic Resonance in Chemistry*, vol. 58, pp. 1234-1248, 2020.

- [12] A. R. Pallipurath, P. Flandrin, L. E. Wayment, C. C. Wilson, K. Robertson, "In situ non-invasive Raman spectroscopic characterization of succinic acid polymorphism during segmented flow crystallization," *Molecular Systems Design & Engineering*, vol. 5, pp. 294-303, 2020.
- [11] M. A. Levenstein, L. Wayment, C. D. Scott, R. Lunt, P. Flandrin, S. J. Day, C. C. Tang, C. C. Wilson, F. C. Meldrum, N. Kapur, "Dynamic crystallization pathways of polymorphic pharmaceuticals revealed in segmented flow with inline powder X-ray diffraction," *Analytical chemistry*, vol. 92, no. 11, pp. 7754-7761, 2020.
- [10] W. Debrouwer, W. Kimpe, R. Dangreau, K. Huvaere, H. P. L. Gemoets, M. Mottaghi, S. Kuhn, K. Van Aken, "Ir/Ni photoredox dual catalysis with heterogeneous base enabled by an oscillatory plug flow photoreactor," *Organic Process Research & Development*, vol. 24, no. 10, pp.2319-2325, 2020.

## 2019

Year total: 3

- [9] S. Asche, "Automating the discovery and emergence of life," 2019.
- [8] T. von Keutz, D. Cantillo, C.O. "Kappe, C Oliver; Enhanced mixing of biphasic liquid-liquid systems for the synthesis of gem-dihalocyclopropanes using packed bed reactors," *Journal of Flow Chemistry*, vol. 9, pp. 27-34, 2019.
- [7] R. Lebl, T. Murray, A. Adamo, D. Cantillo, C. O. Kappe, "Continuous Flow Synthesis of Methyl Oximino Acetoacetate: Accessing Greener Purification Methods with Inline Liquid-Liquid Extraction and Membrane Separation Technology," *Acs Sustainable Chemistry & Engineering*, vol. 7, no. 24 pp. 20088-20096, 2019.

## 2018

Year total: 2

- [6] F. Lima, "Photoredox C-C Cross-Coupling Reactions using Boronic Acid Derivatives," 2018.
- [5] T. von Keutz, F. J. Strauss, D. Cantillo, C. O. Kappe, "Continuous flow multistep synthesis of  $\alpha$ -functionalized esters via lithium enolate intermediates," *Tetrahedron*, vol. 74, no. 25, pp. 3113-3117, 2018.

## 2017

Year total: 4

- [4] D. Cantillo, P. A. Inglesby, A. Boyd, C. O. Kappe, "Hydrogen sulfide chemistry in continuous flow: Efficient synthesis of 2-oxopropanethioamide," *Journal of Flow Chemistry*, vol.7, pp. 29-32, 2017.

- [3] C. Battilocchio, G. Iannucci, S. Wang, E. Godineau, A. Kolleth, A. De Mesmaeker, S. V. Ley, "Flow synthesis of cyclobutanones via [2+ 2] cycloaddition of keteneiminium salts and ethylene gas," *Reaction Chemistry & Engineering*, vol. 2, no. 3, pp. 295-298, 2017.
- [2] D. Walsh, P. Patureau, K. Robertson, S. Reeksting, A. Lubben, S. Eslava, M. T. Weller, "Exploring effects of intermittent light upon visible light promoted water oxidations," *Sustainable Energy & Fuels*, vol. 1, no. 10, pp. 2101-2109. 2017.
- [1] C. Battilocchio, G. Iannucci, S. Wang, E. Godineau, A. Krieger, A. De Mesmaeker, S. V. Ley, "Flow synthesis of cyclobutanones via [2+ 2] cycloaddition of keteneiminium salts and ethylene gas," 2017.