vapourtec
precision flow chemistry

FULLFLOW

Autumn Newsletter

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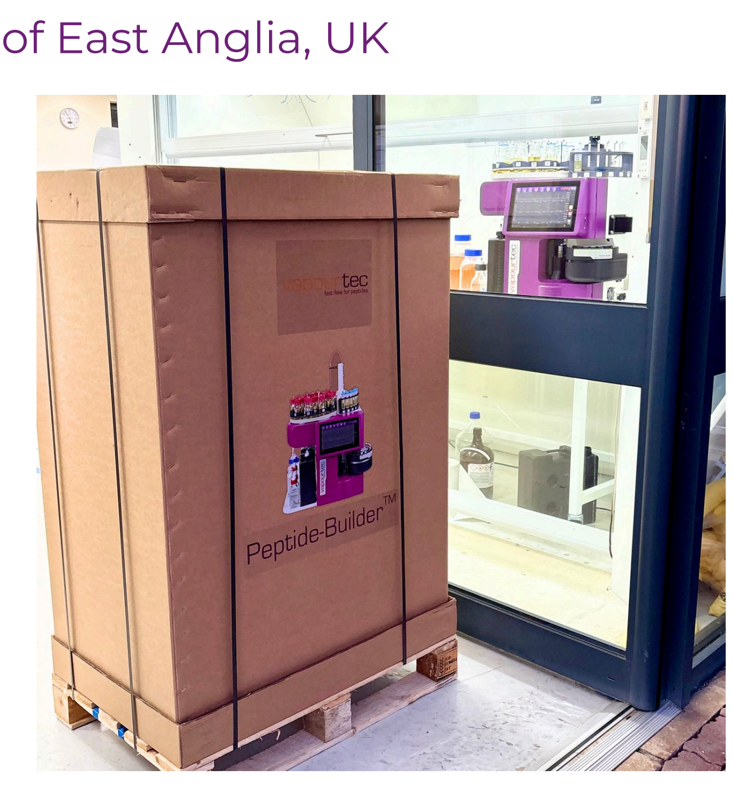
Welcome to the Autumn 2025 issue of FullFlow, the flow chemistry newsletter from Vapourtec, a must-read for all scientists interested in continuous processing applications and technology.
Read on to find out the latest product news, new publications using the Vapourtec flow chemistry systems, and upcoming events.

Product News

First production Peptide-Builder installed at the University of East Anglia, UK



Vapourtec kept it local with the first ever installation of the pioneering production Peptide-Builder™ system, which took place at the University of East Anglia (UEA) in Norwich, UK.
Explore how the UEA team will be putting the system to work, with insights into the installation process, operator training, and the system's early performance in real-world peptide workflows.

Learn More

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eBPR-GL – optimised for gas-liquid reactions

Building on the strong interest from our recent product launch, we're highlighting the latest addition to our Tools For Chemistry range: the eBPR-GL, a self-contained, electronically adjustable back-pressure regulator specifically engineered for gas handling and gas–liquid flow applications.
Using advanced composite materials, this new variant delivers stable and accurate back-pressure control from 0.1 to 10 bar(g) across flow rates of 0.01 to 20 ml/min, maintaining exceptional performance even when managing challenging gas-liquid mixtures.

Learn More

Latest News

Reac-Discovery: an artificial intelligence–driven platform for continuous-flow catalytic reactor discovery and optimization

The Sans Group at the Institute of Advanced Materials (INAM), Universitat Jaume I (Spain) has developed Reac-Discovery - a digital platform that automates the design, fabrication, and evaluation of catalytic flow reactors.

Reac-Discovery integrates three modules:
☑Reac-Gen: generates reactor geometries and performs structural assessments
☑Reac-Fab: 3D-prints the selected designs
☑Reac-Eval: a self-driving, ML-guided module that tests and optimises reactor performance.

The Vapourtec RS-400 is central to Reac-Eval, enabling automated, sequential experiments with robust monitoring and reliable integration via its OPC UA interface. These capabilities make it ideal for ML-driven validation and rapid iteration within the Reac-Discovery workflow.

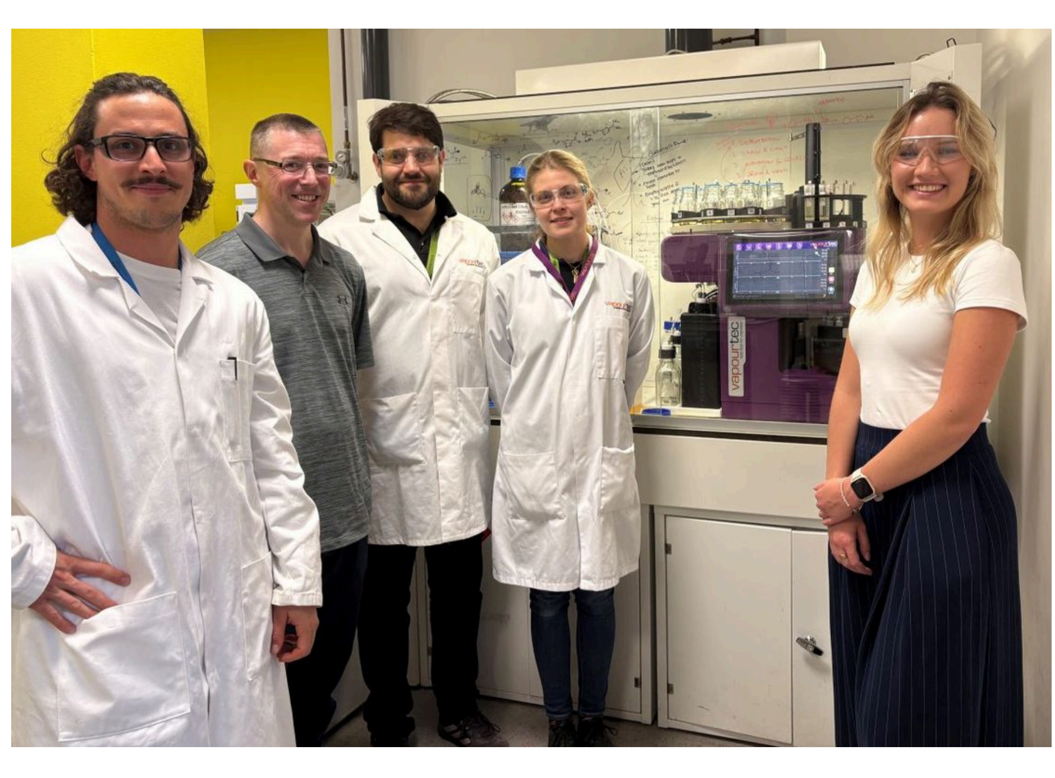
Learn more

Inline nuclear magnetic resonance (NMR) for real-time reaction monitoring

Bazzoni, Dumez and co-workers from Nantes Université have provided a valuable overview of the development of 'in flow' high-field NMR spectroscopy as a means for real-time reaction monitoring.
Ultrafast 2D NMR correlation spectroscopy (UF COSY) and fast diffusion ordered NMR spectroscopy (DOSY) using one-shot double-stimulated echo (DSTE) pulse sequences are both discussed, with examples of the utility of both provided.

Learn More

Peptide-Builder Completes Successful Demonstration at the University of Cambridge



Vapourtec's Peptide-Builder has completed another highly successful week-long demonstration, this time in Professor David Spring's laboratory at the University of Cambridge. Operating continuously day, night and over the weekend, the system synthesized around 50 peptides of varying lengths and complexity. All sequences were delivered with exceptional crude purity, further highlighting the Peptide-Builder's potential to transform solid-phase peptide synthesis (SPPS).

Learn More

Application Notes

Below, we highlight two brand-new application notes, each demonstrating practical advances achievable using Vapourtec's continuous processing systems.

Application Note 80:

High-throughput synthesis of peptides with high crude purity

This application note showcases high-throughput fast-flow synthesis of sixteen 16-mer peptides, achieving ~90% crude purity, real-time aggregation/Fmoc monitoring, and unattended weekend operation using the Peptide-Builder synthesizer.

Learn More

Application Note 81:

Synthesis of N-methylated peptides in continuous flow

This application note details an optimised Oxyma/DIC fast-flow SPPS method enabling efficient N-methylated residue incorporation, suppressing deletions to <3% and delivering high-purity challenging peptides.

Learn More

Events

1st RSC Protein & Peptide Science Group Conference
15th - 16th December 2025
Nottingham, UK
Attending - Dr Manuel Nuño
Find out more

23rd Bristol Synthesis Meeting
31st March 2026
Bristol, UK
Attending - Naomi Lawson
Find out more

Flow Chemistry Europe
16th - 17th April 2026
Malaga, Spain
Attending - Dr Manuel Nuño
Find out more

ACS Fall 2026
23rd - 27th August 2026
Chicago, USA
Attending - Ali Deuchars
Find out more

Publications

Below are 6 compelling publications selected from the 50+ publications citing Vapourtec in recent months. To view all publications citing Vapourtec, click here

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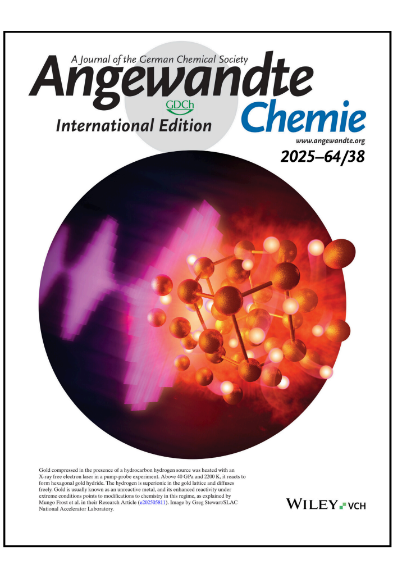
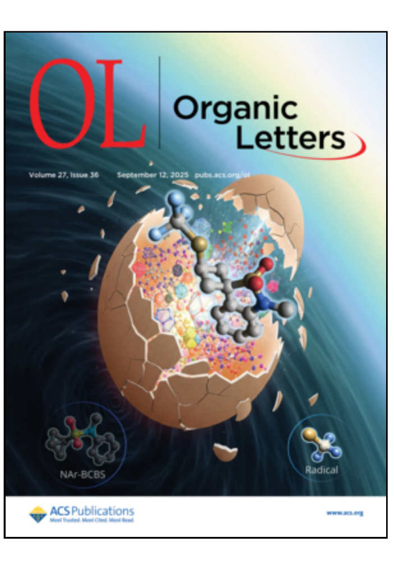


Electrolyte-Controlled Regiodivergent Continuous Flow Electroselenocyclisations

Learn more

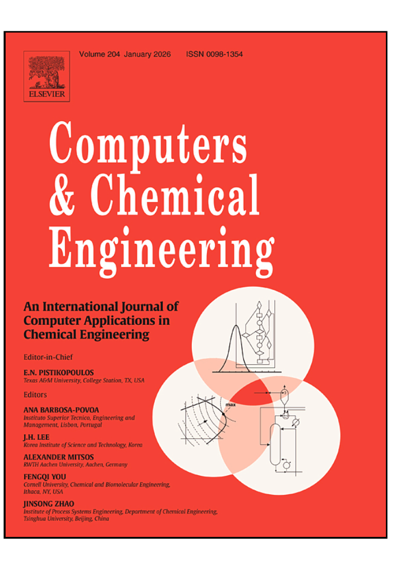
Segmented milli-fluidic crystallisation of paracetamol with in *situ* single-crystal X-ray diffraction

Learn more



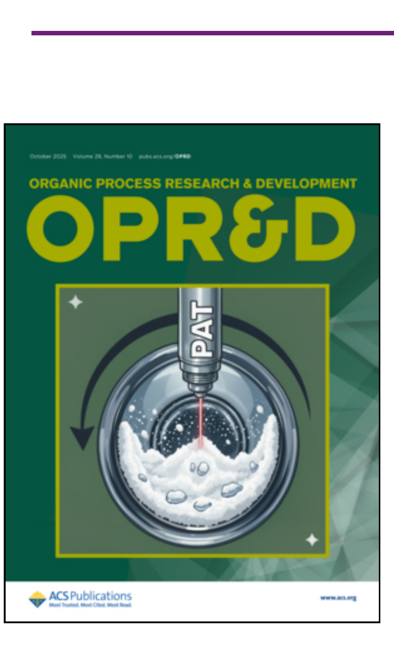
Photochemical Flow Synthesis of Trisubstituted Oxazoles Enabled by High-Power UV–B LED Modules

Learn more



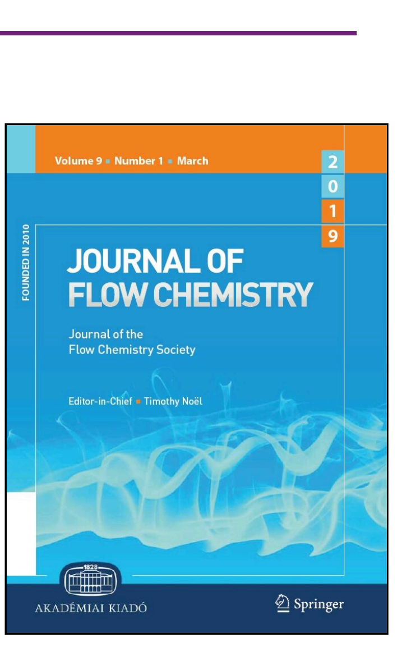
Automated generation of mechanistic models for chemical process digital twins using reinforcement learning part I: Conceptual framework and equation generation

Learn more



Generation of Lithium Ethenolate by Lithiation of Tetrahydrofuran in Flow Mode

Learn more



EDA photochemistry using continuous flow

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