vapourtec
flow chemistry

FULLFLOW

Autumn Newsletter

www.vapourtec.com +44 (0) 1284-728835

Welcome to the Autumn 2024 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.

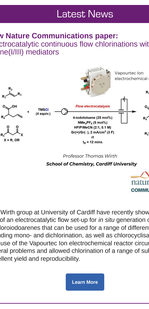
Product News

Electronically adjustable Back Pressure Regulator

The Vapourtec eBPR is an electronically adjustable back pressure regulator designed for precision and versatility in flow chemistry applications. It controls pressures from 0.5 to 20 bar, without the need for an external reference gas pressure. Made with only PTFE and PFA wetted parts to ensure chemical compatibility, it allows precise pressure control over a range of working fluid temperatures up 100 °C.

Learn More

Compact UV detector for flow peptide synthesis



Rugged, reliable and compact the Fmoc-UV has been designed to quantify the amount of the fluorenylmethoxycarbonyl (Fmoc) protecting group in the outflow during solid-phase peptide synthesis (SPPS) and analyses two wavelengths (365 nm and 460 nm) at an acquisition rate of 4 Hz.
With no moving parts, the Fmoc-UV features a low-cost flow cell that can be easily replaced in the event of any blockages.

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Latest News

New Nature Communications paper:
Electrocatalytic continuous flow chlorinations with iodine(I/III) mediators

Professor Thomas Wirth
School of Chemistry, Cardiff University

nature COMMUNICATIONS

The Wirth group at University of Cardiff have recently showcased the use of an electrocatalytic flow set-up for *in situ* generation of dichloroiodoarenes that can be used for a range of different reactions including mono- and dichlorination, as well as chlorocyclization. The use of the Vapourtec Ion electrochemical reactor circumvented several problems and allowed chlorination of a range of substrates in excellent yield and reproducibility.

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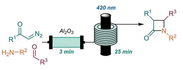
Peptide-ExplorerLT installed at Bachem

Vapourtec has recently installed a Peptide-ExplorerLT at Bachem's UK facility, enabling the evaluation of fast-flow solid-phase peptide synthesis (FF-SPPS). The system uses Vapourtec's patented Variable Bed Flow Reactor (VBFR) technology, offering rapid cycle times and detailed analysis of aggregation events and quantification of Fmoc group removal.

Learn More

New Springer paper:
Novel 3-component Staudinger reaction synthesises β-lactams in excellent yield



Professor Marcus Baumann
School of Chemistry, University College Dublin

Springer

Researchers from the Baumann group at University College Dublin have developed a novel three-component Staudinger reaction in continuous flow, synthesizing β-lactams with remarkable efficiency. Using Vapourtec's E-Series system and UV-150 photochemical reactor, they combined imine formation and ketene generation in a telescoped process.

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Events

Lab Innovations
30th - 31st October 2024
NEC Birmingham - UK
Attending - CSO Manuel Nuño and Chemistry Sales Specialist Harold Rupapa
Find out more >>>

Automated Synthesis Forum
11th - 12th November 2024
Oxford – UK
Attending - CEO Duncan Guthrie and Chemistry Sales Specialist Harold Rupapa
Find out more >>>

Tides
12th - 14th November 2024
Hamburg – Germany
Attending - CSO Manuel Nuño and Research scientist Victoire Laude
Find out more >>>

Challenges in Catalysis VIII
19th November 2024
London – UK
Attending - CSO Manuel Nuño
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

Enhancing electrochemical reactions in organic synthesis: the impact of flow chemistry

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Alkane functionalization: Recent advances

Learn More

Complexity-Building Exhaustive Dearomatization of Benzenoid Aromatics within an ESIPT-Initiated Three-Step Photochemical Cascade

Learn More

Unveiling the Stereoselectivity Aspects of Metallaphotoredox Decarboxylative Arylation

Learn More

High-resolution 3D printable inks based on functional polymeric ionic liquids for applications in carbon dioxide valorization

Learn More

1-Oxa-2,6-Diazaspiro [3.3] heptane as a New Potential Piperazine Bioisostere - Flow-Assisted Preparation and Derivatisation by Strain-Release of Azabicyclo[1.1.0]butanes

Learn More

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