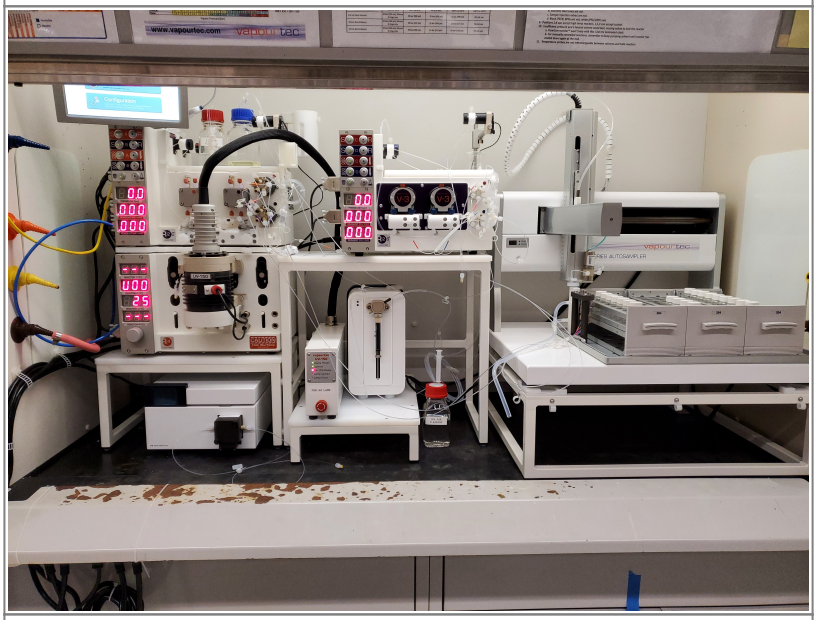
Vapourtec Flow Chemistry System

RS-400 with Fraction Collector

Tool Type: Scalable synthesis
Manufacturer: Vapourtec
Location: Elings Hall 2411

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About

The Vapourtec flow chemistry R-series system is a flexible, precise, and automatable platform designed for efficient synthesis, reaction optimization, and scale-up. The user-friendly walk-up interface allows all users to leverage the advantages of flow chemistry, including precise temperature control, shortened reaction times, low risk in handling dangerous compounds, and scalability. The Vapourtec system at BioPACIFIC features a range of reactors offering diverse conditions for thermal, photochemical, electrochemical, and heterogeneous reactions.

Other key features include:

- Automated reagent addition
- Fraction collection triggered by inline analytics including UV-Vis, NMR, and FT-IR
- FlowIR FT-IR analysis from Mettler Toledo
- 60 MHz ^{1}H NMR flow-cell based analysis from Magritek – no deuterated solvents necessary!
- UV-vis analysis with variable wavelength (190–750 nm)
- Photochemistry supported at 365, 400, and 450 nm wavelengths
- Electrochemistry with broad electrode compatibility and constant current or voltage modes
- Temperatures spanning –70 to 250 °C and wide-ranging flow rates (0.02–10 mL/min)

Reference Documentation

Cooled Reactor

Electrochemical Reactor

Flow Commander

R2 Pump

R2S Pump

R4 Reactor Panel

UV-150 Reactor

UV-vis Detector

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