

CUSTOMER CASE STUDY



Real-time Reaction Insight Under Flow Conditions

How FlowUV supports continuous reaction monitoring, process understanding and optimisation

CUSTOMER

Harvey West, PGR Student
Slater Group, University of Liverpool

PRODUCT

FlowUV spectrometer

APPLICATION

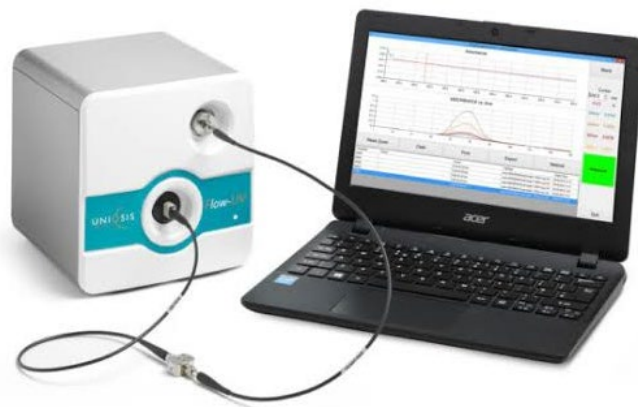
Continuous-flow reaction monitoring

THE RESEARCH PLATFORM

The FlowUV spectrometer has become an extremely valuable part of my continuous-flow research platform. I have used the instrument extensively for robust, real-time inline UV-Vis analysis of complex porphyrin reaction mixtures, giving me direct insight into reaction behaviour under flow conditions rather than relying on discrete sampling or offline measurements.

FLEXIBLE INTEGRATION

One of the major advantages of the FlowUV for my work has been how straightforward it is to integrate into bespoke flow chemistry setups. Its compact footprint and flexible inline configuration have allowed me to position analytical measurements at different points throughout my reactor systems, helping me to track changes in reaction composition as the chemistry progresses. This has been particularly useful when studying porphyrin systems, where UV-Vis spectroscopy provides a powerful and information-rich method for tracking reaction progress.



Registered Address: Hall Barn Road Industrial Estate, Isleham, Cambridgeshire CB7 5RJ, UK
VAT: GB 838 5592 82 Company Registration: 5160407



CUSTOMER CASE STUDY (Continued)



PROCESS INSIGHT

The ability to collect spectroscopic data continuously has significantly improved the way I investigate and optimise my processes. I have used FlowUV measurements to assess reaction progress, identify transient behaviour, determine when steady-state operation has been achieved, and generate the large datasets required for more advanced automated and optimisation workflows. Having reliable inline analytical information available in real time also greatly reduces my dependence on manual sampling and allows experimental decisions to be made much more efficiently.

RESEARCH IMPACT

I have been particularly impressed by the combination of analytical performance, robustness and ease of integration offered by the FlowUV system. It provides the flexibility required for research-scale flow chemistry while remaining straightforward to incorporate into increasingly complex automated experimental platforms.



"For researchers looking to incorporate accessible, real-time UV-Vis analysis into continuous-flow systems, FlowUV provides a very capable and versatile solution."

Harvey West, Member of Prof. Anna Slater's Group, University of Liverpool

CUSTOMER PERSPECTIVE

"The FlowUV spectrometer has become an extremely valuable part of my continuous-flow research platform. I have used the instrument extensively for robust, real-time inline UV-Vis analysis of complex porphyrin reaction mixtures, giving me direct insight into reaction behaviour under flow conditions rather than relying on discrete sampling or offline measurements."

Registered Address: Hall Barn Road Industrial Estate, Isleham, Cambridgeshire CB7 5RJ, UK
VAT: GB 838 5592 82 Company Registration: 5160407



CUSTOMER CASE STUDY (Continued)



One of the major advantages of the FlowUV for my work has been how straightforward it is to integrate into bespoke flow chemistry setups. Its compact footprint and flexible inline configuration have allowed me to position analytical measurements at different points throughout my reactor systems, helping me to track changes in reaction composition as the chemistry progresses. This has been particularly useful when studying porphyrin systems, where UV-Vis spectroscopy provides a powerful and information-rich method for tracking reaction progress.

The ability to collect spectroscopic data continuously has significantly improved the way I investigate and optimise my processes. I have used FlowUV measurements to assess reaction progress, identify transient behaviour, determine when steady-state operation has been achieved, and generate the large datasets required for more advanced automated and optimisation workflows. Having reliable inline analytical information available in real time also greatly reduces my dependence on manual sampling and allows experimental decisions to be made much more efficiently.

I have been particularly impressed by the combination of analytical performance, robustness and ease of integration offered by the FlowUV system. It provides the flexibility required for research-scale flow chemistry while remaining straightforward to incorporate into increasingly complex automated experimental platforms.

For my research, the FlowUV has developed from being a useful analytical tool into a key component of my overall experimental workflow. It has allowed me to extract considerably more information from my flow experiments and has supported the development of more sophisticated approaches to reaction monitoring, process understanding and optimisation. For researchers looking to incorporate accessible, real-time UV-Vis analysis into continuous-flow systems, FlowUV provides a very capable and versatile solution."

Explore FlowUV: <https://www.asynt.com/product/flowuv/>

enquiries@asynt.com | +44 (0)1638 781709

Asynt reference: ASY-CS-206

