

PRESS RELEASE

**Reproducible Small Scale Reaction Chemistry at Low Temperatures**

**Asynt** has published a **case study** describing how the **FroSyn Cooling Station** has enabled **John Bower's Group** at the **University of Liverpool (UK)** to reproducibly conduct low temperature enantioselective catalytic reactions, over an extended period of time.

The FroSyn system, jointly developed by Asynt and temperature control specialists, Julabo UK, offers a versatile, stand-alone solution to low temperature synthetic chemistry without the drawbacks of traditional reaction cooling using dry ice / solvent baths.

Dr Karim Bahou, of the John Bower Group, comments in the case study "We are very pleased to have purchased a FroSyn for our low temperature synthetic chemistry research. By using the vial insert supplied with the device, we can set-up several parallel reactions in order to test different reaction conditions at low temperature, at the same time. When we want to scale-up, we are able to do this simply by switching the insert to allow round bottom flasks up to 500 mL to be used. It is a neat and tidy solution that occupies only a small part of the fume hood, with the added benefit of no more cumbersome cooling baths!".

Using a Pt100 sensor positioned in its insulated baseplate, the FroSyn provides precise, active temperature control down to -60 °C, eliminating temperature fluctuations over time. This innovative approach to sample cooling results in excellent reproducibility and improved reaction

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control. Unlike dry ice cooling baths that require constant attention, the stable and controlled sub-ambient performance of the FroSyn means that unattended overnight reactions can be performed with complete confidence. Positioning of the FroSyn on top of a conventional magnetic stirrer enables efficient sample mixing during cooled experiments. Advanced thermal insulation, around the cooling probe and plate, not only improves performance, but keeps the apparatus ice-free and helps eliminate the possibility of operator cold burns during reactions.

To download a copy of the case study please visit [www.asynt.com/wp-content/uploads/2019/10/Julabo-FroSyn-White-Paper.pdf](http://www.asynt.com/wp-content/uploads/2019/10/Julabo-FroSyn-White-Paper.pdf) For further information on the FroSyn please visit [www.asynt.com/product/frosyn-cooling-station/](http://www.asynt.com/product/frosyn-cooling-station/) or contact Asynt on +44-1638-781709 / [enquiries@asynt.com](mailto:enquiries@asynt.com).

For further information on the John Bower Group at the University of Liverpool (UK) please visit <https://bowerresearchgroup.wordpress.com/about/>

Asynt is a leading supplier of affordable products, consumables and services for chemists in industry and academia. With staff of trained chemists - Asynt can draw upon this in-depth applications knowledge to provide a high level of customer support for its DrySyn Heating Blocks, Controlled Lab Reactors, Synthesis Tools, Evaporators, Circulators, Temperature Control Systems, Vacuum Pumps and Lab Safety Equipment.

**FEBRUARY 2021**

**Asyntpr116**

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**Illustrative image:**



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