

## PRESS RELEASE

October 2007



### Easier Optimisation and Scale-up with New Flow Reactor

**Cambridge UK:** Easier scale-up without re-optimisation using a new micro-reactor is described in a new Applications Note from Uniqsis Ltd of Cambridge. A FlowSyn™ Continuous Flow Reactor equipped with Exchangeable Micro Reactor Technology, or EMRT, was used to optimise a  $SN_{Ar}$  reaction, followed by immediate scale-up with no need for additional optimisation.

EMRT employs a compact, coiled reactor design (patent pending) with excellent controllability that makes it possible to closely duplicate reaction conditions in different reaction volumes. Temperatures, pressures and flows can be accurately and independently controlled, so reaction parameters can be easily adjusted for optimisation. In this case, the reaction was conducted at fixed pressure and flow rate over a range of temperatures from 40°C to 160°C. Once the optimum temperature was established, an 8-fold scale up was achieved without further experimentation by simply changing to a larger coil reactor and proportionally adjusting the flow rate to obtain an equivalent reaction time.

Depending on the reactor material used, temperatures and pressures up to 200°C and 50 bar can be employed. Uniqsis CEO Martyn Fordham said: "EMRT allows reactions to be run under microwave-like conditions in a flow reactor, but under tighter control, so optimisation and scale-up become much more straightforward."

The FlowSyn Continuous Flow Reactor claims to be the first commercial system to fully integrate all the essential elements for continuous flow chemistry into a single, easy to use package. FlowSyn is simple to set up and operate and offers safe, unattended operation for tasks such as synthesis, reaction optimisation and scale up experiments, in quantities from milligrams to hundreds of grams.

Contact [info@uniqsis.com](mailto:info@uniqsis.com) , visit [www.uniqsis.com](http://www.uniqsis.com) or call +44 (0)845 864 7747 for more information.

Uniqsis Ltd. is an alliance between Asynt, the specialist supplier of organic synthesis apparatus, and Grant Instruments (Cambridge) Ltd., the long established scientific equipment manufacturer.

For product enquiries please contact:  
Uniqsis  
Kathrin Hilpert +44 (0)845 864 7747  
Email: [marketing@uniqsis.com](mailto:marketing@uniqsis.com)

For media enquiries please contact:  
Phoenix MarCom Ltd  
Paul Carter + 44 (0) 1223 873318  
Email: [paul.carter@phoenixmarcom.co.uk](mailto:paul.carter@phoenixmarcom.co.uk)

#### **Editors' notes**

##### About Uniqsis Ltd

Based near Cambridge, UK, Uniqsis was formed in January 2007 by Asynt Ltd and Grant Instruments (Cambridge) Ltd to develop innovative microreaction technology products for customers in both the research and biopharmaceutical sector. A consortium of expert engineers, supporting companies and scientists from the Pharmaceutical industry has been assembled to provide in-depth scientific and technical expertise to the development of this exciting new technology.