

## Bringing Hydrogenation into 21<sup>st</sup> Century

### Asynt announces distribution rights for the Thales Nanotechnology H-Cube Continuous Flow Hydrogenator



*The NEW H-Cube developed by Thales Nanotechnology. Now available in the UK and Scandinavia from Asynt  
High resolution picture available from [clarer@alto-marketing.com](mailto:clarer@alto-marketing.com)*

**Cambridge, UK:** Asynt have announced UK and Scandinavian distribution rights for the Thales Nanotechnology H-Cube Continuous Flow Hydrogenator. The H-Cube represents the first continuous flow hydrogenation reactor on the market. Addressing many of the issues arising from traditional batch methods for heterogeneous hydrogenation, the H-Cube is amazingly compact (only 0.3M<sup>3</sup>), portable and designed to be used in a standard lab fume hood. Reactions at up to 100°C and up to 100 bar can be performed with ease on milligrams to multi-gram quantities.

Unlike traditional methods which require an external hydrogen source such as a lecture bottle, the H-Cube generates the required quantity of hydrogen internally via the electrolytic decomposition of water. Reaction parameters such as pressure, temperature, flow rate and hydrogen production can be easily controlled and monitored with the simple to use touch screen panel. This coupled with the HPLC technology means that minimal training is required and reductions are easier to perform.

The H-Cube works by passing the reaction mixture through a flow channel, mixing it with the hydrogen gas at a desired pressure. This mixture is then heated prior to its passage through the catalyst cartridge. This purpose designed, disposable cartridge, the CatCart™, improves safety and usability, negating the need for further filtration,



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thus avoiding the subsequent hazards attached. The novel design means that fast and cost-efficient hydrogenation is coupled with superior yield. A large range of catalysts are also available allowing an extensive cross-section of reactions to be performed.

Working in such flow channels facilitates fast reaction optimisation and the opportunity for automation. Two processes which are very cumbersome in batch reactors.

The H-Cube is the latest product in the Asynt portfolio and it represents the biggest innovation in Hydrogenation technology in years.

[www.asynt.com](http://www.asynt.com) & [www.drysyn.com](http://www.drysyn.com)

### Editors' notes

#### About *Asynt* Ltd

Based near Cambridge, UK, **Asynt** specialises in providing innovative technologies for the chemical synthesis sector. Formed in July 2003, the company has grown rapidly over the past two years now and has a well established international customer base in both the research and biopharmaceutical sectors. Asynt's concept is to provide completely new solutions for chemists in addition to a range of unique supporting products. The current team at Asynt has over 25 years of experience providing, developing and supporting novel and new world leading products for chemists.

**Asynt's** mission is to provide "a fresh outlook in chemistry technologies" by combining in-depth scientific and technical expertise and will continue to develop and introduce other new and exciting products into 2006. This has already resulted in a wide range of world leading products for medicinal chemistry and parallel synthesis (J-KEM personal synthesiser, DrySyn MULTI reaction block, Omni reaction station, AFRICA flow reactors) custom synthesis and building blocks (PharmaCore) and chromatography (Analogix/Interchim columns). Safe hydrogenation technology from Thales Nanotechnology (H-Cube), as well as Heidolph, Julabo, Vacuubrand, custom glass, and custom PTFE ware. The DrySyn range has been granted European Design Rights and US patents have been applied for.