

## News flash January 2012

### ECN grants Ceramiques Techniques Industrielles license on HybSi® membrane technology

Ceramiques Techniques Industrielles (CTI), as one of the market leaders in inorganic membranes, has obtained a license for the commercialisation of the HybSi® membrane technology from ECN. The HybSi® nanosieve allows the purification of various industrial solvents at a reduced cost and at an enhanced efficiency. It further combines an outstanding performance with unprecedented long term stability.

Important fields of application can be found in the production of bio-fuels and in the separation of azeotropic mixtures. In comparison with conventional separation technologies, major gains in the energy efficiency and improvements of the product quality can be obtained. The unprecedented stability in acid and aggressive conditions at high temperatures of the HybSi® membranes allow for a revolutionary step in the utilisation of pervaporation membranes. The HybSi® membrane technology was originally developed by ECN, in collaboration with the Universities of Twente and Amsterdam.

Francois Garcia (Chairman CTI): "This license on the HybSi® membrane technology allows us to expand our portfolio from filtration processes to molecular separations. In recent years, we have doubled our turn over and we anticipate that a significant growth will come from this license. After the inauguration of the new facilities of our sister company Orelis Environment in October, this is the second important achievement within a few months. We will work together with our clients and partners to present a commercial attractive solution to challenging separations problems during 2012."

Jaap Vente (Manager Membrane Technology, ECN): "We are very pleased that a market leader in the field of ceramic membranes can profit from the commercial opportunities of our HybSi® membrane technology. We are convinced that the competitiveness of our membrane system will increase significant and that large scale application has come another step closer to reality."

More information on HybSi® membrane technology can be found on [www.hybsi.com](http://www.hybsi.com).

Financial support for the development HybSi® membrane has been obtained from STW ([www.stw.nl](http://www.stw.nl)), Agentschap NL ([www.agentschapnl.nl](http://www.agentschapnl.nl)), and Institute of Sustainable Process Technology ([www.ISPT.eu](http://www.ISPT.eu)).

### About Ceramiques Techniques Industrielles

Ceramiques Techniques Industrielles ([www.ctisa.fr](http://www.ctisa.fr)) is one of the market leaders in ceramic membranes for micro, ultra and nanofiltration applications with an annual turnover of over 10M€. The aim is to produce low cost HybSi® membranes with a high package density to further reduce module costs. This will enable the combination of low running costs and low investments for the clients, which is required to compete effectively with conventional separation technologies.

### About ECN

As one of Europe's largest energy research organisations, ECN has a strong international position in the fields of solar and wind energy, biomass and energy efficiency, and policy studies. In collaboration with and to the benefit of the market, ECN develops knowledge and technology that enable the required transition to a sustainable energy system. The current focus of the membrane activities are on HybSi® membrane technology and on Hysep hydrogen separation modules that make use of palladium-based membranes. For additional information, visit [www.ecn.nl/memtech](http://www.ecn.nl/memtech), [www.hybsi.com](http://www.hybsi.com) and [www.hysep.com](http://www.hysep.com).

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