

Non-Thermal Production of Pure Hydrogen from Biomass: HYVOLUTION

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Non-Thermal Production of Pure Hydrogen from Biomass: HYVOLUTION

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Abstract

HYVOLUTION is the acronym for the Integrated Project (IP) “Non-Thermal Production of Pure Hydrogen from Biomass,” which was defined in the 6th EU Framework Programme on Research, Technological Development and Demonstration, Priority 6.1 Sustainable Energy Systems. This IP started on 1 January 2006 and will end on 31 December 2010. Its aim, “Development of a blueprint for an industrial bioprocess for decentral hydrogen production from locally produced biomass,” adds to the number and diversity of hydrogen production routes giving greater security of supply at the local and regional level. Moreover, this IP contributes a complementary strategy to fulfill the increased demand for renewable hydrogen expected in the transition to the Hydrogen Economy. The novel approach adopted in the project is based on a combined bioprocess employing thermophilic and phototrophic bacteria, to provide the highest hydrogen production efficiency in small-scale, cost-effective industries. In HYVOLUTION, 10 EU countries, Turkey, Russia, and South Africa are represented to assemble the critical mass needed to make a breakthrough in cost-effectiveness.

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