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With state-of-the-art biofuels into the Alte Oper

press release

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bioliq® process from Karlsruhe nominated for the Innovation Award of German Industry

On 19 January 2008, the Innovation Award of German Industry will be presented in the Alte Oper concert hall in Frankfurt. Nominations include the bioliq® process developed at the Karlsruhe research center: in a multi-step process, ultra-pure synthesis fuels and high-grade base products for the chemical industry are generated from straw and other agricultural and forest residues. The cooperation partner Lurgi GmbH supplied the engineering and built the plant for the first process step. The pilot plant that is to demonstrate the complete process from the clod to the petrol pump is currently under construction at the Karlsruhe research center with financial support from the Federal Ministry of Food, Agriculture and Consumer Protection.

Biomass – the only renewable carbon resource – can reduce dependency on oil and minimize the related cost and supply risks as well as the CO_2 emissions.

With the two-stage bioliq® concept developed at Forschungszentrum Karlsruhe, valuable synthetic high-tech fuels and important base products for the chemical industry can be produced. The bioliq® process is suited for biomass, which is distributed over large areas and mostly exhibits a low energy content. In a first, decentralized step, the biomass is converted to a transportable, liquid intermediary product with a high energy density (BioSynCrude) in a so-called fast pyrolysis process and can then be efficiently transported over great distances to central facilities for conversion to synthesis gas and fuels.

Subsidized by the Fachagentur Nachwachsende Rohstoffe (Agency for Renewable Resources, project executing organization of the Federal Ministry of Food, Agriculture and Consumer Protection) and in cooperation with Lurgi GmbH, a pilot plant for the complete bioliq® process chain is being built on the premises of the research center. Construction of the plant unit for the first process step to generate energy-rich BioSynCrude was completed in summer 2007. Presently, the pilot plant is being extended by the process

Contact

Lurgi GmbH
Corporate Communications
Klaus Kilian
Lurgiallee 5
D-60295 Frankfurt / Main
Phone : +49 (0) 69 58 08 - 42 54
Fax : +49 (0) 69 58 08 - 11 09

Lurgi in brief

Lurgi is a leading technology company operating worldwide in the fields of process engineering and plant contracting. The strength of Lurgi lies in innovative technologies of the future focusing on customized solutions for growth markets. The technological leadership is based on proprietary technologies and exclusively licenced technologies in the areas gas-to-petrochemical products via synthesis gas or methanol and synthetic fuels, petrochemicals, refinery technology and polymer industry as well as renewable resources/food.
Lurgi is a company of Air Liquide Group.

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steps for synthesis gas generation, gas cleaning and fuel synthesis through to the petrol pump to demonstrate the technical viability of the overall process, improve it and prepare its commercialization.
The bioliq® process has now been nominated for the 28th Innovation Award of German Industry 2008. This innovation award is presented annually under the patronage of the Federal Ministry of Economics and Technology. The award winners will be announced on 19 January 2008 from 7:00 p.m. at the Alte Oper in Frankfurt.

Caption: A pilot plant is being built at the Karlsruhe research center to demonstrate the complete process chain of the multi-step bioliq® process

With nearly 40,000 employees in 72 countries, Air Liquide is a world leader in industrial and medical gases and related services. The Group offers innovative solutions based on constantly enhanced technologies and produces air gases (oxygen, nitrogen, argon, rare gases…) and many other gases including hydrogen. The Group contributes to the manufacturing of many everyday products: bubbles in sparkling beverages, protective atmosphere for packed foods, oxygen for hospitals and homecare patients, ultra-pure gases for the semiconductor industry, hydrogen to desulfurize fuels.

Air Liquide is committed to sustainable development and helps to protect life. Founded in 1902, Air Liquide has successfully developed a long-term relationship with its shareholders built on trust and transparency and guided by the principles of corporate governance. Since the publication of its first consolidated financial statements in 1971, Air Liquide has posted strong and steady earnings growth. Sales in 2006 totaled 10,949 million euros, with sales outside France accounting for almost 80%. Air Liquide is listed on the Paris stock exchange and is a component of the CAC 40 and Eurostoxx 50 indices (ISIN code FR 0000120073).

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