More Efficient & Economical Routes To Produce Chemicals

The Dow Chemical Co. [1] and SÃ¼d-Chemie [2] have agreed to research alternative routes to produce chemicals to help reduce dependence on traditional sources of oil and gas. The collaborative research aims to convert synthetic gas (syngas), which can be derived from abundant resources, such as coal or biomass, to building block chemicals in a more efficient and economical process. As a mixture of hydrogen and carbon monoxide, syngas can be produced through gasification and reforming processes from a variety of readily available raw materials, including coal, petroleum coke, biomass, natural gas and waste products. This highly versatile intermediate can then be converted to building block chemicals, plastics, electricity or transportation fuels with existing technology, but current capital and conversion costs are steep. Dow and SÃ¼d-Chemie's research will focus on making the conversion process more efficient and economically viable. Dow and SÃ¼d-Chemie will develop the terms of the joint research and development effort within a couple of months with a plan to initiate the program in April 2009. "This research partnership with SÃ¼d-Chemie demonstrates our commitment to generate sustainable solutions that address global energy challenges, while building our portfolio of alternative energy and raw material options," says Juan Luciano, senior vice president of hydrocarbons and basic plastics. "Dow is exploring innovative ways to reduce our reliance on oil and gas as the raw materials we use to produce chemicals and plastics. Conversion of syngas based on coal or biomass is a promising route for the scale that Dow needs to have an impact." "As a global leader in syngas catalysts development, we are very pleased with this partnership with Dow and convinced that the joint effort will result in most significant results," says SÃ¼d-Chemie Managing Board Chairman and CEO Dr. GÃ¼nter von Au. "For many years, SÃ¼d-Chemie has been allocating significant resources in the field of catalysts for alternative feedstock conversion. We are very confident that by partnering with Dow, further efficiency improvement on these processes can be accomplished." Focusing on the development and manufacturing of catalysts for the conversion of syngas to chemicals and the direct conversion of syngas to olefins, the companies will conduct this joint research program in The Netherlands at Dow's Terneuzen site, and at Sud-Chemie's catalyst research and development centers located in Germany and the U.S.

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