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Mitsui Chemicals, Inc.

## **Mitsui Chemicals to Establish a Pilot Facility to Study a Methanol Synthesis Process from CO<sub>2</sub>**

Mitsui Chemicals Inc. (“MCI”) has decided to begin construction of a pilot facility which will be used to continue the company’s efforts to develop a methanol synthetic process from CO<sub>2</sub>.

MCI has formulated a new Mid-term Business Plan (08MTP), in which the company, operating under the concept of “Creating Innovative Values,” aims to create new values through the completion of the three dimensional strategy consisting of Economy, Environment and Society and the generation of new technologies.

In the Environment area of the plan, the company’s basic strategy is “the development of innovative process contributing to significant reduction of GHG.” As a part of its efforts, MCI has been pushing forward the development of “Chemical immobilization of CO<sub>2</sub>,” which synthesizes methanol, later used in the production of olefins and aromatics, using the CO<sub>2</sub> emitted from factories and hydrogen obtained from water photolysis.

MCI takes a step further in the efforts to industrialize this technology, establishing a pilot facility aimed at putting methanol synthesis and the separation and capture processes for CO<sub>2</sub>(as described in the appendix) into practical use.

From 1990 to 1999, the company took part in “Chemical CO<sub>2</sub> Immobilization Project (Entrusted by NEDO),” a project launched by the Research Institute of Innovative Technology for the Earth. Utilizing this joint research, MCI has already succeeded in developing ultra-high-activity catalysts, which will be upgraded and used at the new pilot facility.

As increased CO<sub>2</sub> emissions continue to contribute to global warming, environmental conservation is becoming more and more urgent.

MCI’s “Chemical CO<sub>2</sub> Immobilization Project,” which expends CO<sub>2</sub> - the cause of global warming - as a raw material, is the ultimate environmentally friendly new technology and, if industrialized in the future, will cut CO<sub>2</sub> generation significantly.

In addition, the chemical industry must develop chemical products using a wide variety of resources, rather than crude oil, as a countermeasure against rising oil prices. This immobilization technology will enable the company to use numerous resources as alternatives to oil.

Upholding its corporate mission - “Harmony with the global environment” - MCI aspires to furthering the development of innovative new technologies which contribute to the health of the global environment.

[Overview of New Facility]

- Site: MCI Osaka Works
- Production Capacity: Approximately 100 tons/year  
(Translated into methanol production volume)
- Investment: Approximately ¥1.5 billion
- Schedule: Start of construction: October 2008  
Completion of construction February 2009  
(To be put into use in March 2010)