



Methanol to Aromatics – Global Impact of a New Technology

Report Overview

Subjects Addressed:

- Current MTA developments in China
- Impact of changing oil and coal prices
- Technical description of competing processes
- Flexibility of BTX within the aromatics produced
- Profiles of companies involved
- Competitive analysis versus conventional aromatics
- Expected capacity development in China
- Impact of Chinese capacity on exports from the Middle East and other regions
- Opportunity to develop MTA in other regions
- Impact on global development of conventional aromatics

Several companies in China have been making rapid progress towards commercializing methanol-to-aromatics technology, with the technology already demonstrated at pilot plants in 2013, and full-scale projects now being developed. Despite the fall in crude oil and polymer prices, MTO operators continue to post strong results. The growing oversupply of coal in China has led to enforced coal production cutbacks, leading coal producers to pursue new outlets for coal.

China's aromatics market is increasingly unbalanced, with strong demand growth, and relatively little new supply. Growth in aromatics supply from steam cracking is low due to the increasing role of MTO (methanol-to-olefins) which does not produce pygas. The lack of new refinery projects impacts both steam cracker and reformer-based aromatics developments.

Coal-based methanol capacity has increased at a staggering rate, such that there is now around 30 million tons per year of methanol capacity sitting idle. Coal gasification for processes such as syngas/methanol production provides an attractive means of monetizing coal reserves, including low value coals which are otherwise difficult to market economically.

Chemical developments of this kind also match with government objectives to create employment and stimulate economic activity in China's inland regions, where most of the coal resources are located.

Coal-based production also offsets the growing import requirement for petrochemicals or feedstocks such as crude oil and naphtha, and therefore supports other government objectives regarding energy independence.

The very rapid growth seen on methanol and MTO in China could therefore be replicated on MTA. One producer has already announced a commercial scale MTA project following successful pilot plant operation in 2013.

Based on conventional market dynamics, China looks set to develop an import requirement for 3 million tons per year of benzene, and 15 million tons per year of *para*-xylene by 2020. This presents a massive market opportunity for MTA, and potential impact on those companies in other regions which are developing conventional aromatics capacity to export to China.

Over 60 percent of forecast naphtha demand growth for aromatics production globally is predicated on Chinese consumption growth, and this growth could be severely impacted by methanol-based aromatics.

There are many different stakeholders likely to be affected by MTA, including:

- Existing producers of aromatics in all regions
- Sponsors of new export-based aromatics investments around the world
- Refiners with exposure to naphtha sales
- Resource owners seeking to add value to crude oil and refined products
- Gas and methanol producers around the world
- Strategic consumers of benzene and *para*-xylene
- Technology suppliers in the conventional aromatics area

For information regarding the ***Methanol to Aromatics: Global Impact of a New Technology*** report, please contact STMC@nexant.com.

NexantThinking™

NexantThinking reports and subscription programs provide clients with comprehensive analytics, forecasts and insights for the chemicals, polymers, energy and cleantech industries. Using a combination of business and technical expertise, with deep and broad understanding of markets, technologies and economics, NexantThinking provides solutions that our clients have relied upon for over 50 years.

Global in scope, Nexant serves its clients from over 30 offices located throughout the Americas, Europe, the Middle East, Africa and Asia.

Subscribe to our thought leadership today and explore our products and services at:

thinking.nexant.com

Corporate Headquarters

Tel: +1 415 369 1000
101 2nd St Suite 1000
San Francisco
CA 94105-3651
USA

Americas

Tel: +1 914 609 0300
44 S Broadway, 4th Floor
White Plains
NY 10601-4425
USA

Europe, Middle East & Africa

Tel: +44 20 7950 1600
1 King's Arms Yard
London EC2R 7AF
United Kingdom

Asia Pacific

Tel: +662 793 4600
22nd Floor, Rasa Tower I
555 Phahonyothin Road
Kwaeng Chatuchak
Khet Chatuchak
Bangkok 10900
Thailand

