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Report 261A  
Methanol to Olefins/Propylene  
Technologies in China

By Victor Y. Wan

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PEP Report 261A

Methanol to Olefins/Propylene Technologies in China

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## Abstract

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In China, ethylene and propylene have been traditionally produced from petroleum-based feedstock via steam cracking and catalytic cracking. Methanol-to-olefins (MTO) and methanol-to-propylene (MTP) processes are attractive alternative process routes to light olefins. Today both the DMTO process and the Lurgi MTP process are in commercial operation in China primarily because of availability of low cost methanol, enabling catalytic methanol conversion technologies and light olefin product recovery process technologies.

This PEP report reviews technological progress and industrialization of leading process technologies for catalytic methanol conversion to light olefins. Two commercial-scale MTO/MTP production schemes and estimated production economics are presented: (1) the DMTO process using a proprietary SAPO-34-based catalyst supplied by Chia Tai Energy Materials and the Lummus DMTO recovery; (2) the Lurgi MTP process using the MTPROP, a proprietary ZSM-5-type of catalyst supplied by Süd-Chemie.

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