



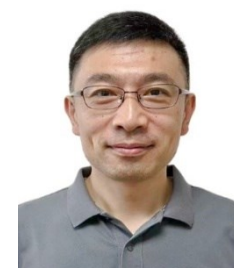
Full Name : Changjiu Xia
Organization : SINOPEC Research Institute of Petroleum Processing
Current Position : Expert in Chemical Technology, Group Leader of Zeolite Synthesis and Catalytic Oxidation
Working Experience : 9 years (7 years in Sinopec)
Title of Presentation : Introduction to Sinopec Hydrogen Peroxide to Propylene Oxide (HPPO) Process to Maximize Carbon Efficiency



Presentation Abstract :

Propylene epoxidation with hydrogen peroxide (HPPO process) catalyzed titanium silicate zeolite is of great meaning for efficient propylene oxide (PO) production, significantly overcoming these drawbacks of chlorohydrin and co-oxidation methods. But it is difficult to be operated at the industrial scale, majorly due to high reaction heat at the macroscale and the strong complexity of side reactions within confined micropores. To solve these problems, the first domestic HPPO process with complete intellectual property was developed by SINOPEC via integrated innovations on surface silicon-rich hollow titanium silicate catalytic active component, catalyst shaping technology, reactor design, and reaction controlling engineering, the separation and purification of PO, heat integration system and waste treatment technology, showing greater performance than reference HPPO technologies. Herein, the development evolution, technical advantages, and running characteristics of the 100 kt/a of the HPPO process at SINOPEC are systemically demonstrated. In addition, to further promote technical economy, the 300 kt/a of the HPPO process and the second generation HPPO technology have been developed by SINOPEC. Obviously, these HPPO technologies favor the green and sustainable manufacturing of PO in China and even in the globe to some extent in the future.

Full Name : Yushi Wang
Organization : SINOPEC Shanghai Engineering Co., Ltd.
Current Position : Vice Manager of the technical department
Working Experience : 13 years
Title of Presentation : Introduction to Sinopec Vinyl Acetate Process to Maximize Carbon Efficiency



Presentation Abstract :

Vinyl acetate (VAc) can be widely used in the production of ethylene vinyl acetate (EVA) copolymer, polyvinyl acetate, polyvinyl alcohol et al, ethylene route is recognized as a promising way to synthesize VAc. Sinopec has commercialized Pd Catalyst and VAc production process, which produces high-quality vinyl acetate monomer from ethylene and acetic acid with low utility consumption.

