



TNChe Asia 2025 Conference
**"Accelerating Industrial Decarbonization:
Digital-AI and Energy Transformation "**
Presenter's Biodata & Abstract



Full Name : Mr. Robert Lee

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Current Position : Vice General Manager

Title of Presentation : Enabling SAF & PX Pathways with Zeolite Innovation



Presentation Abstract:

As global industries shift toward sustainable fuels and circular petrochemicals, the roles of Sustainable Aviation Fuels (SAF) and Paraxylene (PX) become increasingly critical. Jalon brings forward zeolite-based innovations that unlock new efficiencies in both sectors—enhancing catalytic performance and adsorption selectivity.

In the SAF pathway, Jalon's proprietary isomerization catalysts are designed for high stability and activity, enabling efficient conversion of straight-chain paraffins into branched isomers, a key step in meeting jet fuel specifications. These catalysts are tailored for harsh operating environments, ensuring longevity and optimal conversion rates.

For PX production, Jalon provides high-performance adsorbents (e.g., based on LSX frameworks) engineered for superior paraxylene selectivity and faster adsorption-desorption cycles. These materials are used in simulated moving bed (SMB) systems to improve throughput and product purity while reducing regeneration energy.

Key Highlights:

Advanced isomerization catalysts for SAF production

High-selectivity PX adsorbents with robust cycling performance

Custom zeolite design for improved thermal and chemical durability

Scalable manufacturing and consistent global supply

With over two decades of expertise in synthetic zeolites and molecular sieves, Jalon supports the transition to more sustainable fuel and petrochemical production through innovation and reliability.