

Aromatics from Alternative Sources by Catalysis with Nanocrystalline Mixed Oxides

The Problem

In a conventional Fischer Tropsch (FT) process, there are many, low value chemical byproducts produced such as certain paraffins and alcohols. For example, naphtha (C5–C10) constitutes a low-value byproduct that can account for approximately 30% of the entire product. There is a consistent need to produce high volume chemical feedstocks from non-petroleum sources.

The Solution

Eltron Research & Development has developed nanocrystalline mixed oxide solid catalyst capable of upgrading naphtha feedstock to more valuable chemicals. Eltron's solid catalysts have demonstrated the ability to effectively convert alkanes to aromatics and perform aromatic transformations in a cleaner, more selective manner.

The Technology

Eltron's catalysts for producing high-volume aromatics from FT byproducts are halogen-free solid systems based on nanocrystalline mixed oxides. The catalysts convert alkanes to aromatics selectively and effectively, and perform aromatic alkylation and transalkylation with high selectivity, efficiency and durability.

Benefits

- Efficient method of converting FT naphtha to high-volume Aromatics
- Catalyst is inexpensive, non-toxic and non-corrosive
- High activity, selectivity and durability in relevant reactions

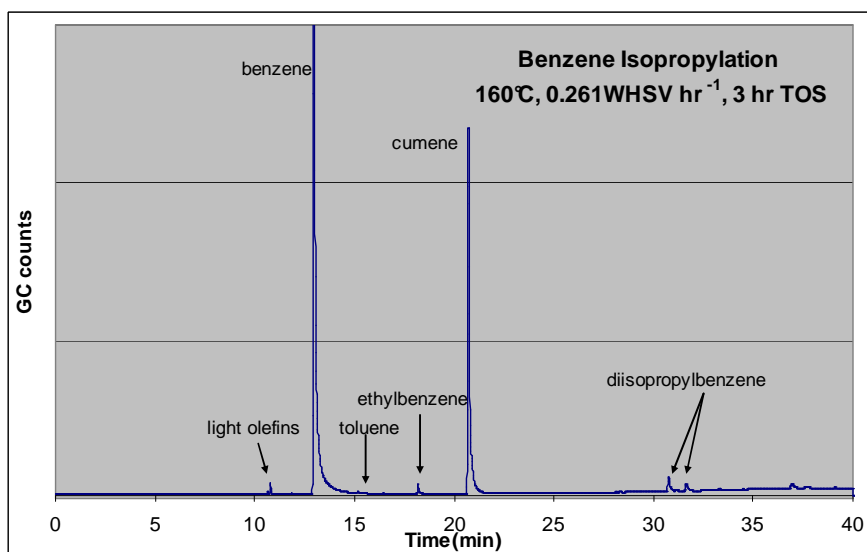


Figure 1: Eltron's catalyst produces cumene with high selectivity.

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