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**A New Process for Hydrocarbon Isomerization using a Reverse Flow
Chromatographic Reactor**

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Abstract

The proposed reaction-separation system will be applied in the catalytic removal of pollutants, such as nitrogen oxides, and for the selective isomerization of alkanes for high octane gasolines and aromatics, a feedstock for the petrochemical industry. We will also explore the possibility of extending its use to produce biological molecules with different configurations, such as relaxed and supercoiled DNA. Partner companies include the Petroleum Research Fund of the American Chemical Society.