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## Special Report - Bio-Naphtha: Missing Link to the “Green” Chemicals Value Chain

### Report Overview

#### Subjects addressed:

- Technical feasibility of various bio-naphtha production technologies
- Comparative economics of developing bio-naphtha routes and subsequent steam cracking as compared to conventional petrochemical naphtha steam cracking
- Commercial status and industry developments
- Downstream potential and implications

Fossil fuels and petrochemicals form the building-blocks of modern society. They are the raw materials for food, energy, cooking, and heating fuels, as well as durable goods such as clothing and furniture. However, in an environment of high crude oil prices, concerns are mounting about the economic costs of the world's reliance on non-renewable fossil fuels. Consequently, some of the world's biggest players in the energy and petrochemical industries are seeking to develop new feedstocks and products derived from bio-based materials. In addition to high costs associated with petroleum-based chemicals, environmental and sustainability issues are no longer fringe but mainstream concerns. This has helped generate a broad popular base of support for the development of bio-based fuels, feedstocks, chemicals, and renewable plastics.

Bio-naphtha has the potential to produce a wide range of chemicals, and thus can “green” more of the value chain than any other bio-based feedstocks or intermediates currently being targeted. This is because all of the key petrochemical building blocks can be produced using conventional naphtha steam cracking technologies. By substituting bio-naphtha for petroleum-derived naphtha, these products can serve as a platform for a bio-based renewable chemical industry.

Important recent developments have been focused on the development of bio-based feedstocks for polymers. Across the chemical industry, many polymer and polymer feedstock producers, especially those in high cost locations, are seeking lower cost feedstocks and are supportive of research into alternative feedstocks such as bio-based sources. The potential for the development of breakthrough bio-based technologies is driving many established global firms to invest in R&D in this area to ensure that they are not left behind.

This report, “Bio-Naphtha: Missing Link to the “Green” Chemicals Value Chain”, will address the following general topics:

- Technical feasibility of various bio-naphtha production technologies
- Comparative economics of developing bio-naphtha routes and subsequent steam cracking as compared to conventional petrochemical naphtha steam cracking
- Commercial status and industry developments
- Downstream potential and implications

Nexant's multi-client report will assess the technical, commercial, and economic status of producing bio-naphtha that is suitable for use as a steam cracker feedstock. Bio-naphtha has the potential to significantly supplement (and perhaps replace in certain scenarios) petrochemical feedstocks going forward. The study will consider critical elements of the bio-feedstocks supply chain in evaluating this potential.

For information regarding the upcoming “**Bio-Naphtha: Missing Link to the “Green” Chemicals Value Chain**” report, please contact [STMC@nexant.com](mailto:STMC@nexant.com).

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