



Upgrading Bio-crude Oils

The development of technologies for producing liquid hydrocarbon fuels from biomass and waste sources is attractive because extensive changes to engine technologies and transportation infrastructure are not required. It has been shown for many years that bio-oils can be produced by thermochemical conversion of biomass, but the quality of these bio-oil "crudes" suffers from elevated heteroatom content, especially oxygen. ISTC's B.K. Sharma and N. Rajagopalan have teamed up with Derek Vardon and Timothy Strathmann (Department of Civil and Environmental Engineering, UIUC) to develop a catalytic process to promote hydrodeoxygenation of bio-oil components, yielding more stable and energy-dense hydrocarbon products.

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Oils and Antioxidants in Beans

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Chemical Properties of Biocrude Oil from the Hydrothermal Liquefaction of Spirulina Algae, Swine Manure, and Digested Anaerobic Sludge

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Predicting Products from Algae

Upgrading Bio-crude Oils

Waste to Bio-oils

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