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Title: Biomass-derived Lignin to Jet Fuel Range Hydrocarbons via Aqueous Phase Hydrodeoxygenation

A catalytic process, involving the hydrodeoxygenation of lignin from dilute alkali pretreated corn stover catalyzed by a noble metal catalyst and an acidic zeolite, was demonstrated to be capable of producing jet fuel range hydrocarbons (>38% carbon yield). Experimental results showed that lignin-substructure-based hydrocarbons were mainly generated through the plausible cleavage of C–O–C bonds without disrupting the C–C linkages in the lignin substructure.