

Title: Renewable acrylonitrile production

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Biomass conversion to fuels, chemicals, and materials has the potential to offset significant petroleum usage and represent a more sustainable approach to manufacture everyday products. To that end, we focus on developing integrated processes from sugars to both direct and functional replacement products through the combination of biological and chemo-catalytic processes. This talk will focus on the production of acrylonitrile from the biologically derived intermediates 3-hydroxypropionic acid and lactic acid through new catalytic transformations that exhibit significant process advantages over standard propylene ammoxidation.