

COLLOQUIUM

GREEN CHEMISTRY AND BIOMASS VALORIZATION FOR THE PRODUCTION OF HIGH ADDED VALUE CHEMICALS AND PRODUCTS

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Abstract: Escalating costs and depletion of fossil fuel reserves have prompted a shift towards investigating alternative sources for chemicals and fuels, with biomass emerging as a promising candidate. By integrating Green Chemistry principles, biomass valorization processes are optimized to yield a diverse range of high-value products, including fuels, chemicals, and materials such as polymers. These processes can establish biorefineries utilizing feedstock biomass, often categorized as waste, or alternatively, they can be integrated into pre-existing conventional refineries, when compatibility and feasibility criteria are met. Sustainability and the mitigation of negative environmental impacts must be the leading considerations in developing and implementing any biomass conversion processes. The seminar will explore the biomass fractionization, providing an in-depth look at its significance in driving sustainability and sparking innovation within the chemical industry.

