Chemical & Environmental Engineering

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Production of Next Generation Biofuels From Lignocellulosic Biomass

Currently, biofuels such as ethanol are produced largely from grains, but there is a large resource (estimated at more than a billion tons per year) of plant biomass that could be utilized as a renewable, domestic source of liquid fuels. The development of cost-effective and energy-efficient processes to transform the cellulosic content of biomass into fuels is hampered by significant roadblocks, including the lack of specifically developed energy crops, the difficulty in separating biomass components, low activity of enzymes used to deconstruct biomass, and the inhibitory effect of fuels and processing byproducts on organisms responsible for producing fuels from biomass monomers. Two new institutes at Berkeley are addressing these challenges; the DOE-supported Joint BioEnergy Institute and the Energy Biosciences Institute supported by BP. The research objectives and progress at both these institutes will be described.

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Friday April 2, 2010
9:30 - 10:30 AM
Bourns A265
Refreshments at 9:15 AM