

Current status on advanced lignocellulose conversion to bioethanol and higher alcohols as biofuels

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Significant advances have been achieved in the past several years in all aspects of lignocellulose conversion into ethanol. Companies such as Beta-Renewables/Biochemtex (Crescentino, Italy), Inbicon/Dong Energy (Kalundborg, Denmark), Abengoa (Babilafuente, Spain), Clariant (Straubing, Germany) in Europe; Abengoa (Hugoton, Kansas), Dupont (Nevada, Iowa) and POET-DSM (Emmetsburg, Iowa) in USA; Iogen Corporation in Canada; GranBio (Alagoas) and Raízen (Piracicaba) in Brazil, are giving the first steps as major players to commercialize cellulosic ethanol. The existent commercial, demonstration and pilot plants are essential industrial platforms to overcome bottlenecks and barriers to full commercialization of 2G bioethanol in the near future.

This talk shall give an overview of challenges and also some of the recent achievements on improving the lignocellulosic ethanol and higher alcohols production as biofuels for transportation sector.