**Abstract**

The next generation of biorefineries to be developed will need to address a much stricter set of performance parameters including the utilization of nonfood biomass, increased energy efficiency and reduced net CO2 footprint. To address these issues understanding and controlling plant cell wall chemistry during plant growth, pretreatment and enzymatic deconstruction takes on a much greater importance. Professor Ragauskas will review how changes in plant cell wall structure can influence today and tomorrow’s cellulosic biorefineries and how this knowledge can be used to improve the overall efficiency of cellulosic biofuel production.

**Biography**

Professor Arthur Ragauskas holds the Fulbright Distinguished Chair in Alternative Energy and a Fellow of the International Academy of Wood Science and TAPPI.

Professor Ragauskas received his Ph.D. from the University of Western Ontario in 1985 as a National Science and Engineering Research Council of Canada Doctoral Fellow. He has been an invited Visiting Professor at Universidade da Beira Interior, Portugal; Chalmers University of Technology, Sweden; Royal Institute of Technology/STFI, Sweden and South China University of Technology, China.

His research program at Georgia Institute of Technology is seeking to understand and exploit innovative sustainable lignocellulosics. His research activities are directed at developing innovative processes for converting lignocellulosics into innovative biomaterials and biofuels.

Professor Ragauskas is program leader for a Georgia Tech Focused Research Program in Biofuels, BioPower and Biomaterials. In addition, he is Theme Leader for the Georgia Tech, Imperial College London and Oak Ridge National Laboratory AtlanTICC Alliance in Biomass to BioFuels, BioProducts and BioPower program and Team Leader for an industrial consortium program titled Fiber Modification/Fiber Fiber Bonding.