

DEPARTMENT OF MOLECULAR SCIENCE AND NANOSYSTEMS

Seminars of the PhD Programme in Chemistry



Università
Ca' Foscari
Venezia

Examining the Structural Chemistry of Biomass Polymers

July 10th, 2019 at 12:00 Room Delta 0A

Abstract.

Early in the lecture, an effort to bring to light the structural challenges of wood anatomy will be described. Furthermore, the vital structural features of Cell wall polymers will be examined with emphasis on their chemistry that defines and connects to their large scale processing. More specifically, we will examine the chemistry of carbohydrates and their behavior in acidic & basic media. The lecture will conclude with an account that describes the biosynthesis of lignin.

Large scale Biomass Processing Chemistry

July 11th, 2019 at 12:00 Room Delta 0A

Abstract.

The chemistry already presented earlier will be applied in revealing the choices the industry is making in delignifying wood and making white and strong paper products. Specifically, issues such as bond lability within lignin that lead to its selective degradation using different nucleophiles will be described. Finally the oxidation chemistry applied to selectively attack lignin over carbohydrates will be described.

Prof. Dimitris S. Argyropoulos

Department of Forest Biomaterials North Carolina State University

L' organizzatrice
prof.ssa Claudia Crestini

il vice-Coordiatore
prof. Alessandro Scarso

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