Ciclo de Conferencias del CENIM

**Environmentally friendly coatings for improved
stainless steel corrosion resistance from
biorefinery side streams**

14 MAY

Ben Wilson

Aalto University School of Chemical
Technology (Finland)

12:30h

Sala de Conferencias

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The seminar will be focus on the potential of lignin from Biorefinery side streams as a sustainable and environmentally friendly coating for corrosion protection. For this, the results obtained about the effect of two distinct types of lignin-based coatings on SS 316L corrosion resistance will be showed and discussed.

The surface characteristics of these coatings analysed by different techniques (AFM, FTIR) and the corrosion resistance of the obtained surfaces studied by electrochemical methods show that the presence of a lignin coating leads to an increase in surface wettability, whilst decreasing the measured corrosion current density of the metal by 2-3 orders of magnitude. This point out lignin coatings as a possible candidate for medical implant applications, among others.

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