

# Oral Presentation

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## Cellulose Powder from Biomass Waste of Olive Industry

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### Abstract

In the present work cellulose powder was extracted from olive industry solid waste and then converted into cellulose acetate. The cellulose powder was extracted from olive industry solid waste by kraft pulping process and multistep bleaching sequences. An elemental chlorine-free chemical bleaching sequence chlorine dioxide (D)-cold caustic extraction (E)-hypochlorite (H)- hydrogen peroxide (P) was used. Cellulose powder was obtained in about 35 % yield. The extracted cellulose and cellulose acetate made from thereof were extensively characterized using Fourier transform infrared spectroscopy, electron microscopy sciences, gel-permeation chromatography/high-performance liquid chromatography, and viscometry. Our key finding in this study was that olive industry solid waste is a valuable source of cellulose powder and its derivatives. This is important, since our results show how lignocellulosic agricultural wastes could be utilized and converted into cellulose products with high value.