

LIGNOCELLULOSIC-BASED CARBON FIBERS FROM BIOFUEL PRODUCTION WASTES

*Veronica Calado*¹

Abstract

A precursor for carbon fibers with a great potential in Brazil is lignin obtained from biofuel production wastes. Lignin is a renewable material, non-toxic, that can be found in different biomasses. In Brazil, the most important biomasses are those from coconut, sugar cane bagasse, and paper industries. Biofuels can be obtained from different sources, such as vegetable oils and biomasses. Because of the concern about using food to produce fuels, there is an increasing interest in producing alcohol, called of second generation, from residual biomasses. Brazilian researcher are studying those processes by using sugar cane bagasse and paper industry waste. Lignin is a residue from this process and the objective of this paper is to use this lignin in order to obtain lignocellulosic-based carbon fibers that can be used in composite for different applications.

¹ UFRJ.