OBTENÇÃO DE COMPÓSITO FORMADO POR XEROGEL DE CARBONO E GRAFENO A PARTIR DE RESÍDUO INDUSTRIAL

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Abstract

Carbon xerogel, porous carbonaceous material, and carbon xerogel-graphene hybrids have been employed in electrochemical devices, supercapacitors and as electrocatalytic supports. In general, the production of this materials is based on complex and costly methods. This work aimed to obtain a material formed by carbon xerogel and graphene using a simple method, reusing a waste of paper and pulp industry, the black liquor. Through morphological, structural and electrochemical analyzes, it was found that the synthesis method employed allowed the incorporation of graphene in the carbon xerogel structure. Thus, the produced composite has promising characteristics for the use in electrochemical capacitors devices.

Palavras-chave: Xerogel de carbono, grafeno, compósitos