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# PHYSICO-CHEMICAL ANALYSIS OF COMPOSITE MATERIALS (ALGINATE-BENTONITE-ACTIVATED CARBON)

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**Abstract :** New low cost materials consisting of alginate, bentonite and activated carbon were prepared according to the ionic gelation method. Physical characteristics of composites were characterized by X-ray diffraction, Fourier transform infrared spectroscopy, surface measurement by Brunauer, Emmett and Teller method (BET), and morphological characterization by SEM. Alginate beads containing activated carbon and bentonite have been successfully applied for water treatment.

**Keywords :** encapsulation, composite beads, characterization.