Physico-chemical nanomaterials science

Characteristic of surface prope rties of composites with polysa charide and hydroxyapatite

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In recent years, intense researches are carried out on obtaining of bio-hydroxyapatite composites with desired biological, physical and mechanical properties. Hydroxyapatite and its composites are a group of interesting compounds with broad applications in medicine. Physical and chemical properties and biocompatibility with human tissues makes them a very attractive object of the in vivo and in vitro research [1, 2].

Samples - composites HAP /agar , HAP/chitosan ; H AP/chitosan/pectinFB300 ; HAP/ ALGNa /chitosan ; H AP/chitosan/DK were prepared using method of hydroxyapatite precipitation in the reaction of (CH 3 COO) 2 Ca and K 2 HPO 4 at the respective oxides . Then, they were subjected to the following analyses : SEM (scanning electron microscope) , ASAP (s urface area and porosimetry system) , DSC (d ifferential scanning calorimetry) , FTIR (**Fourier Transform InfraRed**) . Comparative studies of HAP sampl es and composite with polysaccharide by adsorption and desorption of nitrogen , scanning electron microscopy , d ifferential scanning calorimetry , have shown that in most cases composites have properties different than the hydroxyapatite and poly sa charide taken for the synthesis.

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