

Carbon Nanocomposites : Structure, Characterization and Environmental Application

Authors : Bensacia Nabila, Hadj-Ziane Amel, Sefah Karima

Abstract : Carbon nanocomposites have received more attention in the last years in view of their special properties such as low density, high specific surface area, and thermal and mechanical stability. Taking into account the importance of these materials, many studies aimed at improving the synthesis process have been conducted. However, the presence of impurities could affect significantly the properties of these materials, and the characterization of these compounds is an important challenge to assure the quality of the new carbon nanocomposites. The present study aims to develop a new recyclable decontaminating material for dyes removal. This new material consists of an active element based on carbon nanotubes wrapped in a microcapsule of iron oxide. The adsorbent is characterized by Transmission electron microscopy, X-ray diffraction and the surface area was measured by the BET method.

Keywords : carbon nanocomposite, chitozen, elimination, dyes

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020