

Bio-derived nanostructured carbon-based materials for electrochemical sensor applications

Sushma Dave

Jodhpur Institute of Engineering and Technology Mogra, Jodhpur (RJ), India-342048

Copyright: 2021 Ghaffar Memon A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Statement of the Problem: Biomass derived carbon material can act as an exclusive host template for newer electrodes which can enhance the performance of sensors. A cost effective viable production of strong, portable, sensitive and selective electrochemical sensing devices are the need of the hour for a biosensor and point of care device. It is carried out easily by bio-derived carbon structures that are synthesized by uncomplicated steps, from low-cost abundantly available renewable biomass. Depending on the properties of these new materials they can be integrated with the devices, various detection technologies can be used, where optical and electrochemical detection are the most popular. The technique is used to improve the surface properties so as to increase the electro-analytical behavior of working electrodes. This chapter includes the development of bio-based carbon materials and their application in electrochemical analysis.

Biography:

Antonio Fotia was born in Reggio Calabria, Italy in 1993. He received the M.S. degree in Environmental and Territorial Engineering from University of Reggio Calabria. Actually, he is Ph.D. student at the University of Reggio Calabria, and his research interests include the development, the synthesis and the characterization of nanostructured materials for energy and sensing applications and the development of portable instrument for test sensing.

Citation: Sushma Dave; Bio-derived nanostructured carbon-based materials for electrochemical sensor applications; May 22, 2021