Synthesis of Carboxylic Functionalized Multi Wall Carbon Nanotubes and Their Application for Static Charge Dissipative Fibers

Published On: December 17, 2016 | Pages: 025 - 028

Author(s): Waseem Khan, Rahul Sharma, PK Chaudhury, AM Siddiqui, Parveen Saini*

In the present study, multi wall carbon nanotubes (CNTs) were chemically functionalized by concentrated nitric acid refluxing for 8 hours to form acid functionalized CNTs (FCNTs). Fourier transformed infrared spectra reveal the formation of carboxylic acid (−COOH) functional groups on the surface of chemically treated CNTs. ...

Design of Peptide Models for -Hairpins and Equilibrating Helix-Hairpin Structures

Published On: May 04, 2016 | Pages: 015 - 017

Author(s): Chinnasamy Selvakumar*, Eashwarwark Vikram Reddy, Kesavanarayanan Krishnan Selvarajan, Nazeerullah Rahamuthullah and Muftha Mohamed Zarmouh

It is well established that synthetic peptides containing a centrally positioned Type-I or Type-II -turn can form well folded peptide hairpins (1). Earlier studies from this laboratory have established that D-Pro-Xxx segments nucleate -hairpin structures, with formation of a central Type-II -turn (2). ...

Review Article
Surface Enhanced Raman Scattering Spectroscopy for Pharmaceutical Determination

Published On: December 28, 2016 | Pages: 029 - 034

Author(s): Tawfik A Saleh*

The rapid growth of pharmaceutical industries worldwide demands continuous development of efficient analytical techniques that help not only to detect the presence of the molecules at extremely low concentration levels, but also to detect the structure. ...

Abstract View | Full Article View | DOI: 10.17352/2455-3492.000012

Non-Organic Dielectric Layers for Graphene and Flexible Electronics

Published On: October 13, 2016 | Pages: 018 - 024

Author(s): Antonova I V*

Future electronics technology is expected to develop from rigid to flexible devices, which requires breakthroughs in materials' properties, especially flexibility, in combination with desirable electrical insulating, semiconducting and metallic properties ...

Abstract View | Full Article View | DOI: 10.17352/2455-3492.000010

Nanotechnology and Nutraceuticals

Published On: January 06, 2016 | Pages: 009 - 012

Author(s): Swarnali Das Paul* and Divya Dewangan

This paper provides an insight of some of the growing number of nano-applications being researched and commercialized in nutraceuticals. Recently, number of applications in dairy and food processing, preservation, packaging and development of functional foods have become based on nanotechnology. Several critical challenges, including discovering of beneficial compound ...

Abstract View | Full Article View | DOI: 10.17352/2455-3492.000007
Short Communication

Nano-Confined Synthesis of Fullerene Mesoporous Carbon (C60-FMC) with Bimodal Pores: XRD, TEM, Structural Properties, NMR, and Protein Immobilization

Published On: January 05, 2016 | Pages: 001 - 008

Author(s): Mohammad A Wahab*, Farzana Darain#, Azharul Karim and Jorge N Beltramini*

Nanoconfined synthesized crystalline fullerene mesoporous carbon (C60-FMC) with bimodal pore architectures of 4.95 nm and 10-15 nm pore sizes characterized by XRD, TEM, nitrogen adsorption/desorption isotherm and solid-state NMR, and the material was used for protein immobilization. The solid-state 13C NMR spectrum of C60-FMC along with XRD, BET and TEM confirms the f ...

Editorial

Need to Explore Nanodelivery of Stem Cells with Multimodal Drug like Cerebrolysin for Effective Strategies for Enhanced Neuroprotection and Neurorecovery in Neurodegenerative Disorders

Published On: January 07, 2016 | Pages: 013 - 014

Author(s): Hari S Sharma, Dafin F Muresanu, José Vicente Lafuente, Ranjana Patnaik, Z Ryan Tian, Asya Ozkizilcik, Herbert Mössler and Aruna Sharma*

Central nervous system (CNS) is vulnerable to various kinds of physical, chemical, metabolic or age-related insults leading to neurodegeneration. Neurodegenerative diseases either caused by aging or following trauma to the CNS results in misery for large number of people across the Globe involving high social costs for them to maintain a good life [1]. ...