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In this issue

Research Article

Open Access Research Article PTZAID:IJNNN-10-167

Preparation of nanoxylan from wheat straw

Published On: December 31, 2024 | Pages: 088 - 091

Author(s): Muhammad Sheraz, Xiao-Feng Sun* and Adeena Siddiqui

In the present study, attention has been focused on the preparation of nanoxylan from wheat straw, and a simple and scale-up method for the synthesis of high-purity nanoxylan from wheat straw was presented. This preparation method was performed in a series of steps including alkaline peroxide extraction, ethanol precipitation, and freeze-drying. These steps ensure hig ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000067

Open Access Research Article PTZAID:IJNNN-10-166

Application of Polymer Sheets with Anchor Ribs in the Repair and Reconstruction of Reinforced Concrete Water Supply Storage Structures

Published On: September 30, 2024 | Pages: 081 - 087

Author(s): Biryukov Alexander Nikolaevich*, Biryukov Yuri Alexandrovich and Sargan Dmitry Leonidovich

The conducted studies have shown that no optimal and effective solution would ensure reliable operation throughout the entire service life of tank structures. The search for effective and innovative technical solutions in this area is a pressing issue. The study aims to determine an effective material for providing secondary protection of a reinforced concrete structu ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000066

Open Access Research Article PTZAID:IJNNN-10-165

Method for Measuring Apparent Densities of Zeolite Nanopowders using Piezoelectric Energy

Published On: September 07, 2024 | Pages: 073 - 080

Author(s): Jin Sun Cha*, Tae Woo Kim, Yeon Sook Lee, Byeong Kon Kim and Soo Kwan Jang

This study investigated factors influencing the flowability of zeolite using three types of commercial zeolites with low flowability – Zeolite-beta, Zeolite-Y, and ZSM-5 - and manufactured a device applying piezoelectric energy to measure their apparent density. Zeolite properties such as flow function (FF) and cohesion by Powder Rheometer, elemental analysis by XRF, ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000065

Open Access Research Article PTZAID:IJNNN-10-164

Development of High Strength and Super Electrical Conductive Cu-3Ti-2Si-1.5Ni-xNb Alloys

Published On: July 26, 2024 | Pages: 068 - 072

Author(s): Kingsley C Nnakwo*, Jeremiah L Chukwuneke and Paul C Okolie

The study explored the mechanical and electrical behavior of niobium-doped Cu-3Ti-2Si-1.5Ni alloys by Scanning Electron Microscopy (SEM), Energy-Dispersive Spectroscopy (EDS), micro-Vickers hardness, and electrical conductivity tests. The stir-casted alloys underwent solution treatment at 900 °C/5 h and cooled in air. Results showed that niobium additions led to signi ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000064

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Morphological Analysis of Nanocapsules Processed based on Deer Antler Extract

Published On: July 11, 2024 | Pages: 052 - 055

Author(s): Sevil Mehraliyeva*, Farah Madatli, Sevinj Musayeva, Betul Ceviz Sakar and Zeyneb Orhan

The research work is devoted to the acquisition of nanocapsules, which are one of the drug delivery systems, and their morphological analysis. In modern times, the development of new drug delivery systems from natural raw materials in the treatment and prevention of diseases of various origins is considered a priority issue of pharmacy. From this point of view, the pr ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000062

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Modification of the Structure and Mechanical Properties of Cu-30%Zn alloy with Cerium and Silicon

Published On: July 10, 2024 | Pages: 045 - 051

Author(s): Iyebeye KO, Nwambu CN* and Nnuka EE

This study investigates how the introduction of cerium and silicon influences the structure and mechanical characteristics of Cu-30%Zn alloy. The examined properties included tensile strength, hardness, and impact resistance. The tensile strength of the developed alloys was determined using an automated JPL tensile strength tester (Model: 130812) with a capacity of 10 ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000061

Review Article

Open Access Review Article PTZAID:IJNNN-10-163

Role of Nanomaterials in Pharmaceutical Preparation: A Review

Published On: July 18, 2024 | Pages: 056 - 067

Author(s): Mahendra Kumar Sahu* and Sandip Prasad Tiwari

Aim & objective: This study aims to explore the multifaceted applications of nanomaterials and assess their potential advantages and disadvantages. Understanding the different physicochemical properties of nanomaterials & excipients. Method: This study reviews current literature and research findings to compile a comprehensive overview of nanomaterials. Key aspects c ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000063