2025 | Volume Volume - 10 - Issue Issue - 1

In this issue

Research Article

Open Access Research Article PTZAID:IJNNN-10-160

Investigation of electrospinning parameters and fiber collection methods on morphology of thermoplastic polyester elastomer fibers

Published On: June 28, 2024 | Pages: 035 - 044

Author(s): Rumeysa Betul Aydogdu, Mukaddes Sevval Cetin, Hatice Aylin Karahan Toprakci* and Ozan Toprakci*

Electrospinning is an easy and simple process for the preparation of ultrafine fibers with tunable morphology. Thermoplastic Elastomers (TPEs) are engineering polymers with an elastomeric nature that can be processed as thermoplastics. They can be classified based on their chemical structure and polyester-based TPEs are counted as high-performance materials due to the ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000060

Open Access Research Article PTZAID:IJNNN-10-159

Construction of composites for medical purpose based on pyrogenic silica with immobilized succinic acid and their properties

Published On: June 12, 2024 | Pages: 023 - 034

Author(s): Tetyana V Krupska, Mariia I Terebinska*, Nataliia Yu Klymenko, Nadiia V Vitiuk, Qiliang Wei, Jinju Zheng, Weiyou Yang and Volodymyr V Turov

The work is aimed at creating new, more effective drugs containing succinic acid. For this purpose, a methodology has been developed for transferring the active substance to a nano-sized state, in which the acid, due to an increase in its outer surface, is in the form of clusters, which, upon contact with the mucous membrane, can be more easily absorbed by the body. A ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000059

Open Access Research Article PTZAID:IJNNN-10-156

Insight into the microstructure and mechanical properties of Cu-20wt%Zn-xSn

ternary alloy

Published On: March 15, 2024 | Pages: 008 - 011

Author(s): Ifeanacho U Okeke, Kingsley C Nnakwo* and Eugene E Nnuka

The main objective of this research is to study the grain refinement and improved trend in mechanical properties of brass (Cu-20wt%Zn) doped with tin. Tin was added in concentrations of (x: 0.1, 0.3, 0.5, 0.8, and 1wt%). The alloy samples were produced by permanent die casting and machined to the required dimensions for the structural analysis and mechanical tests. Me ...

Abstract View | Full Article View | DOI: 10.17352/2455-3492.000056

Open Access Research Article PTZAID:IJNNN-10-155

Hydrogen production from sodium borohydride using Co nanoparticles

Published On: March 15, 2024 | Pages: 001 - 007

Author(s): Rukiye Öztekin and Delia Teresa Sponza*

In this study, hydrogen [H2(g)] production from sodium borohydride (NaBH4) using cobalt (Co) nanoparticles (NPs) was investigated with a hydrolysis process. Optimum experimental conditions were examined at different hydrolysis times (5, 10, 20, 30, 40, 50, 60, 70, 80, and 90 min), at different hydrolysis temperatures (25, 35, 45, and 65oC), and at increasing Co NPs na ...

Abstract View | Full Article View | DOI: 10.17352/2455-3492.000055

Review Article

Open Access Review Article PTZAID:IJNNN-10-158

Scaffold-based microsphere in drug delivery system

Published On: May 11, 2024 | Pages: 016 - 022

Author(s): Girja Sharma*, PK Sharma and Md Aftab Alam

Microspheres are free-flowing powders having a synthetic and natural polymer. A targeted drug delivery system can overcome some of the problems of conventional therapy and enhance the therapeutic efficacy of the drug. This is a biodegradable and non-biodegradable efficacy of a given drug. There are various approaches to delivering a therapeutic substance to the target ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000057

Mini Review

Open Access Mini Review PTZAID:IJNNN-10-157

Silk Fibroin Nanoparticles (SFNs) for nanoencapsulation of bioactive molecules

Published On: March 19, 2024 | Pages: 012 - 015

Author(s): Kheiria Hcini*

Silk Fibroin Nanoparticles (SFNs) have become a reliable and effective biomaterial for nanoencapsulation in several fields such as food, biocosmetics, and medical products due to their physicochemical characteristics. Recently, it has also been developed for application in biomaterials and regenerative medicine, also for cellular nanoencapsulation, and drug delivery s ...

Abstract View Full Article View DOI: 10.17352/2455-3492.000057