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In this issue

Research Article

Open Access Research Article PTZAID:OJC-7-126

Chemical and physical stability of selected drugs for aerosol therapy with Sirmione thermal water

Published On: July 10, 2021 | Pages: 029 - 033

Author(s): Francesco Saverio Robustelli della Cuna*, Carlo Sturani, Sarah Galfrè, Luisa Gervasio, Cristina Sottani and Elena Grignani

In this work, we investigated the chemical and physical stability of ambroxol, beclomethasone dipropionate, budesonide and N-acetylcysteine after dilution with Sirmione thermal water, stored in ampoules for aerosol, at room temperature. The chemical stability of all active drugs was evaluated by Ultra-High-Performance Liquid Chromatography tandem mass spectrometry (UH ...

Abstract View Full Article View DOI: 10.17352/ojc.000026

Open Access Research Article PTZAID:OJC-7-125

Preparation of Aluminium dodecaboride (AlB12) powder by Self-propagating High-temperature Synthesis (SHS)

Published On: February 18, 2021 | Pages: 025 - 028

Author(s): Chao Wang*, Xiaoming Cao, Mengge Dong, Lu Zhang, Jianxing Liu, Xiaozhou Cao and Xiangxin Xue*

Self-propagating High-temperature Synthesis (SHS) process is used to prepare Aluminium dodecaboride (AlB12). The phase analysis results of preparing AlB12 with Al and B2O3 as raw materials show that under air and argon conditions, the self-propagating and acid-washed self-propagating powders all have -Al2O3 impurities when Mg, Al and B2O3 are used as raw materials. T ...

Abstract View Full Article View DOI: 10.17352/ojc.000025

Open Access Research Article PTZAID:OJC-7-123

Equalization principles in open subsystems, origins of information descriptors

and state-continuity relations

Published On: January 06, 2021 | Pages: 004 - 021

Author(s): Roman F Nalewajski*

The electronegativity-equalization at several hypothetical stages of chemical reactions is reexamined and phase-equalization in open substrates is explored. The equivalence of the energy and information reactivity criteria is stressed and local energy concept is shown to determine time-evolutions of wavefunction components. Independent sources of information content i ...

Abstract View | Full Article View | DOI: 10.17352/ojc.000023

Open Access Research Article PTZAID:OJC-7-122

A proposal on a catalyst for the reaction methane + water => methanol + hydrogen

Published On: January 05, 2021 | Pages: 001 - 003

Author(s): Ragnar Larsson*

Based on the concepts and vocabulary of the SET model of catalysis a discussion is performed on what properties should characterize a catalyst promoting a reaction such as the one in the title, i.e., the production of methanol from methane in a non-oxidative environment. It is found that the n1 vibration of water (3652 cm-1) and the ny4 vibration of methane (1306 cm- ...

Abstract View | Full Article View | DOI: 10.17352/ojc.000022

Opinion

Open Access Opinion PTZAID:OJC-7-124

Biofuels and biochemicals from biomass

Published On: February 11, 2021 | Pages: 022 - 024

Author(s): Indra Neel Pulidindi and Aharon Gedanken*

Among various renewable energy sources, namely, biomass, solar, wind, hydrothermal and geothermal, biomass standout as an environmentally benign, sustainable and an immediate substitute to fossil based fuels. This is due to the abundance of the carbon source in the form of cellulose in the biomass. Cellulose is the major chemical constituent of terrestrial biomass (40 ...

Abstract View Full Article View DOI: 10.17352/ojc.000024

Perspective Study

Open Access Perspective Study PTZAID:OJC-7-127

Nano porous systems for storing hydrogen-based clean fuel

Published On: December 14, 2021 | Pages: 034 - 034

Author(s): Harsh Prashar*

Rapid growth in population, Concerns about the industrial revolution, environmental and energy issues are growing, and are urging the use of clean, renewable energy sources to ameliorate the dire situation. Hydrogen is an ideal synthetic fuel because it is light, very broad, and is an oxidation product (water), i.e. environmentally friendly, but storage problems remai ...

Abstract View Full Article View DOI: 10.17352/ojc.000027