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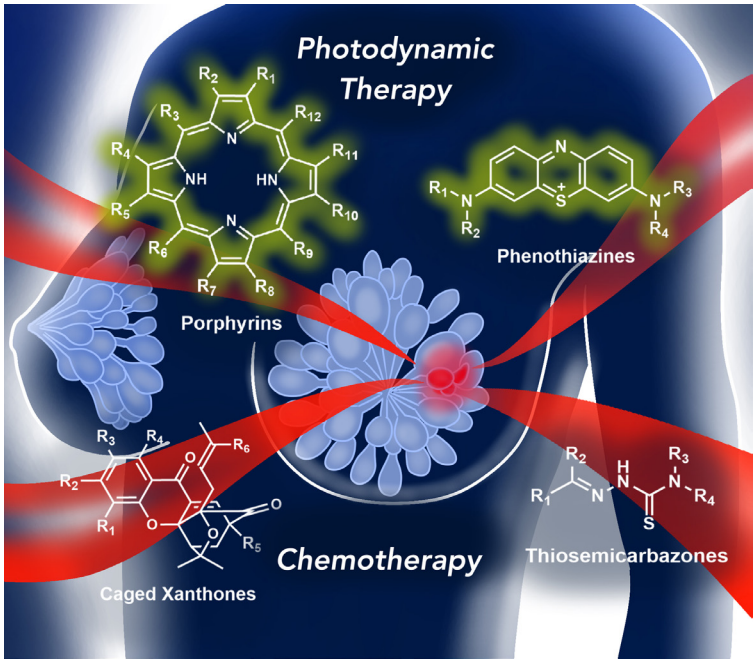
Cover Picture



This image represents a review article that summarizes the development and application of new compounds in the control of breast cancer. Three distinct chemical classes are highlighted: photosensitizers, caged xanthones, and thiosemicarbazones. The review emphasizes progress in drug development, covering design, structure-activity relationships, and the anti-cancer attributes of each chemical class, which represents potential alternatives to current treatment limitations. Details are presented in the Review **Advances in Breast Cancer Drug Discovery: A Review of Therapeutic Strategies and Studies Involving Photosensitizers, Caged Xanthones and Thiosemicarbazones Derivatives** by *Douglas D. S. Oliveira, Thibault J. W. Jacques Dit Lapierre, Fernanda C. Silva, Ieda V. Cunha, Rafael A. C. Souza, Patrícia A. Matos, Gustavo M. Almeida, Carolina G. Oliveira, Thaise G. Araújo, Tayana M. Tsubone and Celso O. Rezende Jr.* on e-20230128.

Contents

Editorial

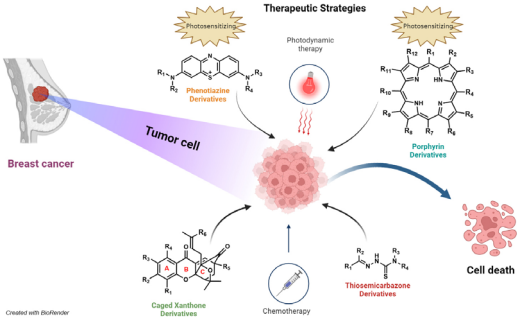
Account

Graphical Abstract
Scientific writing from first words to publication, as well as its challenges, including ethical aspects, are presented and discussed in this opinion manuscript.

https://dx.doi.org/10.21577/0103-5053.20230121

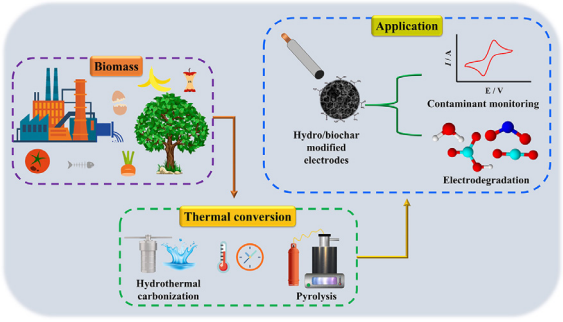
Reviews

Graphical Abstract
This review presents the principal aspects of the drug discovery process targeting breast cancer and highlights the most promising derivatives of caged xanthones and thiosemicarbazones explored in conventional therapy. Also, it presents details of photodynamic therapy and the action of photosensitizers as an alternative therapy for breast cancer.



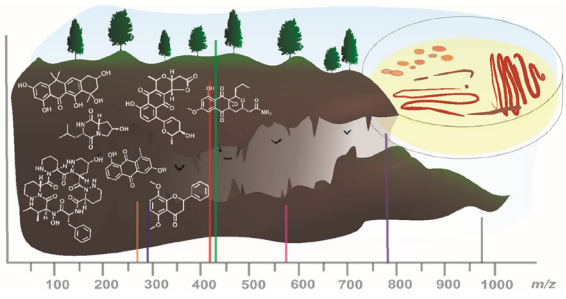
https://dx.doi.org/10.21577/0103-5053.20230128

Graphical Abstract
We discuss the use of biochars and hydrochars in electrodes applied in the electrochemical sensing and degradation of target compounds.



https://dx.doi.org/10.21577/0103-5053.20230143

Graphical Abstract
The cave ecosystem hosts a high diversity of microorganisms with complex strategies to survive in limited environmental conditions. Here, we highlight the biology and chemistry of cave microbiomes with multi-omics perspectives.



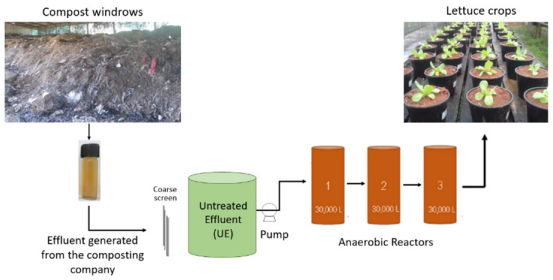
https://dx.doi.org/10.21577/0103-5053.20230148

Articles

e-20230085 1-9 **Anaerobically Treated Leachate from a Composting Plant: Characterization and Evaluation as a Biofertilizer**

Rita de Cássia M. Freire, Adalin Cezar M. de Aguiar, Mayra Aparecida Nascimento, Felipe S. O. Cruz, Ann H. Mounteer, Antônio Alberto Silva and Renata P. Lopes

SI online



Graphical Abstract
This work presents a compost effluent that has been successfully applied as biofertilizer in lettuce crops.

https://dx.doi.org/10.21577/0103-5053.20230085

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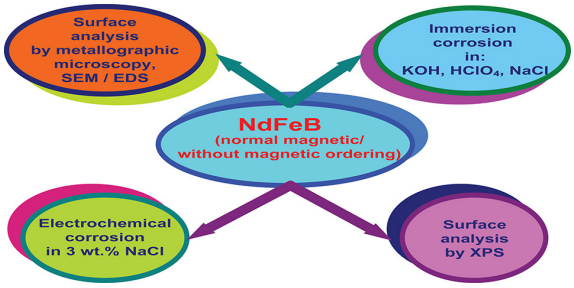
e-20230089 1-12 **Corrosion Behavior of NdFeB Magnets in Different Aqueous Solutions**

Ana-Maria Popescu, Jose M. Calderon-Moreno, Kazimir Yanushkevish, Alexei Aplevich, Olga Demidenko, Elena Ionela Neacsu and Virgil Constantin

SI online



Graphical Abstract
A comprehensive study on the corrosion behavior of NdFeB magnets in different electrolytes.

https://dx.doi.org/10.21577/0103-5053.20230089

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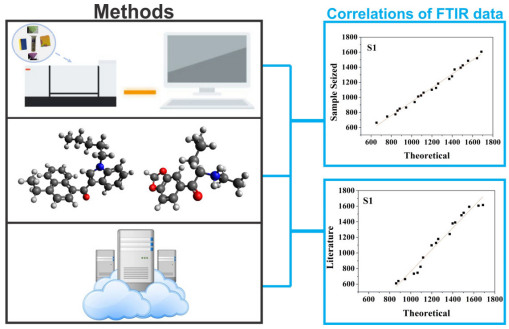
e-20230090 1-12 ***In silico* and Experimental Assessments Applied to Preliminary Identification of New Illicit Substances Structures**

Karen P. S. Lopes, Maria C. C. Lucena, Thiago Inacio B. Lopes, Ámison R. L. da Silva, Leonardo P. da Silva, Norberto K. V. Monteiro, Pedro de Lima-Neto and Nágila M. P. S. Ricardo

SI online



Graphical Abstract
Study of infrared *in silico* data as a standard database in preliminary method for new synthetic seized drugs.

https://dx.doi.org/10.21577/0103-5053.20230090

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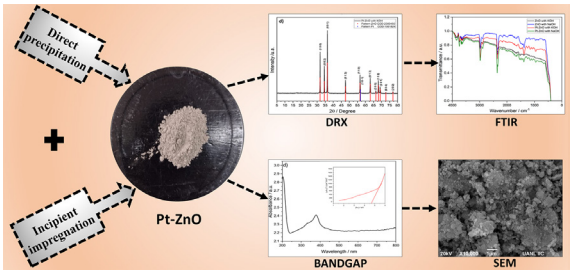
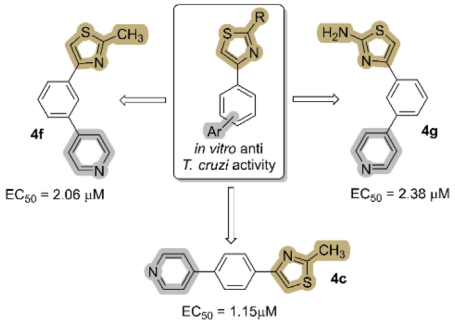
e-20230092 1-13 **Microstructural, Morphological, and Optical Study of Synthesis of ZnO and Pt-ZnO Nanoparticles by a Simple Method Using Different Precipitating Agents**

Ruby S. Gines-Palestino, Carlos Montalvo-Romero, Guadalupe Luna-Solano, Luis P. Amador-Gómez and Denis Cantú-Lozano



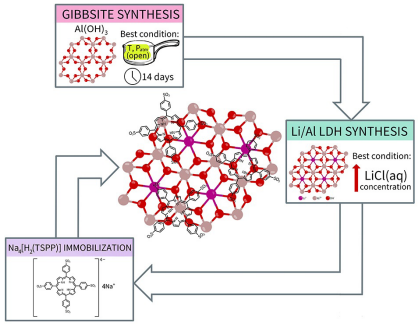
Graphical Abstract
In this research, ZnO and Pt-ZnO were synthesized by a simple method using two different precursors (KOH and NaOH).

https://dx.doi.org/10.21577/0103-5053.20230092



Graphical Abstract
Synthesis of pyridyl-substituted arylthiazoles with low toxic potential and highly active against *Trypanosoma cruzi* (half maximal effective concentration (EC_{50}) = 1-2 µM).

https://dx.doi.org/10.21577/0103-5053.20230094

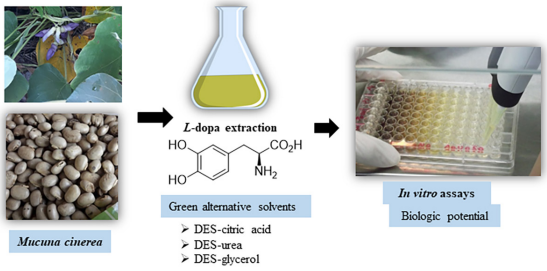


Graphical Abstract
Some of the synthesis methods already reported for aluminum(III) hydroxide compounds with layered structure of the gibbsite polytype are revisited. The obtained gibbsite material was used as an Al precursor for the synthesis of a lithium/aluminum layered double hydroxide (LDH) and the LDH was used for the immobilization of an anionic porphyrin.

https://dx.doi.org/10.21577/0103-5053.20230095

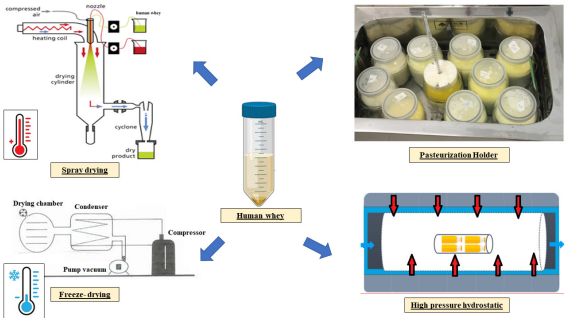
Graphical Abstract
Carbonyl compounds can be present in beer in free and bound forms. All craft beer samples showed bound-carbonyl compounds, which can negatively influence on the quality of the beverage.

https://dx.doi.org/10.21577/0103-5053.20230100

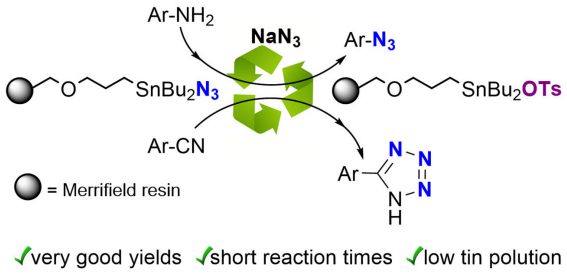


Graphical Abstract
Levodopa (*L*-dopa) of *Mucuna cinerea* was extracted using deep eutectic solvents (DES). Three extracts *L*-dopa/DES presented control of Parkinson's disease in human glandular kallikrein-1 gene (hGK3) and G protein-coupled receptor kinase-6 gene (GRK6).

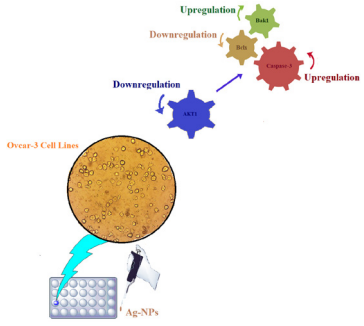
https://dx.doi.org/10.21577/0103-5053.20230101



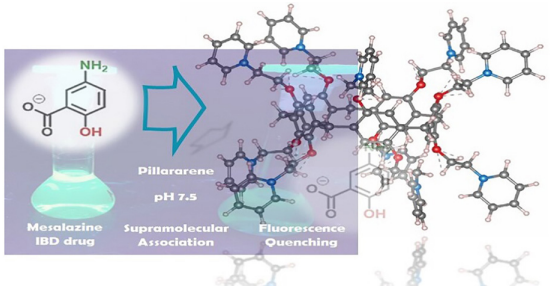
https://dx.doi.org/10.21577/0103-5053.20230102



https://dx.doi.org/10.21577/0103-5053.20230104



https://dx.doi.org/10.21577/0103-5053.20230105



https://dx.doi.org/10.21577/0103-5053.20230106

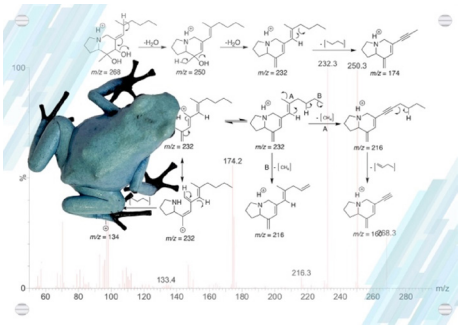
Short Report

e-2023099
1-5

Gas-Phase Fragmentation Reactions of Protonated Pumiliotoxin (+)-251D and Allopumiliotoxin (+)-267A in ESI-MS/MS

Basil Minder, Jacqueline N. Mendonça, Taran Grant and Norberto P. Lopes

SI online



Graphical Abstract

The analysis of gas phase fragmentation reactions in electrospray ionization tandem mass spectrometry (ESI-MS/MS) allowed for the first time to elucidate all ions originating from protonated pumiliotoxin (+)-251D and allopumiliotoxin (+)-267A.

https://dx.doi.org/10.21577/0103-5053.20230099