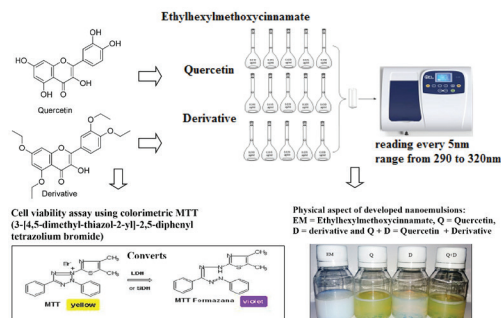


365 Preparation and characterization of a quercetin-tetraethyl ether-based photoprotective nanoemulsion

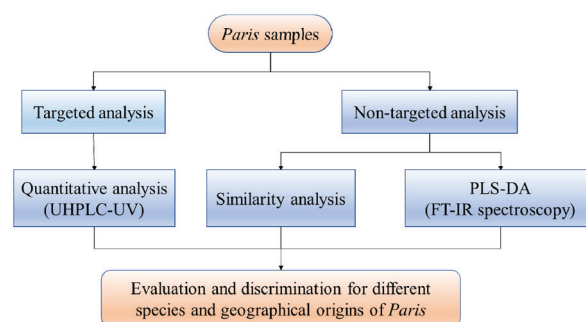
Marlucy da C. Gonçalves, Viviane M. R. dos Santos, Jason G. Taylor, Fernanda B. Perasoli, Orlando D. H. dos Santos, Ana C. S. Rabelo, Joamyr V. Rossoni Junior, Daniela C. Costa and Thiago Cazati



Synthesis of Quercetin derivative, UV analysis, FPS calculation, photo stability and incorporation in a sun protection formulation.

371 Targeted and non-targeted analysis based on Ultra High Performance Liquid Chromatography and Fourier Transform Infrared Spectroscopy for *Paris* species of different geographical origins

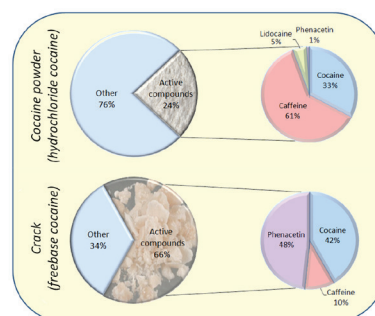
Yuangui Yang, Yanli Zhao, Ji Zhang, Shaobing Yang and Yuanzhong Wang



A method was developed and validated for evaluation of different species and geographical origins using targeted quantitative analysis and non-targeted FT-IR spectroscopy.

379 Evaluation of cocaine samples seized in the streets of the State of Rio de Janeiro, Brazil

Luíza D. Sant'Ana, Valeria C. de Sousa, Frances R. dos Santos, Bruno D. Sabino, Amadeu Cardoso, Marco Edilson F. de Lima and Rosane N. Castro



Differences in average composition of freebase cocaine and hydrochloride cocaine, showing that hydrochloride cocaine seized in the state of Rio de Janeiro is majorly composed of non-active compounds (diluent), while freebase cocaine is majorly composed of active compounds.

387 Monitoramento da composição em ésteres do biodiesel do óleo de amêndoa da macaúba (*Acrocomia aculeata* (Jacq.) Lodd. ex Mart.) em contato direto com o aço carbono e o aço carbono galvanizado

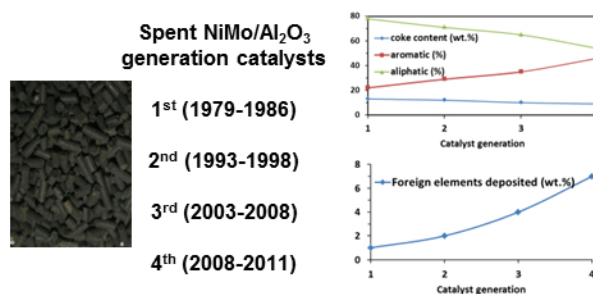
Cláudia E. D. Batista, José D. Fabris, Luis C. D. Cavalcante, Vanny P. Ferraz, Benedito C. Andrade Junior, José D. Ardisson, Leandro R. de Lemos e Sandra M. Damasceno

Monitoring the composition in esters of the biodiesel prepared from the macaúba (*Acrocomia aculeata* (Jacq.) Lodd. ex Mart.) kernel oil put in direct contact with carbon steel and galvanized carbon steel.



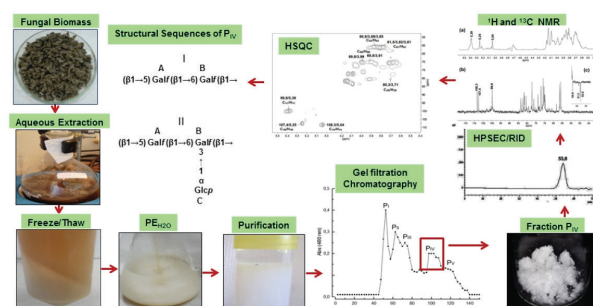
397 Characterization of several generations of NiMo hydropro-
cessing catalysts employed in the same hydrotreater
*Tatiana M. Pessanha, Carolina L. Quintanilha, Cristiano
N. da Silva and Julio C. Afonso*

The amount and variety of foreign elements deposited on NiMo/Al₂O₃ catalysts increased and coke became more aromatic in the most recent generations as expected from the more drastic HDS conditions and the quality of the crude diesel.

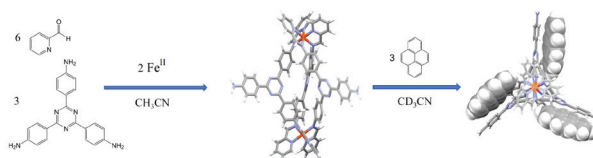


405 Caracterização química e avaliação da citotoxicidade de um heteropolissacarídeo isolado da biomassa do *Colletotrichum gloeosporioides*
Samara M. A. Alexandre, M^a de Lourdes C. da Silva, Ana F. D. Vasconcelos, Dalita G. S. M. Cavalcante, Aldo E. Job, Luciana G. Ferreira, Miguel D. Nosedá e Maria E. R. Duarte

A heteropolysaccharide with a main chain composed by β -D-galactofuranosidic units (1 $\rightarrow$ 5) and (1 $\rightarrow$ 6) linked with residues α -D-glucopyranosidic as a branch was isolated from *C. gloeosporioides* biomass. It did not present cytotoxic activity on CHO-K1 cells.

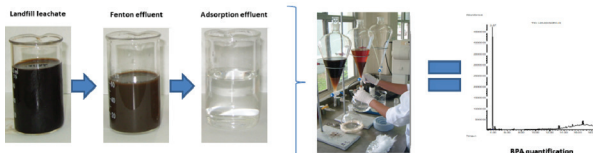


412 ¹H NMR study of the host-guest chemistry in a supramolecular helicate Fe^{II}L solution
Peng Jiang, Wen-Yuan Wu, Tie-Huan Tang, Zhi-Fan Chen, Yun-Cong Fang and Rong Wan



A novel supramolecular helicate $[\text{Fe}^{\text{II}}_2\text{L}_3]^{4+}$ from subcomponent self-assembly is subject to bind electron-rich aromatic pyrene guests via aromatic π - π interactions.

418 Removal of BPA from landfill leachates using fenton-
-adsorption process
*Liliana San Pedro-Cedillo, Roger I. Méndez-Novelo,
Emanuel Hernández-Núñez, Germán Giacomán-Vallejos
and A. Bassam*

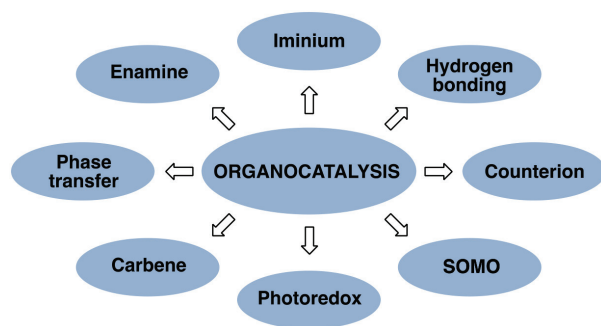


Effective use of the Fenton-adsorption process to degrade the BPA molecule in landfill leachates.

Revisão

- 425 Organocatálise enantiosseletiva: evolução e aspectos recentes
Fernanda G. Finelli, Bruno M. da S. Santos e Livia C. R. M. da Frota

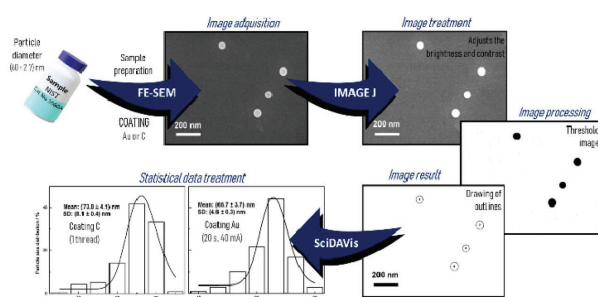
This tutorial review presents, in a concise way, a general and contemporary view of the rise of Enantioselective Organocatalysis in the Asymmetric Catalysis, following the evolution of the area from its versatile generic modes of catalyst activation.



Nota Técnica

- 447 Development of an automated method to perform a quantitative study of particle size distribution and the effect of a conductive layer in Scanning Electron Microscopy
Juan C. G. Barreto, Diego L. Tita and Marcelo O. Orlandi

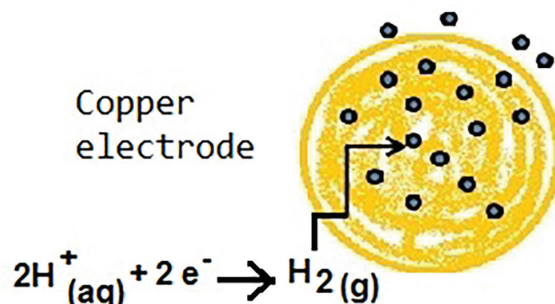
The figure shows the automatized method to determine the PSD of nanosphere by SEM. The results show that the method was well succeeded. In addition, Au and C deposition produce a thinner layer that affect the morphology, thus influenced the particle size.



Educação

- 453 Effect of the nature of the electrolyte and the nature of the interface on the hydrogen evolution potential: experiments for chemistry students
Silvia M^a L. Agostinho, Ruth F. V. V. Jaimes, Lucas Vairolette and Isis V. de S. Santos

Hydrogen evolution reaction on copper cathode in sulfuric acid solution by electrolysis.



- 458 Autoria coletiva em ambiente informatizado no Ensino Superior de Química
Erasmio M. dos S. Silva, Mikeas S. de Lima e Salete L. Queiroz

Authorship in a virtual learning environment with the participation of undergraduate chemistry students.



Assuntos Gerais

- 468 AITP 2019 - Ano Internacional da Tabela Periódica dos
Elementos Químicos
Henrique E. Toma

By showing the real elements in the Periodic Table, one can better envision their identities and characteristics, inviting us to access this wonderful Chemistry Portal.

