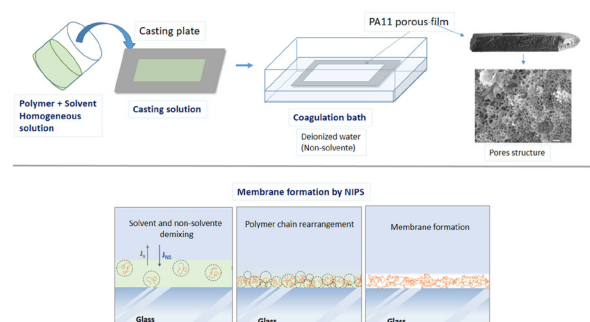


- 675 Polyamide 11 porous films by NIPS: the influence of miscibility and polymer crystalline formation in pores structure and morphology

Rayanne P. W. Lima, Thieres M. C. Pereira and Eloi A. da Silva Filho

<http://dx.doi.org/10.21577/0100-4042.20170725>

Non-Solvent Induced Phase Separation (NIPS): The demixing of solvent and non-solvent during bath coagulation and polymer precipitation to form membrane structure.

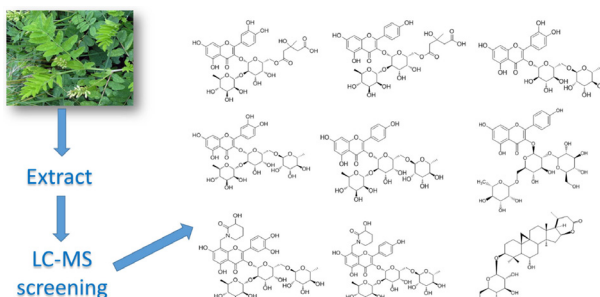


- 683 High resolution LC-MS/MS screening for secondary metabolites in bulgarian species of genus *Astragalus* L.

Aleksandar M. Shkondrov and Iliana N. Krasteva

<http://dx.doi.org/10.21577/0100-4042.20170730>

A rapid LC-MS/MS screening for secondary metabolites in crude extracts of *Astragalus* species was performed.

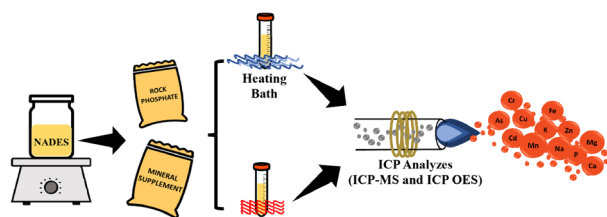


- 689 Solventes eutéticos naturais profundos (NADES) no preparo de amostras de rocha fosfática e suplemento mineral para determinação elementar por técnicas de plasma

Ana P. R. Santana, Daniel F. Andrade, Taciana G. S. Guimarães, Clarice D. B. Amaral, Andrea Oliveira, Ana R. A. Nogueira e Mario H. Gonzalez

<http://dx.doi.org/10.21577/0100-4042.20170723>

Two different natural deep eutectic solvents (NADES) were synthesized. They were then used as solvent in ultrasound-assisted extraction (UAE) and heating bath extraction of rock phosphate and mineral supplement samples before elemental analysis by ICP OES and ICP-MS.

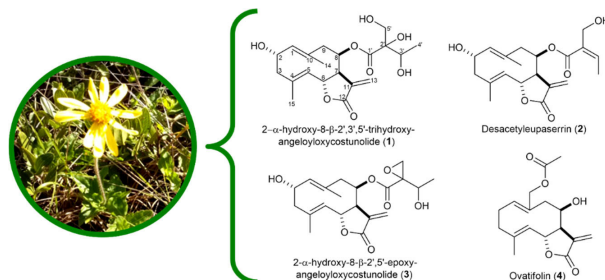


- 696 Isolation and characterization of sesquiterpene lactones from *Calea uniflora* Less. and their leishmanicidal and trypanocidal activities

Tamires C. Lima, Rafaela J. Souza, Milene H. Moraes, Saulo S. Matos, Fernando H. O. Almeida, Mário Steindel and Maíque W. Biavatti

<http://dx.doi.org/10.21577/0100-4042.20170728>

Isolation and characterization of the sesquiterpenes lactones 2 α -hydroxy-8 β -2',3',5'-trihydroxy-angeloyloxycostunolide (1), desacetyleupaserrin (2), 2 α -hydroxy-8 β -3'-hydroxy-2',5'-epoxyangeloyloxycostunolide (3) and ovatifolin (4) from leaves of *Calea uniflora*.

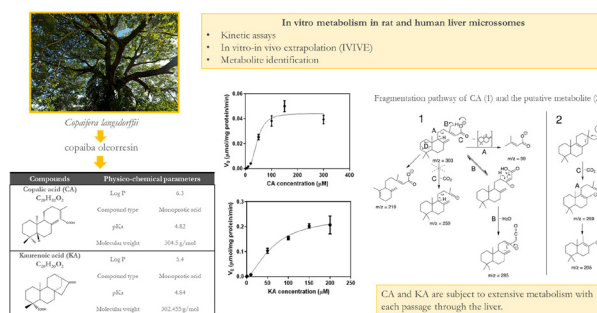


700 *In vitro* metabolism of copalic and kaurenoic acids in rat and human liver microsomes

Mariana Mauro, Rodrigo M. da Silva, Michel L. de Campos, Anelize Bauermeister, Norberto P. Lopes and Natalia V. de Moraes

<http://dx.doi.org/10.21577/0100-4042.20170724>

In vitro metabolism of the diterpenes copalic and kaurenoic acids of *Copaifera* sp in rat and human liver microsomes. The kinetic parameters and metabolites described here might support drug development and the traditional use.



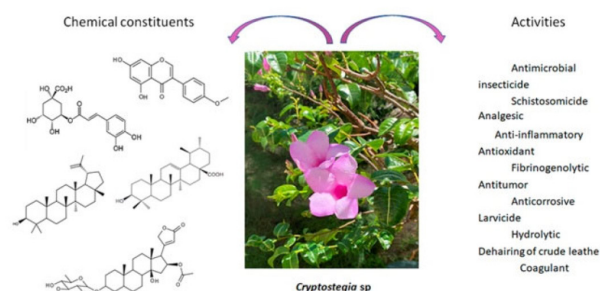
Revisão/Review

709 Gênero *Cryptostegia*: fitoquímica, atividades biológicas e aplicações industriais

Selene M. de Moraes, Hamanda B. Pinheiro, José V. Rebouças-Filho, Gessica S. Cavalcante e Oriel H. Bonilla

<http://dx.doi.org/10.21577/0100-4042.20170716>

Cryptostegia species are strong invasive plants causing damage to Carnauba trees in Northeastern Brazil, nevertheless, have several actions and bioactive compounds that suggest more detailed studies in relation to toxicity and management.

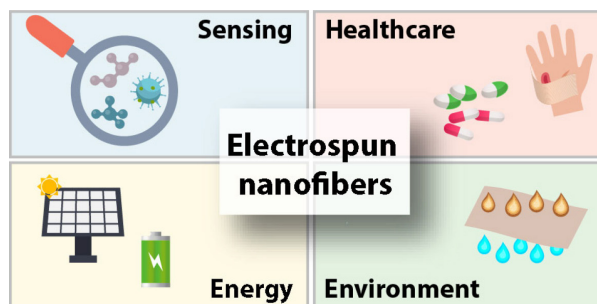


717 Nanofibras eletrofiadas e suas aplicações: avanços na última década

Luiza A. Mercante, Rafaela S. Andre, Juliana B. Macedo, Adriana Pavinatto e Daniel S. Correa

<http://dx.doi.org/10.21577/0100-4042.20170721>

This review provides a recent and comprehensive survey on the electrospinning technique and the most representative applications of electrospun nanofibers.

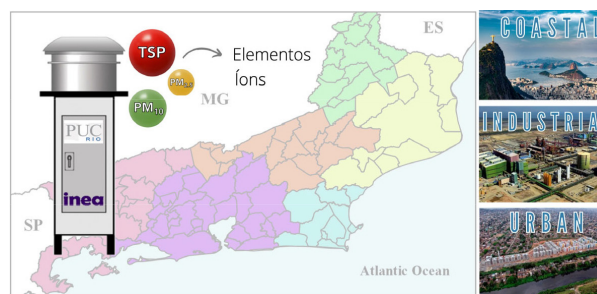


737 Avaliação da concentração e composição inorgânica do material particulado coletado no estado do Rio de Janeiro

Karmel Beringui, M^a Fernanda C. Quijano, Elizanne P. S. Justo, Luciana M^a B. Ventura e Adriana Gioda

<http://dx.doi.org/10.21577/0100-4042.20170717>

The state of Rio de Janeiro presents regions with different topography and land-use, which contribute in different ways to the particulate matter concentration and composition. Thus, air quality monitoring is an important tool to understand the air pollution that the population is exposed.



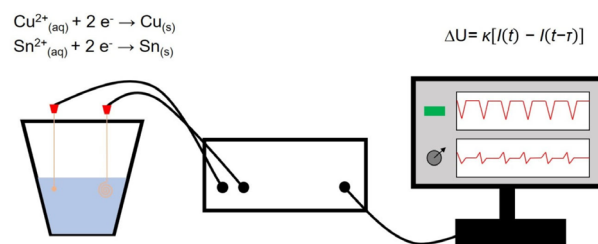
Nota Técnica/Technical Notes

- 755 Desenvolvimento de software e interface para o controle por retroalimentação atrasada em sistemas eletroquímicos

Eduardo Parma, Laura Menezes, Sidnei A. Baldin e Raphael Nagao

<http://dx.doi.org/10.21577/0100-4042.20170711>

A potentiostat is connected to both the Cu/Sn electrodeposition system and a computer. The electrochemical oscillations can be seen on the latter. The delayed feedback control equation is presented upon it, indicating the control application.

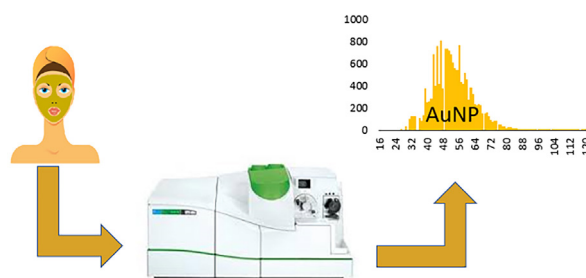


- 760 Analytical method validation for the identification and quantification of dissolved gold and gold nanoparticles in cosmetics products by single particle inductively coupled plasma mass spectrometry

Lisia M. G. dos Santos, Cristiane Barata-Silva, Santos A. Vicentini Neto, Mayssa A. Fonseca, Carolina D. Magalhães, Josino C. Moreira and Silvana C. Jacob

<http://dx.doi.org/10.21577/0100-4042.20170712>

Analytical method validation for the identification and quantification of dissolved gold and gold nanoparticles in cosmetics products by single particle inductively coupled plasma mass spectrometry.



Educação/Education

- 766 Dificuldades de ingressantes de um curso de licenciatura em química sobre conceitos da eletroquímica: um desafio para o ensino superior

Gabriela Venturi, Ermelinda S. Junckes, M^a da Graça M. B. Martin e Brenno R. M. Oliveira

<http://dx.doi.org/10.21577/0100-4042.20170756>

The graphical abstract represents the difficulties and misconceptions that chemistry undergraduates have with electrochemistry and possible challenge for higher education.



- 773 Dificuldades no ensino e na aprendizagem de química orgânica do ensino superior - estudo de caso em duas universidades federais

Natália B. Alves, Fábio A. Sangiogo e Bruno dos S. Pastoriza

<http://dx.doi.org/10.21577/0100-4042.20170708>

This research reports difficulties in teaching and learning organic chemistry in undergraduate Chemistry courses in two Federal Universities in Brazil.

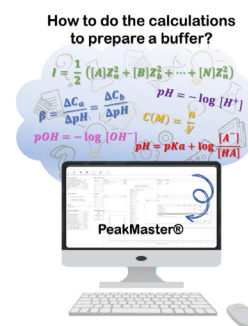


- 783 Cálculo e preparo de soluções tampão: guia completo usando o software PeakMaster®

Olivia B. de O. Moreira, Larissa dos A. Castro e Marcone A. L. de Oliveira

<http://dx.doi.org/10.21577/0100-4042.20170702>

Buffers are an important and widely used resource to keep unchanged the pH of solutions. In this work we offer a practical guide on how to calculate all the parameters required to prepare a buffer solution in addition to help anyone who searches for knowledge about this issue.



Assuntos Gerais/General Subject

- 792 ISO/IEC 17025: history and introduction of concepts

Anna L. R. Miguel, Renata P. L. Moreira and André F. de Oliveira

<http://dx.doi.org/10.21577/0100-4042.20170726>

In a complex market, assuring the quality of a service is strategic. For testing and calibration laboratories, the ISO/IEC 17025 proposes a Quality Management System (QMS) that supports this strategy, since it promotes the generation of traceable and reliable results.

