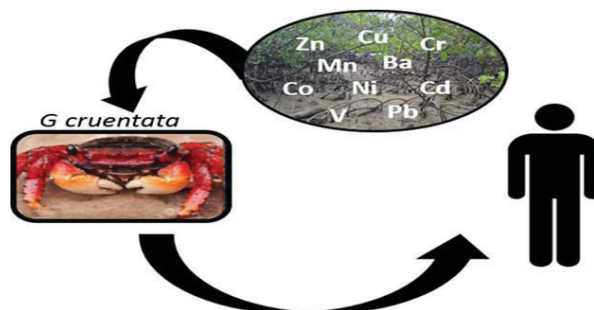


- 959 Distribuição de elementos traço em tecidos de *Goniopsis cruentata* (LATREILLE, 1803) capturados nos manguezais do sul da Bahia - Brasil e avaliação do potencial de risco no consumo

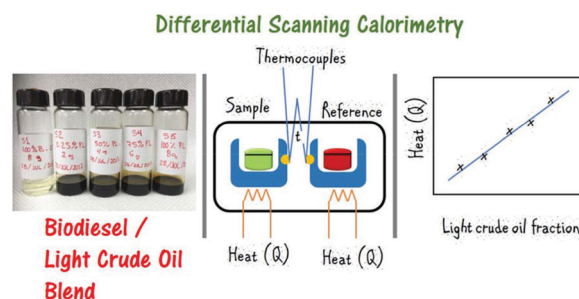
Luanna M. Carneiro, Danilo J. G. da Silva, Luan C. G. dos Reis, Daiane A. F. de Oliveira, Laís da C. Maciel, Karina S. Garcia, Sarah A. R. Soares e Antônio F. de S. Queiroz



The presence of selected metals in tissues of *G. cruentata* can represent a potential human health risk to the consumer.

- 969 Measuring the light crude oil (LCO) content in standard biodiesel/LCO blends by thermal analysis

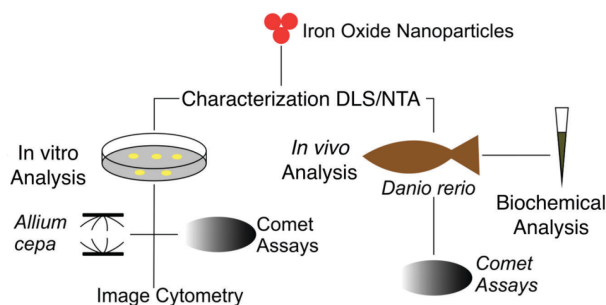
Luis Díaz-Ballote, Norberto U. García-Cruz, Emanuel Hernández-Nuñez, Andrea Castillo-Atoche, Gerardo González-García and Geonel Rodríguez-Gattorno



Differential scanning calorimetry (DSC) was demonstrated to be a helpful tool to determine the light crude oil (LCO) fraction in biodiesel/LCO blends. DSC results were validated with nuclear magnetic resonance (NMR).

- 974 Efeitos de nanopartículas comerciais de óxido de ferro (Fe_2O_3): citotoxicidade, genotoxicidade e estresse oxidativo

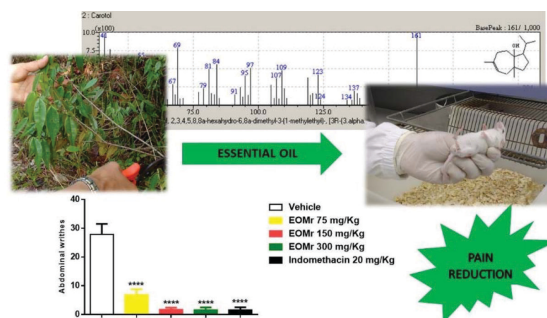
Tatiane B. Batista-Gallep, Tatiane Pasquoto-Stigliani, Mariana Guilger, Diogo T. Rheder, Tais Germano-Costa, Natalia Bilesky-José, Leonardo F. Fraceto, Cleoni dos S. Carvalho e Renata de Lima



This study shows toxicity results of commercial iron oxide nanoparticles.

- 982 Composição química e atividade antinociceptiva em modelo animal do óleo essencial de *Myrcia rostrata* DC. (MYRTA-CEAE)

Aline do N. Silva, Horácio F. Bomfim, Acsa O. Magalhães, Marilene L. da Rocha e Angélica M^a Lucchese

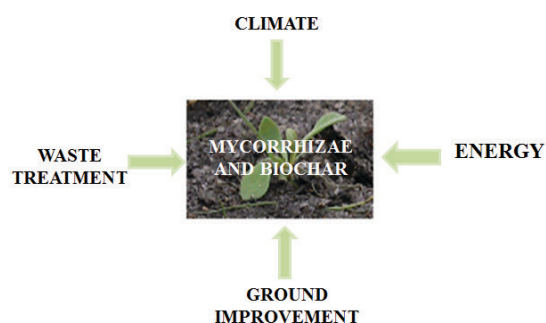


Antinociceptive potential of the essential oil obtained from fresh *Myrcia rostrata* DC. leaves evidenced by the reduction in the number of abdominal writhes induced by acetic acid in mice.

- 989 Espectroscopia fotoacústica para analisar a fertilidade de solos tratados com biochar e micorriza

Ellen C. T. de Matos, Luciana A. Rodrigues, Pamella de A. Souza, Renato V. da Silva e Roberto T. Faria Jr.

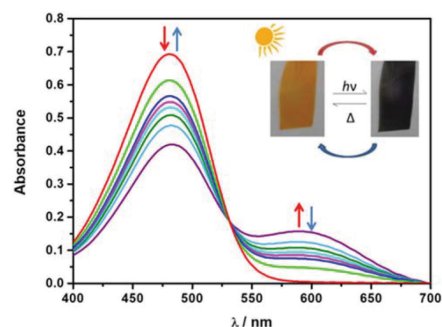
Soil substrates must exhibit physical and chemical properties in such way that a high capacity to supply the nutritional demand can be guaranteed, taking into account environmental standards.



- 999 Influência da rigidez do meio na cinética do fotocromismo de ditizonatos metálicos

Cristiane L. de Barros, Newton M. Barbosa Neto e Antonio O. T. Patrocínio

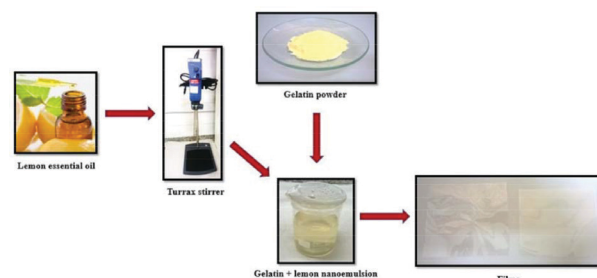
Spectral changes due to the isomerization of mercury dithizonate(II) in PMMA at 298 K.



- 1006 Influência da nanoemulsão de óleo essencial de limão em filmes à base de gelatina

Juliana C. Nunes, Pamela T. S. Melo, Fauze A. Aouada e Marcia R. de Moura

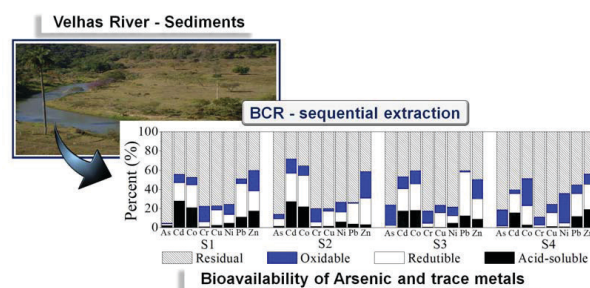
Filmogenic solution was obtained by stirring the lemon essential oil on the Turrax stirrer and adding gelatin powder in the nanoemulsion to form the films.



- 1011 Arsenic and trace metals in water and sediment of the Velhas River, Southeastern Iron Quadrangle region, Minas Gerais, Brazil

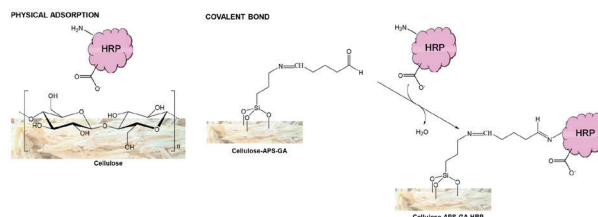
Danilo de C. Silva, Carlos R. Bellato, José de O. Marques Neto and Maurício P. F. Fontes

The Velhas River contains high amounts of arsenic and metals in water and sediment samples. BCR method was used to investigate its bioavailability in the sediment. All sediments samples presented As and metals associated with easily mobilized fractions.



1019 Imobilização de peroxidase de raiz forte em bagaço de cana-de-açúcar

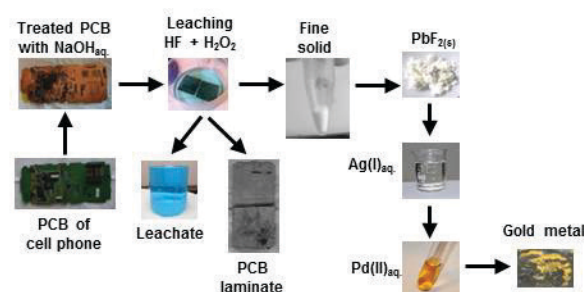
Monna Lisa B. Queiroz, Kennedy C. da Conceição, Micael N. Melo, Osmar Calderón Sánchez, Heiddy M. Alvarez, Cleide M. F. Soares e Alini T. Fricks



Immobilization of HRP on sugarcane bagasse by physical adsorption (ADS) and covalent bond (LC) on activated support by 2.5% (v/v) glutaraldehyde (GA).

1025 Recovery of lead and noble metals after processing printed circuit boards from cell phones by leaching with mixtures containing hydrogen fluoride

Walner C. Silva, Roger de S. Corrêa, Pedro R. Gismondi, Júlio C. Afonso, Rubens S. da Silva, Cláudio A. Vianna and José Luiz Mantovano



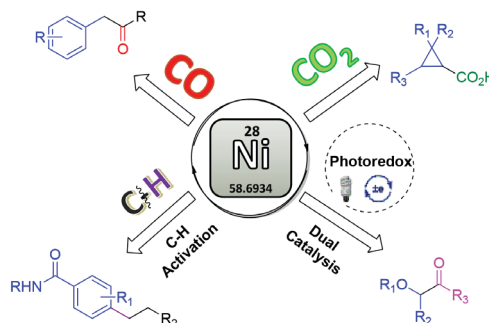
Hydrometallurgical process for printed circuit boards from cell phones using HF + oxidant mixtures under mild experimental conditions. Lead and noble metals were recovered from the insoluble matter.

Revisão

1033 Recentes avanços em reações orgânicas catalisadas por níquel

Danielle L. J. Pinheiro e Giovanni W. Amarante

This review covers some recent work by using Nickel catalysis. In this context, challenged organic transformations, synthetic applications and mechanism investigations are described.

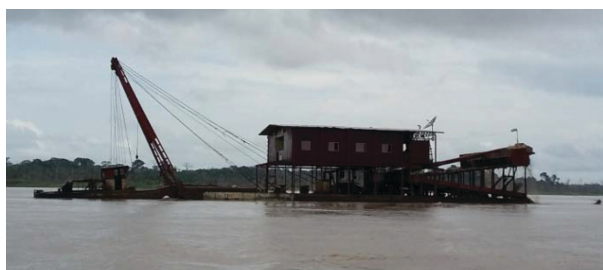


Nota Técnica

1055 Potencial exposição ao mercúrio atmosférico no ambiente ocupacional de comércios de ouro de Porto Velho, Rondônia

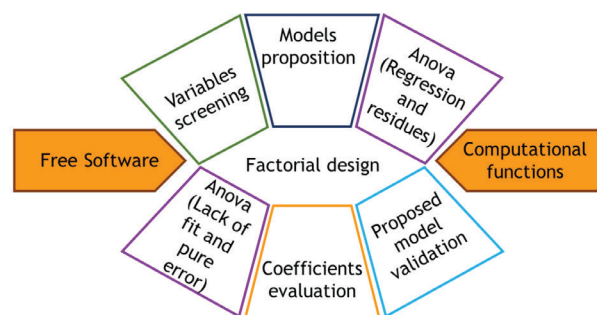
Leidiane C. Lauthartte, Diego F. Gomes, Marília H. Mussy, Ígor B. B. de Holanda, Ronaldo Almeida e Wanderley R. Bastos

Alluvial gold mining dredge on the Madeira river. The gold extracted by the dredges is taken to the city of Porto Velho for commercialization, where the its smelting and Hg exposure occurs in the atmosphere of specialized stores.



- 1061 Aplicação de programa computacional livre em planejamento de experimentos: um tutorial

Fabiola M. V. Pereira e Edenir R. Pereira-Filho



Factorial design: use of free software and videos for better data interpretation.

Educação

- 1072 O espaço da Química nos centros e museus de ciências brasileiros

Ana C. da S. Steola e Ana C. Kasseboehmer

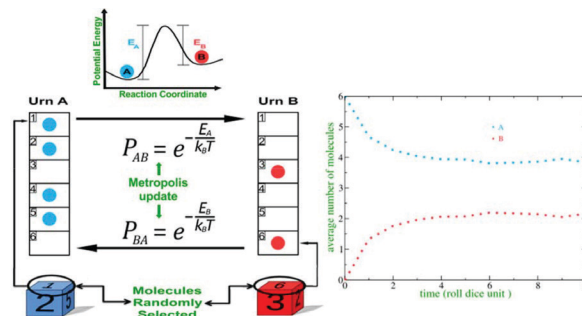


In this article we discuss the space of Chemistry in Brazilian science centers and museums through a documental survey conducted by telephone, mail and analyzing the websites of those places.

- 1083 An approach to the kinetics and thermodynamics of elementary chemical reactions using a stochastic model

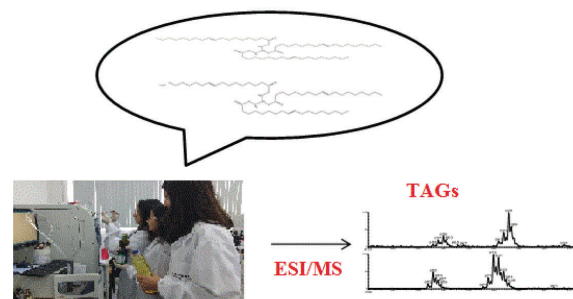
Francis P. Nascimento, Baraquizio B. do Nascimento Junior, Luiz A. M. Cardoso, Rodrigo V. T. de Albuquerque and Nemesio M. Oliveira-Neto

Top Figure: Potential energy for $A \rightleftharpoons B$ reaction. Bottom Left Figure: Transitions between states A and B. (i) Ehrenfest urn model (Urns A and B) randomly defines the collision between molecules; (ii) Monte Carlo method (P_{AB} and P_{BA} : Metropolis update) defines the transition probabilities. Bottom Right Figure: A typical results for 10^2 samples.



- 1089 Identificação de adulteração em óleos de oliva: problematizando a introdução à espectrometria de massas

Angélica P. P. Tonin, Gabrielly R. Carneiro, Marcos A. dos S. Ribeiro, Jaime da C. Cedran, Valquíria de M. Silva e Eduardo C. Meurer



Students using mass spectrometry to check if the oils were adulterated with soybean oil. An investigative approach to learning mass spectrometry and other fundamental concepts of chemistry.