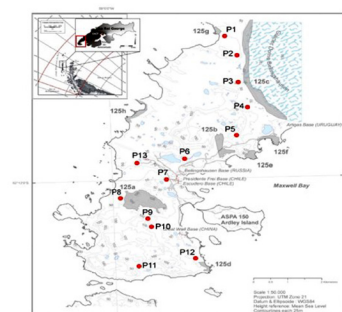


- 893 Avaliação dos teores de Pb, Cd, Sn, Co, Hg, Mo e As em solos da península Fildes - Antártica

Bruna M. Dalfior, Larissa D. Roriz, Reginaldo F. Júnior, Antônio C. de Freitas, Heitor E. da Silva, M^a Tereza W. D. Carneiro, Marcus V. V. J. Licinio e Geisamanda P. Brandão

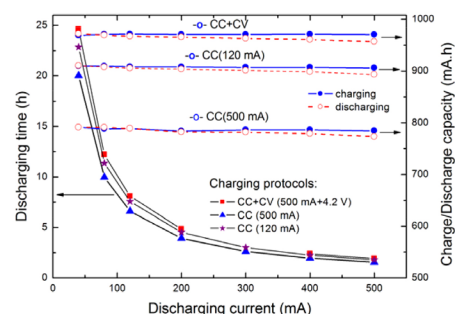
Fildes Peninsula, King George Island - Antarctica: monitoring of the concentrations of Pb, Cd, Sn, Co, Hg, Mo and As in soil samples.



- 901 Analysis of a commercial portable lithium-ion battery under low current charge-discharge cycles

Stephany P. da Silva, Paulo R. C. da Silva, Alexandre Urbano e Jair Scarminio

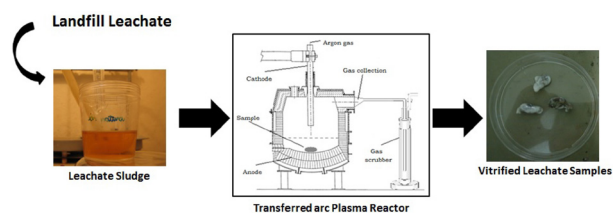
Correlations between the charge stored into and extracted from a commercial cell phone battery, the charging protocols (CC and CC+CV), the discharging current intensity and the corresponding discharging time.



- 906 Application of thermal plasma for inertization of sludge produced during treatment of landfill leachate

Anelise L. V. Cubas, Marina de M. Machado, Marília de M. Machado, Elisa H. S. Moecke, Ana R. de A. Dutra, Haidi Fiedler e Priscila Bueno

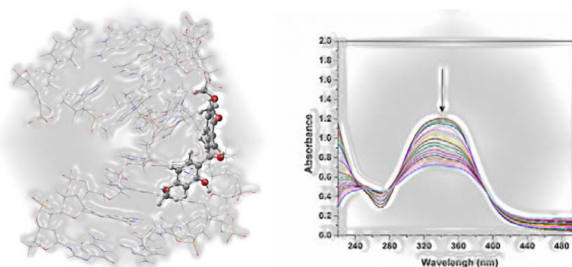
Landfill leachate commonly contains heavy metals due to the incorrect disposal of products. The aim of this study was to apply a treatment for leachate sludge involving the thermal plasma in which the inertization of metals into a vitreous silicate form occurs.



- 914 Interaction of Chalcones with CT-DNA by spectrophotometric analysis and theoretical simulations

Ximena Zarate, Eduardo Schott, Carlos A. Escobar, Roberto Lopez-Castro, Cesar Echeverria, Leonor Alvarado-Soto and Rodrigo Ramirez-Tagle

This research focuses on the capacity of a chalcone's family of interacting with Calf Thymus DNA. The interactions were determined by spectrophotometric analysis [Electronic titration spectra, emission titration spectra and viscometry] and computational calculations.



- 919 Análise da concentração e composição de aerossóis de queimadas no pantanal Mato-Grosso

Anna C. A. Santos, Amanda Finger, José de S. Nogueira, Leone F. A. Curado, Rafael da S. Palácios e Vinicius M. R. Pereira

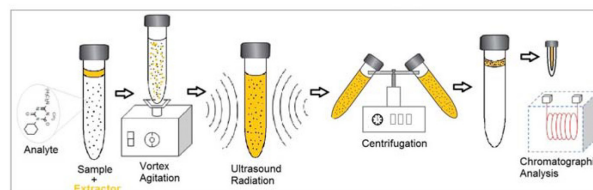
Site in RPPN - SESC Pantanal between 16/04 to 23/10 2012 and 10/02 to 10/08 2013.



- 925 Microextração líquido-líquido dispersiva assistida por vortex e ultrassom aplicada à determinação de agrotóxicos triazinas, triazinonas e o triazol flutriafol em água

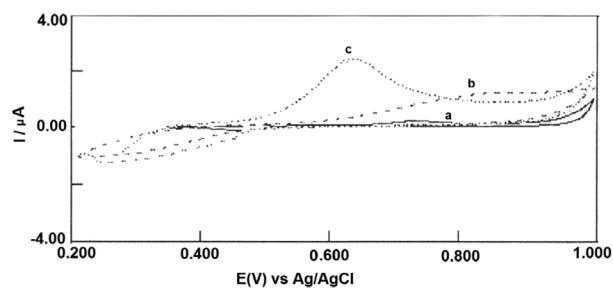
Jaqueline da S. Duarte, Eliana F. G. de C. Soares e Ricardo D. Villa

The extracting solvent is effectively dispersed in the water sample by sequential agitation in vortex and ultrasound. This procedure ensures the effective microextraction of pesticides without addition of a disperser solvent.



- 932 Electrochemical oxidation of ethylene at PANI/Pt and Ag/PANI/Pt modified electrodes

Lenys Fernández, Edison O. Martínez and Hicher Zambrano

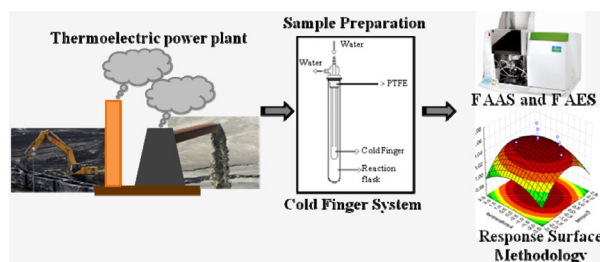


Electrochemical oxidation of ethylene at: a) Pt, b) PANI/Pt and c) Ag/PANI/Pt electrodes.

- 936 Determinação de metais por técnicas de espectrometria atômica em amostras de carvão mineral e cinzas utilizando metodologia de superfície de resposta

Camila M. Oliz, Emanoelli R. Lopes, Aline L. Medina, Anderson S. Ribeiro e Adriane M. Nunes

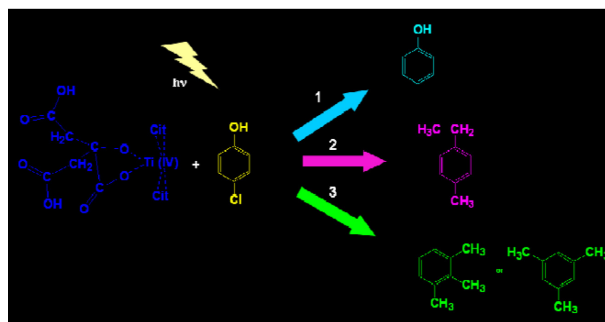
This paper presents a simple, low cost and safe method for determination of Cu, Fe, Na and Zn in coal and ash samples by techniques of atomic spectrometry.



944 Mechanistic aspects of photocatalytic activity of metalloporphyrin-titanium mixtures in microemulsions

Loreán M. H. Carrero, Oswaldo Núñez, Ronald Vargas and Julio Herrera

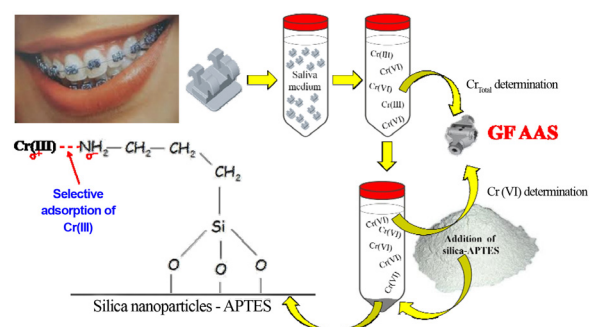
C-Cl bond homolytic cleavage of 4-chlorophenol and further methylation promoted by titanium (IV) citrate under light irradiation.



951 *In vitro* Cr(VI) speciation in synthetic saliva after releasing from orthodontic brackets using silica-aptes separation and GF AAS determination

Maciel S. Luz, Alexandre L. Souza, Ana C. S. S. Haddad, André Tartomano and Pedro V. Oliveira

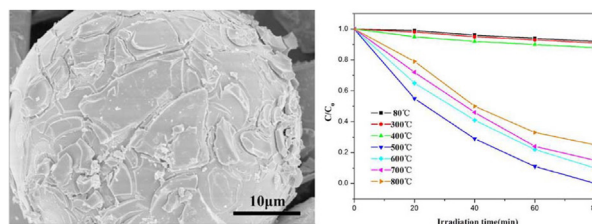
Cr speciation in saliva, using silica-APTES separation and GF AAS for determination showed that up to 40% of the total element released from the orthodontic brackets used was Cr(VI).



956 Cr/S/TiO₂-loaded hollow glass microspheres as an efficient and recyclable catalyst for the photocatalytic degradation of indigo carmine under visible light

Xiuli Zhang, Yidong Yin, Zhibo Sun, Yingqiu Du, Shichao Ma and Yan Wu

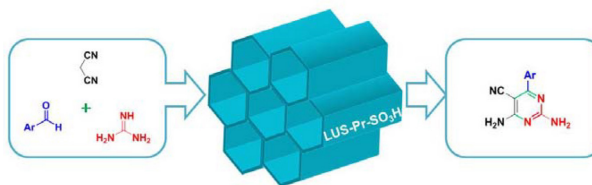
Cr/S/TiO₂-loaded hollow glass microspheres for use in the photocatalytic degradation of indigo carmine under visible light.



962 Sulfonic acid-functionalized LUS-1: an efficient catalyst for one-pot synthesis of 2,4-diamino pyrimidine-5-carbonitrile derivatives

Mahshid Rahimifard, Ghodsi M. Ziarani and Alireza Badiei

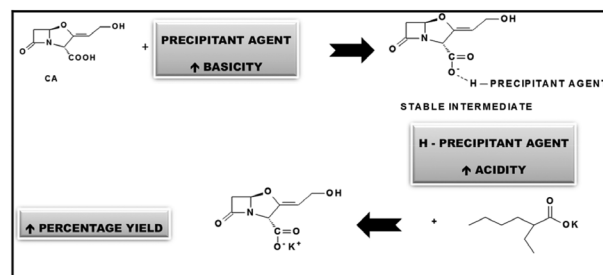
Propyl sulfonic acid functionalized LUS-1 was used as a recyclable heterogeneous catalyst in the synthesis of 2,4-diamino pyrimidine-5-carbonitriles via condensation reaction of aromatic aldehydes, malononitrile and guanidine carbonate in solvent-free condition.



968 Precipitation reaction of clavulanic acid: thermodynamic and electronic study

Ana C. Granato, Edson B. Costa, Wagner F. D. Angelotti, Geoffroy R. P. Malpass, Marlei Barboza, Albérico B. F. da Silva and Milan Trsic

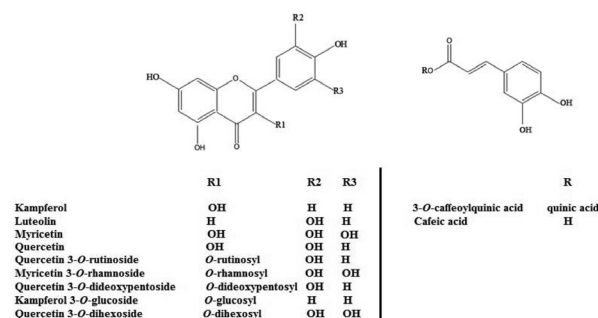
In this study, two forms for industrial precipitation of clavulanic acid from the fermentation broth were thermodynamically and theoretically studied. The reactivity indexes correlate well with experimental observations.



973 The phenolic composition of the hepatoprotective and antioxidant fractions of *Albizia lebbek* L.

Nadia M. Sokkar, Seham M. El-Hawary, Amany M. Slem and Zeinab Talaat

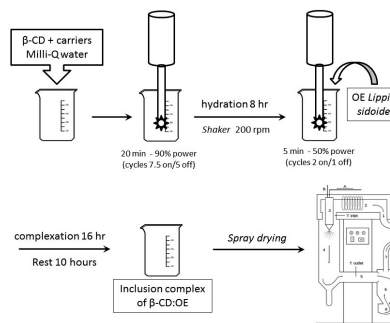
LC-PDA-ESI-MS/MS is performed to explore the phenolic constituents of the hepatoprotective and antioxidant fractions of the leaves of *Albizia lebbek* L.



979 Complexos de inclusão binários, ternários e quaternários contendo óleo essencial de *Lippia sidoides*

Cláudia R. F. Souza, Patrícia N. Ferraz-Freitas e Wanderley P. Oliveira

The present study was aimed to improve aqueous solubility of a poorly water-soluble *Lippia sidoides* essential oil through the formation of inclusion complexes with beta-cyclodextrin (B-CD), a binary complex and the effect of addition of surfactant and water soluble polymer obtained a multicomponent complex.



Revisão

987 Clinical aspects of the poisoning by the pesticide endosulfan

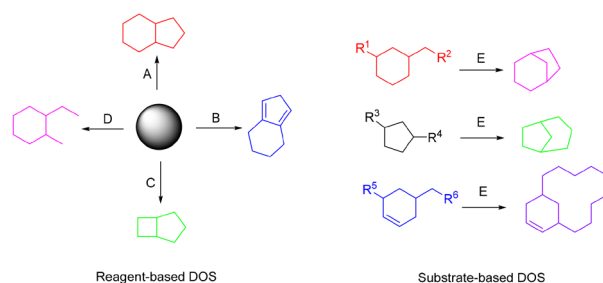
Jiří Patočka, Qinghua Wu, Tanos C. C. França, Teodorico C. Ramalho, Rene Pita and Kamil Kuča

Endosulfan is one of the most abundant organochlorine pesticides in the environment today. This highly toxic compound has a high fatality rate in humans when ingested accidentally or in suicidal cases.



- 995 Estratégias de síntese na descoberta de fármacos: o emprego da síntese orientada pela diversidade estrutural
Diego P. Sangi

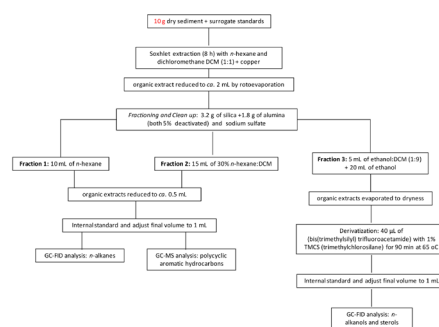
This article shows the synthetic strategies used in drug discovery process, highlighting the principal approaches towards generating scaffold diversity in a Diversity-Oriented Synthesis.



Nota Técnica

- 1007 Validação de um método analítico para determinação de marcadores orgânicos geoquímicos em amostras de sedimentos marinhos
Edna Wisniewski, Liziane M. M. Ceschim e César C. Martins

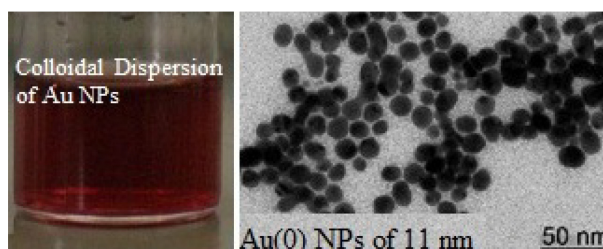
An alternative method for determination of n-alkanes, sterols and n-alkanols in marine sediments, based on Soxhlet extraction, fractioning and clean up by adsorption chromatographic and gas chromatography.



Educação

- 1015 Nanopartículas de Au em líquido iônico suportadas em filmes biopoliméricos: Uma aula prática para investigação da atividade antimicrobiana
Camila C. de Quadros, Marcos F. Brunelli, Vinícius W. Faria e Carla W. Scheeren

The graphical abstract show the colloidal dispersion of Au nanoparticles formed (left) in the experiment and the transmission electron microscopy image (right) of the Au nanoparticles of 11 ± 1.5 nm obtained.



- 1019 Preparação de 1,2,4-oxadiazol: sequência didática aplicada em disciplina de síntese orgânica na graduação
Juliana L. L. F. Regueira, Jucleiton J. R. de Freitas e João R. de Freitas Filho

This work describes a teaching-learning sequence for the preparation of 1,2,4-oxadiazol mediated by microwave irradiation, employing domestic equipment.

