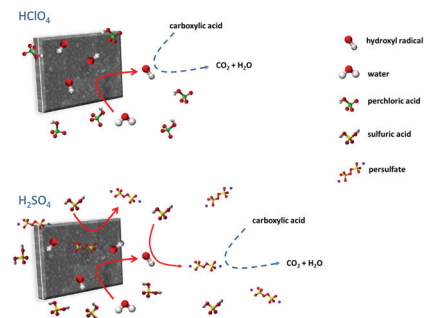


- 253 Electrochemical incineration of short-chain carboxylic acids with Nb-supported boron doped diamond anode: supporting electrolyte effect into the electrogenerated oxidant species (hydroxyl radicals, hydrogen peroxide and persulfate)

Jorge L. A. de Queiroz, Dayanne C. de Moura, Elaine C. M. de M. Santos, Bernardo A. Frontana-Urbe and Carlos A. Martínez-Huitle

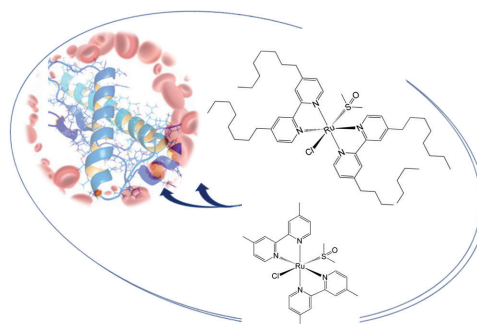
The electrochemical incineration study in H_2SO_4 and HClO_4 solutions, as well as the chemical oxygen demand and total organic carbon analysis for each one of the carboxylic acids studied in both media, gave us information to propose a degradation mechanism for the electrochemical degradation of the carboxylic acids in each electrolytic media.



- 261 Interações competitivas de complexos de rutênio contendo dimetilsulfóxido e ligantes N-heterocíclicos com albumina de soro humano

Guilherme L. B. Neto, Eduardo A. M. Baptista, Gabriel H. S. Becca, Helena S. Nakatani e Vagner R. de Souza

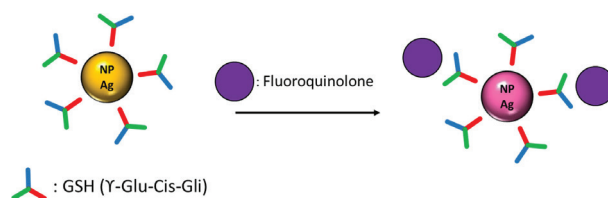
Competitive site marker experiments revealed that the binding site of ruthenium complexes to HSA was the Sudlow's site I in subdomain IIA. The binding of complexes was mainly driven by enthalpy.



- 271 Method development and validation for the fluoroquinolones determination by stabilized silver nanoparticles

Luiza D. de M. Moraes, André F. de Oliveira, Alvaro V. N. de C. Teixeira and Renata P. Lopes

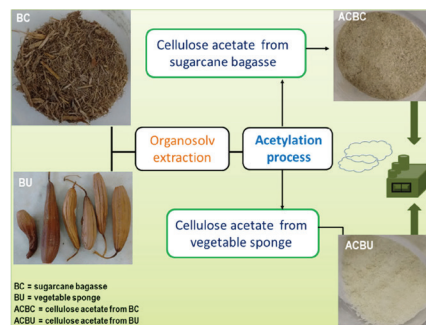
Silver nanoparticles stabilized with glutathione were used as nanosensors for the determination of fluoroquinolones. The method presented satisfactory accuracy and precision allowing on-site analysis.



- 279 Aproveitamento de precursores lignocelulósicos para produção de acetato de celulose

Mayara da S. Santos, Heliane R. do Amaral, Daniel F. Cipriano, João V. T. Ferreti, Carla da S. Meireles, Jair C. C. Freitas e Reginaldo B. dos Santos

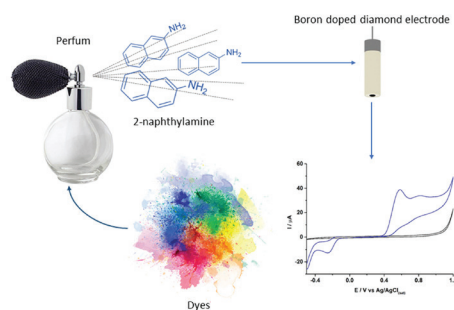
A simple route to produce cellulose acetate from lignocellulosic precursors using *organosolv* extraction to obtain cellulose and homogeneous acetylation process to obtain cellulose acetate.



286 Electrochemical determination of 2-naphthylamine in perfume samples using boron-doped diamond electrode

Guilherme N. Rodrigues, Weberson P. Silva, Diego P. Rocha, Eduardo M. Richter, Rodrigo A. A. Munoz and Alex D. Batista

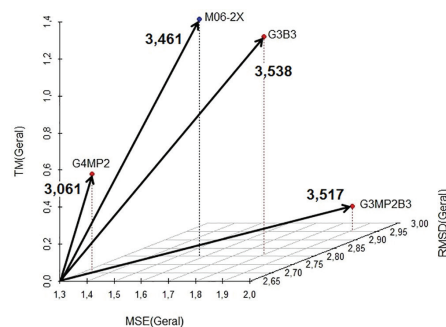
A simple electrochemical method for 2-naphthylamine (2NAP) determination in perfume by differential-pulse voltammetry (DPV) employing a boron-doped diamond (BDD) electrode cathodically treated, feasible to be applied for 2NAP detection and quantification on perfume samples with simple sample preparation.



291 Análise Gráfica do Desempenho de Métodos Computacionais no Estudo de Propriedades Termoquímicas

Leonardo V. das C. Lima e Nelson H. Mordon

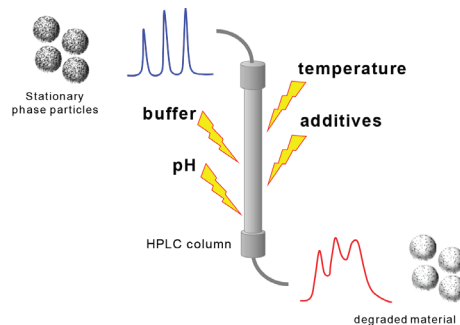
The reduced order perturbation theory (G4MP2) offered the best relationship between accuracy and computational cost in the calculation of thermochemical properties. The performance evaluation was carried out using graphical analysis.



300 Avaliação de aditivos de fase móvel e temperatura na vida útil de colunas para cromatografia líquida de alta eficiência

Kátia A. Gomes, Allyson L. R. Santos e Anizio M. Faria

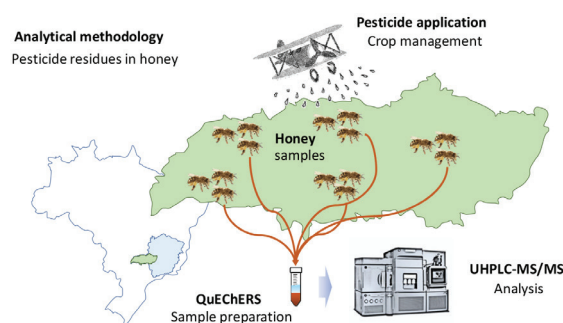
Buffers, pH and temperature in liquid chromatography: improved separation efficiency and retention reproducibility vs. column lifetime shortening.



307 Determinação de multirresíduos de agrotóxicos em méis produzidos na região do Triângulo Mineiro por UHPLC-MS/MS

Renata A. G. Silva e Anizio M. Faria

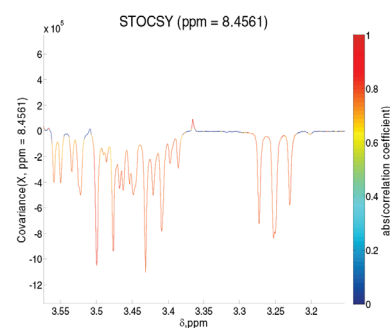
Determination of pesticide residues in honey using an efficient and highly sensitive analytical methodology, to evaluate the presence of pesticides in some agricultural areas in the Triângulo Mineiro, Brazil.



- 314 Evaluation of the metabolic production of the endophytic fungus *Phomopsis* sp.

Jéssica R. da Rocha, Alexandre C. Crispim, João M. da Silva, Antônio E. G. Santana and Luiz C. Caetano

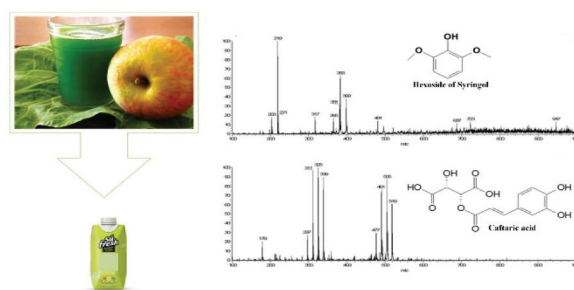
Formate showing strong positive correlation and positive covariance with methanol.



- 319 Physicochemical characterization, antioxidant activity and fingerprints of industrialized “detox” mixed beverages by Paper Spray Mass Spectrometry

Eliane Beatriz M. Silva, Rodinei Augusti, Júlio O. F. Melo, Jacqueline Aparecida Takahashi and Raquel L. Bello de Araújo

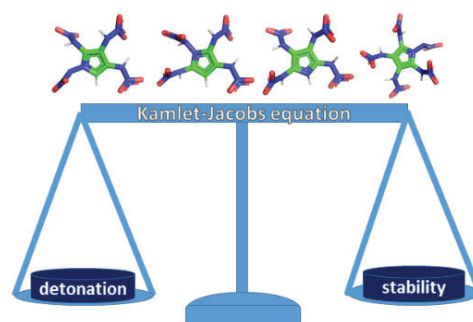
Evaluation industrialized beverages by paper spray mass spectrometry.



- 325 Theoretical calculations about the thermal stability and detonation character of nitramino-substituted pyrrole

Butong Li, Lulin Li and Yu Wang

High-energy-density compound is an important series for their important application in the military and civilian fields. In this paper, the nitramino-substituted pyrroles are proved to be potential high-energy-density compounds based on the theoretical calculations.



Revisão

- 329 Metabolômica de plantas: métodos e desafios

Alan C. Pilon, Denise M. Selegato, Richard P. Fernandes, Paula C. P. Bueno, Danielle R. Pinho, Fausto Carnevale Neto, Rafael T. Freire, Ian Castro-Gamboa, Vanderlan S. Bolzani e Norberto P. Lopes

Diagram demonstrating all required steps for plant metabolomics study.

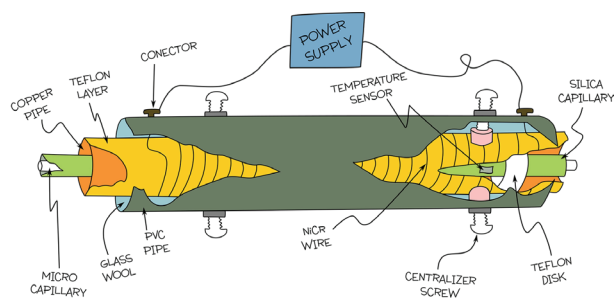


Nota Técnica

- 355 Construção de mini forno para funcionalização térmica de fases estacionárias monolíticas

Sandro P. Ribeiro, José P. R. F. de Mendonça e Marcone A. L. de Oliveira

Schematic figure of the mini oven built for the thermo preparation or thermo functionalization of the monolithic stationary phases in the inner of fused silica capillary tube, for applications in capillary electrochromatography or micro LC.



Educação

- 362 O Jogo de Realidade Alternada Curto (*Short ARG*) como estratégia de discussão de conceitos químicos em Nível Superior

Thiago C. de Deus e Márlon H. F. B. Soares

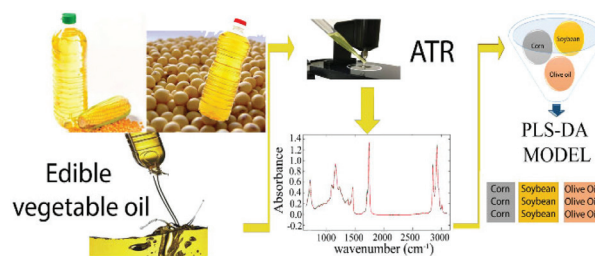
ARG is a game based on experiences like RPG, using various technological devices to investigate clues and solve problems. In this case it was used for discussion of chemical concepts by undergraduate students in chemistry.



- 371 Experimento didático de quimiometria para classificação de óleos vegetais comestíveis por espectroscopia no infravermelho médio combinado com análise discriminante por mínimos quadrados parciais: um tutorial, parte V

Felipe B. de Santana, André M. de Souza, Mariana R. Almeida, Márcia C. Breitzkreitz, Paulo R. Filgueiras, Marcelo M. Sena e Ronei J. Poppi

A teaching experiment on supervised pattern recognition was proposed to introduce partial least squares discriminant analysis (PLS-DA) using an attenuated total reflectance Fourier transform infrared (ATR-FTIR) spectrometer for the classification of edible vegetable oils.



- 382 A construção de conceitos sobre gestão e tratamento de resíduos químicos: uma experiência de formação de estudantes de química

Diego B. de Oliveira, Raquel W. Becker, Carla Sirtori e Camila G. Passos

This graphical abstract hopes to lead readers to think about the central focus of the present work, from the perspective of undergraduate students, in relation to the concepts on chemical waste/wastewater management and treatment.

Management

Treatment



Environmental education