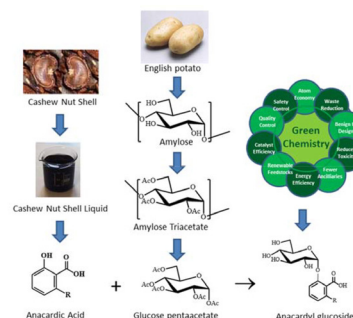


- 771 Síntese e Caracterização de Surfactantes Alquilfenil poliGlicosídicos a partir da Amilose e Alquil Fenóis Extraídos do LCC Natural

Francisco C. F. de França, Ethaniêlda de L. Coelho, Antônia F. J. Uchôa, Francisco H. A. Rodrigues, Maria E. N. P. Ribeiro, Sandra de A. Soares e Nágila M. P. S. Ricardo

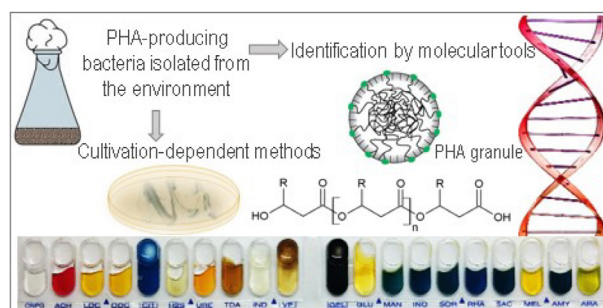
Synthesis of new alkyl phenyl polyglycosides from cardol and the anacardic acid through a green synthetic route.



- 782 Seleção polifásica de microrganismos produtores de poli-hidroxialcanoatos

Amanda L. S. Silva, Elane C. L. dos Santos, Ítalo A. P. dos Santos e Ana M. Q. López

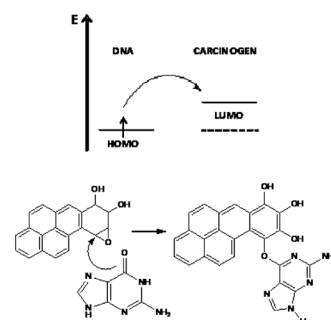
PHA-producing bacteria isolated from the environment was better characterized when submitted to a polyphasic screening, in addition to their biochemical profile in miniaturized galleries such as API 20E® and amplification of genes.



- 789 Carcinogenicidade de hidrocarbonetos policíclicos aromáticos

Douglas L. Bernardo, Karina A. Barros, Renato C. Silva e Antonio C. Pavão

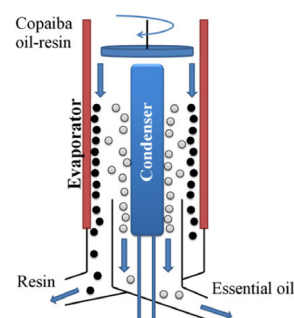
Guanine to carcinogen electron transfer mechanism: according to the unsynchronized resonating valence bond theory of L. Pauling, an electron transfer leads to formation of a covalent bond between DNA (guanine) and the carcinogen (PAH).



- 795 Recuperação de sesquiterpenos do óleo-resina de copaíba a partir da destilação molecular

Cleyson de S. Galúcio, Cibelem I. Benites, Rodney A. F. Rodrigues e Maria R. W. Maciel

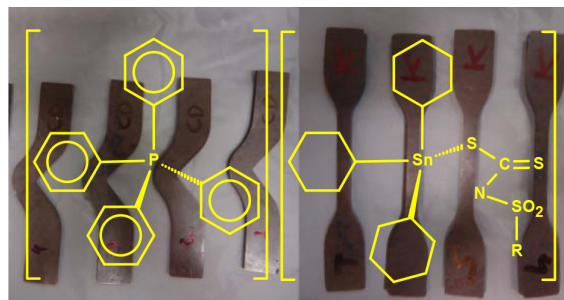
Molecular distillation is a clean technology that separates compounds in fractions of seconds. This process allowed for recovery of sesquiterpenes from copaiba oil-resin with 98% purity.



- 801 Síntese e caracterização de novos organometálicos de estanho (IV) com ligantes ditiocarbimatos e sua ação aceleradora na vulcanização de borracha nitrílica

Fernanda C. Bottega, Marcelo R. L. Oliveira, Vanessa P. Sérvulo, Leila L. Y. Visconte, José D. Ardisson e Mayura M. M. Rubinger

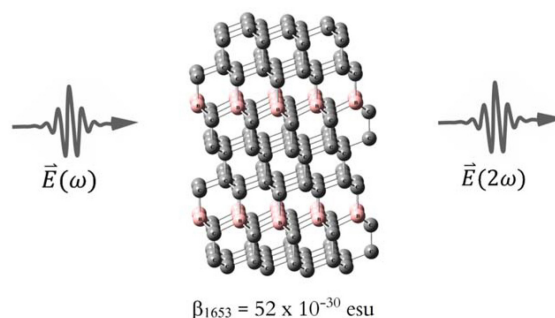
Specimens of nitrile rubber vulcanized with novel tin (IV) accelerators [$R = C_6H_5$; ClC_6H_4 ; BrC_6H_4 and IC_6H_4] for tensile strength and tear resistance analyses.



- 807 Propriedades ópticas não lineares de clusters do BC_5

Marconi B. S. Costa e Ana E. de A. Machado

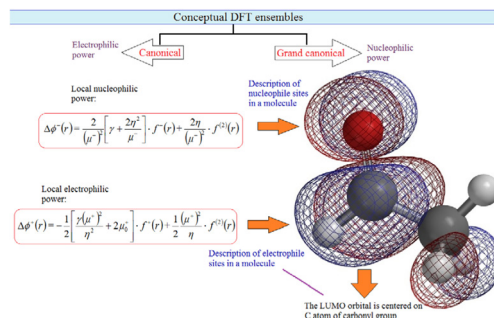
Second Harmonic Generation (SHG) at the 1653 nm of the P3m1 phase for the BC_5 cluster.



- 817 Desarrollo de los índices de poder electrofílico y nucleofílico dentro del marco conceptual de la teoría del funcional de la densidad

Said F. Figueredo, Manuel S. Pérez y Jong-Won Song

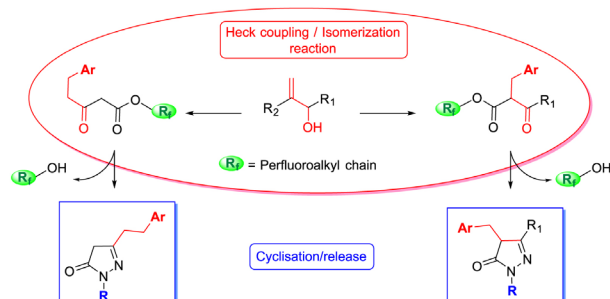
New global and local reactivity descriptors have been developed in basis to canonical and grand canonical ensembles of conceptual DFT. All of reactivity indices showed a good description of both local and global reactivity trends on the selected molecules.



- 825 Fluorous supported synthesis of pyrazolone derivatives from allylic alcohols using a palladium-catalyzed strategy

Nicolas Gouault, Alexandre Cariou, Jean-François Cupif, Patrícia de A. Amaral and Michèle David

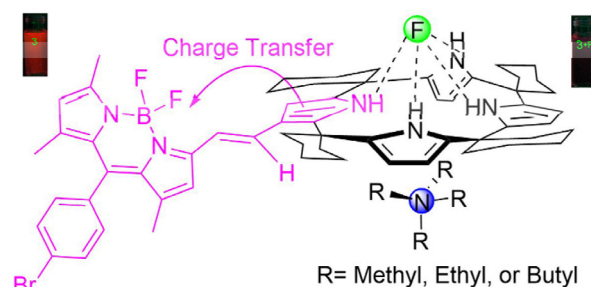
Ten substituted pyrazolone derivatives were easily synthesized from perfluorinated allylic alcohols, via a straightforward two steps reaction involving a Heck-coupling/isomerization reaction and subsequent condensation of hydrazines.



- 832 Spectroscopic study of effects of tetraalkylammonium cations on F⁻-sensing properties of calix[4]pyrrole boradiazaindene dye

Yongjun Lv

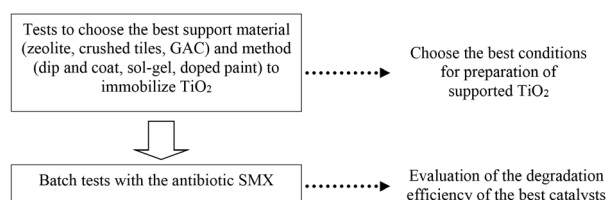
F⁻-sensing properties of a calix[4]pyrrole boradiazaindene dye were evaluated with respect to the effects of the presence of different tetraalkylammonium cations in CH₃CN. The dye exhibited F⁻-binding affinity in the order $K_{TMA^+} > K_{TEA^+} > K_{TBA^+}$ as a consequence of cation size effects and ion-pairing effects.



- 836 Imobilização de dióxido de titânio em diferentes materiais suporte para o emprego em fotocatalise heterogênea

Shalimar S. Borges, Leandro P. S. Xavier, Adilson C. da Silva e Sérgio F. de Aquino

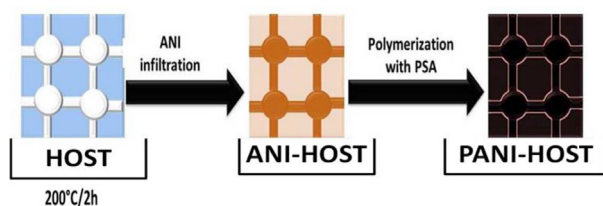
Tests were carried out to select the best solid support (granular activated carbon - GAC, crushed ceramic material - CCM, and zeolite - ZEO) and procedure (dip and coat, sol-gel) for TiO₂ immobilization for their use in the photocatalysis of sulfamethoxazole (SMX) in aqueous solutions.



- 845 Polymerization of aniline in different SBA-16 silica hosts

Leidy Hoyos Giraldo, Alejandro Ramirez Velez and Monica Mesa Cadavid

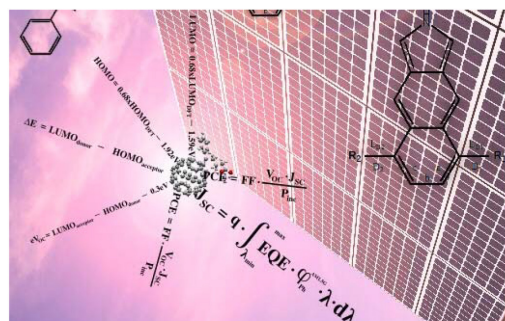
Polyaniline-silica composites were synthesized using different mesoporous silica hosts. The synthesis pathway allowed a faster polymerization, high polymerization efficiency and higher molecular weights than for other polyaniline derivatives synthesized without the use of hosts. The high surface area of the silica favored the adsorption of aniline and the presence of aluminium on them accelerated the polymerization process. Therefore, the hosts had dual properties as nucleation centers and catalysts in this process. The composites were electrical conductive materials.



- 853 Diseño y caracterización teórica de materiales fotoactivos eficientes basados en derivados de naftopirrol y de naftotiofeno para celdas solares orgánicas

Walter J. Cuadro, Adolfo E. Ensuncho y Juana R. Robles

Prediction of photoelectric conversion efficiency of derivatives D-NPR-A and D-NTP-A.

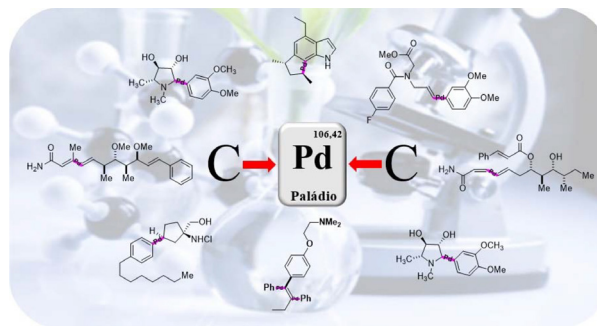


Revisão

859 Sínteses totais no brasil empregando acoplamentos cruzados mediados por paládio

Mauricio M. Victor e Gálber S. B. da Silva

This article describes the selected total syntheses of complex organic compounds, performed in Brazil, which have employed a palladium catalyzed cross-coupling reaction as key step.

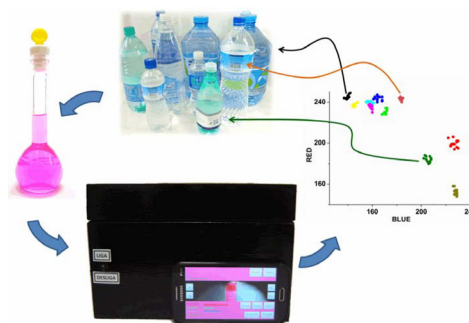


Nota Técnica

876 Classificação de águas minerais baseada em imagens digitais obtidas por smartphones

Gerson F. Silva Neto, Alexandre Fonseca e Jez W. B. Braga

Water classification based on digital images. Waters are combined with colorimetric reagents, the RGB parameters are acquired with a smartphone and discrimination is performed using raw data.

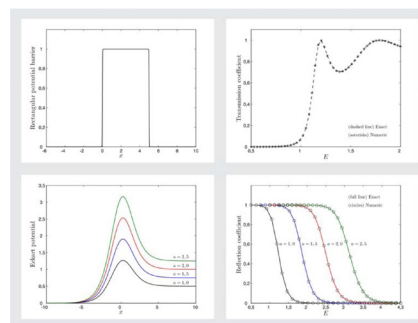


Educação

882 Coeficientes de transmissão e reflexão pelo método da amplitude variável

Éderson D'M. Costa, Luciano Cordeiro, Nelson H. T. Lemes e João P. Braga

Transmission and reflection coefficients calculated by the variable amplitude method.



886 Problemas inversos mal colocados em química

João P. Braga, Nelson H. T. Lemes, Emílio Borges e Rita C. O. Sebastião

What is an inverse problem and how to extract the maximum information from experimental data, such as the potential energy function from second virial coefficient, is the main objective of the present paper.

