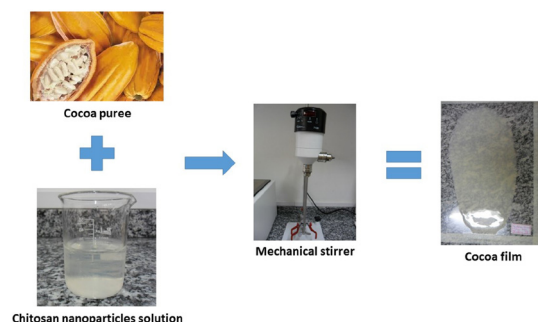


Artigo

- 247 Fabricação de filmes bionanocompósitos à base de pectina e polpa de cacau com potencial uso como embalagem para alimentos

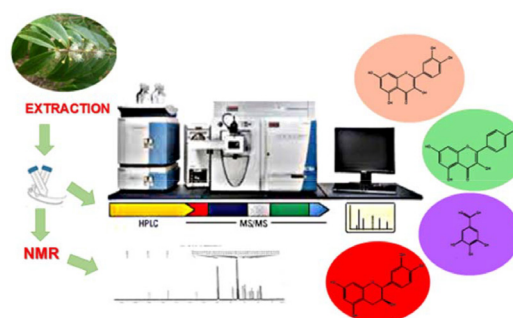
Pamela T. S. Melo, Fauze A. Aouada e Marcia R. de Moura



Filmogenic solution based in pectin, cocoa puree and chitosan nanoparticles are obtained by mechanical agitation and subsequently dried at room temperature.

- 252 Triterpenoides, fenólicos e efeito fitotóxico das folhas de *Eugenia flavescens* DC (Myrtaceae)

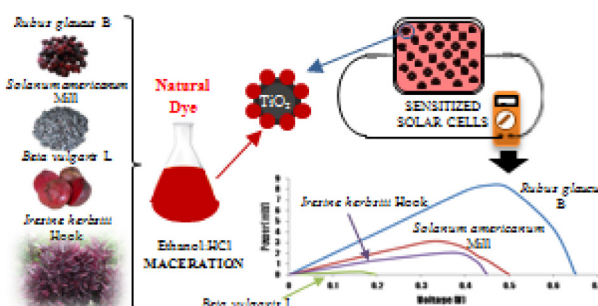
Antonio J. Cantanhede Filho, Lourivaldo S. Santos, Giselle M. S. P. Guilhon, M^a das Graças B. Zoghbi, Pollyane S. Ports e Iris C. S. Rodrigues



This article reports the chemical study, LC/MS phenolic profile and phytotoxic effect from *Eugenia flavescens*, a plant native to Northern Brazil.

- 260 Celdas solares sensibilizadas con colorantes fotosensibles obtenidos de plantas de la región sur de Ecuador

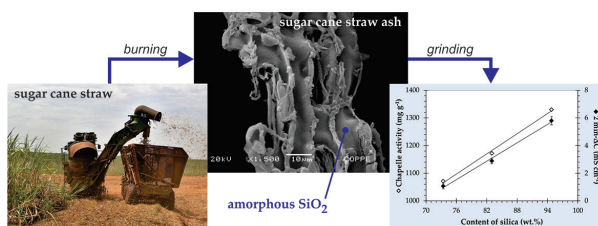
Marcela Cabrera, Jorge G. Figueroa, Javier C. Ramírez-Pérez y Natalí Solano-Cueva



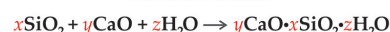
The extraction of the dyes obtained from vegetal was made with ethanol:HCl. These was applied on solar cells (DSSCs) with TiO_2 and it was observed that natural dyes have great potential as sensitizers in DSSCs, being *R. glaucus* the best with a voltage of 0.65 V and a maximum power of 8.84 mW.

- 264 Study on the pozzolanic activity of sugar cane straw ash produced using different pretreatments

Guilherme C. Cordeiro, Amanda P. Vieira and Érica da S. Lopes



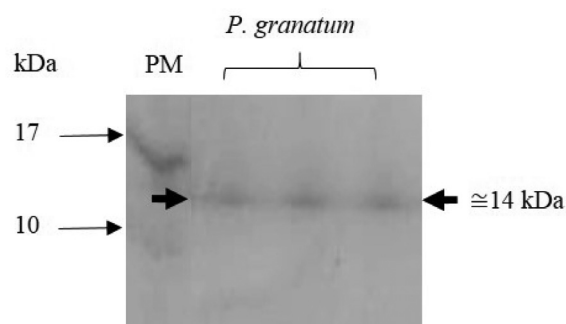
Pozzolanic Reaction



Sugar cane straw ash has been studied as pozzolan from different pretreatments of sugar cane straw aiming the production of highly reactive pozzolanic materials.

270 Detecção de inibidores de proteases em sementes de *Punica granatum*

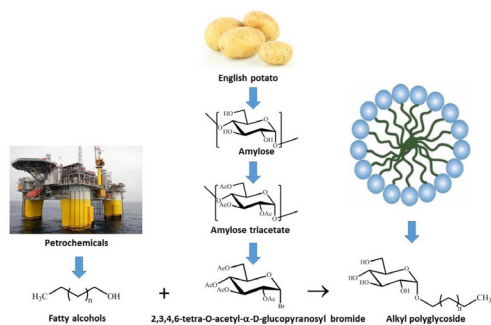
Lara F. Colares, Antero R. Santos Neto, Isac H. Cordeiro, Sandra B. R. de Castro, Rodrigo M. Verly, Caio C. de S. Alves e Alessandra de P. Carli



Protease inhibitor between 10 and 17 kDa *Punica granatum*.

275 Novos surfactantes alquil poliglicosídicos à base de amilose extraída da batata inglesa (*Solanum tuberosum* L.)

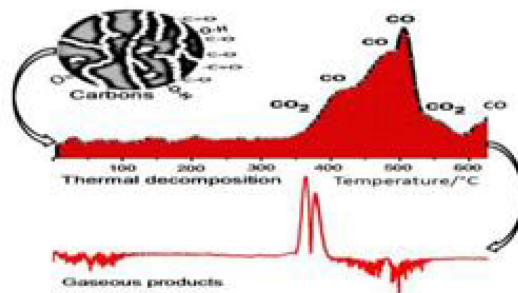
Francisco C. F. de França, Denise R. Moreira, Raimundo R. de Almeida, Francisco H. A. Rodrigues, Maria E. N. P. Ribeiro e Nágila M. P. S. Ricardo



New green surfactants based on amylose as substitute of anionic surfactants.

284 Thermogravimetric and spectroscopic study (TG–DTA/FT–IR) of activated carbon from the renewable biomass source Babassu

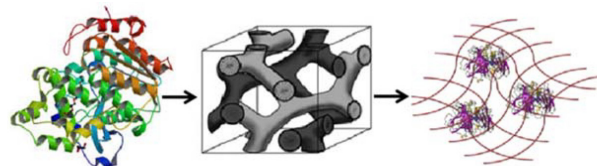
Giulyane F. de Oliveira, Robson C. de Andrade, Magno A. G. Trindade, Heloysa M. C. Andrade and Cláudio T. de Carvalho



Thermal and spectroscopic study of activated carbon produced from Babassu petiole as source of alternative raw material.

293 Immobilization of lipase on mesoporous molecular sieve MCM-48 obtained using ionic solid as a structure director and esterification reaction on solvent-free

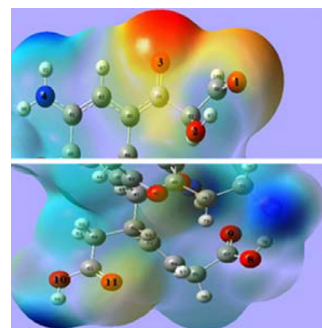
Catia S. Z. Battiston, Aline M. M. Ficanha, Katarine L. D. Levandoski, Bernardo A. da Silva, Suellen Battiston, Rogério M. Dallago and Marcelo L. Mignoni



Enzymatic immobilization on MCM mesoporous supports employing the *in situ* technique, with the addition of the enzyme during the synthesis of the material.

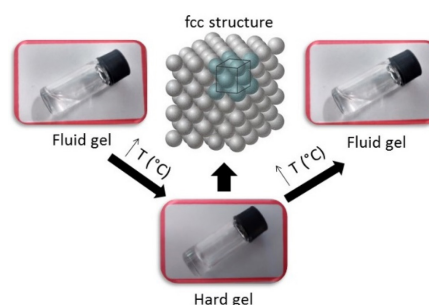
- 299 Estudio teórico de las interacciones de dos modelos de ácidos húmicos con los cationes Al^{3+} , Ca^{2+} , Mg^{2+} , Zn^{2+} , K^+ y NH_4^+ a un nivel de cálculo DFT y un modelo de solvatación PCM
Eduardo Espinosa-Fuentes, Fredy Colpas Castillo y Edgardo Meza Fuentes

MEP of the Humic Acid structures showing possible sites for a nucleophilic or electrophilic attack.



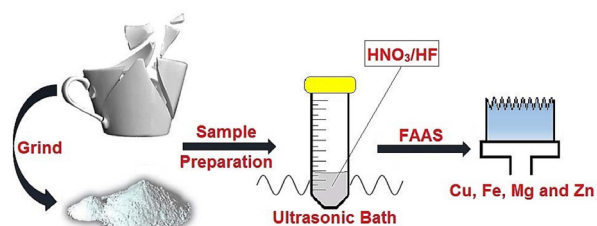
- 305 Binary systems of Brij® surfactants with Pluronic® F127 as griseofulvin carrier
Ethaniêlda de L. Coelho, Carolina L. de Moura, Deyse de S. Maia, Tamara G. de Araújo, Francisco C. F. de França, Nadja M. P. S. Ricardo, Maria Elenir N. P. Ribeiro and Nágila M. P. S. Ricardo

Thermoresponsive gel of binary mixture of F127 and Brij® as griseofulvin carrier.



- 310 Decomposição ácida assistida por ultrassom para a determinação de Cu, Fe, Mg e Zn por F AAS em cerâmicas de uso doméstico
Eliézer Q. Oreste, Alexander O. de Souza, Camila C. Pereira, Mariana A. Vieira e Anderson S. Ribeiro

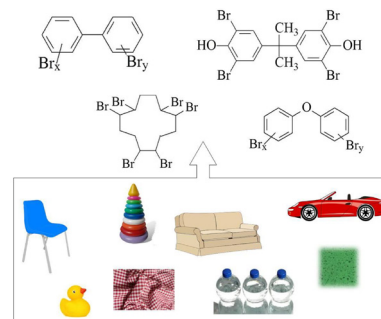
A simple method for the determination of Cu, Fe, Mg and Zn in domestic ceramic samples based on acid decomposition assisted by ultrasound is proposed.



Revisão

- 317 Retardantes de chama bromados: uma revisão
Michelle C. Pieroni, Juliana Leonel e Gilberto Fillmann

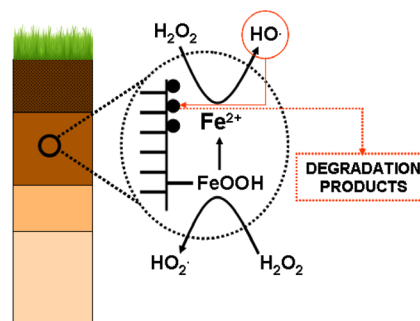
The brominated flame retardants and their omnipresence in our daily lives.



- 327 Remediação de solos contaminados por processos Fenton: uma revisão crítica

Alecsandra dos Santos, Graziela da S, Costa e Patricio Peralta-Zamora

Iron minerals can be used to catalyze the decomposition of hydrogen peroxide thus enabling the Fenton remediation of contaminated soils.

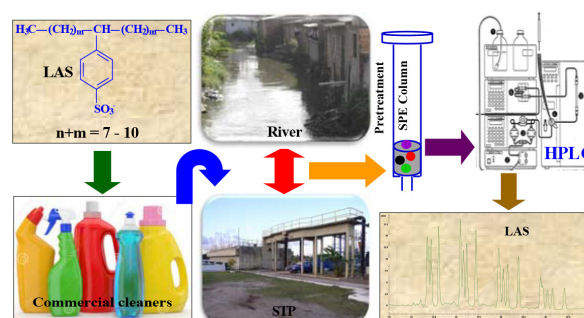


Nota Técnica

- 334 Quantificação de alquilbenzeno linear sulfonato em estação de tratamento de efluentes e rios por cromatografia líquida de alta eficiência e extração em fase sólida

Luiz G. Silva, Sávila Gavazza, Lourdinha Florencio e Mario T. Kato

The sewage treatment plants and superficial waters are the final destination of linear alkylbenzene sulphonate (LAS). Because of the environmental importance, analytical methods employing the solid phase extraction and liquid chromatography were developed for the quantification of LAS.

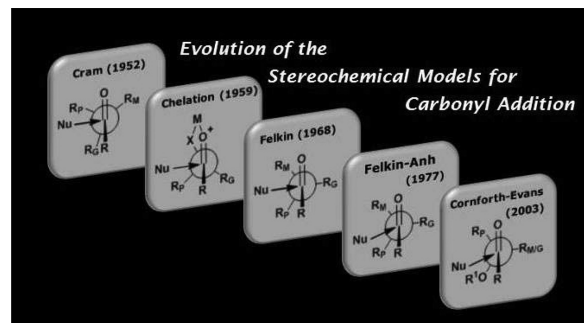


Educação

- 342 Modelos estereoquímicos de adição à carbonila

Bruna S. Martins, Diogo S. Lüdtke e Angélica Venturini Moro

The present article is focused in the discussion of the evolution of stereochemical models for 1,2-induction and present to students a tool to understand and predict the stereochemical outcome of addition of nucleophiles to aldehydes and ketones bearing a stereogenic center at the α -position.



Assuntos Gerais

- 353 Pictogramas do GHS e sua aplicação como ferramenta de comunicação de perigos para estudantes de graduação

Leila K. Uema e Marcela G. Ribeiro

More than just regulation compliance: providing appropriate hazard communication, using GHS elements, is also a tool for dissemination of health & safety culture and practices among undergraduate students.

