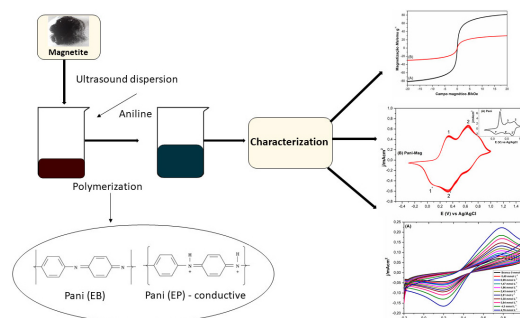


- 1101 Caracterização estrutural do compósito Pani-magnetita com potencial aplicabilidade em sensor eletroquímico

Caroline Zanotto, Patrícia T. Marques e Eryza G. de Castro

<http://dx.doi.org/10.21577/0100-4042.20170767>

The synthesis was carried with dispersion of magnetite in ultrasound and addition of alinine for polymerization and obtaining the conductive Pani. The characterizations were satisfactory and promising.

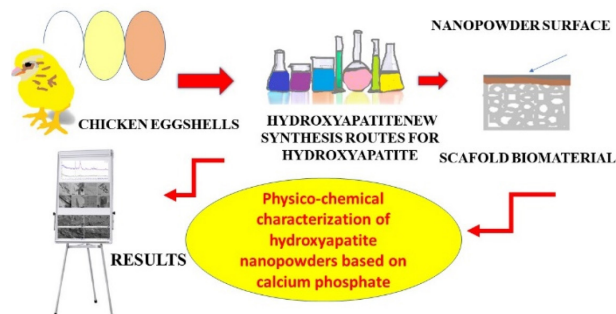


- 1107 Development of new synthesis routes for hydroxyapatite nanopowders production from chicken eggshells

Ingrid R. de Lima, Bonifácio O. Fialho, Renata A. Simão, Daniele A. Nogueira, Fernanda A. Sampaio, Yutao Xing, Jose A. de Castro, Gláucio S. da Fonseca and Marcos F. de Campos

<http://dx.doi.org/10.21577/0100-4042.20170772>

New routes of obtaining nanopowders phosphate calcium base were development from chicken eggshells and characterized by different physical-chemistry analysis methods.

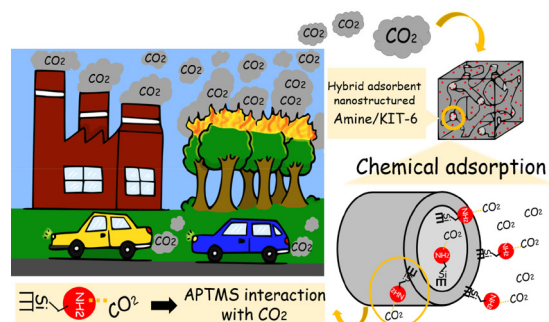


- 1117 Novo adsorvente nanoestruturado híbrido do tipo amina/ KIT-6 para captura de CO₂

Fernando R. D. Fernandes, Francisco G. H. S. Pinto, Jhonny Villarroel-Rocha, Karim Sapag, Luiz D. Souza, Vinícius P. S. Caldeira e Anne G. D. Santos

<http://dx.doi.org/10.21577/0100-4042.20170776>

In order to reduce the carbon dioxide emitted in the environment, an organic/inorganic hybrid material was developed to provide the capture of CO₂ molecules.

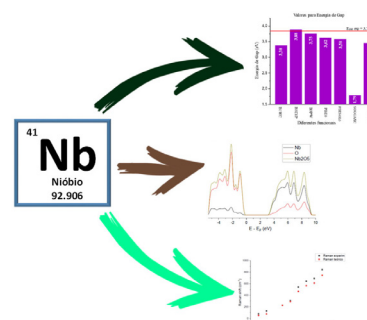


- 1124 Avaliação da estrutura eletrônica da fase monoclinica do óxido de nióbio com base no uso de diferentes funcionais de densidade

Kamila S. Ody, João P. A. de Jesus, Carlos E. Cava, Anderson R. Albuquerque, Ary S. Maia, Julio R. Sambrano e Felipe A. La Porta

<http://dx.doi.org/10.21577/0100-4042.20170779>

DFT calculations of monoclinic Nb₂O₅ structure.

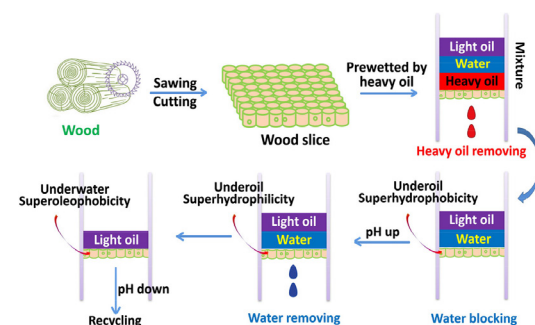


- 1132 pH-responsive wood slices for the continuous separation of light oil/water/heavy oil triphase mixtures

Yanbiao Zhou, Kaige Qu, Lihui Zhang and Ming La

<http://dx.doi.org/10.21577/0100-4042.20170780>

A balsa wood slice showed underoil superhydrophobicity in nonbasic environment while transition into underoil superhydrophilicity under basic condition. The superwettability of the treated wood slice could be leveraged in the continuous separation of light oil/water/heavy oil triphase mixtures only driven by gravity with a high permeation flux and separation efficiency.



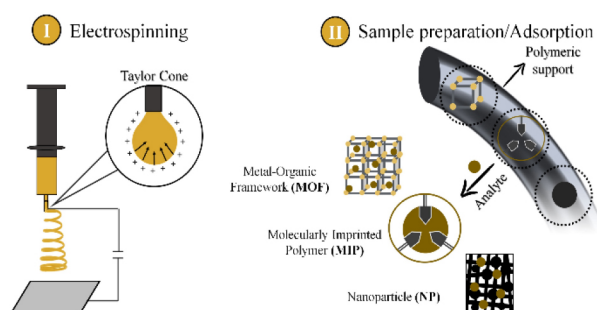
Revisão/Review

- 1137 Eletrofiiação aplicada ao desenvolvimento de nanofibras adsorventes visando o aprimoramento de técnicas de (micro) extração em fase sólida

Camilla F. Silva, Daiane D. M. de Paula e Keyller B. Borges

<http://dx.doi.org/10.21577/0100-4042.20170757>

This review aims to provide the main contributions of the last years related to materials of tendency to use in samples preparation /adsorption processes and that have been currently used for the enrichment of electrospun nanofibers, such as MOF, MIP and NP.



- 1151 Aplicações e implicações do ozônio na indústria, ambiente e saúde

Manoel J. A. Lima, Erika P. Felix e Arnaldo A. Cardoso

<http://dx.doi.org/10.21577/0100-4042.20170759>

Direct contact with ozone gas results in harmful effects on living organisms; however, the gas is essential for preserving life on the planet. The important things we need to know to expand ozone disinfectant applications without compromising people's health.

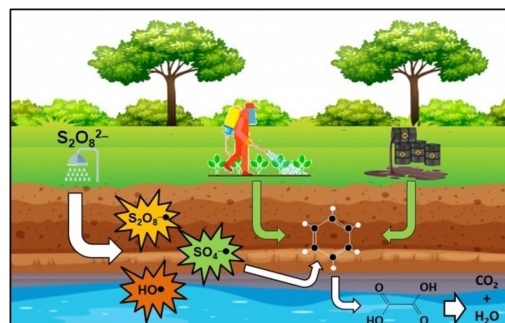


- 1159 Aplicações ambientais de persulfato: remediação de águas subterrâneas e solos contaminados

Letícia T. Bertagi, Amanda O. Basilio e Patricio Peralta-Zamora

<http://dx.doi.org/10.21577/0100-4042.20170769>

The use of radical processes based on persulfate has been widely explored in the remediation of soil and groundwater contaminated by organic pollutants.

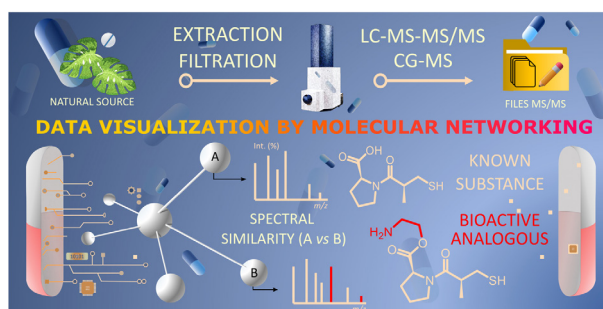


- 1168 Redes moleculares: uma análise sobre anotações e descoberta de novos ativos

Alan C. Pilon, Natália C. Vieira, Juliano G. Amaral, Afif F. Monteiro, Ricardo R. da Silva, Laila S. Spíndola, Ian Castro-Gamboa e Norberto P. Lopes

<http://dx.doi.org/10.21577/0100-4042.20170777>

The molecular networking is an interactive approach to organize and visualize large data sets, prioritizing bioactive molecules and assisting in the annotation process of complex biological matrices.



Nota Técnica/Technical Notes

- 1180 Um *spin coater* artesanal baseado em lixo eletrônico: uma alternativa versátil e de baixo custo

Sirlon F. Blaskiewicz, Leandro L. Soares e Lucia H. Mascaro

<http://dx.doi.org/10.21577/0100-4042.20170754>

Description of the 3 main stages of the handmade spin coating process: (i) the programming code added to the arduino nano®; (ii) the assembly of the equipment, using the HD motor, the project box, power supply and other electronic components and (iii) the application itself.

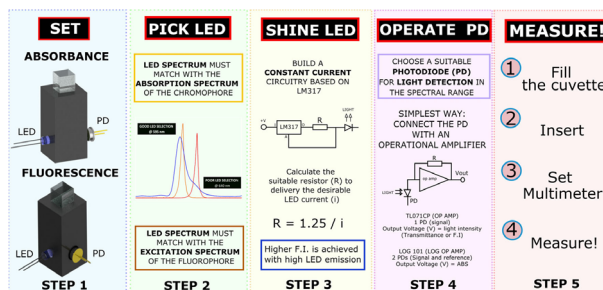


- 1184 Performing reliable absorbance and fluorescence measurements with low budget – a tutorial for beginners

Diandra N. Barreto, Vanderli G. Leal, Josiele A. M. Conrado, Gabriel M. Fernandes, Caio C. S. Machado, Alex D. Batista, Sidnei G. da Silva and João F. da S. Petrucci

<http://dx.doi.org/10.21577/0100-4042.20170758>

A tutorial guide to help students and researchers to construct “lab-built” devices to perform molecular absorbance and fluorescence measurements.

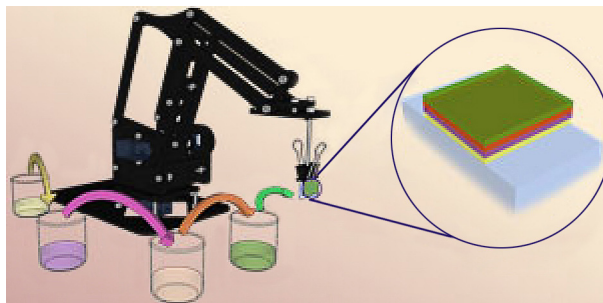


- 1192 Sistema robótico de baixo custo para preparação de filmes por *layer-by-layer*

Giovanna S. Polo, Lucas P. Souto e André S. Polo

<http://dx.doi.org/10.21577/0100-4042.20170762>

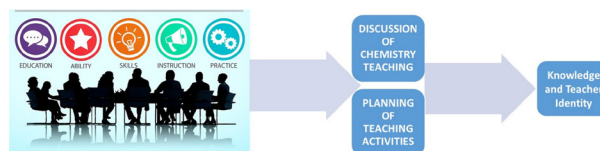
Proposal and development of a low-cost system for depositing materials and prepare thin films by layer-by-layer.



Educação/Education

- 1196 Fomentando a formação docente de pós-graduandos em química: um estudo de caso na disciplina de estágio docência
Wellington Francisco e Wilmo E. Francisco Junior

<http://dx.doi.org/10.21577/0100-4042.20170764>

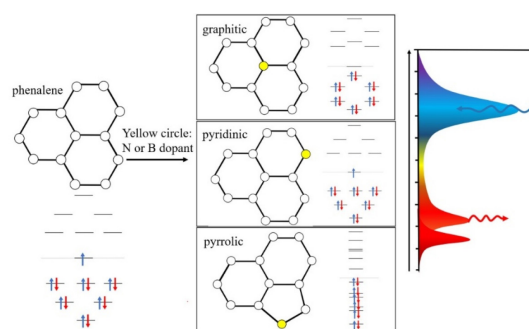


This research investigated a process of teacher education with post-graduate Chemistry leaned on the discussion of chemistry teaching aspects, planning, developing and reflection about teaching experiences.

- 1204 Dopant effect on phenalene bandgap control: A Hückel molecular orbital perspective

Muhammad A. Irham, Mohamad S. Anrokhi, Yunita Anggraini and Inge M. Sutjahja

<http://dx.doi.org/10.21577/0100-4042.20170765>

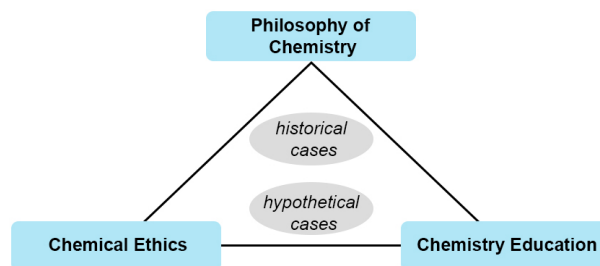


Nitrogen and boron dopant effects on the properties of phenalene were investigated based on the Hückel theory. Dopant types and positions strongly influence the number of π electrons in the system, molecular orbital energy, total energy, average π -electron energy, and gap energy.

- 1210 A ética química e seu ensino a estudantes de química
Evandro F. Rozentalski e Paulo A. Porto

<http://dx.doi.org/10.21577/0100-4042.20170771>

Chemical ethics deals with the benefits, risks and uncertainties associated with or arising from chemical activities. This paper aims at broadening the understanding of scientific ethics by addressing chemical ethics and an approach for its teaching at the undergraduate level.



Assuntos Gerais/General Subject

- 1219 O uso de materiais híbridos ou nanocompósitos como revestimentos anticorrosivos do aço

Guilherme A. B. F. Clemente, Gustavo H. Gonçalves, Eduardo J. Nassar, Eduardo F. Molina e Lucas A. Rocha

<http://dx.doi.org/10.21577/0100-4042.20170753>

Corrosion is the reverse process of extractive metallurgy, in which the metal returns to its original state, whenever there is an interaction of the material with the environment, corrosion occurs, so the anticorrosive coating can prevent this interaction.

