

Editorial/Editorial

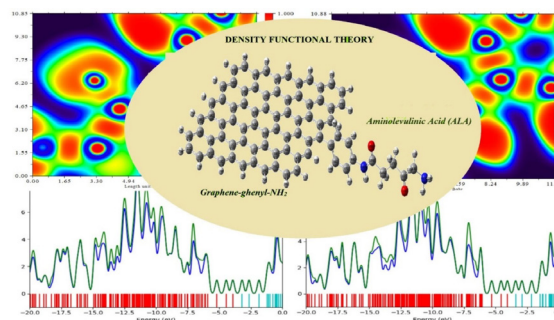
- 647 Química Nova: tendências, perspectivas e novos editores
Giovanna Machado, Jorge M. David e Nelson H. Morgon

<https://orcid.org/10.21577/0100-4042.20170922>

Artigos/Articles

- 648 Graphen-phenyl-NH₂ as nanocarrier: a density functional theory study
Nosrat M. Mahani, Fatemeh Mostaghni and Homa Shafiekhani

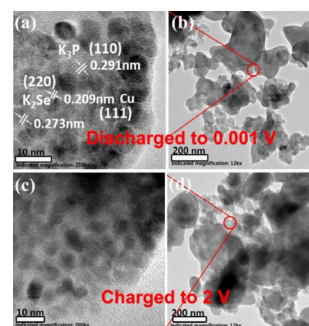
<http://dx.doi.org/10.21577/0100-4042.20170865>



EDC-NHS cross-linking process of 5-Aminolevulinic acid drug with Graphene-Phenyl-NH₂ was investigated by Density Functional Theory (DFT).

- 654 Amorphous CuSeP₂/graphene composites as anode material for advanced potassium-ion battery
Yu Luo, Qing Liu, Lingxiao Yang and Youwei Yan

<http://dx.doi.org/10.21577/0100-4042.20170864>

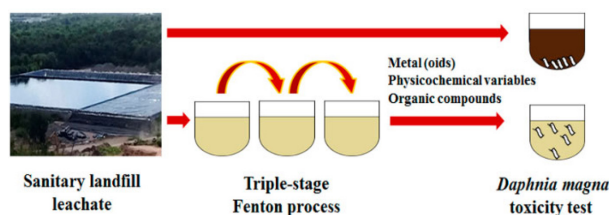


Discharged to 0.001 V, the lattice fringes observed in TEM images. Charged to 2.0 V, no apparent crystal particles are observed in TEM images.

- 659 Enhanced removal of persistent contaminants and toxicity reduction through the application of a triple-stage fenton process to sanitary landfill leachates from Yucatan, Mexico
Ana M. Escalante-Mañé, Roger I. Méndez-Novelo, Germán Giacomán-Vallejos, Avel A. González-Sánchez, Jéssica Romo-Alvarado, Reyna C. Collí-Dulá, Carlos A. Quintal-Franco and Carlos Puch-Hau

<http://dx.doi.org/10.21577/0100-4042.20170866>

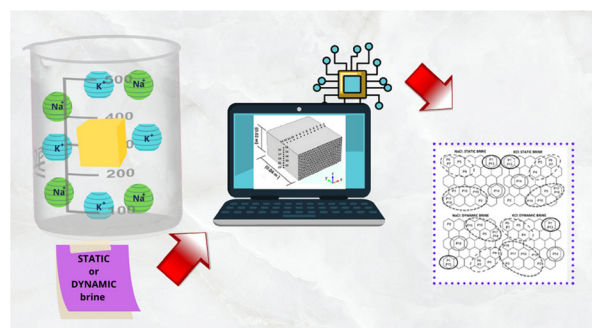
Removal of toxicity of the landfill leachates using a multi-stage Fenton process were evaluated in terms of physicochemical variables, metal(oid)s concentrations, mass spectrometric identification of organic compounds and *Daphnia magna* acute toxicity test.



- 666 The influence of the film formed on the Prato cheese surface during the NaCl and KCl salting process: application of the finite element method and neural networks of the self-organizing map (SOM) and multilayer perceptron (MLP) types
Dionísio Borsato, Hágata C. Silva, Ana Carolina G. Mantovani, Marco A. J. Clemente, Talita F. de Oliveira and Karina B. Angilelli

<http://dx.doi.org/10.21577/0100-4042.20170868>

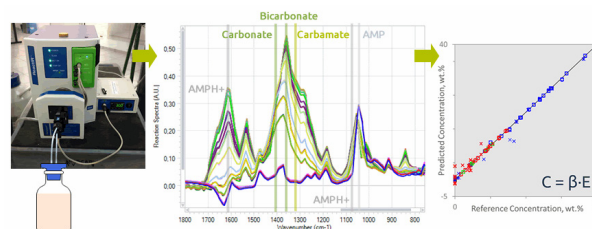
Prato cheese samples were analyzed by applying the finite element method and neural networks to study the influence of the film formed in the cheese's surface in dynamic and static salting.



- 674 Quantitative speciation of the liquid phase by FTIR spectroscopy in the system AMP-PZ-CO₂-H₂O
Armando Zanone, Denise T. Tavares e José L. de Paiva

<http://dx.doi.org/10.21577/0100-4042.20170883>

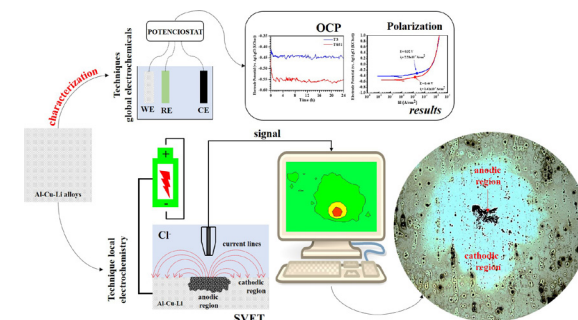
PLS model using FTIR spectroscopy to predict the concentration of the chemical species of CO₂ absorption/desorption process in aqueous amine solutions.



- 680 Compreendendo os mecanismos de corrosão de ligas de Al-Cu-Li: uma investigação através de técnicas eletroquímicas globais e locais
João V. de S. Araujo, Rejane M^a P. da Silva, Bárbara V. Viveiros, Mariana X. Milagre, Caruline de S. C. Machado e Isolda Costa

<http://dx.doi.org/10.21577/0100-4042.20170874>

In this study, the corrosion mechanism of Al-Cu-Li alloys 2198-T3 and 2198-T851 were investigated through global and local electrochemical techniques.

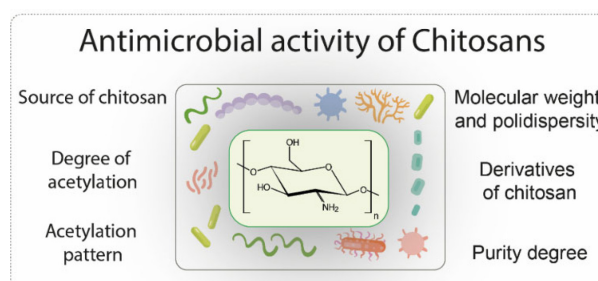


Revisão/Review

- 690 Atividade antimicrobiana de quitosanas e seus derivados: influência das características estruturais
Juliana B. Macedo, Rafaela C. Sanfelice, Luiza A. Mercante, Danilo M. dos Santos, Filipe Habitzreuter, Sérgio P. Campana-Filho e Adriana Pavinatto

<http://dx.doi.org/10.21577/0100-4042.20170867>

This review provides a recent and comprehensive survey on the influence of methods of obtention and structural characteristics of chitosan on its antimicrobial activity.



- 705 Microplásticos: uso na indústria cosmética e impactos no ambiente aquático

Julia G. M. Vargas, Vinicius B. da Silva, Lillian K. de Oliveira e Eduardo F. Molina

<http://dx.doi.org/10.21577/0100-4042.20170870>

The use of microplastics in cosmetic, personal care products and the loss of fibres from clothes when washed could be affect aquatic organisms and eventually increases the potential risk to humans of microplastic ingestion.

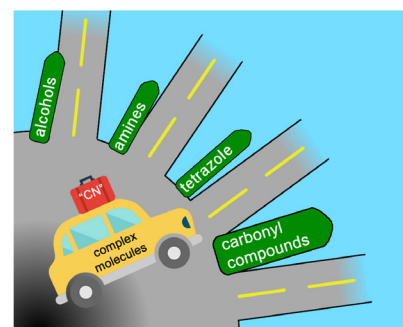


- 712 Recent advances in cyanation reactions

Larissa P. Silva, Isabella F. S. Marra and Giovanni W. Amarante

<http://dx.doi.org/10.21577/0100-4042.20170875>

The homologation of cyano group in complex molecules allows access to a wide variety of organic functions, making these structures important building blocks in organic synthesis.



Nota Técnica/Technical Notes

- 728 Supercritical extraction of lyophilized strawberry anthocyanins with pulsed electric fields pretreatment

Marco A. Ávila-Hernández, César Pérez-Alonso, Juan Orozco-Villafructe, Carlos E. Barrera-Díaz, Erik Alpizar-Reyes and Julian Cruz-Olivares

<http://dx.doi.org/10.21577/0100-4042.20170849>

The graphical abstract represents the anthocyanins extraction process from strawberry and the extraction yield at different conditions.



- 734 An adapted unmanned aerial vehicle for environmental water sampling

José C. D. Neto, Ian S. Resque, Rodrigo A. Avelino, Vagner B. dos Santos, Lucas S. Leite, Lucas O. Cesar, Paulo H. da Silva Belo, Jones Albuquerque and José L. de Lima Filho

<http://dx.doi.org/10.21577/0100-4042.20170892>

An adapted unmanned aerial vehicle used as a sampling analytical tool to fast and secure acquisition of waters samples for environmental purposes.



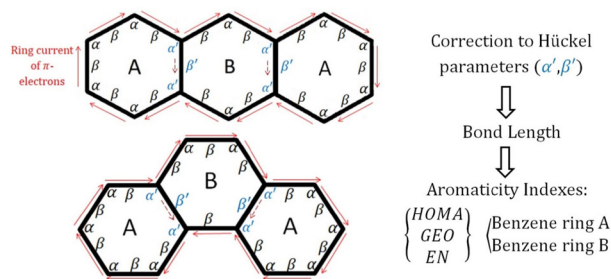
Educação/Education

742 Ring current in anthracene and phenanthrene: correction to Hückel parameters

Yuanita P. D. Sudarso, Arifin L. Maulana, Agoes Soehiani, and Inge M. Sutjahja

<http://dx.doi.org/10.21577/0100-4042.20170871>

We proposed a correction to the Hückel parameters of anthracene and phenanthrene by changing the Coulomb energy and different resonance energies of the four central carbon atoms and calculate the geometric aromaticity index of the harmonic oscillator model of aromaticity.

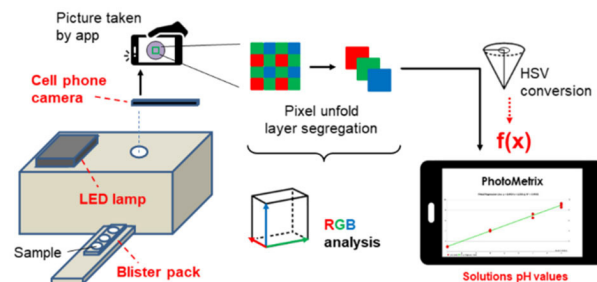


750 Interdisciplinary education through the development of a cost-effective photometric pH meter sensor using natural pigments

Rodolfo S. Barboza, Daniella L. Vale, Thiago C. A. Gomes, Thayná L. Mesquita, Carlos A. C. da Silva and Gabriela do N. Camargo

<http://dx.doi.org/10.21577/0100-4042.20170869>

The photometric pH meter sensor is used to parameterize the conditions for capturing the colors given to the solutions by using natural red cabbage dyes, followed by data analysis in RGB and subsequent conversion into HSV and mathematical processing by PhotoMetrix free App.



Assuntos Gerais/General Subject

760 Testes diagnósticos para o SARS-CoV-2: uma reflexão crítica

Marcone A. L. de Oliveira, Aripuanã S. A. Watanabe, Dionéia E. Cesar, João M. B. Candido, Nerilson M. Lima, Olívia B. O. Moreira e Paula R. Chellini

<http://dx.doi.org/10.21577/0100-4042.20170895>

The most used tests for the diagnosis of COVID-19 are compared, considering the effectiveness of each one of them for the detection of SARS-CoV-2, having as a parameter the time scale from the onset of symptoms.

