

Editorial/Editorial

- 845 Os desafios enfrentados pelos editores de periódicos científicos: plágio e produção de pesquisa falsa
Giovanna Machado, Jorge M. David e Nelson H. Morgon

<https://ds.doi.org/10.21577/0100-4042.20230108>

Artigos/Articles

- 846 Ativação de composto orgânico com ácido fosfórico e os efeitos na adsorção de Pb e Cd
Giulia M. Coltro, Jacqueline Z. Lima, Osni J. Pejon e Valéria G. S. Rodrigues

<http://dx.doi.org/10.21577/0100-4042.20230060>

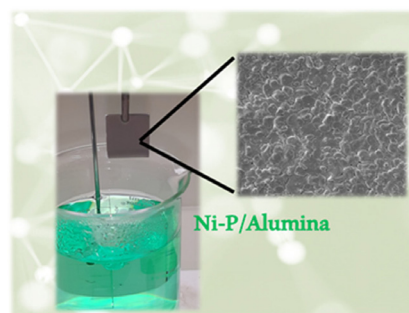
Chemical modification of organic compost to increase the adsorption capacity of Pb and Cd, contributing for sustainable development by providing a new potential use for the material.



- 854 Wet treatment and the behavior of electroless Ni-P deposition at 40 °C on polished alumina
Alexander Flacker, Cristina B. Adamo, Salomão M. da Silva Junior, Michele O. Silva, Melissa Mederos and Ricardo C. Teixeira

<http://dx.doi.org/10.21577/0100-4042.20230061>

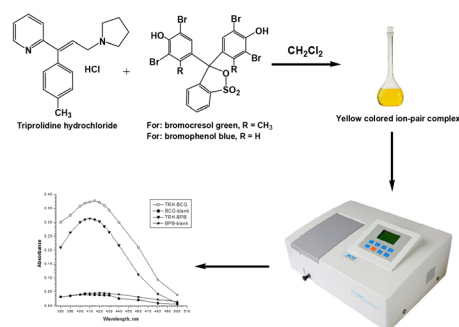
Autocatalytic electroless process for Ni-P film deposition on polished Al_2O_3 after wet treatment.



- 860 Sensitive spectrophotometric determination of triprolidine hydrochloride drug in the capsules via ion pair complex formation
Sameer A. M. Abdulrahman and Jalal Ali M. Qazzan

<http://dx.doi.org/10.21577/0100-4042.20230068>

Two sensitive and selective spectrophotometric methods were developed and optimized for the determination of triprolidine hydrochloride drug in the capsules using two dyes, namely, bromocresol green and bromophenol blue.

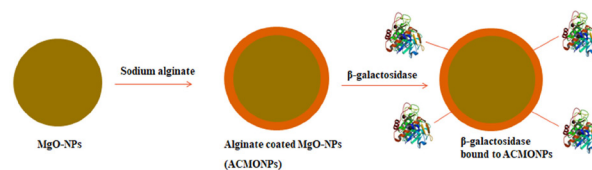


- 867 Alginate coated MgO-NPs improves the stability of *Kluyveromyces lactis* β -galactosidase for biotechnological applications

Shakeel A. Ansari, Rukhsana Satar, Nadeem Ikram and Muhammad Awais

<http://dx.doi.org/10.21577/0100-4042.20230071>

ACMONPs bound β -galactosidase exhibited pronounced activity under harsh chemical and physical environment. Greater amount of lactose was hydrolyzed in batch reactors by the developed nanobiocatalyst at higher temperature. Excellent activity retention of ACMONPs bound enzyme further authenticates its application in biotechnology industry with cost effective advantages.

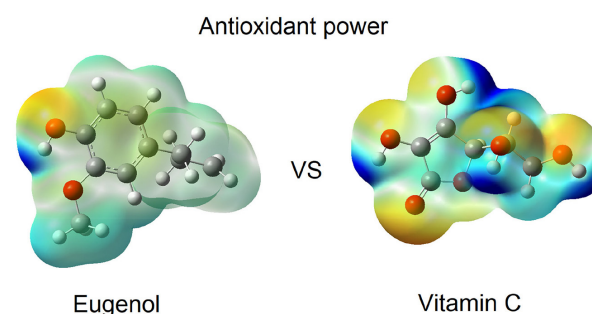


- 873 A computational study of the antioxidant power of eugenol compared to vitamin C

Hezha O. Rasul, Bakhtyar K. Aziz, Guillermo Salgado Morán, Luis H. Mendoza-Huizar, Assia Belhassan, Lorena G. Candia, Wilson C. Villada and Kandasamy Sadasivam

<http://dx.doi.org/10.21577/0100-4042.20230073>

The electrostatic potential maps of eugenol and vitamin C indicate that the $-\text{OH}$ and $-\text{OCH}_3$ sites of eugenol, as well as the $-\text{OH}$ and $-\text{CO}$ functional groups of vitamin C, exhibit antioxidant activities.



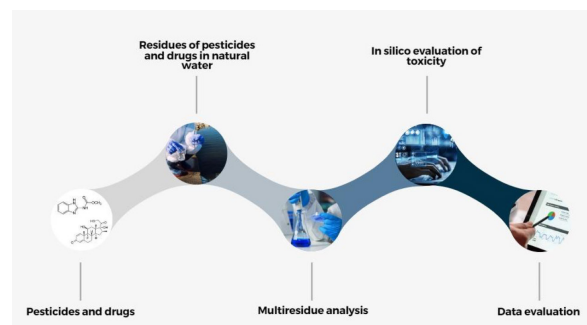
Revisão/Review

- 881 Utilização de modelos *in silico* para avaliação da toxicidade de resíduos de agrotóxicos, fármacos e metabólitos em águas naturais

Marcelo S. Alves, Livia Streit e Tânia M. Pizzolato

<http://dx.doi.org/10.21577/0100-4042.20230062>

Workflow of *in silico* model to evaluate the toxicity of pesticide residues, drugs and metabolites in natural waters.

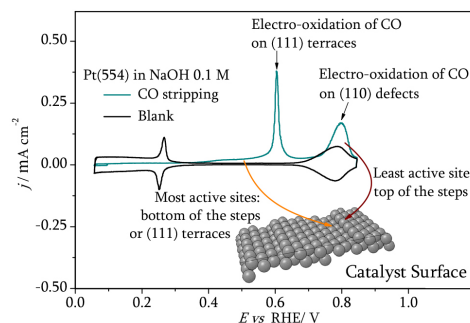


- 890 Efeito dos defeitos de superfície e do pH na adsorção e na catálise da eletro-oxidação de CO em superfícies modelos de platina

Manuel J. S. Farias, Germano Tremiliosi-Filho e Giuseppe A. Camara

<http://dx.doi.org/10.21577/0100-4042.20230064>

Defects on platinum surfaces are entities generally related to the up catalysis. At low overpotentials, defects on the platinum surfaces do not act as active sites in themselves.



Educação/Education

- 915 Inteligência artificial e ensino de química: uma análise propedêutica do ChatGPT na definição de conceitos químicos
Bruno S. Leite

<http://dx.doi.org/10.21577/0100-4042.20230059>

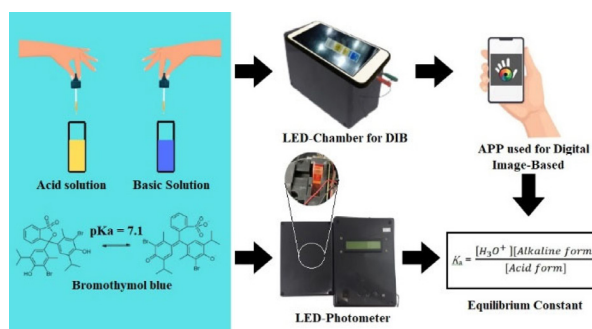
Artificial intelligence tools have generated both expectations and fears in education, and in this article, the potentialities and limitations are investigated based on the responses of ChatGPT in defining some chemical concepts.



- 924 RGB-LED-photometer and the digital image-based method using a smartphone for Chemistry and Physics teaching
Vagner B. dos Santos, Wevylly M. S. de Oliveira, João Paulo B. de Almeida, Marcos V. Foguel, Willian T. Suarez and Josiane L. de Oliveira

<http://dx.doi.org/10.21577/0100-4042.20230065>

The RGB-LED-photometer and the digital image-based method using a smartphone with an app were employed by the students to determine the K_a of the bromothymol blue.



- 931 Vozes discentes do curso de Licenciatura em Química da UFRGS: uma análise sobre a perspectiva curricular
André Slaviero, Aline S. Ponzoni e Maurícus S. Pazinato

<http://dx.doi.org/10.21577/0100-4042.20230070>

The research evidence that the training of teachers in Chemistry influences professional development and requires curricular insertions that encourage reflection, the development of a critical sense and the articulation of space-times committed to the qualification.



