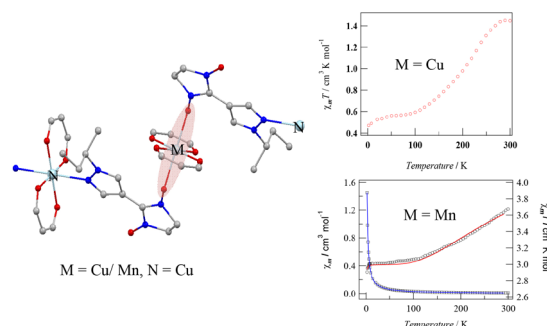


- 131 Synthesis, crystal structures and magnetic properties of coordination compounds with nitronyl nitroxide radicals and $[M(HFAC)_2]$ ($M = Cu^{II}$ and Mn^{II})

Yan-Li Gao, Yufei Wang, Huijin Liu, Xiaoli Song, Yali Wang, Ting Su and Shiqing Bi

<http://dx.doi.org/10.21577/0100-4042.20170951>

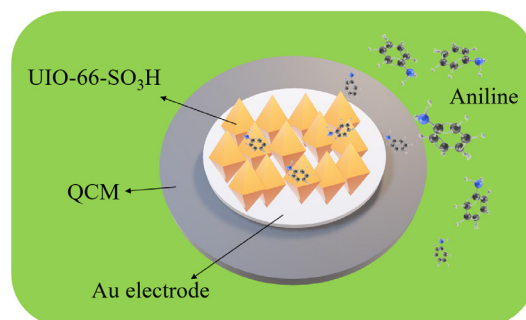


We synthesized the zig-zag chain systems $[Cu(hfac)_2]_2L_n$ and $[CuMn(hfac)_4]L_n$ and obtained the crystal structures and magnetic properties.

- 137 Room-temperature PPB-level aniline vapor sensor functionalized with UIO-66-SO₃H

Jun Cai, Luyu Wang and Yunling Wu

<http://dx.doi.org/10.21577/0100-4042.20170958>

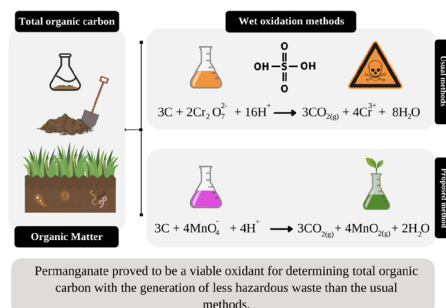


Based on Quartz Crystal Microbalance platform, UIO-66-SO₃H detected aniline vapor with ppb concentration.

- 143 A green and reliable titrimetric method for total organic carbon determination with potassium permanganate

Otávio R. Lã, Caroline C. de Azevedo, Cristina M. Barra, Julia B. Netto-Ferreira, Érica B. de Sousa and José G. Rocha Jr.

<http://dx.doi.org/10.21577/0100-4042.20170961>

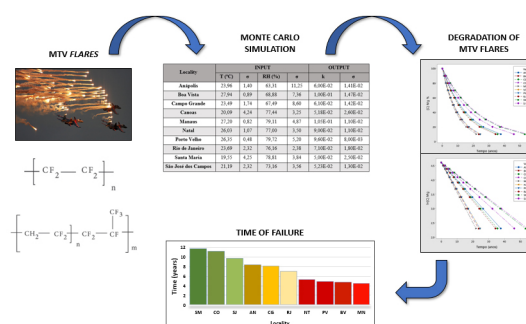


Permanganate proved to be a viable oxidant for determining total organic carbon with the generation of less hazardous waste than the usual methods.

- 150 Determinação dos parâmetros cinéticos de degradação e estimativa do tempo de falha de contramedidas eletrônicas “flare” do tipo magnésio Teflon® Viton®

Carlos H. da S. Rodrigues, Edemar Kirchhof e José A. F. F. Rocco

<http://dx.doi.org/10.21577/0100-4042.20170963>



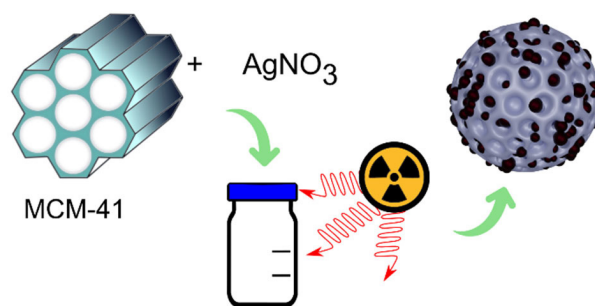
Application of the Monte Carlo method to determine the time to failure of MTV flares countermeasures intended to protect aircraft in combat.

- 157 Mesoporous silica decorated with silver nanoparticles – an investigation of the radiolytic synthesis parameters through factorial experiments

Clara L. B. Fidelis, Marcelo F. Cipreste, Pedro L. Gastelois, Waldemar A. de A. Macedo and Edésia M. B. de Sousa

<http://dx.doi.org/10.21577/0100-4042.20170969>

This work focuses on the radiolytic synthesis of AgNPs capped into a mesoporous silica MCM-41. A suspension prepared with MCM-41 and AgNO_3 is irradiated by a gamma radiation source. The AgNPs are formed inside the silica's mesopores structure.



- 168 The extinction of the *ignis fatuus*

Antonio C. Pavão, Gerson S. Paiva and Cristiano C. Bastos

<http://dx.doi.org/10.21577/0100-4042.20230002>

Ignis fatuus, a luminous phenomenon witnessed over the centuries by observers around the world, is no longer seen in modern times. The abandonment of fire in favor of night lighting may hold the secret to the mystery of *ignis fatuus*'s extinction.

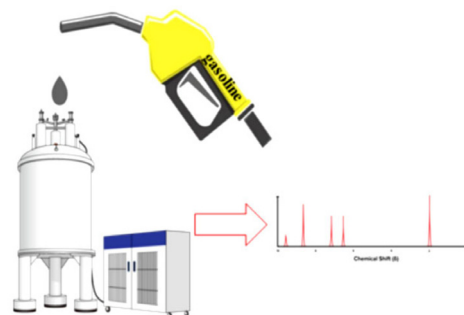


- 171 Estudo de gasolinas premium e comum comercializadas no Brasil através do método ERETIC-RMN e quimiometria

Vinícius S. Pinto, Gerlon de A. R. Oliveira, Christian D. Gomides, Marcos R. Monteiro e Luciano M. Lião

<http://dx.doi.org/10.21577/0100-4042.20230004>

Gasoline is chemically characterized as a complex mixture of hydrocarbons used as a fuel. With the proper application of quantitative NMR combined with chemometric treatment, it is possible to discriminate between different types of gasoline as well as to obtain precise information about its composition.



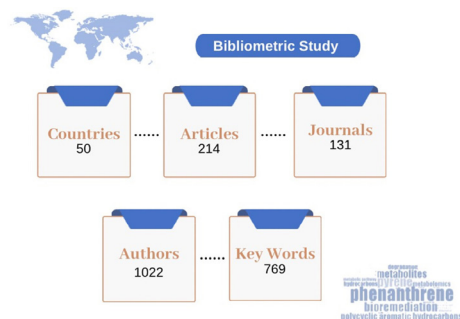
Revisão/Review

- 179 Uso da análise bibliométrica como ferramenta para o levantamento de estudos sobre a metabolômica aplicada na biorremediação de áreas impactadas por hidrocarbonetos

Bruna P. da Costa, Camila P. Dantas, Beatriz B. Miranda, Danusia F. Lima, Olívia Maria C. de Oliveira, Karina S. Garcia, Gisele A. B. Canuto e Leonardo S. G. Teixeira

<http://dx.doi.org/10.21577/0100-4042.20170960>

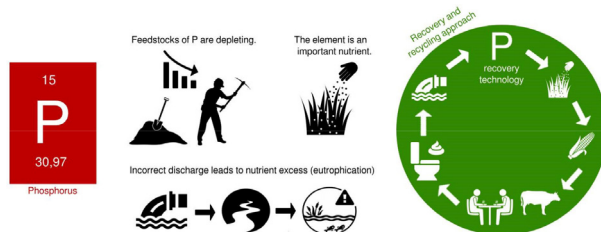
Overview of the main bibliographic domains on studies related to petroleum metabolites investigated in recent years in bioremediation processes.



- 185 Sustentabilidade no uso de fósforo: uma revisão bibliográfica com foco na situação atual do Estado de São Paulo, Brasil
Isabela T. M. Sasabuchi, Kamille S. Krieger, Renan S. Nunes, Amanda C. Ferreira, Gabriela T. M. Xavier, Alessandro L. Urzedo, Wagner A. Carvalho e Pedro S. Fadini

<http://dx.doi.org/10.21577/0100-4042.20170967>

Phosphorus is a nutrient with increasing scarcity and is essential for food production. In water resources, as a contaminant, it puts ecosystems at risk. We have the challenge of preventing phosphorus from entering aquatic environments and reusing it in agriculture.

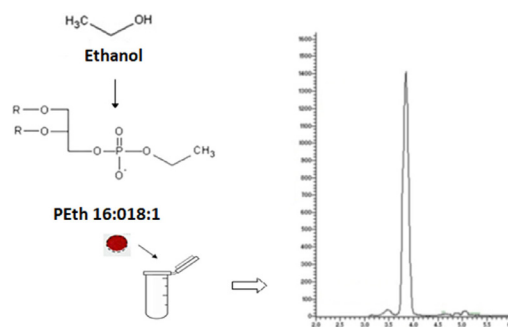


Nota Técnica/Technical Notes

- 199 Determinação de fosfatidiletanol em manchas de sangue seco em papel por UHPLC-MS/MS: avaliação do consumo de álcool em dependentes químicos
Mariane Tegner, Fernanda S. Guterres, Isabela R. Ott, Lidiane T. da Motta, Deise T. Schmitz, Magda Perassolo, Rafael Linden e Marina V. Antunes

<http://dx.doi.org/10.21577/0100-4042.20170968>

We present a UHPLC-MS/MS method for the quantification of phosphatidylethanol (PEth) in dried blood spots (DBS). The PEth levels from 25 chemical dependents ranged from 14.5 to 2,380.8 ng mL⁻¹ with significant correlation with the self-report alcohol consumption AUDIT scores (r=0.41).

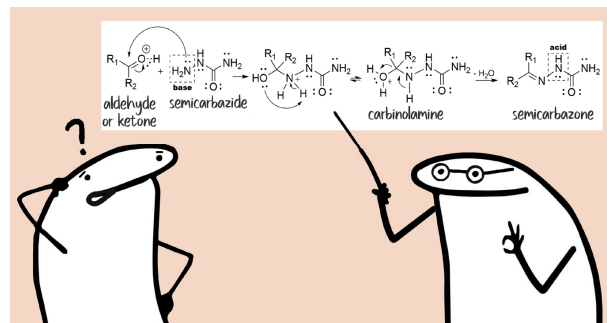


Educação/Education

- 207 Semicarbazonas: sequência didática interdisciplinar em aulas experimentais de Química Orgânica e Química Medicinal
Vanessa da S. Oliveira, Ingedy A. G. Sá, Georgtown A. O. da Silva, Victória L. dos A. Santos, Cleônia R. M. Araújo e Arlan de A. Gonsalves

<http://dx.doi.org/10.21577/0100-4042.20170962>

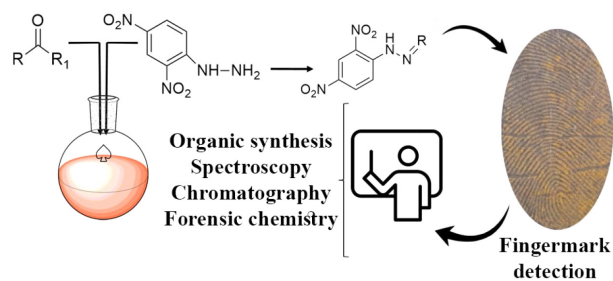
This work aims to provide an overview of the semicarbazone functional group through experimental classes. A semicarbazone structurally attractive and easily accessible was synthesized and characterized in a contextualized way and using an interdisciplinary approach.



- 215 As clássicas hidrazonas como reveladores de impressões digitais: uma proposta de química orgânica experimental
Nathalia P. K. Lima, Bruno N. Rosa, Tais Poletti, Bruna C. Moreira, Amanda F. Leitzke, Kristiane C. Mariotti, Neftali L.V. Carreño e Cláudio M. P. Pereira

<http://dx.doi.org/10.21577/0100-4042.20170964>

Through the synthesis of hydrazones it is possible to conduct a practical class bringing contents to the students such as organic synthesis, spectroscopy, chromatography and forensic chemistry with fingerprint development.



Assuntos Gerais/General Subject

222 Avaliação dos cientistas: utilizamos as métricas corretas?

Josefredo R. Pliego Jr.

<http://dx.doi.org/10.21577/0100-4042.20170955>

Reliable and fair metrics for evaluating scientists need to include fractional counting of author publications and received citations.

