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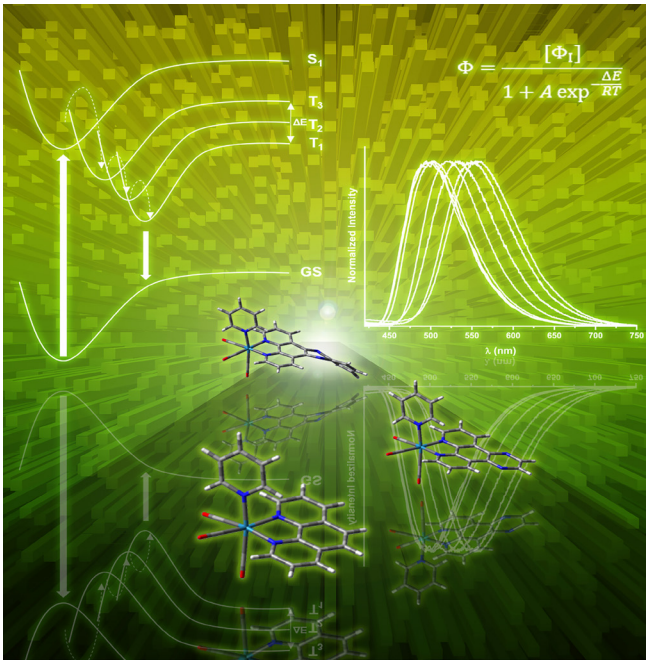
Cover Picture



Unraveling the photophysical properties of polypyridyl Re^{I} complexes with close-lying excited states by temperature-dependent luminescence measurements coupled with quantum-mechanical calculations. Details are presented in the Article **Temperature Dependent Emission Properties of Re^{I} Tricarbonyl Complexes with Dipyrido-Quinoxaline and Phenazine Ligands** by *Cristiane L. Ramos, Fernando S. Prado, Marcos Eduardo G. Carmo, Giliandro Farias, Bernardo Souza, Antonio Eduardo H. Machado and Antonio Otavio T. Patrocinio* on page 425.

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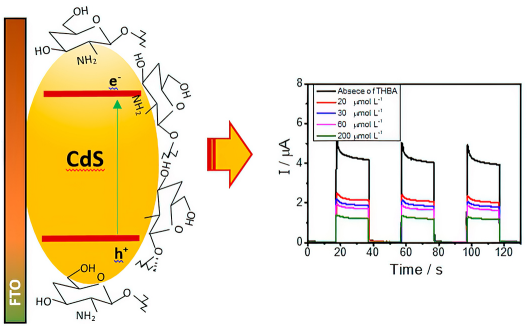


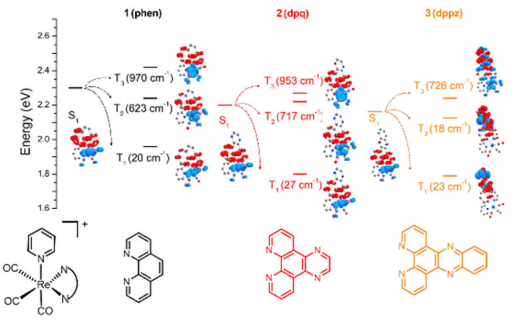
Graphical Abstract
Photoelectrochemical (PEC) determination of 3,4,5-trihydroxybenzoic (THBA) with the p-DG-CdS/fluorine-doped tin oxide (FTO) sensor.

https://dx.doi.org/10.21577/0103-5053.20210160

425 **Temperature Dependent Emission Properties of Re^{I} Tricarbonyl Complexes with Dipyrido-Quinoxaline and Phenazine Ligands**

Cristiane L. Ramos, Fernando S. Prado, Marcos Eduardo G. Carmo, Giliandro Farias, Bernardo Souza, Antonio Eduardo H. Machado and Antonio Otavio T. Patrocinio

SI online



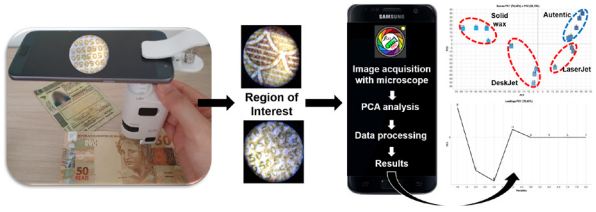
Graphical Abstract
New insights on the photophysical properties of rhenium(I) tricarbonyl complexes are reported based on a joint theoretical-experimental work.

https://dx.doi.org/10.21577/0103-5053.20210161

437 **Use of a Portable Microscope Combined with a Smartphone to Determine the Authenticity of Brazilian Banknotes and National Driver's Licenses**

Rayana A. Costa, Bruno V. Vittorazzi, Amanda P. Barbosa, Victória B. da Rocha, Jandira M. O. B. Brandão, Valdemar Lacerda Jr., Paulo R. Filgueiras and Wanderson Romão

SI online

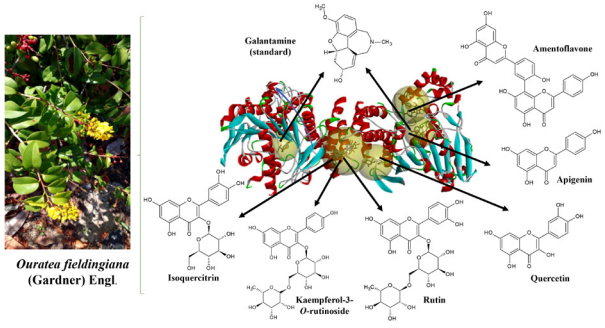


Graphical Abstract
Smartphone microscope associated with chemometric methods used to evaluate the authenticity of a document.

https://dx.doi.org/10.21577/0103-5053.20210162

446 ***In vitro* Antioxidant and Anticholinesterase Activities of *Ouratea fieldingiana* (Gardner) Eng. Leaf Extract and Correlation with Its Phenolics Profile with an *in silico* Study in Relation to Alzheimer's Disease**

Lucas S. Frota, Daniela R. Alves, Leonardo S. Freitas, Francisco F. S. Lopes, Marcia M. Marinho, Emmanuel S. Marinho and Selene M. de Morais



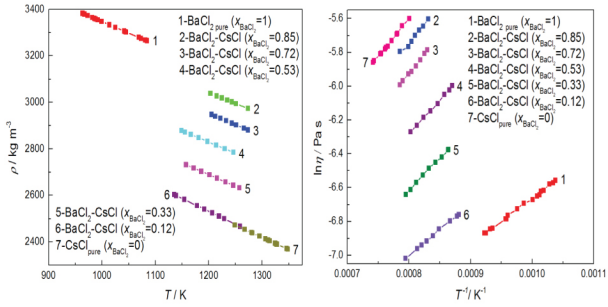
Graphical Abstract
Ouratea fieldingiana flavonoids present antioxidant and anticholinesterase activities and *in silico* studies showed that some of them bind probably to acetylcholinesterase (AChE) allosteric centers. All compounds can be considered promising agents to fight Alzheimer's disease.

https://dx.doi.org/10.21577/0103-5053.20210163

456 **Thermophysical and Transport Properties of the $BaCl_2$-CsCl High Temperature Ionic Liquid Mixtures**

Ana-Maria Popescu and Virgil Constantin

SI online

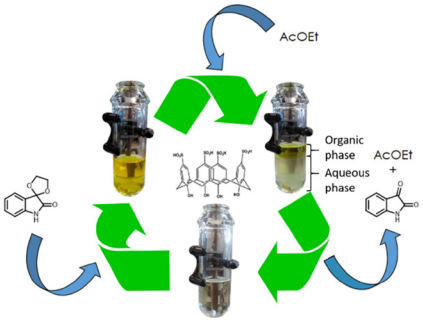


Graphical Abstract
Density and viscosity *vs.* temperature in high temperature ionic liquids (HTILs) mixtures $BaCl_2$-CsCl.

https://dx.doi.org/10.21577/0103-5053.20210164

466 **Novel Greener Microwave-Assisted Deprotection Methodology for the 1,3-Dioxolane Ketal of Isatin Using Calix[*n*]arenes**
Lucas B. Barbosa, Tiago L. da Silva, Michelle J. C. Rezende, Bianca N. M. da Silva, Rodrigo N. Guzzo and Bárbara V. Silva

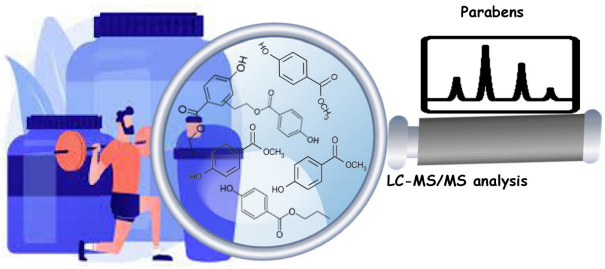
SI online



Graphical Abstract
The use of *p*-sulfonic acid-calix[4]arene (SCX4), microwave energy, and water as a solvent is a fast, efficient and reusable catalytic system for the hydrolysis of the isatin ketal dioxolane.

https://dx.doi.org/10.21577/0103-5053.20210165

474 **Validation and Application of a Methodology for Quantifying Levels of Parabens in Sports Supplements from Brazil Using Liquid Chromatography-Mass Spectrometry**
Bruno A. Rocha, Cibele A. Cesila, Airton C. Martins, Marília C. O. Souza and Fernando Barbosa Jr.

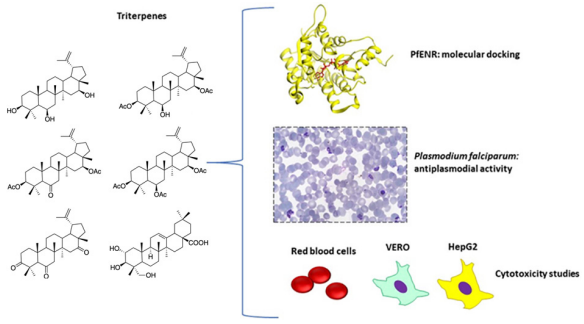


Graphical Abstract
Prohibited parabens were found in sports supplements from Brazil.

https://dx.doi.org/10.21577/0103-5053.20210166

483 **Natural and Semisynthetic Triterpenes from *Combretum leprosum* Mart. with Antiplasmodial Activity**
Guilherme M. Passarini, Amália S. Ferreira, Leandro S. Moreira-Dill, Fernando B. Zanchi, Aurileya G. de Jesus, Valdir A. Facundo and Carolina B. G. Teles

SI online

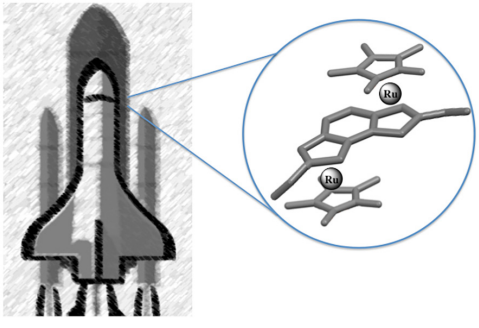


Graphical Abstract
Six triterpenes were evaluated for their *in vitro* activity and their *in silico* binding affinity to Pf*E*NR (*Plasmodium falciparum* 2-*trans*-enoyl-reductase). They were also investigated with respect to their hemolytic and cytotoxic activities.

https://dx.doi.org/10.21577/0103-5053.20210167

491 **Catalytic Effects of Ruthenocene Bimetallic Compounds Derived from Fused Aromatic Ring Ligands on the Main Oxidizing Agent for Solid Rocket Motor**
Yuvaraja Dibdalli, José Gaete, Claudio Osorio-Gutierrez, Juan Luis Arroyo, Angel Norambuena, Mungalimane K. Amshumali, Gabriel Abarca and Cesar Morales-Verdejo

SI online



Graphical Abstract
Ruthenocene bimetallic compounds as burning rate catalysts for composite solid propellants.

https://dx.doi.org/10.21577/0103-5053.20210168

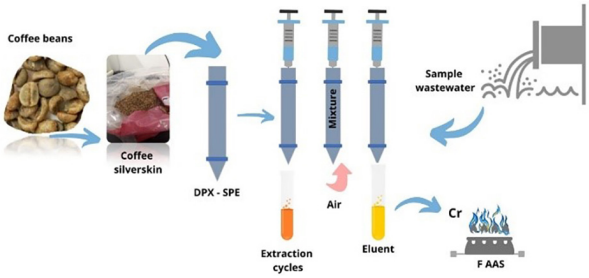
498 **Development of a Disposable Pipette Extraction Method Using Coffee Silverskin as an Adsorbent for Chromium Determination in Wastewater Samples by Solid Phase Extraction**

SI online

Weida R. Silva, Bruno E. S. Costa, Alex D. Batista, Vanessa N. Alves and Nivia M. M. Coelho

Graphical Abstract

Coffee silverskin obtained from industrial waste was successfully used as a new adsorbent to solid phase extraction in a disposable pipette tips (DPX) method. The procedure was capable of determining chromium at low concentrations in sample wastewater according to CONAMA established standards.



https://dx.doi.org/10.21577/0103-5053.20210171