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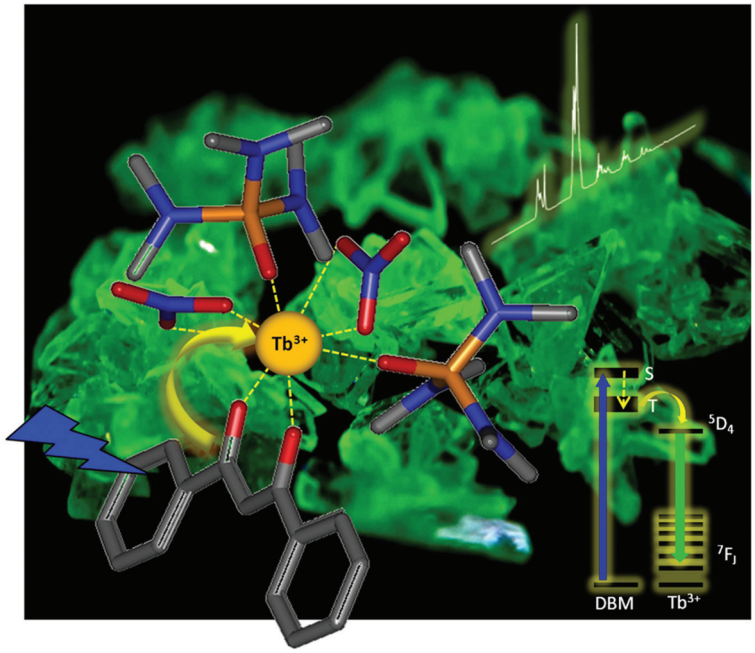
Cover Picture



A novel Tb(III)-diketonate complex, $[Tb(DBM)(NO_3)_2(HMPA)_2]$, that exhibits abnormally high green luminescence intensity in the crystalline form has been characterized. This complex presents considerably higher triplet state energy than its analogues $[Tb(DBM)_2(NO_3)(HMPA)_2]$ and $[Tb(DBM)_3(HMPA)]$ complexes, promoting a more operative *antenna effect*. This new complex presents potential for photonic applications based on Light Conversion Molecular Devices (LCMD). Details are presented in the Article **Energy Transfer Processes in Tb(III)-Dibenzoylmethanate Complexes with Phosphine Oxide Ligands** by *Francisco A. Silva Jr., Helenise A. Nascimento, Dariston K. S. Pereira, Ercules E. S. Teotonio, Hermi F. Brito, Maria Cláudia F. C. Felinto, José Geraldo P. Espínola, Gilberto F. Sá and Wagner M. Faustino* on page 601.

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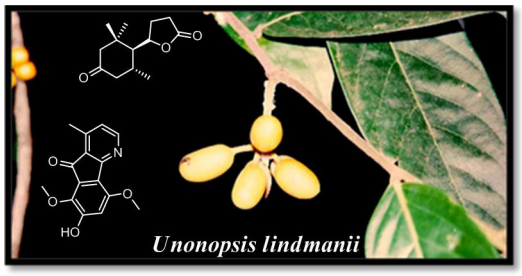
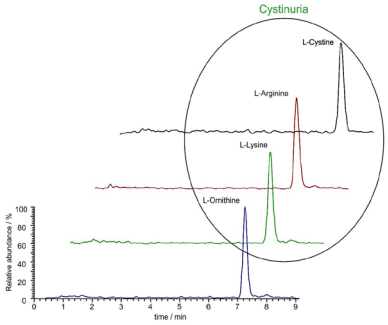
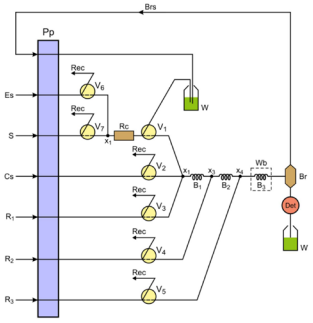


Graphical Abstract
The occurrence of azafluorenone alkaloids is rare and restricted to the Annonaceae family. In this study, the isolation of the alkaloid 5,8-dimethoxy-7-hydroxy-1-methyl-4-azafluoren-9-one and the megastigman (-)-(5*R**, 6*S**)-megastigman-3-one-10,7-olide from aerial parts of *Unonopsis lindmanii* (Annonaceae) is described

Articles

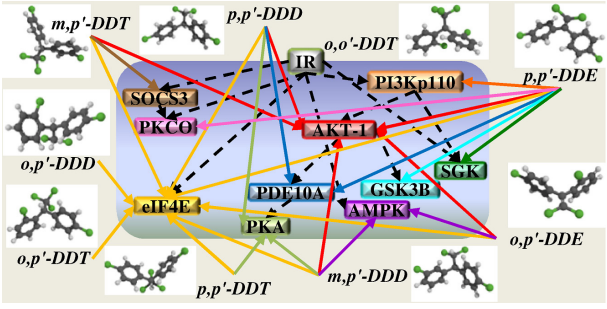


Graphical Abstract
This method can determine the profile of amino acids in human urine, in which alterations characterize cystinuria, an inborn error of metabolism. The earlier this alteration is detected in a newborn, the lower the chances of further health damage

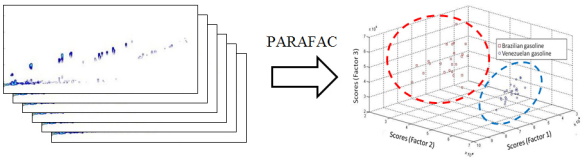


Graphical Abstract
A low cost flow analysis setup employing multicommutation process for photometric determination of alantoin in soybean was developed employing a LED based photometer. Profitable features such as low reagent consumption and low volume of waste generation were achieved

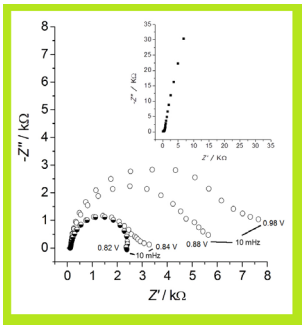
Graphical Abstract
Compounds of strontium (SrO + $SrCO_3$ + $Sr(OH)_2$) can efficiently catalyze the transesterification reaction of babassu and castor oils as well as a mixture of these oils. This method can greatly contribute to the settling of the transesterification process since it is more industrially satisfactory



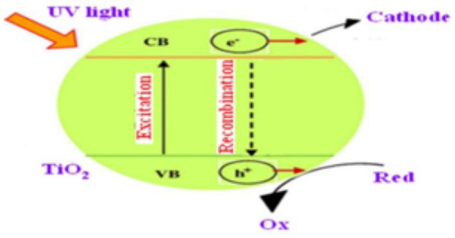
Graphical Abstract
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane) and its derivatives showed good AutoDock Vina affinity values with several proteins involved in the insulin signaling pathway, suggesting this pesticide may modulate biochemical mechanisms, eventually explaining the reported relationship between exposure to this chemical and diabetes prevalence



Graphical Abstract
Comprehensive two-dimensional gas chromatography-flame ionization detection (GC×GC-FID) combined with multivariate analysis was used to differentiate Brazilian and Venezuelan gasoline samples

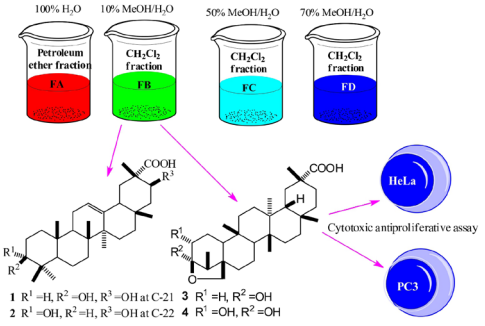


Graphical Abstract
Complex-plane plots for glassy carbon electrode modified with a ruthenium-based hexacyanoferrate film at pH 1.5 in the presence and absence of ethanol at different applied potentials *vs.* Ag|AgCl|KCl_{sat}. Inset figure: electrode in the absence of ethanol

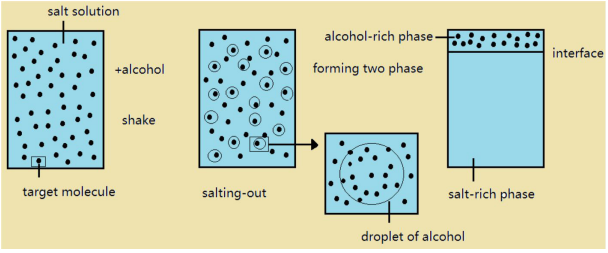


Graphical Abstract
The present work reports a new analytical method for determination of hydrazine based on photoelectrocatalytic oxidation of TiO_2 film modified titanium foil electrode (Ti/TiO_2). This process was performed using Ti/TiO_2 photoelectrode fabricated with anodic oxidation of Ti foil electrode

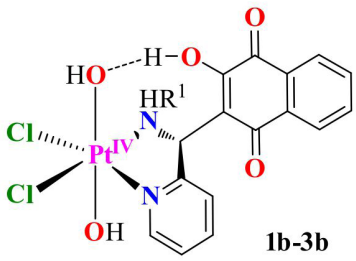
SI online



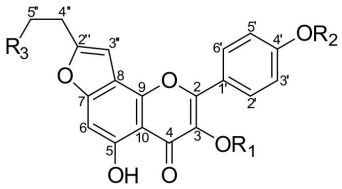
Graphical Abstract
Isolation, characterization and cytotoxicity of a new triterpene (ficusonic acid) from the roots of *Maytenus royleana* plant



Graphical Abstract
A short chain alcohol aqueous two-phase system (ATPS) coupled with high performance liquid chromatography (HPLC) was developed to extract and analyse chloramphenicol (CAM) in livestock meat samples



R^1 = *n*-Bu. **1b**; *n*-heptyl. **2b**; *n*-decyl. **3b**



1 R_1 = H, R_2 = Me, R_3 = H
2 R_1 = Me, R_2 = H, R_3 = OH

Short Reports