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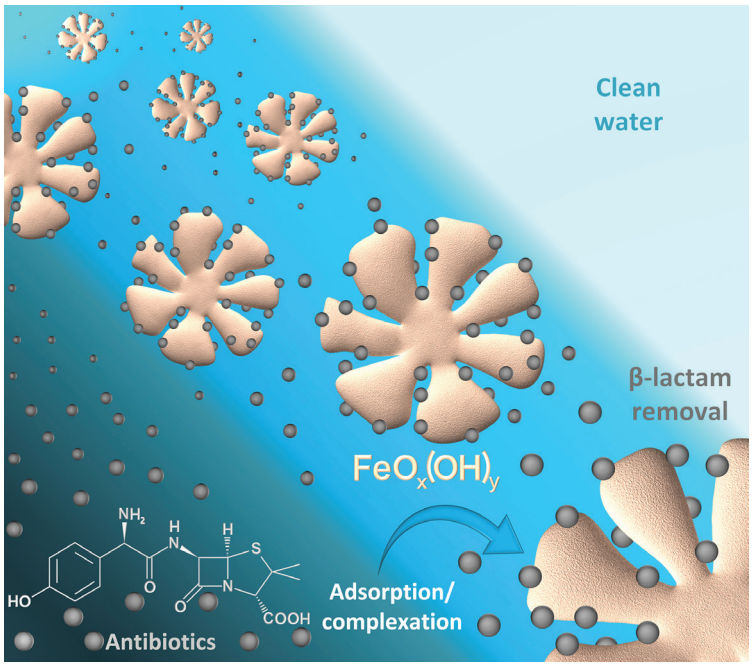
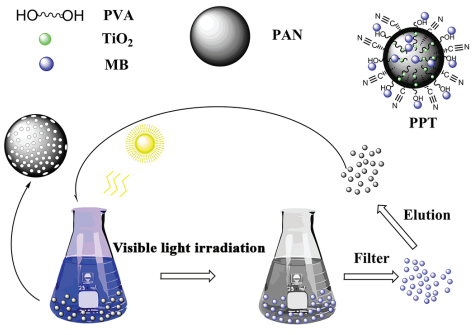
Cover Picture



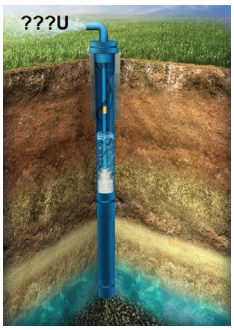
The presence of antibiotics in water has become a worldwide concern. Adsorbents based on mesoporous iron oxide containing surface [$FeO_x(OH)_y$] sites were produced for the efficient adsorption of β-lactam antibiotics. The findings demonstrated a special interaction between amoxicillin and the surface iron oxyhydroxide species. Details are presented in the Artice **Controlled Dehydration of $Fe(OH)_3$ to Fe_2O_3: Developing Mesopores with Complexing Iron Species for the Adsorption of β-Lactam Antibiotics** by *Paula S. Pinto, Giovani D. Lanza, José D. Ardisson and Rochel M. Lago* on page 310.

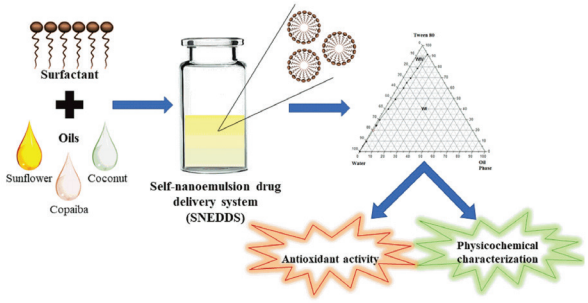
Contents

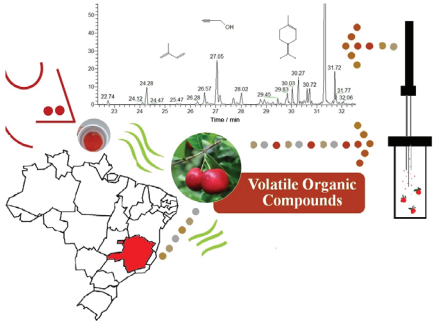
Articles

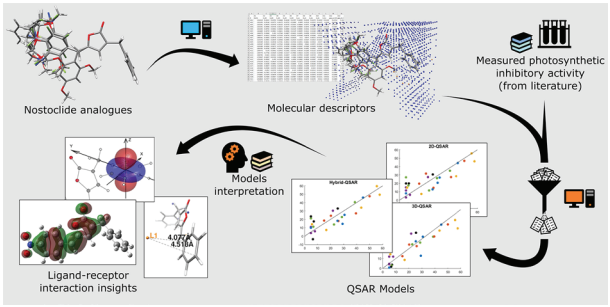


Graphical Abstract
Polyacrylonitrile (PAN)/polyvinyl alcohol (PVA)/TiO_2 (PPT) beads structure and removal of methylene blue (MB) under visible light irradiation.

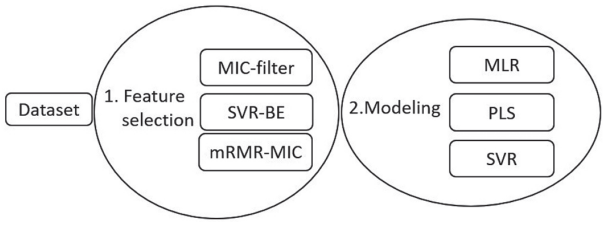




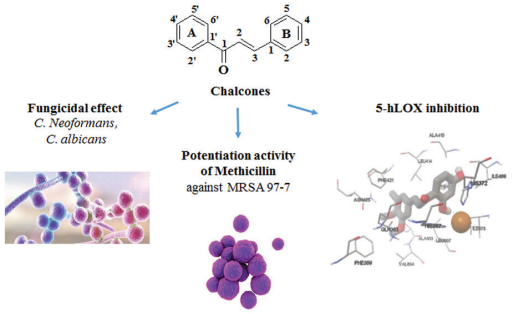




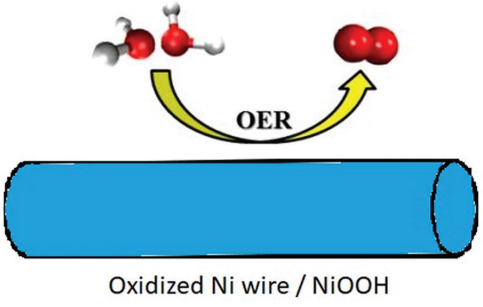
Graphical Abstract
2D and 3D molecular descriptors were calculated, selected and used to build quantitative structure-activity relationship (QSAR) models to predict the herbicide activity of a set of nostoclide analogues (experimental data retrieved from the literature). The models were interpreted to understand the ligand-receptor interactions.



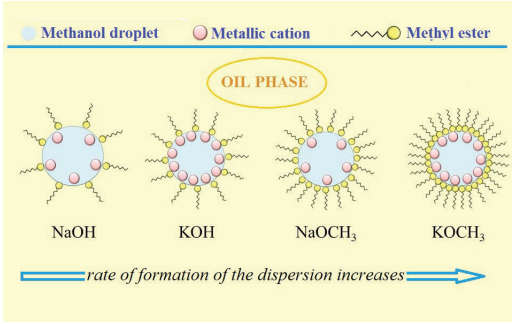
Graphical Abstract
Given a dataset, first, use maximum information coefficient (MIC-filter), support vector regression backward elimination (SVR-BE) and minimal redundancy maximal relevance (mRMR-MIC) to select features. Second, use the multiple linear regression (MLR), partial least square regression (PLS) and support vector regression (SVR) to build quantitative structure activity relationship (QSAR) models.

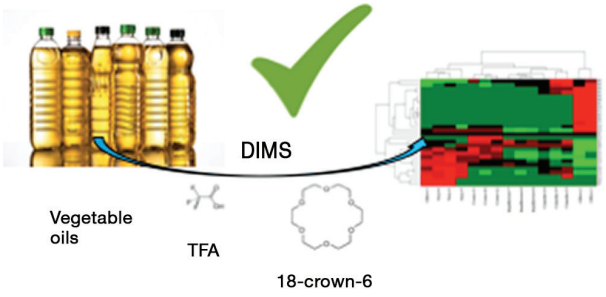


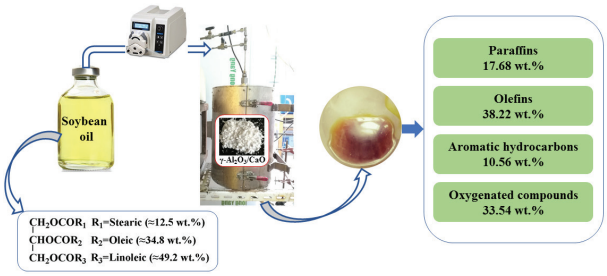
Graphical Abstract
Nine simple polyoxygenated chalcones were synthesized to evaluate their antimicrobial, anti-inflammatory and antioxidant activities.

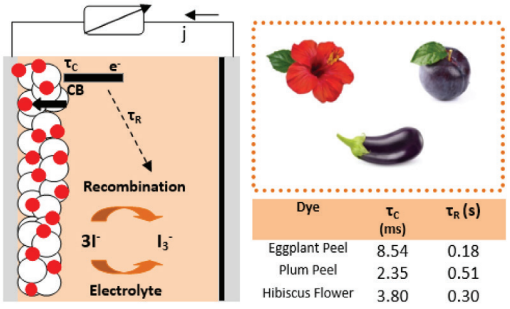


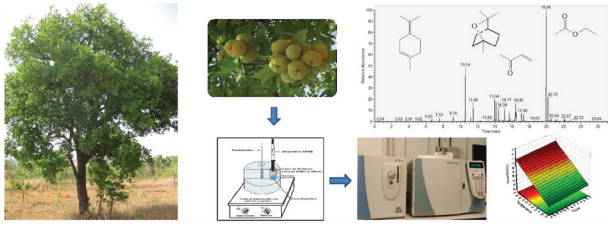
Graphical Abstract
Oxygen evolution reaction (OER) on nickel wire with nickel oxyhydroxide layer.



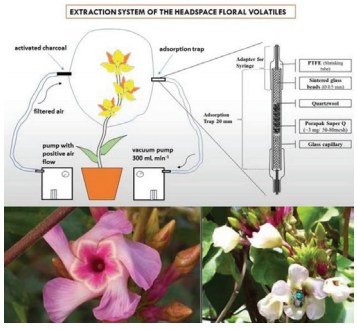




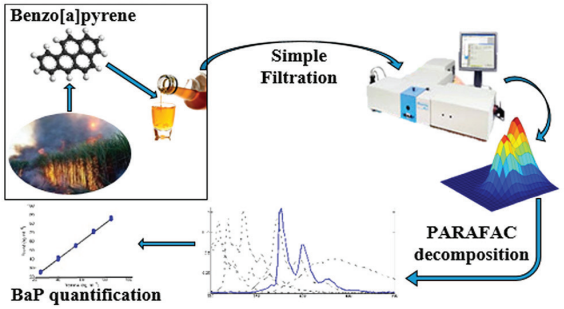




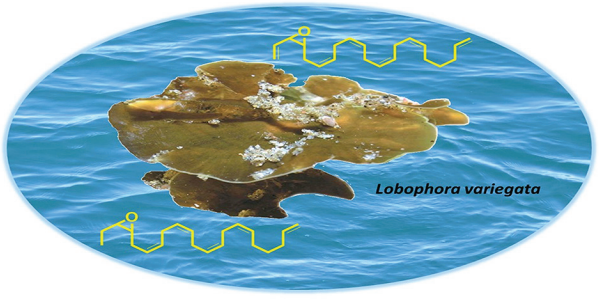
Graphical Abstract
Conditions optimization of extraction of volatile compounds from fruit of *Eugenia dysenterica* using different solid-phase microextraction (SPME) fibers.



Graphical Abstract
Analysis of the chemical composition of the attractants and floral resources available in *T. odorifera* provided a broader understanding of the mechanisms responsible for plant-insect interactions.



Graphical Abstract
Procedure of benzo[*a*]pyrene (BaP) quantification in cachaças using PARAFAC to overcome the interferences.



Graphical Abstract
Two new polyunsaturated 3,4-epoxy-heneicosane derivatives named as epoxy-lobophorene A and B were isolated from the brown alga *Lobophora variegata* and presented a moderate antiproliferative effect against tumor cell lines.

Graphical Abstract

Soil carbon stocks and organic matter composition (assessed by ^{13}C NMR spectroscopy) in an Acrisol under native Amazon Forest and natural regeneration or pasture cultivation after native Amazon Forest slash-and-burn, which emitted 74 Mg ha^{-1} of carbon to the atmosphere.