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Recent approach to incorporate tellurium in metal carbonyl cluster utilizing extrusion reaction

The incorporation of tellurium into metal carbonyl using tellurium transfer/ extrusion reaction is presented in this work. The results bring one of the new ways to incorporate tellurium by transferring it from one molecule to another molecule, in comparison to the work so far where either insertion or extrusion reactions were shown. The reactions of PhC2TeC2Ph with the metal carbonyl cluster produced thermodynamically stable metal carbonyl tellurium clusters.

Research Article Published Date: 2019-07-09

Micropollutants in wastewater irrigation systems: Impacts and perspectives

Climate change and the increasing global population pose a severe threat to the availability of freshwater in the world. Over consumption of water and deteriorating water quality are problems that should be addressed in order to ensure water availability for the coming decades. In this context, the increasing presence of micropollutants in water has shown to cause detrimental impact on water quality, given the negative disturbances that they can cause on human health and on the environment. Thus, it is important to study and quantify the presence of micropollutants in water bodies and also in regenerated wastewater based irrigation systems.

Research Article Published Date:- 2019-06-12

Biodegradation of waste streams containing benzene, toluene, ethylbenzene and xylene (BTEX): Practical implications and brief perspectives

Benzene (B), toluene (T), ethylbenzene (E) and xylene (X), collectively named as BTEX are mono-aromatic ring compounds with a 6-carbon benzene ring. Due to the presence of the aromatic ring, these compounds, especially benzene, are generally considered to be non-reactive species [1].

Review Article Published Date: 2019-06-11

Stoichiometric approach to redox back titrations in ethanol analyses

This article refers to calculations involved with determination of ethanol, analyzed according to redox back titration principle. A quantitative reasoning, based on logical sequence of statements, is presented for derivation of the formulas required to calculate the results of chemical analyses according to stoichiometric principles. The titrations are considered as two-step analytical procedures. This way, one can gain an insight into a classical redox titration and get a knowledge on the advantages of back titrations.