



Université Blaise Pascal

UNIVERSITÉ BLAISE PASCAL
U.F.R de Recherche Scientifique et Technique



CYCLE DE CONFÉRENCES DE CHIMIE

Avec le concours de : *Manufacture Française des Pneumatiques MICHELIN*
Centre de Développement Préclinique, Schering-Plough
Fédération de Chimie (FR 2404)
Section Auvergne de la Société Française de Chimie
U.F.R.S.T. / Master de Chimie / Département de Chimie

Jeudi 3 Juin 2010 à 10 h

Amphi de Chimie Paul REMI - (Site des Cézeaux)

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Faculty of Chemistry, University of Gdańsk (Poland)

Prospective assessment of ionic liquids in the environment

Ionic liquids (ILs) are often uncritically regarded as intrinsically environmentally friendly, since their vapour pressure is negligible, and hence are a good alternative to the emissions of toxic vapours from conventional molecular organic solvents. Merely reducing such gaseous discharges, however, does not automatically make a process greener, and many other facts have to be taken into account before such a statement can be made. In view of the chemical industry's great interest in these compounds, one has to anticipate a number of risk scenarios, including those in which certain amounts of ionic liquids are present in industrial effluents where, because of their great stability, they could become persistent pollutants and break through classical treatment systems into natural waters.

In this presentation therefore recent progress in evaluation of IL toxicity, ecotoxicity and biodegradation will be discussed. Since sorption also plays an important role for an accurate prediction of chemicals fate in the environment, the ILs distribution and mobility in soils and sediments will also be presented. Since all these research activities also require reliable and accurate, relatively simple and reproducible analytical methods, recent developments in the field of determination of ILs with various methods will be discussed.

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