



## **Eco-Efficient strategies for stabilising metals in contaminated soils**

M.J. Martínez-Sánchez (1), C. Pérez-Sirvent (1), A.M. Solano (1), M.L. Garcia (1),  
M.J. Martínez (1), J. López(1), M. Hernández-Cordoba (2)

(1)Department of Agricultural Chemistry, Geology and Pedology, (2)Department of Analytical Chemistry, Faculty of Chemistry, University of Murcia, Campus de Espinardo, 30100, Murcia, Spain, (melita@um.es)

In accordance to the Spanish legal provisions, (RD January 18 th, 2005) there is a need of developing new in situ treatments for residues, in this way avoiding the generation, transport and elimination of these materials. This convenience of using in situ methods is also recommended by EPA as a suitable methodology to be used instead of transport.

This work deals with the need of looking for a low-cost, reliable and sustainable cleaning approach for sites contaminated by heavy metals. A methodology suitable for such a purpose should not only protect the environment but be also accepted by the social agents: administration (at the local, regional and national levels) specialised technicians, technical companies involved and citizens. The aim of this study is to evaluate the possibility of using residues coming from construction and demolition activities, or residues coming from the mining of calcareous materials, as immobilizing agents of metals. In this way a double benefit could be obtained. First, a revalorization of these materials which are transformed from residues to subproducts is achieved. In addition, a simple solution to the severe environmental problem caused by the accumulation of heavy metals is obtained.

Acknowledgement. Partial financial support of the Spanish Ministerio de Medio Ambiente (ref.: 1.1-411/2005/3-B) is gratefully acknowledged.