Program	**Program international CORINT EUREKA - 46/2006**
Project title (ENG):	**Arsenic and pesticide removal from natural water by an effective, safe and compact-sized separation system (**SEPAR)
Project title (RO):	**Indepartarea arsenului si pesticidelor din apa printr-un sistem de separare eficient, sigur si compact (SEPAR)**
Duration	2006-2008
Team Leader	Cristiana COSMA/Mihai STEFANESCU
Summary (short description) ENG	The experiments of arsenic and lindane removal from water were performed in the frame of the project and the results were represented by three technologies of micro pollutants removal from drinking water in a laboratory modular pilot installation: – arsenic removal by the followings treatment phases: arsenites oxidation with hydrogen peroxide – coprecipitation arsenates with lime in the presence of ferric ion – microfiltration – ultrafiltration; – lindane removal by applying the followings flow treatment steps: adsorption on activated carbon powder – microfiltration – ultrafiltration; – Removal both arsenic and lindane by the followings treatment phases: arsenites oxidation/partial lindane oxidation with hydrogen peroxide in the presence of ferric iron – coprecipitation of arsenates with lime – microfiltration – ultrafiltration. The elaborated treatment flows led to treated effluents in the frame of quality limits for the studied pollutants (arsenic 10 μg/l, lindane 1μg/l).
Summary (short description) RO	In cadrul proiectului au fost realizate experimente de indepartare a arsenului si lindanului din apa rezultatele fiind concretizate prin realizarea a trei tehnologii de indepartare micropoluanti din apa destinata consumului uman intr-o instalatie modulara la nivel pilot laborator: - indepartare arsen prin aplicarea urmatoarelor faze de flux: oxidare arseniti cu peroxid de hidrogen - coprecipitare arsenati cu lapte de var in prezenta ionului feric - microfiltare - ultrafiltrare; - indepartare lindan prin aplicarea urmatoarelor faze de flux: adsorbtie pe carbune activ pulbere - microfiltrare - ultrafiltrare; - indepartare arsen si lindan in prezenta prin aplicarea urmatoarelor faze de flux: oxidare arseniti/oxidare partiala lindan cu peroxid de hidrogen in prezenta ionului feric - coprecipitare arsenati cu lapte de var - microfiltare - ultrafiltrare. Fluxurile stabilite au condus la obtinerea unor efluenti care se incadreaza in limitele de calitate admise pentru impurificatorii studiati (arsen 10 μg/l, lindan 1μg/l)
Dissemination of results	
Conferences (platform, poster, abstract / full-paper	**Stefanescu M**, Cosma C, Nitoi I, Advanced remove of arsenic compounds from drinking water supplies based on membrane processes, *COST Action 637 Metals and Related Substances in Drinking Water*, **2008**, Brussels, Belgia
	Stefanescu M, Cosma C, Nicolau M, Ballo A, Consideration regarding advanced removal of chlorinated pesticides from water by membrane processes, 5*th Management Committee meeting in COST Action 636, Xenobiotics in the Urban Water Cycle*, **2008**, Novi Sad, Serbia