

Program	NUCLEU PN 09-13 03 01
Project title (ENG):	Dezvoltarea de tehnologii inovative bazate pe procedee fotoinduse pentru degradarea avansata a unor compusi xenobiotici (aniline clorsubstituite) din apa
Project title (RO):	The development of innovative technologies based on photo-induced advanced degradation processes of xenobiotic compounds (chlorine substituted anilines) from water
Duration	2012
Team Leader-Partner	Ph.D. eng. Nitoi Ines
Summary (short description)	Kinetic studies on the degradation of 4-chloroaniline and 2,4-dichloroaniline in UV/TiO ₂ photocatalytic system with or without H ₂ O ₂ addition Setting up the degradation mechanism of chlorine substituted anilines by photocatalysis, based on GC-MS identification of degradation intermediates. High performance treatment technology of effluents containing mono or dichloroaniline, including: heterogeneous photocatalysis in UV/TiO ₂ or UV/TiO ₂ /H ₂ O ₂ system, pH 7 correction and catalyst separation by centrifugation.
Summary (short description) RO	Studii privind cinetica degradarii 4-cloranilinei si 2,4-dicloranilinei in sistem fotocatalitic UV/TiO ₂ cu sau fara adaos de H ₂ O ₂ Stabilirea mecanismului de degradare a mon si dicloranilinelor substituite prin fotocataliza, pe baza identificarii prin CG-MS a intermediarilor de degradare . Tehnologiei performanta de epurare a efluentilor uzati cu continut de mon sau dicloranilina, cuprinzand : <i>fotocataliza heterogena in sistem UV/TiO₂ sau UV/TiO₂/H₂O₂, corctie pH=7, separarea catalizatorului prin centrifugare</i>
Dissemination of results	
Full-paper ISI	I., Nitoi, P., Oancea, I., Cristea, L., Constantin, G., Nechifor, Kinetics and mechanism of chlorinated aniline degradation by TiO ₂ photocatalysis, Journal of Photochemistry and Photobiology A:Chemistry, Vol.298, pp. 17–23,2015
Conferences (platform, poster, abstract / full-paper)	I., Nitoi, P., Oancea, I., Cristea, Advanced degradation of 4-chloroaniline from water in UV/TiO ₂ /H ₂ O ₂ system, Internatioal Symposium ”The Environment and Industry”, SIMI, October 2013, Bucharest, Romania