

WORKSHOP I
CONTROL OF DISINFECTION BY PRODUCTS
IN DRINKING WATER AND WASTEWATER FOR REUSE

Wednesday 5 September 2007 – afternoon, ROOM “CHIRON”

The present workshop is aimed to discuss and spread the results of a research project co-founded by Italian Ministry for University and Research (MIUR). By means of this type of projects, MIUR economically supports Italian Universities in order to encourage researchers exchange among Mediterranean countries. The present project, coordinated by prof. Vincenzo Belgiorno from University of Salerno (Italy), involved Universities from Greece (University of the Aegean, Mytilene), Italy (University of Salerno), Morocco (University of Hassan II Mohammadia) and Turkey (Bogazici University and Pamukkale University).

The water scarcity is a common problem for the countries located in arid and semi-arid areas such as Mediterranean countries. In these areas surface waters are fundamental resource to satisfy the increasing drinking water demand. Unfortunately, the use of oxidants/disinfectants in drinking water treatment results in the formation of potentially carcinogenic compounds because of the reaction among these chemicals, naturally occurring organic matter and bromide. Moreover, the leak of natural water resources make difficult to satisfy the water demand in others sectors too, thus the wastewater reuse is an important integrative/alternative resource for not drinking uses (such as urban, agricultural and industrial).

According to the above mentioned problems, the MIUR project was aimed to investigate the behaviour of advanced oxidation processes (photocatalysis, ozonation, sonolysis) in drinking water and wastewater treatment. Photocatalysis was used in drinking water treatment in order to control formation of disinfection by products (DBPs). Photocatalysis, ozonation, sonolysis and their combination were used in advanced treatment of civil and civil/industrial wastewater in order to evaluate the potential reuse.

The Sanitary and Environmental Engineering Division (SEED) of Salerno University coordinates this international workshop, and welcomes participants.



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PROGRAMME

Chairman: **Belgiorno V.** (MIUR project coordinator), **Bekbolet M.**, **Lekkas T.**

17:30-17:50 **Belgiorno V.**
MIUR project: introduction

17:50-18:10 **Rizzo L.**, Selcuk H., Della Rocca C., Langone S., Belgiorno V.
Advanced treatment of civil/industrial wastewaters by ozonation and photocatalysis

18:10-18.30 **Selcuk H.**, Rizzo L., Meric S., Nikolaou A., Inglese D., Guida M.,
Belgiorno V.
Disinfection of secondary treated domestic wastewaters for reuse

18:30-19:00 Coffee break

19:00-19:20 **Naddeo V.**, Rizzo L., Selcuk H., Belgiorno V.
Advanced treatment by ozonation and sonolysis for domestic
wastewater reuse

19:20-19:40 **Nikolaou A.**, Lekkas T.
Formation and fate of disinfection by-products in chlorinated waters

19:40-20:00 **Uyguner S.**, Bekbolet M.
Significance of parameters for the implementation of photocatalytic
oxidation efficiency via DBPs control.

20.00-20.30 General discussion