

## Seminars at the Department of Chemistry and Industrial Chemistry



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Luigi Rizzo is Associate Professor in Sanitary and Environmental Engineering at Department of Civil Engineering, University of Salerno (Italy), Coordinator of the "International PhD School on AOPs" (www.aops-school.com), leader of Working Group 4 in COST Action "ES1403: New and emerging challenges and opportunities in wastewater reuse (NEREUS)", external expert of EC Scientific Committee on Health, Environmental and Emerging risks (SCHEER)", member of the EC Scientific Committee SCENIHR and expert for ESSEM domain of COST Actions. He was/is coordinator, principal investigator and investigator in 14 national and 14 international research projects. He is author and co-author of 120 manuscripts: 78 in peer review indexed journals (3627 citations, HI 28), 23 in proceedings of International Conferences, 14 as book chapters, 5 in proceedings of Italian Conferences. He is editor of "Water Science and Technology" journal.

Mercoledì 13 marzo 2019 Aula Magna ore 14.00

Water and wastewater treatment by photo driven Advanced Oxidation Processes

**Abstract.** Advanced oxidation processes (AOPs) rely on the formation of radical species (among which hydroxyl radicals) that can oxidize a wide range of contaminants in aqueous matrices as well as inactivate several microorganisms. Among them, photo driven homogeneous (UV/H2O2, photo Fenton etc.) and heterogeneous (UV/TiO2 etc.) processes have attracted a lot of interest among scientists and professionals. Accordingly, in the last decades have been increasingly and successfully investigated in the treatment of (i) drinking water (arsenic removal, water disinfection), (ii) urban wastewater (as tertiary/advanced treatment contaminant of emerging removal as well as for controlling antibiotic resistance spread) and (iii) industrial wastewater (in particular as pre-oxidation step before biological process).

In this seminar the results from different experiments carried out at University of Salerno (and partner laboratories) on the application of photo driven AOPs to water and wastewater treatment will be presented. Moreover, relevant recently finalized and ongoing projects will be introduced. Finally, some information about "International PhD School on AOPs" will be provided.

To find out how to reach the Department, go to <a href="http://www.chimica.unige.it">http://www.chimica.unige.it</a>. For further informations on this specific seminar or in order to ask for an appointment with the speaker after or before the seminar, contact <a href="https://www.chimica.unige.it">Prof. Maurizio Ferretti</a>, room 820 \$\infty\$ +39 010 3536985 e-mail: <a href="mailto:ferretti@chimica.unige.it">ferretti@chimica.unige.it</a>