




Advanced oxidation processes for water/wastewater treatment

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This special issue of Environmental Science and Pollution Research is a compilation of 22 original research papers that were presented as either oral or poster communications during the 5th European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP-5, <http://www.eaaop5.com>) held in Prague, the Czech Republic, between 25 and 29 June 2017. This well-established series of events attracts researchers and professionals from all over the world to discuss advances and recent trends in the field of AOPs and environment-related applications.

The number of attendees of EAAOP-5 has exceeded 270 participants from 42 countries covering 4 continents. They came from different geographical areas including the EU (Austria, Cyprus, Czech Republic, Belgium, Estonia, France, Germany, Greece, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, the UK), Mediterranean countries (Algeria, Egypt, Israel, Morocco, Turkey), South and North America (Argentina, Brazil, Canada, Chile, Colombia, Mexico, the USA), Asia (China, India, Japan, Republic of Korea, Singapore), and other countries such as the Russian Federation, Switzerland, and South Africa. They produced a valuable amount of information and knowledge, contained in more than 330 contributions (80 oral and 250 poster communications). The number of contributions in EAAOP conference series increases gradually since the first edition in September 2006 (Crete, Greece), which also points

out an increasing interest of the scientific community on the advanced oxidation processes. This conference represents a good international opportunity to highlight and improve the recent knowledge and research about the treatment of waters, wastewaters, gaseous pollutants, and soils by AOPs.

About 25% of the papers in this issue are devoted to photocatalytic processes, while 20% to Fenton and Fenton-like processes. The remaining part (about 55%) deals with the activated persulfate process, electrochemical oxidation, ozonation, as well as combinations of various AOPs.

The guest editors would like to thank all authors contributing to this issue, as well as the many reviewers called upon to offer constructive advice for the improvement of submissions. They extend their sincere thanks to Springer for the opportunity provided to compile this special issue and would like to thank in particular Dr. Philippe Garrigues, Editor-in-Chief of Environmental Science and Pollution Research, and the Editorial Assistants of the journal for their great support and patience at every stage in the preparation of the issue. There appears to be a long-lasting and constructive relationship between Environmental Science and Pollution Research and the EAAOP series of conferences, which we hope will continue in the years to come.

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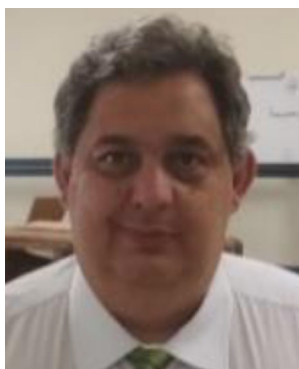
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Josef Krýsa was born in Prague, Czech Republic, in 1965. He received his M.S. degree in Inorganic Technology from University of Chemistry and Technology, Prague (UCT), in 1988 and his Ph.D. degree from the same University in 1995. Since 1991, he has been working as research assistant at the Department of Inorganic Technology, University of Chemistry and Technology, Prague (UCT), from 2004 as associate professor, and from 2008

as full professor. The main field of interest is the preparation and characterization of semiconductor photocatalysts, photoelectrochemistry, reactions at photocatalyst surfaces, and environmental photocatalysis. Josef Krýsa is the leader of the group of Photocatalysis at the Department of Inorganic Technology, University of Chemistry and Technology, Prague. He published about 110 scientific papers in impacted refereed international journals. The number of citation to these papers (without self-citations) is 1650, average citation rate: 18.43, h-index 23. Other publication activities: more than 200 presentations at international conferences including about 34 lectures. He organized several International Conferences, e.g., 6th European Meeting on Solar Chemistry and Photocatalysis: Environmental Applications (SPEA6), 4th International Conference on Semiconductor Photochemistry (SP4) and many other workshops. He is acting as a referee for most of the journals in the area of Photocatalysis and was guest editor of Special Issues of *Catalysis Today*, *Photochemical & Photobiological Sciences* and *Research on Chemical Intermediates*. More information and full publication lists can be found at (<http://www.josefkrysagroup.com/>).



Dionissios Mantzavinos serves as a Professor of wastewater engineering in the Department of Chemical Engineering, University of Patras, Greece. He holds a Diploma (1991) in chemical engineering from Aristotle University of Thessaloniki, Greece, and M.S. (1993) and Ph.D. (1996) degrees in chemical engineering from Imperial College of Science, Technology, and Medicine, UK. After a short spell as a Research Fellow and Lecturer at Edinburgh and Leeds

Universities, respectively, he returned home to take up an academic position as an Assistant, Associate, and Full Professor in the Department of Environmental Engineering at the Technical University of Crete before his move to University of Patras. His research interests focus on water/wastewater treatment by physical, chemical, and biological processes, as well as on environmental catalysis. Particular emphasis is given to advanced oxidation technologies including heterogeneous and homogeneous photocatalysis, electrochemical oxidation, ultrasound radiation, wet air oxidation, ozonation, and various combinations of the above. Mantzavinos is involved in several academic and professional bodies and serves as editor-in-chief to the *Journal of Chemical Technology & Biotechnology* and associate editor to *Water Research*.



Pierre Pichat, as “Directeur de Recherche de 1ère classe” (first-class) with the CNRS (National Center for Scientific Research, France), has been active in heterogeneous photocatalysis for many years. He has founded a laboratory dealing with both basic investigations on this field and applications regarding self-cleaning materials and purification of air or water. He has published numerous research papers and several reviews of the domain. He has edited books and special issues.

He is a frequent invited lecturer at Conferences. He is a member of the International Scientific Committees of most of the International Conferences on photocatalysis. Over the years, he has served on CNRS-related Committees on diverse aspects of chemistry; he has been the coordinator or advisor of European Community projects on photocatalysis; he has evaluated projects on environmental chemistry for various countries. He has received an International Appreciation Award acknowledging his pioneering contributions to heterogeneous photocatalysis.



Ioannis Poullos was born in Serres, Greece, in 1954. He received his Diploma in Chemical Engineering from the Technical University of Graz, Austria, in 1979, and his Dr. Tech. degree from the same University in 1982. (Ph.D. thesis title: ZnO photoeffects under galvanostatic and potentiostatic conditions). He is currently a Professor in the Laboratory of Physical Chemistry, Department of Chemistry, Aristotle University of Thessaloniki. His research inter-

ests include Photoelectrochemistry of Semiconductors, Photoelectrochemical Solar Cells, Heterogeneous and Homogeneous Photocatalysis, Solar Detoxification and Disinfection of Wastewaters, Drinking Water and Air. His most recent research efforts are focused on hydrogen production by using photoelectrochemical/photosynthetic processes. He was the organizer of four International Conferences on the Environmental Applications of Advanced Oxidation Processes, he is acting as a referee for most of the journals in the area of Environmental Sciences, and was a guest editor of several Special Issues. Prof. I. Poullos was in the period 2009–2011 director of the Division of Physical, Analytical and Environmental Chemistry of the Department of Chemistry and currently director of the Physical Chemistry Laboratory. Full current CV with publication lists can be found at <http://photocatalysisgroup.web.auth.gr>.