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EDITORIAL

Advanced oxidation technologies: state-of-the-art in Ibero-American countries

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This special issue of *Environmental Science and Pollution Research* contains a selection of 33 papers presented at the 3rd Iberoamerican Congress on Advanced Oxidation Technologies (III CIPOA) and 2nd Colombian Conference on Advanced Oxidation Processes (II CCPAOX), chaired by Prof. Ricardo A. Torres-Palma, which were held in Guatapé city, Colombia, from 14 to 17 November 2017.

The goal of these conferences was to gather together scientists, scholars, and professionals, from Iberoamerican countries, to present their research findings and discuss future tendencies concerning the use of advanced oxidation processes (AOPs) and electrochemical advanced oxidation processes (EAOPs) for the removal of persistent substances from soil, water, wastewater, and air.

In III CIPOA/II CCPAOX meetings, 250 abstracts were selected as plenary, oral, short-oral, or poster presentations and the number of participants was 190. The majority came from Brazil and Colombia, and the remaining from Ecuador, Chile, Portugal, Spain, Argentina, Peru, Mexico, Switzerland, USA, Serbia, UK, Canada, and Italy.

The review panel, composed by the international scientific committee of III CIPOA, selected 53 oral presentations and 60 short-oral communications primarily from early-career researchers. The poster session (130 posters) represented an interesting scientific forum, suitable for less formal discussions while enjoying a Colombian coffee. Also, 7 plenary speakers shared their innovative research work in different topics of AOPs/EAOPs.

From the 250 abstracts received, 72 works were selected and submitted as full research papers to the special issue of Environmental Science and Pollution Research Journal, and after rigorous peer-review, 33 of which were accepted for publication.

The topics covered included (i) new photocatalytic materials; (ii) environmental remediation of water, wastewater, air, and soil, using different AOPs, EAOPs, and Ozonation; and (iii) integration of AOPs/EAOPs/Ozonation with other technologies.

The guest editors would like to thank all the authors for the innovative scientific contributions to this special issue, the reviewers whose comments and suggestions were extremely important to achieve high-quality papers, as well as the institutions and companies that sponsored the III CIPOA/II CCPAOX meetings.

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Vítor J.P. Vilar earned his BSc in Chemical Engineering from the Faculty of Engineering of the University of Porto (FEUP) in 2001. He completed his PhD in Chemical Engineering at FEUP in 2006, in Environmental Technologies. He worked as a postdoctoral researcher at FEUP in water management. He pursued his post-doctorate research in solar-driven advanced oxidation processes (AOPs) at FEUP and Plataforma Solar de Almería (PSA). He worked as Assistant Researcher (2009–2013) in the Associate Laboratory LSRE-LCM, FEUP, under the Ciência 2008 program. Since December 2014, he has been Principal Researcher in LSRE-LCM, under the Investigator FCT 2013 program. In 2014, he was awarded a three-year "Special Visiting Researcher" grant, at the Federal University of Santa Catarina, Brazil, sponsored by the Brazilian *Ciência Sem Fronteiras* program.

He is currently one of the editors of the Environmental Science and Pollution Research (ESPR) Journal (Springer). He has participated as a committee member or as program chair in nine international conferences on environmental engineering, delivering 38 plenary/keynote/invited lectures at international conferences and scientific institutions. He is member of the EU COST Action ES1403UK (NEREUS) and European Ph.D. School on AOPs and president of the Iberoamerican Conference on Advanced Oxidation Technologies (CIPOA).

He is the author and co-author of more than 400 scientific publications, including 3 conference books, 10 book chapters, 4 editorials, 166 papers in peer-reviewed international scientific periodicals (*h*-index: 36 and >4100 citations), 8 papers in national scientific periodicals, more than 210 contributions in conference proceedings, and a co-inventor of 2 patents, receiving 8 prizes in total. He has been participating actively in different projects (5 international, 16 national R&D projects, and 3 contracts with private companies) that has granted research funds exceeding 4 million euros. He has also participated as evaluator of national/international research projects (UEFISCDI, FCT, CNPq, CONICYT, WaterJPI).

His main research interests focus in environmental assessment and monitoring of surface waters and environmental friendly technologies for pollution control, particularly in the application of AOPs, EAOPs, ozonation and membranes processes for water and air treatment, integration of physical, chemical, biological and membrane processes for the treatment of recalcitrant wastewaters, valorization of natural materials for separation and recovery of heavy metals, oil and grease, soil remediation, process integration and intensification, water/waste reuse, and recycling and valorization.

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