Water and waste remediation processes: an update

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It is a great honour and pleasure for me to publish this Special Issue of the *Environmental Science and Pollution Research (ESPR)* dedicated to the 5th International Congress on Water, Waste and Energy Management (WWEM-19) and 2019 International Conference on Green Energy and Environmental Technology (GEET-19), held in Paris, France, from 22 to 26 July 2019.

This was the fifth of a series of annual academic conferences and was aimed to create an international forum for researchers and scientists from around the world to discuss new results regarding the soundest issues related to Water, Waste, Green Energy, and Environmental Technologies.

Over 200 participants from 39 different countries attended the WWEM-19 and GEET-19 conferences. Approximately 300 presentations were delivered, including 186 posters, 110 selected oral communications, and 5 plenary talks. Most presentations were based on high-quality original works covering a wide range of conference topics.

This special issue includes some of the selected papers presented in these conferences. The papers that successfully passed the reviewing process of the *ESPR* journal are now published in this WWEM-GEET-19 Special Issue. A relatively short number (about 10) of selected and interesting papers are here presented.

As a Guest Editor, I would like to express my cordial gratitude to all members of the Organizing and Scientific Committee, especially to the other two Guest Editors of this Special Issue, Prof. Dr Juan García Rodríguez and Prof. Dr

Sílvia Álvarez Torrellas from the University Complutense of Madrid.

Also, I would like to thank Technical Secretariat Mr J. L. Vizquete and of course, all the authors for their contributions, the invited speakers for their state-of-the-art plenary presentations, the reviewers for their comprehensive and timely reviewing of the papers, and our sponsors for their unconditional support.

I would also like to express my gratitude to the *ESPR* Editor-in-Chief Prof. Dr Philippe Garrigues for the efforts in realizing this Special Issue and particularly to their valuable assistant Ms. Florence Delavaud. Without her invaluable help, this Special Issue would never have been possible.

I sincerely hope to see you all again at the next edition of these conferences, postponed due to the pandemic to July 2021 in Rome.

Thank you and best regards,

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Dr. Joaquín R. Domínguez has a degree (1996) and a PhD (2000) in Chemistry from the University of Extremadura, both of them with honours. In the period 1997–2000, he held a MEC FPU Predoctoral Fellowship with a Predoctoral stay (2000) at the “Instituto Superior Tecnico”, Lisbon (Portugal).

In 2001, he gained a position as an Assistant Lecturer in the Department of Chemical Engineering at the University of Extremadura. In December 2007,

he became an Associate Professor in the Department of Chemical Engineering, University of Extremadura (Spain, UE).

His research interests focus on water and wastewater treatment, removal of micropollutants and emergent contaminants from water using advanced oxidation processes (ozone, Fenton’s reagent, UV light), electrochemical treatment (electro-oxidation), and sonochemical processes (sono-oxidation).

He has actively participated in 22 research projects within the area of Environment Engineering and more specifically in the area of Water and Wastewater Treatment. He is the Chairman of the annually “International Conference on Water, Waste and Energy Management (WWEM)” from 2015 to the present.

Dr. Domínguez has co-authored about 100 scientific-technical documents, including 70 papers in journals indexed in the JCR, 9 book chapters, and 6 scientific books, obtaining a h-index = 29. He has directed or co-directed 25 B.Sc. and 5 PhD theses. He has presented over 80 communications at international and reputed conferences.

Dr. Juan Garcia is a Full Professor in Chemical Engineering in the Chemical Engineering and Materials Department of Universidad Complutense de Madrid.

He has a wide experience in the catalysis and adsorption field, who has co-authored more than 100 publications and book chapters on this subject (h-index = 33), and he has also supervised five PhD theses and four more in progress.

Specifically, his research interests include the design of a wide range of materials, including carbon

materials, mesoporous materials, and metal-containing nanoparticles.

He has worked on the synthesis, characterization, and applications of different forms of carbon materials and on the experimental study of catalytic systems and adsorption equilibrium and kinetics in fixed-bed column.

He has also led several projects with public and private funding about the wastewater and sludge treatment by catalytic processes and adsorption.

Dr. Silvia Álvarez-Torrellas is an Assistant Professor in Chemical Engineering at the Complutense University (Madrid) since February of 2017. She obtained her Bachelor’s degree in Chemical Engineering in 2007 (Rey Juan Carlos University) and her PhD in 2014 at Complutense University. She has worked in the environmental field during the last 10 years. Early contributions were related with adsorption in fixed-bed mode operation of water and wastewater containing

emerging contaminants. Indeed, her research is focused on wastewater treatment of, mainly, pharmaceutical effluents by adsorption, advanced oxidation processes and combined processes of catalytic wet air oxidation, and aerobic biological wastewater technology. Thus, she has a long experience on solids characterization technologies and synthesis on several carbonaceous materials for environmental applications (adsorbents, catalysts, etc.).

Furthermore, Prof. Silvia Álvarez has an experience of working with in an international, intra- and extra-European setting (5 pre- and postdoctoral research stays). She has also participated in 14 Autonomic, National, and Companies-collaboration projects about wastewater and sludge treatment by adsorption and advanced oxidation processes. She has published 60 papers in peer-reviewed journals (most of them in journals in the top 25%, h-index = 18), and she is a co-author of 5 books and 7 scientific book chapters. She has also contributed with 95 communications in national and international scientific congresses and actually she is supervising 5 PhD theses.