
Preface

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Biographical notes: Kostas S. Triantafyllidis, Assistant Professor, received his PhD Degree in Chemistry from the University of Ioannina, Greece, in 2000, following MS Degree in Chemistry from the same university. Further training and experience was gained during his post-doctoral work at Michigan State University, USA. His research interests focus on the synthesis and characterisation of nanoporous materials and nanocomposites, heterogeneous and environmental catalysis for fuels and chemicals, adsorption/separation processes. He is the author of about 40 papers in refereed journals and of one US patent, and he has participated in more than 80 national and international scientific conferences and in 20 research projects as scientific coordinator or as researcher.

Kostas A. Matis, Professor, had his first Degree in Chemistry in the Department where he is currently also working; an MSc and a PhD, on December 1997, in the (then) Chemical Engineering Department, University of Newcastle upon Tyne, UK. His main field of specialisation is separation science and technology (mainly, flotation), other fields being wastewater treatment, environmental biotechnology, inorganic materials and mineral processing. He is the author of about 120 papers in refereed journals that received more than 700 citations, three patents, ~50 communications to scientific meetings and also editor of three books.

Though used as a physical–chemical process over a long period, it is only over the last decades that adsorption has developed to a stage where it is now a major industrial separation process, included also at the university courses curricula. Certainly, many conferences on relative scientific fields take part and hundreds of papers have been published perhaps, confirming the significance of adsorption as a subject of study and research, particularly with relevance to wastewater treatment technology. Submission was encouraged, by the call, for instance of papers linking characterisation results with sorbent performance, demonstrating the changes of the solution pH during the adsorption process, modelling (complexation, double layer retention and so on) and the respective calculations, mostly for fixed bed operations, etc.

Sorption is often faced in its general sense, i.e., all the related sorptive areas such as ion exchange and surface precipitation are included (for the liquid–solid interface), as well as studies of the adsorbent synthesis. So, in this Special Issue, 19 papers are

finally presented, having successfully passed from the peer-review procedure, coming from all over the world (the five continents), having Asia heavily participating. Typical adsorption studies are included, with known, innovative or modified adsorbents, low-cost materials and among them, industrial by-products and agricultural wastes. Attention was paid to process parameters, analysis, kinetics, extraction and desorption/regeneration. The presented studies were related to metals, radionuclides and organics while there was an emphasis to biosorption.

Many thanks are due to all the authors for their submitted work. It is believed that the present effort will be a valuable contribution in the research and development of adsorption process and the further advancement of adsorption technology.