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Guest editorial

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Prof. Francisco Rodríguez-Reinoso

On behalf of the colleagues, visiting scholars, postdoctoral and graduate students that have had the privilege to work with Professor F. Rodríguez-Reinoso, we are honoured to dedicate this special issue of *Adsorption* to celebrate his 70th Anniversary.

Professor Francisco Rodríguez-Reinoso was born in 1941 in the city of Granada, located in the south of Spain, in the Andalucía region. Coming from a wine producer family, following his father's advice he decided to study chemistry at the University of Granada. He received his BS degree in Chemistry in 1964. After the University degree, he started the PhD at the Department of Inorganic Chemistry under the supervision of Prof. D. Juan de Dios López-González. His PhD was devoted to the development of activated carbons from lignocellulosic precursors, mainly olive stones. In fact, this was the first PhD Thesis devoted to the preparation of activated carbons from olive stones that took place in Spain. He got his PhD in Chemistry in 1967. Soon afterwards he moved to the University of Bristol (UK) to work in the group of Prof. Douglas H. Everett. After two years working in the preparation of microporous carbons prepared from SARAN copolymer and the evaluation of the adsorption potential in narrow pores, he got a postdoctoral position at Pennsylvania State University with Prof. Phillip L. Walker Jr. During the 2 years at PennState, Prof. Rodríguez-Reinoso worked in the evaluation of the reactivity of highly oriented pyrolytic graphite. After the postdoctoral period he returned back to the University of Granada (Spain) as associate professor. During the 10 years at the University of Granada, Prof. Francisco Rodríguez-Reinoso continued his work in the carbon research field.

In 1981 a new University was created in Alicante, in the Valencian region, just in the Mediterranean coast. The high reputation of Prof. Francisco Rodríguez-Reinoso in the carbon field, together with his excellent curriculum, allowed him to move part of the research team from Granada to the University of Alicante, where he became full professor in Inorganic Chemistry. From 1981 until now all the research work of Professor Rodríguez-Reinoso has been devoted to the design, synthesis and characterization of porous solids (mainly activated carbon materials) with a wide range of physical and chemical properties starting from a wide variety of raw materials (e.g. lignocellulosic precursors, fibers, cloths, petroleum residues, and so on). Synthesized

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nanoporous carbons with the desired physical form (powder, monolith, cloth, etc.) and porous structure (micro-, meso- and macroporosity) have been applied both in adsorption processes and catalytic applications. In the field of adsorption, these carbon materials have been used in a large number of specific applications covering gas storage, separation and purification of gas mixtures, removal of toxic agents and atmospheric contaminants, energy storage, and so on. In the field of catalysis, Prof. Rodríguez-Reinoso has worked on the preparation and characterization of noble-metal supported catalysts, using both carbon materials as a support or, more recently, other inorganic materials such as zeolites, silica-based mesoporous materials and partially reducible oxides (CeO_2, TiO_2, etc.). These catalysts have been applied in a wide range of reactions including selective hydrogenation of unsaturated aldehydes, both in the liquid and vapour phase, dehydrogenation of light alkanes to olefins and combustion of volatile organic compounds.

Furthermore, in the last few years the research interests of Prof. Rodríguez-Reinoso have been extended to other fields such as materials science. In this field, the work of Prof. Rodríguez-Reinoso has been concentrated in the development of new high-performance carbon-based materials for structural applications such as automotive engine components, or materials able to work under very extreme environments/conditions such as re-entry space vehicles, or the divertor of the new International Thermonuclear Experimental Reactor.

This successful career is reflected in several scientific books in the fields of Adsorption and Catalysis, more than 310 publications in international journals, together with a large number of contributions to national and international conferences. The work of Professor Francisco Rodríguez-Reinoso has been cited over 6100 times, leading to a Hirsch index $h = 40$, according to the Institute for Scientific Information (ISI) Web of Science. Additionally, Prof. Rodríguez Reinoso is Editor of *Carbon*, and active member of the International Union of Pure and Applied Chemistry (IUPAC) and the Characterization of Porous Solids (COPS) committee. He is also co-inventor of eight international patents and supervisor of 47 PhD Thesis. Several of his former students are nowadays leading professors at different universities around Spain (e.g. University of Granada, University of Alicante, University of Navarra, and so on) or leading scientists at international companies (e.g. Repsol-YPF) or research institutes (e.g. INESCOP). Many of them are among the authors contributing to this Special Issue.

In the last few years, the relevance of the research work developed by Prof. Rodríguez-Reinoso has being awarded with the "Japan Carbon Award for Life-time Achievement" in 2008 and the "SGL George Skakel Memorial Award" in 2010. Furthermore, Prof. Rodríguez-Reinoso is academic from the "Academy of Science" of Granada.

Finally, the Guest Editors would like to thank all authors for their enthusiasm and patience in the preparation of this Special Issue, and to the different reviewers for their unselfish contribution. We would like to thank also Prof. Gino V. Baron, Editor-in-Chief, and Ms. Jeyel Tecson, from the Editorial Staff of *Adsorption*, for making this Special Issue possible.

Guest Editors