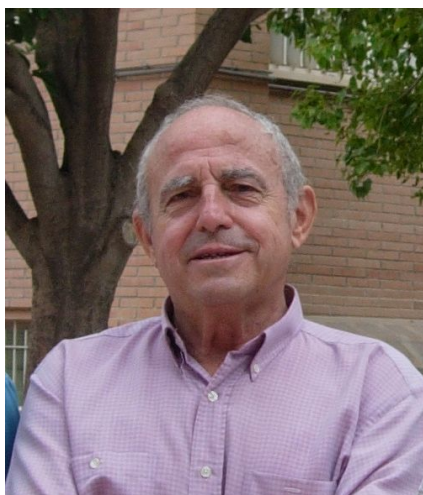


Antonio Aldaz Riera (1943-2015)



Professor Antonio Aldaz Riera passed away on October 27th 2015 at age of 72. Born in Murcia (Spain) in 1943, he earned a B.S. in Chemistry in 1965. That year, he became a teaching assistant at the University of Murcia, where he completed his Ph.D. thesis under the direction of Professor Juan Sancho Gómez, working on the polarographic behavior of Y(III) and Sc(III) ions in various solvents. After earning a Ph.D. in 1968, he spent a brief time period as a secondary school teacher. He was subsequently appointed as assistant professor at the newly created Autonomous University of Madrid. In 1971, he moved to the University of Seville as associate professor. In 1977 he returned to the Autonomous University of Madrid as full professor, and in 1981 moved to the University of Alicante, where he retired in 2013, becoming an emeritus professor.

During his long and illustrious scientific career, he worked in virtually all areas of electrochemistry. He published over 300 articles in international journals, co-authored 14 national (Spain) and international patents and directed the work of 30 doctoral students, leaving behind a large number of disciples in universities where he worked. Indeed, the titles of the Ph.D. theses that he directed provide a historical record of the evolution of Electrochemistry in Spain. In the 50's and 60's, studies of electrochemical processes were mainly carried out on mercury electrodes, given that this was the only reproducible surface for electrochemical studies. It was through the use of mercury electrodes that he focused his early research work, his own Ph.D. thesis, and the first Ph.D. thesis that he directed.

In 1972, when he was already a full professor, an event took place that had a profound impact on his research trajectory. That year, he won a fellowship from the Juan March Foundation which allowed him to stay, for 9 months, in the Laboratoire d'Electrolyse CNRS Meudon (France); one of the world-leading laboratories in electrochemistry of that time. During that stay, he was introduced to the area of electrocatalysis at solid electrodes, an area which he subsequently introduced and pioneered in Spain.

Upon his arrival at the University of Alicante, he diversified his research interests carrying out both fundamental and applied studies in collaboration with industries on redox batteries, organic electrosynthesis, electrochemical engineering and wastewater treatment by electrochemical methods. One of the most successful and impactful research areas that he established at the University of Alicante was the study of the reactivity of single crystal electrodes, which began through a long-term and fruitful collaboration with Professor Jean Clavilier from Meudon. On the other hand, and in some sense the polar opposite of fundamental research, Professor Aldaz was also very proud of having introduced to the University of Alicante, the study of electrochemical processes at pre-industrial pilot plant scale. This was undoubtedly, a pioneering effort for a Spanish university, and brought electrochemistry research closer to the industrial world. Most recently, his research efforts focused on transferring the methodologies used in solid polycrystalline and single crystal electrodes to studies on metal nanoparticles.

Among numerous awards and distinctions, Prof. Aldaz received the award of the Spanish Royal Chemical Society in Physical Chemistry in 2002, the Solvay-CEOE Chemical Research Award in 2004 and the CIDETEC award for his scientific career in Electrochemistry in 2013. He was also a Fellow of the International Society of Electrochemistry.

As a professor, he always tried to expose his students to different views of electrochemistry, trying to spur their curiosity and critical thinking skills by designing experiments and problems that allowed them to understand the basics. He authored of a book and several chapters on electrochemistry manuals, providing alternative views on electrochemistry. Those of us who were fortunate to work with him always admired his vast knowledge of electrochemistry and, especially, his critical thinking spirit that led him to question any assumed "truth" and examine it under unconventional approaches. Whenever he was asked a scientific question, the resulting brainstorm that he generated enabled a clearer understanding, by the inquiring individual, of the question in point. But, at the same time, this approach elicited, on the enquirer, additional doubts on concepts that she/he had taken for granted. This gave rise to an enlightning discussion from which all participants benefited.

Words fail when trying to describe him as colleague and boss: warm, attentive and sensitive to any situation in which he could provide assistance and support. In addition, Toni always had time for any researcher or research group who knocked on his door. He was always willing to collaborate and contribute his knowledge to advance science. In that sense, he was an indefatigable advocate of electrochemistry as a discipline in service to society. This is particularly evident today when we consider the development of batteries, fuel cells, sensors, etc., where he tried to set guidelines for rigorous yet meaningful and useful work. In short, Toni was a mentor and a true gem of Electrochemistry: researcher, professor and spokesman. We can only hope to pay tribute to a figure whose memory will always remain in the scientific and humanistic heritage of Spanish Electrochemistry.

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