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Title: Synthesis and electrochemical characterization of shape controlled Pt nanoparticles for ammonia oxidation

Research work:

I am motivated to work and learn more about the development of new technologies dedicated to the care of the environment. Currently, I am finishing a dual Ph.D. research program in Chemistry and Electrochemistry from the University of Puerto Rico, Rio Piedras Campus and the University of Alicante in Spain, respectively. My research is focused on the development of new, easy and scalable methods to synthesize platinum nanoparticles with controlled shape structures. My research goal is that Pt nanoparticles will be used in technology directed to the development of recycling system of human urine. In summary, we use the ammonia resulting from the decomposition of urea and we use this compound as fuel for direct alkaline fuel cells. I am committed to culminate both doctoral degrees with the determination to apply my scientific and analytical skills in the research and development (R&D) sector. The international experience during the last years prepared me to adapt easily to many kinds of collaborative work.