

BIOGRAPHY

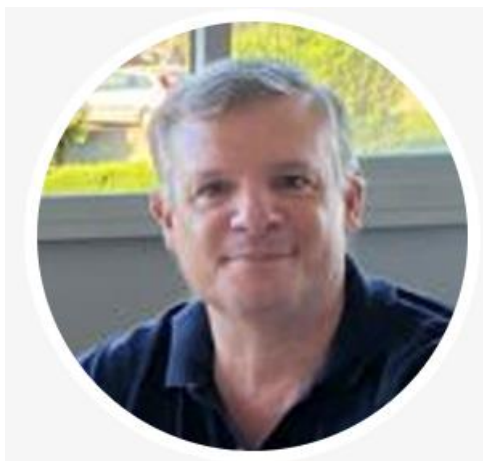
MANUEL GAZQUEZ

I hold a degree in Physical Sciences from the University of Seville, a PhD from the University of Huelva, and master's degrees in "Waste Treatment and Management" (University of Cádiz) and "Environmental Technology" (University of Huelva). Besides, from 2007 to 2016, I was part of the "Radiation Physics and Environment" research group (FRYMA, RNM-348) at the University of Huelva and since 2016, I have been a member of the "Radioactivity and Environment" group (RNM-160) at the University of Cádiz.

My research focuses on environmental radioactivity measurement and the recovery of NORM (Naturally Occurring Radioactive Materials) waste. Highlights include leading a project on "Valorization of tionite and red gypsum," introducing radiological aspects to industrial waste recovery for the first time in Spain. I have developed advanced radiometric techniques and studied the environmental impact of NORM industries, occupational exposure, and industrial landfills.

In 2014, as part of Ecuador's Prometheus program, I led a project on the radiological characterization of agricultural soils and co-directed a phytoremediation project for mining-impacted areas.

Since February 2023, I am a Professor at the University of Cádiz. My academic output includes more than 50 JCR articles, six book chapters, and two international mention PhD theses, both awarded Cum Laude.



JP BOLÍVAR

I am the director of the "Radiation Physics and Environment" research group (FRyMA) since 1995, with a scientific career spanning over 33 years. My research focuses on radionuclide measurement, NORM (Naturally Occurring Radioactive Materials) waste characterization and valorization, and atmospheric pollution. I have published more than 200 JCR papers (about 100 in Q1). Additionally, I have led 36 competitive projects and 59 collaborations with industries and institutions, supervising 19 PhD theses and around 60–70 master's/final degree projects.

My PhD research in 1990 was pioneering in Spain, addressing radiological issues in NORM industries like phosphate fertilizers and TiO₂ pigment production. I developed innovative gamma spectrometry calibration methods for radionuclide analysis, including ²¹⁰Pb, and advanced methodologies for dating polluted sediments using activity ratios.

Notable contributions include shaping Spanish regulations on natural radiation for the National Safety Council (CSN) and conducting extensive R&D projects with the chemical industry in Huelva. These efforts advanced the radiological evaluation of NORM activities and valorization of industrial waste.

In atmospheric pollution, I have studied radon, aerosols, and greenhouse gases (CH₄, CO₂) in collaboration with INTA (National Institute for Aerospace Technology), producing high-impact publications and supervising five PhD theses under joint funding. I prioritize integrating teaching with impactful research.



INMACULADA RAMOS

After completing my ph.D. thesis at the University of Cadiz, where I established its first gamma environmental radioactivity laboratory and collaborated with KVI (Center for Nuclear Physics and Accelerators, Netherlands) on developing a portable gamma detector for marine sediment analysis, I shifted focus to advancing Spain's first synchrotron light source. Initially working at IFAE (Autonomous University of Barcelona) and later at the Laboratori Llum Sincrotró (LLS), I played a pivotal role in securing approval and funding for the project in 2002. This facility, now the ALBA Synchrotron, is Spain's largest and most complex scientific infrastructure, classified as an ICTS (Singular Scientific-Technical Facility). It supports advanced research in biophysics, materials science, chemistry, and environmental sciences.

Between 2003 and 2021, I held various leadership roles at ALBA, contributing to its construction phase as Group Head and Principal Investigator, and later managing R&D during its operational phase. In September 2021, after 18 years at ALBA, I transitioned back to the University of Cadiz, joining the Radioactivity and Environment group (RMN-160). Here, I resumed teaching and research, combining my expertise in environmental radioactivity with a commitment to advancing scientific knowledge and education.



FRANCISCO JAVIER SOTO CRUZ

Francisco Javier Soto Cruz is a Ph.D. student in the Management and Conservation of the Sea program at the University of Cádiz. He holds a bachelor's degree in chemistry from the same university. His research focuses on the decontamination of phosphogypsum leachates, and the valorization of waste generated during this process, aiming to develop sustainable strategies for industrial waste management. Francisco has participated in various environmental research projects and has published some scientific articles in this field. He is a member of the Institute of Marine Research (INMAR) and belongs to the Radioactivity and Environment Research Group at the University of Cadiz. Francisco has collaborated with different Spanish universities, such as the University of Huelva and the University of Córdoba, as well as with the University of Aveiro in Portugal in different projects.

