

Obituary

In Memory of Prof. José Manuel Guisán (1951–2025)

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The biocatalysis community lost one of its most influential and beloved members on 13 July 2025, when Prof. José Manuel Guisán passed away at the age of 74.

Prof. Guisán belonged to a generation of scientists who helped shape modern biocatalysis. More importantly, he created a scientific school whose impact continues to expand through the work of his former students and collaborators, many of whom now lead academic and industrial research groups around the world.

Born in his beloved La Coruña, Spain, Prof. Guisán graduated in Chemistry from the University of Santiago de Compostela and obtained his Ph.D. in Biochemistry from the Autonomous University of Madrid in 1979. He devoted his entire scientific career to the Spanish National Research Council (CSIC), where he progressed from Assistant Research Scientist to Full Professor and became one of the most recognized figures in the field of enzyme technology. Throughout his career, he also served in several leadership roles, including Director of the Technology Transfer Office at CSIC; Vice-Director of the Institute of Catalysis, CSIC; Vice-Director of Industrial Development at the CYTED Program; and Head of the Department of Biocatalysis, Institute of Catalysis and Petrochemistry (CSIC).

Prof. Guisán made seminal contributions to enzyme engineering, particularly in enzyme purification, immobilization, stabilization, and the development of biocatalytic processes for fine chemistry, food technology, and analytical applications. His work helped establish many of the concepts and methodologies that are now routinely applied in industrial biocatalysis. Among his most influential contributions are his pioneering studies on multipoint covalent immobilization and enzyme stabilization, as well as the development of immobilization supports and strategies that have become reference technologies in the field. His scientific productivity was remarkable. He authored more than 480 publications, supervised 38 Ph.D. theses and trained more than 100 international researchers. His work generated over 28,000 citations and numerous patents, several of which were transferred to industry and implemented by companies in Europe. However, numbers alone cannot fully capture the magnitude of his influence.



Academic Editor: Evangelos Topakas

Received: 9 July 2026

Accepted: 21 July 2026

Published: 28 July 2026

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For those of us who had the privilege of being trained by him, José was much more than an outstanding scientist. He was an exceptionally kind, empathetic, and generous person. His laboratory welcomed researchers from all over the world, particularly from Latin America and Africa, many of whom arrived far from home and found not only a research group but also a family. He cared deeply about people. He supported us during challenging moments, celebrated our achievements, and helped make the experience of living abroad both professionally rewarding and personally enriching.

I had the privilege of completing my doctoral studies under his supervision. I remember those years as intellectually demanding, scientifically stimulating, and highly supportive. José trusted his students, listened carefully to their ideas, encouraged independent thinking, and continuously challenged us to look beyond immediate experimental results. His way of thinking was profoundly conceptual and visionary, driven by fundamental hypotheses and scientific principles that have since been validated and continue to underpin much of the work in biocatalysis today. Importantly, he never overemphasized individual successes or failures. When experiments did not go as expected, he would remind us to focus on understanding the underlying concepts rather than becoming discouraged by a particular result. This perspective, together with his confidence in his students and his ability to see the bigger picture, shaped the scientific approach of many researchers trained in his laboratory.

Perhaps one of his greatest strengths was his ability to integrate people and ideas. He cultivated a collaborative environment in which everyone felt valued and where individual contributions became part of a larger collective effort. This culture of trust, openness, and scientific rigor undoubtedly contributed to the remarkable productivity of his group and helped launch the careers of many scientists who continue to build upon his legacy.

José Manuel leaves behind an extraordinary scientific legacy, but also something even more enduring: a community of researchers shaped by his vision, generosity, and humanity. His ideas will continue to influence the field of biocatalysis for many years to come, while those fortunate enough to have known him will remember not only his scientific brilliance but also his warmth, kindness, and unwavering support.

Funding: This research received no external funding.

Data Availability Statement: No new data were created.

Acknowledgments: From 2020 to 2025, José Manuel Guisán served on the Editorial Board of *Catalysts*, where his expertise and generosity left a lasting mark. The journal sincerely thanks him for his valued support and his contribution to its growth and development.

Conflicts of Interest: The author declares no conflicts of interest.

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