Graduate and Doctor in Chemical Sciences, specializing in Industrial Chemistry, from the Complutense University of Madrid, where he developed his teaching career until 2003, holding various positions as a professor. In October 2003 he joined the Rey Juan Carlos University, where he is a Full Professor. In 2010, through an agreement with the University, he joined the IMDEA Energy Institute (where he is currently a Research Professor), creating the Systems Analysis Unit that he has directed since then.

His lines of research currently focus on the analysis of energy systems, simulation and optimization of processes, life cycle analysis and design of energy models. He is the author of more than 150 articles published in international journals, 10 book chapters, more than 200 contributions to national and international conferences and 3 patents. In addition, he has been the editor of 2 books. He has coordinated more than 55 research projects and contracts, having collaborated in more than 45 others. He has received three research and dissemination awards.

He is currently Leader of the Technical Committee Cross-Cutting Research Activities and member of the Executive Board of Hydrogen Europe Research. In addition, he is a member of the European Panel on Sustainability and Circularity of Hydrogen. He has been "Operating Agent" of Task 36 "Life Cycle Sustainability Assessment of Hydrogen Energy Systems" of the Hydrogen Implementing Agreement, belonging to the International Energy Agency, and Coordinator of the Spanish Life Cycle Analysis Network (esLCA).