

CV Date	22/12/2025
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Part A. PERSONAL INFORMATION

First Name	Alberto		
Family Name	Escudero Belmonte		
Sex	Male	Date of Birth	
ID number Social Security, Passport			
URL Web			
Email Address			
Open Researcher and Contributor ID (ORCID)	0000-0002-0850-6589		

A.1. Current position

Job Title	Profesor Titular de Universidad		
Starting date	18/03/2024		
Institution	Universidad de Sevilla		
Department / Centre	Departamento de Química Inorgánica / Instituto de Investigaciones Químicas		
Country		Phone Number	
Keywords	Colloids; Xrays; Nuclear magnetic resonance; Nanomaterials; Synthesis; Biomedicine		

Part B. CV SUMMARY

PhD in Chemistry (2007) and Professor at the University of Seville ("Profesor Titular"), Department of Inorganic Chemistry and Institute for Chemical Research (University of Seville - CSIC), within the "Assymmetric Synthesis and Functional Nanosystems" group. Postdoctoral stays at the German Universities of Jena, Bayreuth, and Marburg (5 years), at the Material Science Institute of Seville (5 years) and researcher for the Leibniz Institute of New Materials (INM), Saarbrücken, Germany (2,5 years). In 2019 he joined the University of Seville as a researcher / assistant Professor, was promoted to Associate Professor ("Profesor Contratado Doctor") in 2023, and he was eventually appointed as Professor ("Profesor Titular") in March 2024. Positive evaluation of one "quinquenio" (at least 5 years of teaching experience) and three "sexenios" (at least 18 years of experience in research)

Wide international experience and well established collaborations. Principal investigator of three research projects (Talenta Postdoc and two INM Fokus projects focused on innovation and knowledge transference), researcher in other 16 R&D competitive projects and 4 R&D non-competitive contracts with private entities (responsible for 2 out of them). Experience in basic, applied and technologically focused research. Director of two PhD Theses (M. Zyuzin, University of Marburg, 2017; J. Drzic, University of the Saarland, expected 2026), seven Master Theses (TFM) and six Bachelor Theses (TFG). He has also been responsible for an additional postdoctoral researcher, three MSc and BSc students, and many laboratory technicians. Wide teaching experience in General Chemistry, Inorganic Chemistry, Material Science, Physics, and Nanotechnology (Degrees and Masters, around 1000 hours, especially since 2019), as well as in postgraduated courses. Scientific interest in Inorganic Chemistry, Material Science and Nanotechnology, especially in the synthesis of nanomaterials with biomedical and optoelectronic applications. His scientific career is reflected in 56 research publications, h index = 24, around 3400 times cited. Associate editor of Frontiers in Biomaterials Science, and guest editor in Inorganics, Frontiers in Bioengineering and Biotechnology, and Journal of Chemistry.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper.** Camilla Cova; Víctor Ramos; Alberto Escudero; Juan P. Holgado; Nouredine Khiar; Alessio Zuliani. 2024. A sustainable lecithin-based ligand for the bio-functionalization of iron and hybrid metal organic frameworks (MOFs) nanoparticles with the sugar mannose. *Green Chemistry*. 2024-26, pp.11563-11575. <https://doi.org/10.1039/D4NH00525B>
- 2 **Scientific paper.** Juraj Drzic; Alberto Escudero; Lola Gonzalez García; Tobias Kraus. 2023. Sacrificial ligand route to hybrid polythiophene–silver nanoparticles for sinter-free conductive inks. *Inorganic Chemistry Frontiers*. 2023-10, pp.1552-1560. <https://doi.org/10.1039/D2QI02722D>
- 3 **Scientific paper.** Mikhail Zyuzin; Raimo Hartmann; Alexander Timin; Susana Carregal Romero; Wolfgang Parak; Alberto Escudero. 2022. Biodegradable particles for protein delivery: Estimation of the release kinetics inside cells. *Biomaterials Advances*. 139, pp.212966. <https://doi.org/10.1016/j.bioadv.2022.212966>
- 4 **Scientific paper.** Alberto Escudero; Lola González García; Robert Strahl; Dong Jin Kang; Juraj Drzic; Tobias Kraus. 2021. Large-Scale Synthesis of Hybrid Conductive Polymer–Gold Nanoparticles Using “Sacrificial” Weakly Binding Ligands for Printing Electronics. *Inorganic Chemistry*. 60-22, pp.17103-17113. <https://doi.org/10.1021/acs.inorgchem.1c02350>
- 5 **Review.** Alessio Zuliani; Víctor Ramos; (3/4) Alberto Escudero; Nouredine Khiar. 2025. “Sweet MOFs”: exploring the potential and restraints of integrating carbohydrates with metal–organic frameworks for biomedical applications. *Nanoscale Horizons*. 2025-10, pp.258-278. <https://doi.org/10.1039/D4NH00525B>
- 6 **Review.** Alberto Escudero; Carolina Carrillo Carrión; M^a Carmen Castillejos; Elena Romero Ben; Christian Rosales Barrios; Nouredine Khiar. 2021. Photodynamic therapy: photosensitizers and nanostructures. *Materials Chemistry Frontiers*. 5, pp.3788-3812. <https://doi.org/10.1039/D0QM00922A>
- 7 **Scientific paper.** Ziyao Liu; Alberto Escudero; Carolina Carrillo Carrión; Indranath Chakraborty; Dingcheng Zhu; Marta Gallego; Wolfgang Parak; Neus Feliú. 2020. Biodegradation of bi-labelled polymer-coated rare-earth nanoparticles in adherent cell cultures. *Chemistry of Materials*. 32, pp.245-254. <https://doi.org/10.1021/acs.chemmater.9b03673>

C.3. Research projects and contracts

- 1 **Project.** PID2023-152689OB-I00, Nuevas herramientas moleculares y nanométricas dirigidas a la terapia y diagnóstico del cáncer. Ministerio de Ciencia e Innovación. (Instituto de Investigaciones Químicas). 2024-2027. 212.500 €. Team member.
- 2 **Project.** PID2020-119949RB-I00, Desarrollo de nanoplataformas multivalentes para la detección y tratamiento de infecciones virales y bacterianas. Ministerio de Ciencia e Innovación. (Instituto de Investigaciones Químicas). 01/09/2021-31/08/2024. 84.700 €. Team member.
- 3 **Project.** US-1381590, Nuevas estrategias para la optimización de la transferencia de quiralidad en procesos de interés sintético y terapéutico: Aproximaciones modulares para la síntesis de bissulfínilderivados enantiopuros. Junta de Andalucía. Inmaculada Fernández. (Universidad de Sevilla). 01/01/2022-31/05/2023. 80.000 €. Team member.
- 4 **Project.** PY20_00882, Nanosistemas Autoensamblados para Terapias de Precisión contra el Cáncer. Junta de Andalucía. (Instituto de Investigaciones Químicas). 01/01/2021-21/12/2022. 90.000 €. Team member.
- 5 **Project.** CV20-04221, Antagonistas del Receptor NK1 para el Reposicionamiento y Desarrollo de Nuevos Fármacos anti SARS-CoV-2. Junta de Andalucía (Fondos FEDER). (Instituto de Investigaciones Químicas). 12/09/2020-11/09/2021. 100.000 €. Team member.