



Joaquin Silvestre Albero

Nationality: Spanish

Gender: Male

Home: (Spain)

EDUCATION AND TRAINING

Doctor in Chemistry

University of Alicante [01/12/1998 – 02/02/2003]

Level in EQF: EQF level 8

WORK EXPERIENCE

 *University of Alicante* – Alicante, Spain

Full Professor In Inorganic Chemistry

[2019 – Current]

 *University of Alicante* – Alicante, Spain

Associate Professor

[2011 – 2019]

 *University of Alicante* – Alicante, Spain

Assistant Professor in Inorganic Chemistry

[2007 – 2011]

 *Fritz-Haber Institute* – Berlin, Germany

Post-doctoral Fellow

[2004 – 2006]

 *Politechnic University of Valencia* – Valencia, Spain

Post-doctoral Fellow

[2003 – 2004]

SKILLS

Professor / Being a researcher / inorganic chemistry / EU Evaluator and Monitor 6-7th Framework / analyse experimental laboratory data / measure materials / Characterizing the structures of materials / Characterization of porous electro-catalyst (SEM, TEM, EDX, XRD, XPS, and FTIR). / Preparation of various Metal-Organic Frameworks (MOFs), Zeolitic Imidazolate Frameworks (ZIFs) / MOFs synthesis methods: one-pot, solvothermal, hydrothermal, slow diffusion, electrochemical

LANGUAGE SKILLS

Mother tongue(s): Spanish

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

[2025]

[LiCl@AC Composites for Atmospheric Water Harvesting: Effect of the Salt Content](#)

Authors: S.J. Segovia-Sandoval, A. García-Ripoll, J. Ferrando-Perez, C. Abreu-Jauregui, J. Silvestre-Albero | Journal Name: ACS Omega | Volume, Issue and Pages: 10 (45) 54329-54340 | Publisher: American Chemical Society

[2025]

[NaOH-Modified Activated Carbon Materials for Hydrogen Sulfide Removal](#)

Authors: M. Abid, M. Martinez-Escandell, J. Silvestre-Albero | Journal Name: C-Journal of Carbon Research | Volume, Issue and Pages: 11 (3) 68 | Publisher: MDPI

[2025]

[An Atomically Dispersed Photocatalyst for Undirected para-Selective C–H Bond Functionalizations](#)

Authors: S. Pradhan, J. Hu, P. Ren, Y. Qin, N. Jain, S. Monti, G. Barcaro, A. Jaworski, X. Dai, J. Rabeah, J. Silvestre-Albero, V. Celorrio, A. Rokicinska, P. Kustrowski, S. van Aert, S. Bals, S. Das | Journal Name: Angewandte Chemie - International Edition | Volume, Issue and Pages: 64 (33) e202508512 | Publisher: John Wiley and Sons Inc

[2025]

[Improved Catalytic Efficiency of Pt/CeO₂ in Toluene Combustion by Its Incorporation in the Structure of Hydrophobic Mesoporous Carbon](#)

Authors: S. Jarczewski, T. Berniak, E. Wysocka, A. Rokicińska, M. Żurowska, K. Barańska, M. Dębosz, C. Abreu-Jauregui, J. Silvestre-Albero, P. Kustrowski | Journal Name: ChemCatChem | Volume, Issue and Pages: 17 (13) e70006 | Publisher: John Wiley and Sons Inc

[2025]

[Fluorinated Zirconium-Based Metal-Organic Frameworks as Novel Sorbents to Improve the Efficacy of Hemodialysis Treatment](#) Write here the description...

Authors: F. Guerrero, F.G. Moscoso, J. Silvestre-Albero, A. Martin-Malo, C. Carrillo-Carrión | Journal Name: Small Science | Volume, Issue and Pages: 5 (7) 2500054 | Publisher: John Wiley and Sons Inc

[2025]

[Ambient pressure storage of high-density methane in nanoporous carbon coated with graphene](#)

Authors: S. Wang, F. Vallejos-Burgos, A. Furuse, H. Otsuka, M. Nagae, Y. Kawamata, T. Ohba, H. Kanoh, K. Urita, H. Notohara, I. Moriguchi, H. Tanaka, J.P. Marco-Lozar, J. Silvestre-Albero, T. Hayashi, K. Kaneko | Journal Name: Nature Energy | Volume, Issue and Pages: 10 (7) 847-856 | Publisher: Nature Research

[2025]

[Hydrogen-bonding ability induces structural flexibility in a zeolitic-imidazolate framework \(ZIF-71\)](#)

Authors: J. Farrando-Perez, A. Missyul, J.J. Gutierrez-Sevillano, S: Calero, C. Carrillo-Carrión, A. M. Calvo, J. Silvestre-Albero | Journal Name: J. Mater. Chem. A | Volume, Issue and Pages: In press | Publisher: Royal Society of Chemistry

[2024]

[Tuneable mesoporous silica material for hydrogen storage application via nano-confined clathrate hydrate construction](#)

Authors: R.G. Ciocarlan, J. Farrando-Perez, D. Arenas-Esteban, M. Houllberghs, L.L. Daemen, Y. Cheng, A.J. Ramirez-Cuesta, E. Breynaert, J. Martens, S. Bals, J. Silvestre-Albero, P. Cool | **Journal Name:** Nature Communications | **Volume, Issue and Pages:** 15 (1) 8697 | **Publisher:** Nature Research

[2024]

[Zr-Porphyrin Metal-Organic Framework as nanoreactor for boosting the formation of hydrogen clathrates](#)

Authors: C. Carrillo-Carrión, J. Farrando-Perez, L.L. Daemen, Y.Q. Cheng, A.J. Ramirez-Cuesta, J. Silvestre-Albero | **Journal Name:** Angewandte Chemie - International Edition | **Volume, Issue and Pages:** 63 (6) e202315280 | **Publisher:** John Wiley and Sons Inc

[2024]

[Establishing ZIF-8 as a reference material for hydrogen cryoadsorption: An interlaboratory study](#)

Authors: J.A. Villajos, R. Balderas-Xicohtencatl, A.N. Al Shakhs, A. Berenguer-Murcia, C.E. Buckley, D. Cazorla-Amoros, G. Charalambopoulou, F. Couturas, F. Cuevas, D. Fairen-Jimenez, K.N. Heinselman, T.D. Humphries, S. Kaskel, H. Kim, et al. | **Journal Name:** ChemPhysChem | **Volume, Issue and Pages:** 25 (5) e202300794 | **Publisher:** John Wiley and Sons Inc

[2024]

[Wavelength-dependent activity screening of reduced titania for photocatalytic degradation of imidacloprid in batch and flow-mode](#)

Authors: A. Roibu, R. Udriou, C. Abreu-Jauregui, J. Silvestre-Albero, L. Andronic | **Journal Name:** Journal of Environmental Chemical Engineering | **Volume, Issue and Pages:** 12 (3) 112752 | **Publisher:** Elsevier Ltd

[2024]

[Exceptional performance of Fe@carbon-rich nanoparticles prepared via hydrothermal carbonization of oil mill wastes for H₂S removal](#)

Authors: M. Abid, R. García, M. Martínez-Escandell, A. Fullana, J. Silvestre-Albero | **Journal Name:** Chemosphere | **Volume, Issue and Pages:** 358, 142140 | **Publisher:** Elsevier Ltd

[2024]

[Improved photocatalytic performance of TiO₂/carbon photocatalysts: Role of carbon additive](#)

Authors: C. Abreu-Jauregui, L. Andronic, A. Sepúlveda-Escribano, J. Silvestre-Albero | **Journal Name:** Environmental Research | **Volume, Issue and Pages:** 251, 118672 | **Publisher:** Academic Press Inc.

[2024]

[A robust Fe-based heterogeneous photocatalyst for the visible-light-mediated selective reduction of an impure CO₂ stream](#)

Authors: T. Gosh, P. Ren, P. Franck, M. Tang, G. Barcaro, S. Monti, L. Chouhan, J. Rabeah, A. Skorynina, J. Silvestre-Albero, L. Simonelli, A. Rokicinska, E. Debroye, P. Kustrowski, S. Bals, S. Das | **Journal Name:** Chemical Science | **Volume, Issue and Pages:** 15 (29) 11488 - 11499 | **Publisher:** Royal Society of Chemistry

[2024]

[Construction of TiO₂@Cu₂O-CuS heterostructures integrating RGO for enhanced full-spectrum photocatalytic degradation of organic pollutants](#)

Authors: L. Andronic, C. Abreu-Jauregui, J. Silvestre-Albero | **Journal Name:** Journal of Alloys and Compounds | **Volume, Issue and Pages:** 994, 174682 | **Publisher:** Elsevier Ltd

[2024]

[Gas Adsorption Snapshots in Metal-Organic Frameworks Unveil the Impact of Pore Geometry on Hydrogen Storage](#) Write here the description...

Authors: N.C. Chiu, A. Gladysiak, A.K. Yadav, C. Abreu-Jauregui, A. Manjón-Sanz, C. Li, H. Huang, J. Silvestre-Albero, K.C. Stylianou | **Journal Name:** ACS Materials Letters | **Volume, Issue and Pages:** 6 (9) 4098 - 4105 | **Publisher:** American Chemical Society

[2023]

[Monolithic Zirconium-Based Metal-Organic Frameworks for Energy-Efficient Water Adsorption Applications](#)

Authors: C. Camur, R. Babu, J.A.S. del Pino, N. Rampal, J. Pérez-Carvajal, P. Hünegell, S.J. Ernest, J. Silvestre-Albero, I. Imaz, D.G. Madden, D. Maspoch, D. Fairen-Jimenez | **Journal Name:** ADVANCED MATERIALS | **Volume, Issue and Pages:** 35 (23) 2209104 | **Publisher:** John Wiley and Sons Inc

C. Camur, R. Babu, J.A.S. del Pino, N. Rampal, J. Pérez-Carvajal, P. Hünegell, S.J. Ernest, J. Silvestre-Albero

[2023]

[An Atomically Dispersed Mn-Photocatalyst for Generating Hydrogen Peroxide from Seawater via the Water Oxidation Reaction \(WOR\)](#)

Authors: R. Peng, T. Zhang, N. Jain, H.Y.V. Ching, A. Jaworski, G. Barcaro, S. Monti, J. Silvestre-Albero, V. Celorrio, L. Chouhan, A. Rokicinska, E. Debroye, P. Kustrowski, S. Van Doorslaer, S. van Aert, S. Bals, S. Das | **Journal Name:** J. Am. Chem. Soc. | **Volume, Issue and Pages:** 145 (30) 16584 - 16596 | **Publisher:** American Chemical Society

[2023]

[Improved thermal management in HKUST-1 composites upon graphite flakes incorporation: Hydrogen adsorption properties](#)

Authors: J. Farrando-Perez, M. Rodríguez-Castillo, M. Martínez-Escandell, M. Monge, J. Silvestre-Albero | **Journal Name:** Int. J. Hydrogen Energy | **Volume, Issue and Pages:** 48 (93) 36474 - 36484 | **Publisher:** Elsevier Ltd