



Maria Tejada Serrano

Post-Doc in Chemistry

Proactive, organic chemist specialized in heterogeneous catalysis with over 4 years of experience in synthesis and characterization of solid catalyst to improve reactions of synthetic and/or industrial interest. Bridging the gap between academia and industry.

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Address
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Date of birth
16-11-1991

Nationality
Spanish

Experience

Zürich, Switzerland

October-2019 - September-2020

Post-Doc researcher

ETH Zürich

Development of new heterogeneous catalyst for methanol synthesis. Use of Surface Organometallic Chemistry. Characterization by different ex-situ and in-situ techniques (XAS, XRD, EPR, XPS, TPR, ssNMR ...). Perform high pressure flow reactions.

Valencia, Valencian Community, Spain

December-2015 - September-2019

PhD position

Instituto de Tecnología Química

Search/synthesis of nanostructured heterogeneous catalysts to substitute homogeneous catalysts in chemical reactions of industrial and/or synthetic interest. Rational catalyst design based on mechanistic studies. Characterization by different techniques (XRD, EPR, FT-IR, UV-vis, XPS, ssNMR, among others). Replace classical homogeneous catalysts for the implementation of flow processes.

Castellón de la Plana, Valencian Community, Spain

September-2015 - November-2015

Technical support staff

Fundación Universitat Jaume I

Synthesis of new of ionic liquids using the thiol-ene photoreaction. Development of new synthetic methodologies. Design of new molecules based on the desired function.

Benicarló, Valencian Community, Spain

March-2014 - August-2014

Specialist Assistant

International Flavors and Fragrances

Synthesis and characterization (GC, CG-MS, IR, NMR) of different organic compounds (flavors) at laboratory scale in order to scale up at production amounts (tons). Time management to accomplish the goals within the time-frame required by industry. Work in a multidisciplinary team (engineers from the plant and the analytical chemists).

Skills

Synthetic organic chemistry

Materials science

Catalyst characterization

Flow reaction

Teamwork

Problem-Solving

Mentoring

Social media

Languages

Spanish and Catalan
Native

English
Advanced

German
Intermediate. B2

Education

- Valencia, Valencia Community, Spain
- 2019
● Doctorate in Sustainable Chemistry
Universitat Politècnica de Valencia
- Castellón de la Plana, Valencian Community, Spain
- 2015
● Master in Sustainable Chemistry
Universitat Jaume I
- Castellón de la Plana, Valencian Community, Spain
- 2013
● Degree in Chemistry
Universitat Jaume I

Publications

1. *Synthesis*. **2020**, 52, 2031-2037.
2. *ChemCatChem*. **2020**, 12, 2226-2232.
3. *Angew. Chem. Int. Ed.* **2020**, 59, 3846-3849.
4. *J. Am. Chem. Soc.* **2018**, 140, 8827-8832.
5. *ACS Catal.* **2017**, 7, 3721-3729.
6. *Chem. Sci.* **2017**, 8, 689-696.

References

● Antonio Leyva Pérez, Distinguished Researcher (CSIC), Instituto de Tecnología Química, Valencia, Spain. Tel: +34 96 387 78 12. Email: anleyva@itq.upv.es

Work submitted to conferences

1. XXXVII Reunión Bienal de la RSEQ (Donostia-San Sebastián, Basque Country, Spain), 2019: Black Phosphorous Catalyses AtomTransfer Radical Addition Of Alkyl Halides To Alkenes Under Mild Conditions,
2. 7th EuCheMS Chemistry Congress (Liverpool, United Kingdom), 2018: Iron oxide single-atom catalyst (SAC) for semi-hydrogenation of acetylene in ethylene streams under industrial conditions.
3. MULTI2HYCAT Summer School Hybrid Materials of Catalytic Processes (Valencia, Valencian Community, Spain), 2018: Isolated Fe(III)O sites catalyze front-end acetylene semihydrogenation.
4. III Encuentro de Jóvenes Investigadores de la SECAT (Valencia, Valencian Community, Spain), 2018: Front-end acetylene semi-hydrogenation with iron oxide single-atom catalyst (SAC).
5. 13th European Congress on Catalysis (Florenca, Italy), 2017: Chemoselective hydrogenation of alkynes to alkenes catalyzed by supported iron oxide nanoparticles.
6. XXXVI Reunión Bienal de la Real Sociedad Española de Química (Sitges, Catalonia, Spain), 2017: Chemoselective hydrogenation of alkynes to alkenes catalyzed by supported iron oxide nanoparticles.