



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Felix Llovell

Type (Academic or Industrial): Academic

Country: Spain

Leadership position in the COST: Participant

Working Group in which you are involved: WP1

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Laboratory/Company: Universitat Rovira i Virgili (URV)

Laboratory/Company info (limited to 400 characters): URV is a young public university, created in 1991, made up of 24 Research Departments, that welcome annually 12 000 undergraduate students, 2 000 masters students and 1 200 PhDs. URV develops a successful model of balanced research and training dedication, which has placed it among the first five Spanish universities in terms of research outputs according to several domestic classification, and derived in its international recognition in several rankings: it ranked 78th in the Times Higher Education 2019 Young University Rankings.

Link to the home page of the Laboratory/Company: <https://www.urv.cat/en/>

Fields of expertise (limited to 400 characters):

- Thermodynamic computational modeling
- CO₂ Capture
- Fluorinated Gases
- Ionic Liquids and Deep Eutectic Solvents

5 Main publications or patents:

- 1) Jovell D., Pou J.O., Llovell F., Gonzalez-Olmos R. Life Cycle Assessment of the Separation and Recycling of Fluorinated Gases Using Ionic Liquids in a Circular Economy Framework. *ACS Sustainable Chemistry & Engineering*. 2022, 10, 1, 71–80
- 2) Albà, C.G., Alkhatib. I., Llovell F. (CA), Vega, L.F. Assessment of low Global Warming Potential Refrigerants for drop-in Replacement by Connecting their Molecular Features to their Performance, *ACS Sustainable Chem. & Engineering*. 2021, 9, 50, 17034–17048.
- 3) S. Asensio-Delgado, D. Jovell, G. Zarca, A. Urriaga, F. Llovell (CA). Thermodynamic and process modeling of the recovery of R410A compounds with ionic liquids. *International Journal of Refrigeration* (2020) 118, 365-375.
- 4) L.M.C. Pereira, F. Llovell, L.F. Vega. Thermodynamic characterisation of aqueous alkanolamine and amine solutions for acid gas processing by transferable molecular models, *Applied Energy*, 222 (2018) 687-703.
- 5) J.O. Lloret, L.F. Vega, F. Llovell (CA), A consistent and transferable thermodynamic model to accurately describe CO₂ capture with monoethanolamine, *Journal of CO₂ Utilization*, 21 (2017) 521-533.



Collaborations:

- Dr. Rafael González-Olmos (IQS School of Engineering, Barcelona, Spain)
- Dr. Rita Duarte, Dr. Rita Craveiro (University Nova of Lisbon, Portugal)
- Dr. Ana Pereiro (University Nova of Lisbon, Portugal)
- Dr. Lourdes Vega (Khalifa University of Science and Technology, UAE)
- Dr. Niall MacDowell (Imperial College London, UK)
- Dr. Federico Tavaes (Federal University of Rio de Janeiro, Brazil)