



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Ana, V. M. Nunes

Type (Academic or Industrial): Academic

Country: Portugal

Leadership position in the COST: Participant

Working Group in which you are involved: WG1, WG3, WG4

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Laboratory/Company: Laboratory of CO₂ Conversion and Utilization at LAQV-REQUIMTE-FCT/NOVA UNIVERSITY OF LISBON

Laboratory/Company info:

The Laboratory of CO₂ Conversion and Utilization at REQUIMTE primary focus on the research of efficient methodologies for catalytic conversion of CO₂ into valuable products and the development of innovative and more sustainable high-pressure industrial processes

Link to the home page of the Laboratory/Company: <https://www.requimte.pt/laqv/>

Fields of expertise:

- Continuous high-pressure catalytic processes
- High-pressure CO₂ conversion strategies
- Integration of reaction and product separation steps
- High-pressure vapour-liquid equilibrium studies

5 Main publications or patents:

- Patent WO2007013032A3, M. Nunes da Ponte, Catarina M. M. Duarte, Ana A. Matias, Ana V. M. Nunes, J. P. Goulão Crespo, J. Santos, METHOD OF OBTAINING A NATURAL HYDROXYTYROSOL-RICH CONCENTRATE FROM OLIVE TREE RESIDUES AND SUBPRODUCTS USING CLEAN TECHNOLOGIES, WO 2007/013032 A2, 2007.
- A.S. Reis Machado, A.V.M. Nunes, M.Nunes da Ponte, Carbon dioxide utilization— Electrochemical Reduction to Fuels and Synthesis of Polycarbonates, J Supercrit Fluid 134 (2018) 150-156.
- A.B. Paninho, A.L.R. Ventura, L.C. Branco, A.J.L. Pombeiro, M.F.C. Guedes da Silva, M. Nunes da Ponte, K.T. Mahmudov, A.V.M. Nunes*, CO₂+Ionic Liquid Biphasic System for Reaction/Product Separation in the Synthesis of Cyclic Carbonates, J Supercrit Fluid 132 (2018) 71-75.
- C. A. Montoya, C. F. Gomez, A. B. Paninho, A. V. M. Nunes*, K. T. Mahmudov, V. Najdanovic-Visak, L. M. D. R. S. Martins, M. F. C. Guedes da Silva, A. J. L. Pombeiro and M. N. da Ponte, Cyclic Carbonate Synthesis from CO₂ and Epoxides Using Zinc(II) Complexes of Arylhydrazones of Beta-diketones, J Catal 335 (2016) 135-140.
- C.A. Montoya, A.B. Paninho, P.M. Felix, M.E. Zakrzewska, J. Vital, V. Najdanovic-Visak, A.V.M. Nunes, Styrene Carbonate Synthesis from CO₂ Using



Tetrabutylammonium Bromide as a Non-Supported Heterogeneous Catalyst Phase, J Supercrit Fluid 100 (2015) 155-159.

Collaborations:

Facilities:

- High-pressure stainless-steel reactors 5-200 ml
- High-pressure sapphire cell for vapour liquid equilibrium studies
- CO₂ compressor and high-pressure liquid pumps