

Minicolloque n° CPR1 "Solvants non-conventionnels : Propriétés fondamentales et procédés respectueux de l'environnement."

Oral Poster

Solvent Engineering by using CO₂-Expanded Liquids: physicochemical study, MM modelling and applications in processes engineering.

Emanuel Granero^b, Garima Garg^{b,c}, Montserrat Gomez^c, Vincent Gerbaud^b,
Yaocihuatl Medina-Gonzalez^{a*}

- Laboratoire du Futur, UMR 5258 CNRS-Solvay-U. Bordeaux, 178, avenue du Dr Schweitzer, 33608 Pessac Cedex.
- Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, 4 Allée Emile Monso, CS84234, F-31432 Toulouse Cedex 4, France
- Laboratoire Hétérochimie Fondamentale et Appliquée, UMR CNRS 5069, Université Toulouse 3-Paul Sabatier, 118 route de Narbonne, 31062 Toulouse cedex 9, France

* email: yaocihuatl.medinagonzalez-ext@solvay.com; yaocihuatl.medina-gonzalez@u-bordeaux.fr

This presentation will give an insight of our works performed with the aim of develop the Solvent Engineering. With this objective in mind, we will present the strategy of Gas-Expanded Liquids (GXLs) and its implications in Green Sustainable Processes [1-6].

In this context, some fundamental studies, characterizations and molecular modelling of solvent behavior including CO₂-expanded Biosourced solvents [3,4] and CO₂-Natural Deep Eutectic Solvents (NADES) [5,6] will be presented, then some applications of these engineered solvents in enzyme-[2] and inorganic nanoparticles (NPs)- [6] catalyzed processes will be detailed.

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- [6] G. Garg, A. M. Masdeu-Bultó, N. Farfán, J. Ordóñez-Hernández, M. Gómez, and Y. Medina-González, *ACS Appl. Nano Mater.* **2020**, 3, 12, 12240-12249.

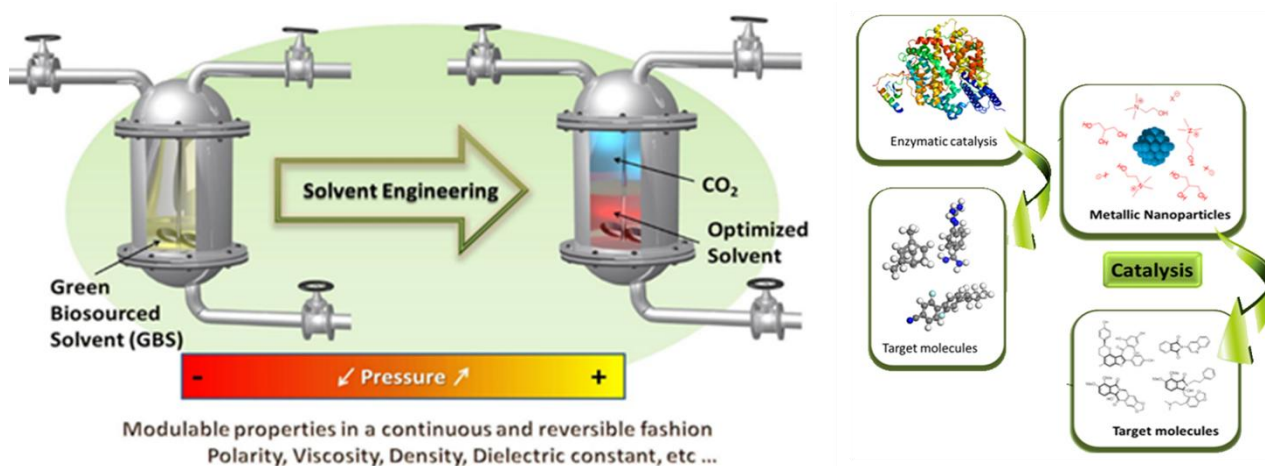


Figure 1: Solvent Engineering can be performed by using CO₂-expanded biosourced solvents and used in Green Sustainable Processes.