



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Glaucia, Medeiros Burin

Type (Academic or Industrial): Academic

Country: Brazil

Leadership position in the COST: Participant on CA18224

Working Group in which you are involved: WG1, WG2

E-mail: glauciarmd@gmail.com

Laboratory/Company:

- Laboratory of Green and Sustainable Processes (GSP), Chemical Process Engineering and Forest Products Research Centre (CIEPQPF), Department of Chemical Engineering, University of Coimbra (Portugal)
- Laboratory of Materials and Renewable Energies (Labmater), Department of Engineering and Exact Sciences, Federal University of Paraná (Brazil)

Laboratory/Company info:

- The GSP is focused on the development of sustainable, biomimetic, and environmentally friendly processes and products using high-pressure and supercritical fluid processing.
- The Labmater executes projects on the synthesis and characterization of biodiesel, hydrogen biofuels, biopolymers, and nanoparticles for innovative and environmentally friendly applications.

Link to the home page of the Laboratory/Company:

<https://www.uc.pt/fctuc/deq/cieppf>

<http://www.palotina.ufpr.br/portal/labmater/>

Fields of expertise:

- Microencapsulation and impregnation techniques
- Supercritical carbon dioxide processing
- Use of natural and synthetic polymers
- Valorization of agro-industrial by-products
- Active packaging
- Drug delivery
- Characterization of polymer materials
- Mass transfer phenomena

Main publications or patents:

- Burin, G. R. Medeiros; Formiga, F. R.; Albuquerque, E. C. M. C.; Melo, S. A. B. V.; Braga, M. E. M.; SOUSA, H. J. C. Extended copaiba oleoresin release from PCL-Pluronic porous monoliths against *Aedes aegypti* larvae. In: 1º Encuentro Ibérico de Fluidos Supercríticos / 1º Encontro Ibérico de Fluidos Supercríticos (EIFS), 2020. v. 1. p. 81-82.



- Medeiros, Glaucia R.; Guimarães, Carolina; Ferreira, Sandra R.S.; Carciofi, Bruno A.M. Thermomechanical and transport properties of LLDPE films impregnated with clove essential oil by high-pressure CO₂. *Journal of Supercritical Fluids*, v. 139, p. 8-18, 2018. [<https://doi.org/10.1016/j.supflu.2018.05.006>].
- Medeiros, Glaucia R.; Ferreira, Sandra R.S.; Carciofi, Bruno A.M. High pressure carbon dioxide for impregnation of clove essential oil in LLDPE films. *Innovative Food Science & Emerging Technologies*, v. 41, p. 206-215, 2017. [<https://doi.org/10.1016/j.ifset.2017.03.008>].
- Medeiros, G. R.; Kwiatkowski, Angela; Clemente, E. Características de qualidade de farinhas mistas de trigo e polpa de pupunha (*Bactris gasipaes* Kunth). *Alimentos e Nutrição (Unesp. Marília)*, v. 23, p. 655-660, 2012.
- Medeiros, G. R.; Kwiatkowski, A.; Clemente, E.; Costa, J.M.C. Avaliação de carotenóides em cenoura e análise sensorial de barras de cereais elaboradas com cenoura desidratada. *Revista brasileira de tecnologia agroindustrial*, v. 5, p. 306-313, 2011. [<https://doi.org/10.3895/S1981-36862011000100006>].

Collaborations:

University of Coimbra, Federal University of Paraná, Federal University of Santa Catarina, State University of Maringá, State University of Western Paraná, C.Vale Agro-industrial Cooperative.

Facilities:

- Spray drying
- Double emulsification technique
- Supercritical carbon dioxide impregnation
- UV-Vis spectrophotometry
- Optical and Scanning Electron Microscopies
- High Performance Liquid Chromatography
- Gas Chromatography
- Differential Scanning Calorimetry
- Fourier-Transform Infrared Spectroscopy
- Dynamic mechanical analysis
- Texture analysis
- Contact angle
- Interferometry
- Drug release
- Migration tests