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## ***COST ACTION GREENERING – DATA COLLECTION***

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**First name, Family Name:** Mafalda, Sarraguça

**Type (Academic or Industrial):** Academic

**Country:** Portugal

**Leadership position in the COST:** Participant on CA18224

**Working Group in which you are involved:** WG1

**E-mail:** mafalda.cruz@ff.up.pt

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**Laboratory/Company:**

LAQV@REQUIMTE, Faculty of Pharmacy, University of Porto

**Laboratory/Company info:**

Laboratório Associado para a Química Verde (LAQV@REQUIMTE) is a research centre affiliated to REQUIMTE, an association of Nova University of Lisbon and the University of Porto, in the areas of Chemistry, Chemical Engineering and Biochemistry. LAQV has more than 200 researchers, full time researchers and Postdoc fellows. The research is focused on Green and Sustainable Chemistry.

**Link to the home page of the Laboratory/Company:**

<https://www.requimte.pt/laqv/>

**Fields of expertise:**

- Chemometrics
- Process analytical technology
- Quality-by-Design
- Process analytics
- Vibrational spectroscopy
- Drug delivery
- Pharmaceutical cocrystals
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**5 Main publications or patents:**

- João A. Lopes, Mafalda C. Sarraguça. Data processing in multivariate analysis of pharmaceutical processes, In: Ferreira AP, Menezes JC, Toba M, eds. Multivariate Analysis in the Pharmaceutical Industry. San Diego: Academic Press, 2018: 35-48; [ISBN: 9780128110652];
- Ana Silva, Jurgen Verduyck, Chris Vervaet, Jean Paul Remon, Joao Lopes, Thomas De Beer, Mafalda Sarraguça, In-depth evaluation of data collected during a continuous pharmaceutical manufacturing process: A multivariate statistical process monitoring approach, Journal of Pharmaceutical Sciences, 108, 439-450, 2019; [https://doi.org/10.1016/j.xphs.2018.07.033];
- Marisa Rodrigues, Bárbara Baptista, João Almeida Lopes, Mafalda Cruz Sarraguça. Pharmaceutical cocrystallization techniques. Advances and challenges, International



Journal of Pharmaceutics, 547, 404-420, 2018;  
[<https://doi.org/10.1016/j.ijpharm.2018.06.024>]

- •Ana Silva, Jurgen Vercruyssen, Chris Vervaet, Jean Paul Remon, Joao Lopes, Thomas De Beer, Mafalda Sarraguça, Process monitoring and evaluation of a continuous pharmaceutical twin screw granulation and drying process using multivariate data analysis, European Journal of Pharmaceutics and Biopharmaceutics, 128, 36-47, 2018; [<https://doi.org/10.1016/j.ejpb.2018.04.011>]
- Mafalda Cruz Sarraguça, Thomas De Beer, Chris Vervaet, Jean-Paul Remon, João Almeida Lopes, A batch modelling approach to monitor a freeze-drying process using in-line Raman spectroscopy, Talanta, 83, 130-138, 2010; [<https://doi.org/10.1016/j.talanta.2010.08.051>]

### **Collaborations:**

### **Facilities:**

- Equipment's:
- Mid infrared spectroscopy
- Near infrared spectroscopy
- Raman spectroscopy
- High Performance Liquid Chromatography
- Liquid Chromatography –Mass spectrometry
- Fluorescence spectroscopy (liquid and solid)
- UV-Vis spectroscopy
- Software:
- Matlab