## *COST ACTION GREENERING – DATA COLLECTION*

**First name, Family Name: Herminia, Domínguez**
**Type (Academic or Industrial): Academic**
**Country:** Spain
**Leadership position in the COST**: -
**Working Group in which you are involved: WG2, WG3**
**E-mail: herminia@uvigo.es**

**Laboratory/Company:** Departament of Chemical Engineering. Faculty of Sciences, Campus Ourense. University of Vigo, Edificio Politécnico, As Lagoas, 32004 Ourense, Spain

**Laboratory/Company info (limited to 400 characters):**
The Group of Biomass and Sustainable Development (Group EQ2, University of Vigo) is a research unit working on the development of novel processes for the valorization of components from underutilized or wasted plant and macroalgal biomass to obtain high added value products for food, cosmetic, pharmaceutical, chemical, agricultural and energetic applications.

**Link to the home page of the Laboratory/Company:** www.grupoeq2.es
**Fields of expertise (limited to 400 characters):**

- Extraction of components from biomass following a biorefinery approach
- Development of aqueous (pressurized, assisted by enzymes, microwaves and ultrasound) and supercritical carbon dioxide extraction processes
- Use of membrane and adsorption-desorption technologies for the fractionation and concentration of bioactives from aqueous and waste streams

**5 Main publications or patents:**

- María Parada Casas, Víctor Rodríguez-Hermida, Patricia Pérez-Larrán, Enma Conde, María Turco Liveri, Daniela Ribeiro, Eduarda Fernandes, Herminia Domínguez, "In vitro bioactive properties of phlorotannins recovered from hydrothermal treatment of *Sargassum muticum*". Separation and Purification Technology, 167, 14, 117-126. 2016.
- Beatriz Díaz-Reinoso, Andrés Moure, José González, Herminia Domínguez, "A membrane process for the recovery of a concentrated phenolic product from white vinasses". Chemical Engineering Journal, 327, 210-217. 2017
- Lucía López-Hortas, Laura Gannon, R. Moreira, F. Chenlo, H. Domínguez, Mª Dolores Torres, "Microwave hydrodiffusion and gravity (MHG) processing of *Laminaria ochroleuca* brown seaweed". Journal of Cleaner Production, 197, 1108-1116, 2018.
- Milena Álvarez-Viñas, Noelia Flórez-Fernández, Mª Jesús González-Muñoz, Herminia Domínguez, "Influence of molecular weight on the properties of *Sargassum muticum* fucoidan". Algal Research, 38, 101-109, 2019.


- Noelia Flórez-Fernández, Mª Dolores Torres, Mª Jesús González-Muñoz, Herminia Domínguez, "Recovery of bioactive and gelling extracts from edible brown seaweed *Laminaria ochroleuca* by non isothermal autohydrolysis". Food Chemistry, 277, 353-361, 2019.

**Collaborations:**

- Mª Elvira Zúñiga (CREAS and Universidad Católica de Valparaíso, Chile)
- Eduarda Fernandes (REQUIMTE, Facultade de Farmacia, Universidade do Porto, Porto, Portugal)
- José Ricardo Pérez-Correa (Pontificia Universidad Católica de Chile, Chile)
- Herminio de Sousa (Universidade de Coimbra, Portugal)
- Stefan Willför (Åbo Akademi Univerisity, Finland)

**Facilities:**

- Pressurized reactors 0.1-16 L (Parr Instruments)
- Microwave: Microwave hydrodiffusion and gravity (NEOS, Milestone), Mars6 iWave, Monowave 450
- Supercritical CO2 extractor (SF-1000, Thar Technologies)
- Membrane separation units (UF, NF) on lab and pilot scale
- Rheometer MCR 302
- Biotechnology equipment (autoclaves, laminar flow hood, fermenter at lab and pilot scale)