



Universidad de Valladolid



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## Job Position

### Postdoctoral position at Universidad de Valladolid (Spain). High Pressure Research Group

I would like to bring your attention to one open Postdoctoral contract in the High-Pressure Research Group at the University of Valladolid (Spain) - full time employment up to 31/12/2020.

We are seeking highly motivated researchers (with a PhD qualification) to work on the project entitled: VALORIZATION OF SUNFLOWER PRODUCTS (SUNFLOVAL) financed by JUNTA DE CASTILLA Y LEÓN. CONSEJERÍA DE EDUCACIÓN. FONDOS FEDER.

#### Candidates

- 1) Candidates must have a DOCTOR degree in Chemical Engineering or Chemistry.
- 2) The researcher to be hired may not have done his predoctoral research work at the University of Valladolid, unless one or several postdoctoral research stays of at least 24 months at a university or research center abroad can be accredited.

Candidates must demonstrate expertise in the following four broad themes:

1. Recovery of bioactive compounds from biomass
2. Formulation of Natural products
3. Analytical techniques for biomass and biochemicals characterization
4. Adsorption/desorption processes and solid characterization

#### The Position

- The contract will be from its signature up to 31/12/2020
- The salary will be 2.530,46 €/month (12 monthly payments)
- The role will be full-time (37,5 h/week)
- You will work within the

**Tasks:**The project is focused in the valorization of products and by-products derived from the production plants of sunflower oil. The specific tasks to be developed in the contract are:

1. Extraction of bioactive compounds from by-products through hydrothermal processes with pressurized hot water and pressurized solvents and process intensification technologies (microwaves and ultrasounds).
2. Purification and formulation of extracts enriched in chlorogenic acid.
3. Hydrothermal fractionation of the sunflower seed shell with subcritical and supercritical water.
4. Application of polyphenol analytical techniques and antioxidant capacity: total polyphenols (TPC), capacity of oxygen free radicals absorption (ORAC), total flavonoids (FT), as well as chromatographic techniques for quantification of proteins and biomass derivatives among others.
5. Actions to disseminate project results: Preparation of follow-up and final project reports, communications to congresses and publications.

### **Selection Criteria**

The Selection Committee will assess the following documents, documented in accordance with the following scale:

- Research experience in a) Extraction of bioactive compounds from natural compounds, b) Formulation of natural products, c) Biorefinery processes with subcritical and supercritical water, d) Analysis techniques in the project, demonstrable with publications in JCR journals..... Up to 6 points
- Scholarships and competitive research contracts ..... Up to 2 points
- Stays in research centers of international recognition ..... Up to 1 point
- Participation in research projects .....Up to 1 point

### **Expressions of Interest**

Please send your expression of interest (including a brief cover letter and CV) to Esther Alonso, [etalonso@iq.uva.es](mailto:etalonso@iq.uva.es)

Deadline: 30<sup>th</sup> January 2019 or till the position is occupied

**(<http://hpp.uva.es/>)**