

Position Offered: POSTDOCTORAL RESEARCHER

Project: *Digital Tools based on Artificial Intelligence for the detection of frauds in oregano essential oils*

Technological and scientific fields: Advanced Data Analysis, Digital Tools for the Chemistry-Agriculture interface, Sensorization

Location: Madrid, Instituto de Química Orgánica General (www.iqog.csic.es) e Instituto de Química Física Blas Cabrera (www.iqf.csic.es)

Research Group/PI: Group of Instrumental Analysis in Environment, Food and Health (lab. ANAEN), Ana Cristina Soria Monzón; Group of Photolysis and Chromatography, Jesús E. Quintanilla López

PROJECT SUMMARY

The potential of Digital Tools based on Artificial Intelligence (Machine Learning, Deep Learning, metabolomic approaches, sensorization) in their application to the advanced analysis of 2D and 3D data obtained experimentally through various instrumental analysis techniques, will be evaluated in this project for the development of an improved and automated technology that allows the authentication of essential oils. The proposed multidisciplinary research, with great potential for transfer, will benefit from the experience and resources of the research groups of two CSIC Institutes and the advice of a company in the essential oils sector.

PROFESSIONAL PROFILE

Minimum requirements:

Doctor of Science (Chemistry, Food Science and Technology, etc.) with experience in the application of chemometric tools to experimental data.

Merits to be considered:

- Experience in analysis by chromatographic techniques coupled to mass spectrometry (preferably by GC-MS and LC-MS) of foods and plants.
- Knowledge of English (level B2).

WHAT IS OFFERED

The hired person will benefit from a Training Plan of 296 ECTS for specialization in Digital Skills that will include, among others, the enrollment in an online Master on Big Data and Data Science and in various postgraduate courses on advanced statistics and Python programming. Stays (total duration 9 months) in prestigious national/international laboratories specialized in this topic are also contemplated, as well as the participation in other activities (teaching, dissemination, attendance at conferences, etc.) that favor the candidate's professional development.

Contract conditions:

Indefinite contract for a Postdoctoral Researcher associated to the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (41.000 € - 52.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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