

## **The Fundación Cepsa Chair of the UCA launches an innovative doctoral thesis to identify aromatic oil-derived compounds with an electronic nose**

- This is the second doctoral thesis between the University of Cadiz (UCA) and the Fundación Cepsa through the Chair at the Polytechnic School of Algeciras
- Doctoral theses are part of the commitment of the University of the UCA and the Fundación Cepsa to research and innovation applied to the industrial sector

The Fundación Cepsa and the University of Cadiz (UCA), through the Fundación Cepsa Chair, located in the Escuela Politécnica Superior de Algeciras (EPSA), are now working on implementing the industry doctoral thesis entitled *Development of analytical methodology to be used as a reference and to be implemented in rapid analyses and even in situ, to identify volatile and aromatic components in oil products used in industry (electronic nose)*, an academic research project to be conducted over the next three years with option to extend it another year.

The doctoral student supervising this project is Marta Barea, who is advised by Dr. Miguel Palma and Dr. José Melgar, from the UCA and Cepsa, respectively, also with support from Mar Perrote, head of Cepsa's Laboratory in San Roque

With the implementation of industrial theses, Cepsa and the UCA have taken a step forward in their constant collaboration. In addition to this industry doctoral thesis, there is a thesis entitled *Characterization of the chemical composition and microbiology of biological reactors in the Gibraltar-Cepsa refinery. Study of optimization strategies* for which work has already begun. Both aim to develop applications that are useful for the industrial sector and that are a competitive advantage for the company, always keeping innovation as a guide.

Mar Perrote, the head of the laboratory at Cepsa's industrial center in San Roque, has stated that "eNose technology (electronic nose) based on state-of-the-art analyzers, is a pioneering and innovative alternative to the traditional methods of subjective characterization of the odor of oil products used in the agro-food industry. We are very proud to collaborate with the UCA to implement this new technology at Cepsa, becoming the leader for characterization and identification of volatile aromatic compounds."

For her part, the doctoral student Marta Barea, noted that “participating in a project of this magnitude is a great opportunity in my research career. Being able to provide results that bring solutions to real problems is a reason why cooperation between universities and companies like Cepsa is extremely important and should be encouraged.”

### **Fundación Cepsa Chairs**

Fundación Cepsa Chairs at the Universities of Cadiz, Huelva, Seville, La Laguna, and Polytechnic in Madrid, are continually strengthened thanks to the contributions and involvement of the Company's professionals and the academic institutions committed to improving research, training, knowledge flow, and innovation.

Fundación Cepsa Chairs have allowed thousands of students to approach the labor world and bring university professors closer to the reality of the energy and chemical sectors. The exchange of knowledge and experience between Cepsa professionals, university teachers, and students has meant, for two decades, the professional enrichment of all of them. For all these reasons, today Cepsa is an outstanding partner of these universities.

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