

A 12 months post-doctoral position is available in Rennes at ENSCR-Chemistry and process engineering Team (CIP)-Start of the project on October 2023

PIDÉ² project summary

PIDE² project is part of the RAPID - Dual Innovation Support Scheme -AID - Defense Innovation Agency -Ministry of the Armed Forces. The PIDÉ² project concerns a disruptive, 100% electric technology for treating air in indoor and/or confined spaces, loaded with chemical pollutants (alcohols, aromatic hydrocarbons, aldehydes, nitrogen, etc.) and biological pollutants (spores, bacteria, viruses...), which requires no consumables. The process is a triple-zone cold plasma reactor based on DBE plasma (Electroceramic Barrier Discharge, new ceramic composite material) without generating harmful by-products, operating at low voltage.

The objectives of the post-doctoral position will be to develop and test, in the laboratory and then in industrial sites, the interaction between plasma and Electroceramic materials at different configurations for the treatment of air pollution. The influence of some operating parameters (flowrate, pollutants concentrations, electric voltage...) on the process performance will be studied. Chemical degradation pathways and by-products formation have also to be investigated.

The post-doctoral duration is for 12 months and will begin on October 2023.

Education:

The candidate should have a PhD in environmental/chemical/process engineering, and be familiar with characterization techniques of Plasma discharge in air. Strong backgrounds in fundamentals characterization and implementation of cold plasma regimes are required. Knowledge on material science and gases analysis will be appreciated. The candidate must have good skills in English and French. After a first selection, the candidates will be interviewed.

Application:

Recommendation letters will be appreciated.

Remuneration to be discussed based on the candidate's experience.

Applications to send by email to:

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