**Post doctorate position (1 Year) at LGRE UHA in Energy/combustion:**

**Study of the reduction of iron oxides**

**Contract:** limited-term contract (CDD)

**Employer :** Université de Haute-Alsace (UHA)

**Division/Department:** Risk Management and Environment Laboratory (GRE) - UR 2334

**Workplace:** 3 bis rue Alfred Werner 68093 Mulhouse Cedex Mulhouse - France

**Type of position:** full-time (35h/week)

**Duration:** 1 year

**Starting period: 15th June 2025**

**Context :**

The Laboratoire Gestion des Risques et Environnement (LGRE) is a research unit of the Université de Haute-Alsace, located in Mulhouse, whose activities are focused on current energy and environmental issues. The investigations carried out at LGRE focus on decarbonized energy sources and/or energy vectors and the development of innovative and efficient energy processes. Since 2015, LGRE has been developing research works on the topic of metals combustion for energy production and reduction of the oxides formed in a virtuous cycle. On this topic, the post-doctoral student recruited will study the design of a reactor enabling the reduction of metal oxide powders under different reducing atmosphere conditions and will look for the optimum conditions to adopt in the context of a complex process.

**Mission:**

In collaboration with permanent staff of LGRE (academics, technician), your missions/tasks will be:

- to contribute to the reflection and discussion of technical conditions to be applied at reactor level in order to achieve the objectives set

- to define the experimental protocols to be adopted according to the constraints of the complex process in order to achieve the set objectives

-to carry out reduction experiments under different experimental conditions and analyse the corresponding results

- to analyze metal oxide and metal samples

- to participate in weekly meetings with the study's industrial partner, presenting the progress of the work and writing monthly reports

**Profile:**

- PhD degree in energy, combustion, chemical engineering or chemistry-physics.

- Strong scientific curiosity

- Ability to analyze, to synthesize, to express and to argue both orally and in writing

- Project management, organization and action planning skills

- Autonomous and team player

- Rigorous and organized (ability to meet deadlines)

**Contacts:**

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