

## PhD Candidate Profile

**Name:**

Leticia Vitola Pasetto

**Research Group (if relevant):**

N/A

**Research Centre (if relevant):**

Laboratoire de Génie Chimique (LGC), Université de Toulouse

**Department/School(s) (if relevant):**

Departement d'Ingénierie des Réacteurs Polyphasiques Innovants (IRPI)

**College:**

Institut National Polytechnique de Toulouse (INPT), France

**Supervisor(s):**

Marie-Hélène MANERO

**Funding body:**

CIFRE project

**Area (field) of study:**

COV treatment using gas phase oxidation

**Thesis Title:**

Study and Development of Abatement Process Based on Oxidation of Odorous Molecules.  
Application to the treatment of Gas Emitted from Superphosphate Production Plants.

**Abstract:**

Despite the gas emissions being within the regulation limit, industrial plants may still cause an odor nuisance in the surrounding community. This negative impact is an environmental problem common to a large variety of chemical plants, such as fertilizer, food industry, pulp and paper and wastewater plants. In order to develop a gas abatement process, we took gas emissions from a fertilizer plant as reference. Then we selected two main steps: the first, focused on characterization analysis of plant chimney gas and the second, on identifying the compounds responsible for the odors. In order to identify the target molecules, we compared the odor detection threshold with the chimney concentration for each compound previously characterized. These targeted compounds belong to two chemical classes: aldehydes and reduced sulfurs. This thesis proposes to study and develop an abatement system of odorous compounds based on the oxidation reaction in gas phase.

**Collaborations:**

Laboratoire de Chimie Agro-industrielle (LCA), Toulouse



## PhD Candidate Profile

Laboratoire d'Ingénierie des Systèmes Biologiques et de Procédés (LISBP), Toulouse

### **Publications:**

N/A

### **Presentations:**

N/A