IMT Lille Douai — SAGE Sciences de l'Atmosphère et Génie de l'Environnement	**Postdoctoral position in Atmospheric Chemistry** Optimization and field deployment of an original instrument to investigate the ozone formation chemistry

The Department of Atmospheric Sciences and Environmental Engineering (SAGE) of IMT Lille Douai, France (http://sage.imt-lille-douai.fr/), has ongoing research activities focused on the impact of climate change on air quality and atmospheric composition. SAGE is currently composed of a staff of about 50 persons including 17 full-time faculty members. This fixed-term position is available for a duration of one year with an expected starting date on September 2019.

Project description:

Ground-level ozone (O_3) is an important criteria pollutant that affects both global climate change and regional air quality, with the latter linked to detrimental effects on human health and ecosystems. Due to its photochemical nature, strategies developed to reduce ambient concentrations of O_3 are based on the use of atmospheric models. An alternative consists in measuring how fast ozone is produced at a measurement site, which in turn allows estimating the contributions of both transport and local chemistry on local ozone concentrations. An instrument to measure ozone production rates has been constructed in our laboratory and its deployment in the field has highlighted some limitations which have to be solved to perform reliable ambient measurements.

The successful applicant will be in charge of optimizing this instrument and will perform both laboratory and field testing to test its reliability, including a potential deployment in an atmospheric chamber to quantify ozone production rates during kinetic experiments. It is anticipated that the measured ozone production rates will help improving our understanding of ozone formation and will help testing current mechanisms of atmospheric chemistry. This work will ultimately help improving ozone reduction strategies.

The successful applicant will hold a Ph.D. degree in a relevant area of atmospheric sciences and will have a good knowledge of the field of research, as well as skills in instrumental developments. A previous experience of field measurements will be an asset for this position. Good proficiency in English is a prerequisite. A driving license would be a plus.

Applicants are invited to send their Curriculum Vitae, a cover letter, and two reference letters to Dr. Sébastien DUSANTER (sebastien.dusanter@imt-lille-douai.fr)