

PhD Research Traineeship Program at Bekaert Combustion Technology BV, The Netherlands

An internship/graduation position opens at Bekaert Combustion Technology BV in Assen, The Netherlands, for an Early-Stage Researcher (ESR) on the combustion of hydrogen in the Marie Curie Initial Training Network named POLKA (**POLL**ution **Know**-how and **Abatement**). This project is funded by the European Union's Horizon 2020 Research and Innovation Program.

Combustion of hydrogen from renewable sources is an emerging technology that can replace fossil fuels and so provide carbon-neutral energy. The goal of POLKA is to solve serious technical problems, which are unique to hydrogen combustion, e.g. flame flashback, emissions and thermos-acoustic issues. For more information on this project, please visit <http://www.polka-eu.org>.

Bekaert has the ambition to enable the use of hydrogen in heating applications. Currently, gas-fired boilers are the most used technology for heating the built environment. The development of the core of a domestic boiler, the so-called heat engine (comprising a burner and heat exchanger), running on 100% hydrogen, is the focus of this project work.

Your Role

The goal of the project work at Bekaert is to perform technical research on such a hydrogen heat engine. One of the main challenges is to design a flashback-proof burner deck. Moreover, design rules for combustion chamber and heat exchanger will need to be considered to minimize the emission of pollutants. These will be supported by numerical simulations.

As an Early-Stage Researcher, this project is expected to last somewhere between 8 to 10 months depending on the duration of a Master thesis/graduation project as desired by your institution.

Your Profile

You are a young scientist in the first 4 years of your research career. You are mobile within Europe; the working location is Assen, the Netherlands. You are currently pursuing or have a MSc degree or equivalent in physics, mathematics, computer science or engineering to be able to enrol in the PhD Program. You must not have resided or carried out your main activity (work, studies, etc.) in the Netherlands for more than 12 months in the last 3 years.

The research will be fully supported by Bekaert, a full POLKA member. The training objectives will be achieved by a comprehensive program comprising local training, network-wide training, and secondments. The training comprises scientific workshops, conferences and trainings on outreach, entrepreneurship, and gender issues.

Interested?

If you are interested in this program, please send your resume and motivation letter to Suzanne Gelling, HR Assistant, by e-mail to suzanne.gelling@bekaert.com. For more information or questions, contact Suzanne Gelling by e-mail or by phone on +31655000293.

WORK LOCATION(S)

1 position(s) available at
Bekaert Combustion Technology
Netherlands
Assen