PhD in Low-Temperature Plasma Modelling for Semiconductor Processing

Are you eager to combine your physics knowledge with your programming skills? Do you like studying physical systems with wide impact in society? Then, this PhD position is ideal for you!

Job Description

- This PhD project aims to develop advanced fluid models for low-temperature plasmas operating at low pressure, targeting applications in the semiconductor industry. The project will focus on improving the physical description of low-collisionality regimes by resolving the momentum balance of individual plasma species.
- You will implement new modelling approaches in state-of-the-art plasma simulation platforms, such as nonPDPSIM and HPEM, in the context of plasma etching and EUV-induced plasmas.
- You will join the group of Elementary Processes in Gas Discharges at Eindhoven University of Technology (TU/e), a leading research group in plasma physics, having the opportunity to work collaboratively with several graduate and undergraduate students.
- You will benefit from close interaction with semiconductor partners, including ASML.

Conditions of Employment

- Full-time employment for four years, with an intermediate assessment after nine months. You will spend a minimum of 10% of your four-year employment on teaching tasks, with a maximum of 15% per year of your employment.
- Salary and benefits (such as a pension scheme, paid pregnancy and maternity leave, partially paid parental leave) in accordance with the Collective Labour Agreement for Dutch Universities, scale P (min. € 3,059 - max. € 3,881).
- A year-end bonus of 8.3% and annual vacation pay of 8%.
- A Staff Immigration Team and a tax compensation scheme (the 30% facility) for international candidates.

On our website you can discover even more information about our conditions of employment. Build on your career at TU/e!

Job Requirements

- A master's degree (or an equivalent university degree) in Physics or Engineering.
- Programming proficiency (e.g. in Fortran, C++, Python or Matlab).
- Ability to work in an interdisciplinary team and interested in collaborating with industrial partners.
- Motivated to develop your teaching skills and coach students.
- Fluent in spoken and written English.

More information

Do you recognize yourself in this profile and would you like to know more? See further details here or contact the hiring manager **Dr. Tiago Cunha Dias** (t.cunha.dias@tue.nl).
Curious to hear more about what it's like as a PhD candidate at TU/e? Please view the video.
Are you inspired and would like to know more about working at TU/e? Please visit our career page.

Application

We invite you to submit an online complete application via this link:
https://www.academictransfer.com/nl/jobs/359918/phd-in-low-temperature-plasma-modelling-for-semiconductor-processing/