

The stimuli-responsive functional materials and devices (SFD) group at the Eindhoven University of Technology has vacancies for a

1 PhD Student (1.0 fte)

“Thermochromic Infra-Red Reflective Foils”

Project description

Do you want to work with innovative materials and coatings? And do you want to develop products that contribute to the energy transition? Then this PhD vacancy is what you are looking for! In this PhD project you will create a smart infrared light (IR) reflector foil that can be placed on a window. IR light makes up 50% of the total sunlight energy and is a significant interior heating source of buildings. Your foil will autonomously and reversibly change between an IR reflective and a transparent state upon heating/cooling, all the while remaining transparent to visible light. Thus, the ‘smart’ temperature responsive IR reflector will reject IR at higher temperatures, reducing heating of the indoor space and the load on air conditioning systems. If this can be done, it will be a major step towards the construction of energy neutral buildings. In this multidisciplinary project you will work together with industrial partners, spin-off companies, institutes and other universities.

Eligibility

We seek for highly talented, motivated, and enthusiastic candidates with an MSc degree in polymer sciences. The successful candidate has a solid background in polymer materials, as well as good communication skills, is fluent in English, and should have a strong motivation to do scientific research in an interdisciplinary team. Experience with the synthesis and characterization of stimuli-responsive polymers is desirable. An interview and a scientific presentation are part of the selection process.

Employment conditions

We offer challenging jobs in a dynamic and ambitious, multidisciplinary research team in the stimuli-responsive functional materials and devices group of the Institute for Complex Molecular Systems (ICMS) and Department of Chemical Engineering and Chemistry at Eindhoven University of Technology. Gross monthly salaries are in line with the Collective Labor Agreement of the Dutch Universities (CAO NU). Moreover, an 8% bonus share (holiday supplement) is provided annually. We also offer an attractive package of fringe benefits (including excellent work facilities, child care and sport facilities) and we can help you to find accommodation. The candidate is expected to finish the project with a PhD thesis, in case of the PhD vacancy, and disseminate the results through publications in peer-reviewed journals and presentations at international conferences.

Additional information

For more information please contact prof. dr. Albert P.H.J. Schenning +31 (0)40 247 3264 / a.p.h.j.schenning@tue.nl. Information about terms of employment can be obtained from Ms Sandra van de Weijer, HR advisor, email: p.j.v.d.weijer@tue.nl. Further information about Eindhoven University of Technology and the department of Chemical Engineering & Chemistry can be found at www.chem.tue.nl.

Application Procedure

Please send your application via the **apply-now button** and upload. You can upload a maximum of 5 documents of up to 2MB each. Consideration of the candidates will begin immediately, until the position is filled. To ensure consideration, your application should include the following documents (in PDF format):

- An application letter that outlines your qualification, interest and motivation for this position
- A CV with details on education, employment, publications, and research experience, as well as contact information for two referees