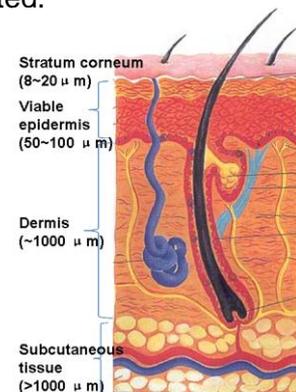


PhD in Tribology: **Tribo-mechanical Skin Equivalent for Skin Comfort**

Skin comfort, health and beauty are the concerns for people of all ages. The interactions between products and human skin are within the field of tribology, which has continuously attracted scientific studies over the past years. Knowledge on the contact mechanics and friction behavior of human skin is a prerequisite to improve and optimize surfaces and materials which come in contact with the skin. It is possible to assess friction and tactile properties in human and animal skin tests, while instrumental tribological measurements are an efficient alternative, providing objective and more reproducible results without inter- and intra-subject variations. This is why the design of tribo-mechanical skin equivalent is very significant, with which the mechanical contacts between skin and external materials can be simulated close to practical conditions.

The challenge

Human skin is a soft biomaterial with a complex layered anatomical structure, being characterized by nonlinear viscoelastic material behavior and showing a friction behavior that strongly depends on the contact conditions. The objective is to develop an active layered tribo-mechanical skin equivalent, which could representative real human skin in terms of mechanical properties, friction behaviour, surface topography, surface chemistry and humidity response. Both simulation and experimental work are expected.



Our offer

- A PhD position for four years
- A stimulating scientific environment
- Gross salary ranging from € 2042 to € 2612 (4th yr) per month
- Holiday allowance (8%), end-of-year bonus (8.3%)
- Excellent facilities for professional and personal development

Your profile

We are looking for a student with an MSc degree in mechanical engineering, chemical engineering, material science or in a closely related discipline, with theoretical as well as experimental skills and some knowledge on Tribology. A background in bio-tribology or rubber technology is very welcome. The candidate should be motivated and enthusiastic by working in a multidisciplinary environment. We ask for good written and spoken English language skills.

Contact

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Your application should consist of:

- A full Curriculum Vitae (including a list of all courses + marks, contact information for at least two academic references)
- Research statement indicating your background and interests, and how it aligns with the current position