

Dual Networks in Elastomers - CDD 1 year

<https://www.dev.spip.espci.fr/fr/espci-paris-psl/emploi/archives/2012/dual-networks-in-elastomers-cdd-1>

CONTEXT

L'École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris is both engineers' Grande école and a research institute (20 laboratories) of international reputation having an excellent scientific culture (6 Nobel prizes). Teaching and research are in-between the knowledge and the know-how in physics, chemistry and biology.

POSITION DESCRIPTION

Aim

The Soft Matter & Chemistry Laboratory in the ESPCI ParisTech has developed an expertise in the chemistry of reversible links in elastomeric materials. One of our objectives is to find new ways in the crosslinking process of rubbers. A dual network based on a standard curing system associated with labile links will be developed in order to improve mechanical properties of the crosslinked materials as well as to open the door to new ones. A one-year postdoctoral position is opened in the Soft Matter and Chemistry Laboratory, ESPCI ParisTech, possibly starting on March 1, 2012.

Missions and responsibilities

The project will include both chemistry and mechanical studies. The effects of the labile links on the mechanical properties (damaging/ageing) will be particularly examined. This work is part of a larger project in our laboratory dealing with the physical chemistry of elastomeric materials including reversible chemical bonds. The project is a partnership with an international industrial group leader in the field of high performance elastomers

CANDIDATE PROFILE

Knowledge required

The candidate should be physico-chemist having robust theoretical and practical knowledge in chemistry of polymers. The candidate must have skills in the field of mechanical analysis (DMA), thermal (DSC) and structural analysis (XRD).

Training level (diploma) required

PhD degree. Practical experience will be appreciated.

Contacts

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Accès

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