

**Analysis of microstructure-mechanical properties relationships in self-repairing silicone materials.**

**12 months Postdoc**

**Net monthly salary: 2100 €**

**Beginning: April 2017**

**MATEIS Laboratory (MATERials Engineering and Science)**

**PVMH team (Polymer, Glass and Heterogeneous Materials)**

In the frame of the ANR ARCADE (Auto-Repairing silicones for Cable Development) project, the MATEIS laboratory's PVMH team is recruiting a 12-month postdoc. This project is based on collaboration between the MATEIS and IMP (Institute of Polymer Materials) laboratories at INSA Lyon and the IPCM (Paris Institute of Molecular Chemistry). The hired person will be in charge of the study of the mechanical properties at small (viscoelastic behavior by DMA) and large deformations (tensile tests, study of self-healing properties) of the materials synthesized by the partner laboratories. At the same time, a fine multi-scale microstructural analysis will be conducted through observations in transmission electron microscopy (TEM) and atomic force microscopy (AFM); and small-angle X-ray scattering (SAXS) studies. Skills in AFM will be particularly appreciated.

Link to the ARCADE project presentation:

[http://www.agence-nationale-recherche.fr/en/anr-funded-project/?tx\\_lwmsuivibilan\\_pi2%5BCODE%5D=ANR-15-CE08-0022](http://www.agence-nationale-recherche.fr/en/anr-funded-project/?tx_lwmsuivibilan_pi2%5BCODE%5D=ANR-15-CE08-0022)

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