



## **Post-Doc POSITION (18 months) starting from September 2023**

### **Recycling of Silicone Crosslinked Elastomers: Input of Chemistry in Mechanical Recycling?**

#### **Description**

The project's framework is the ADEME collaborative project RENOV ("Régénération d'Elastomères pour une NOuvelle Valorisation") funded in 2023 between three laboratories of University Claude Bernard Lyon (CP2M, IMP and ISA) and three industrial companies (Elkem silicones, Nexans and Hutchinson).

The project will take place in the team "Polymerization, Catalysis and Materials" of the CP2M laboratory in Villeurbanne (CP2M: Catalysis Polymerization Processes and Materials- UMR 5128 - CNRS - CPE Lyon – University Claude Bernard) under the supervision of Dr Vincent MONTEIL in collaboration with Elkem Silicones and IMP laboratory.

The multidisciplinary project aims at: 1) recycling silicone-based cross-linked elastomers using mainly micronization (= grinding into small particles) as mechanical recycling route and 2) re-incorporating the obtained recycled particles in industrially relevant formulations. To maximize reincorporation level, a particular attention will be paid to the surface of these particles with a potential implementation of chemical surface modifications.

The project will include the structural characterization of surfaces and interfaces using modern spectroscopies such as solid state NMR and the physico-chemical characterization of recycled particles.

#### **Qualifications**

Applicants should have a PhD Degree in Polymer Synthesis or (Reactive) Polymer Processing or Inorganic chemistry. Strong knowledge of surface or interface characterization of particles would be considered an asset.

#### **HOW TO APPLY**

CVs should be sent to: Dr. MONTEIL Vincent ([vincent.monteil@univ-lyon1.fr](mailto:vincent.monteil@univ-lyon1.fr))