



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

### **Recycling of EPDM Crosslinked Elastomers : Micronization / Regeneration**

#### **Description**

The project's framework is the ADEME collaborative project RENOV ("Regénération 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 IMP: Ingénierie des Matériaux Polymères, UMR5223-CNRS, Lyon 1, INSA, UJM under the supervision of Pr Dr Philippe CASSAGNAU in collaboration with Hutchinson and CP2M laboratory.

The multidisciplinary project aims at: 1) recycling EPDM-based cross-linked materials using regeneration at high T in extruders or micronization as mechanical recycling routes and 2) re-incorporating the obtained recycled particles or polymers in industrially relevant formulations. To maximize reincorporation level a particular attention will be paid to functionality of particle surface or regeneration products with a potential implementation of polymer chains modifications.

The project will include the structural characterization of particle surface or polymer chains (using modern spectroscopies such as liquid / hybrid liq/sol / solid NMR technics) and viscoelasticity.

#### **Qualifications**

Applicants should have a PhD Degree in Polymer Synthesis or (Reactive) Polymer Processing Expertise in Rubber Properties would be considered an asset.

#### **HOW TO APPLY**

CVs should be sent to: Pr. Dr. CASSAGNAU Philippe ([philippe.cassagnau@univ-lyon1.fr](mailto:philippe.cassagnau@univ-lyon1.fr) )