



## PhD in Geosciences - XXXIV cycle

# Development, experimentation and validation of treatments, with consolidants and nanostructured protectives, on stones of historical and artistic value

### Industrial partner



Chemical company leader in the production, industrialization and trade of coatings, which carries out an intense research activity on innovative materials, especially on nanomaterials.

*The period of business training will provide the technical scientific know-how to research, as well as the resources to implement the project in terms of products to be tested and instrumentation.*

### International partner



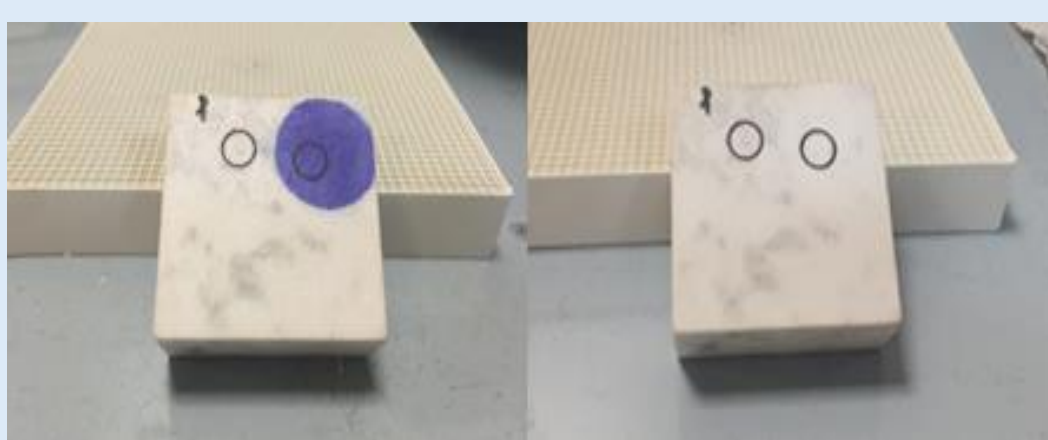
Fundamental research profile with high competence and aptitude for innovation, in which experiments and validations of nanomaterials are performed.

*Within the PhD project in-depth diagnostic studies will carry out through the adoption of innovative techniques for accelerated aging of stone materials*

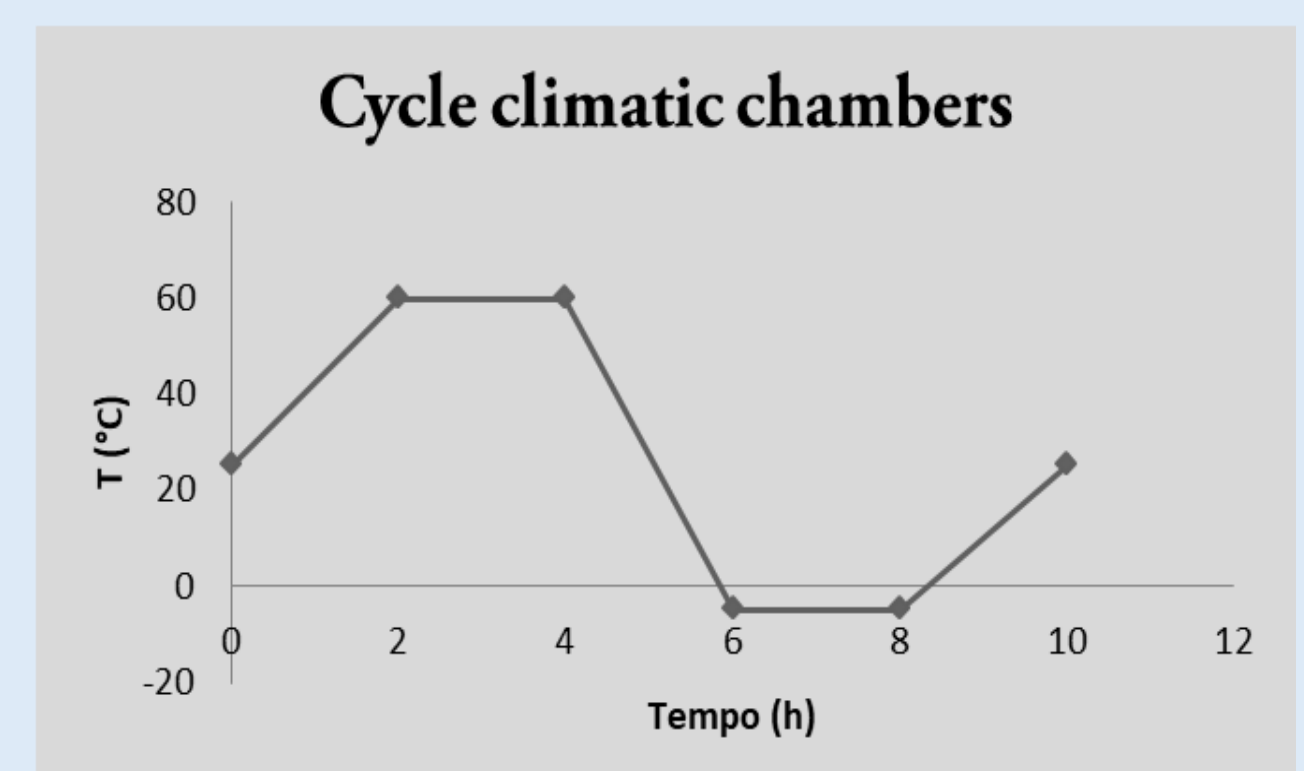
## Description of Activities

The aim of this research it is to study the degradation of stone materials and experiment with innovative nanostructured products in the conservation.

The research starts from the analysis of the degradation processes of Apulian natural stone materials, through chemical and petrographic characterization (es. XRPD, XRF, SEM-EDS)



and the experimentation of different accelerated aging tests on ornamental stones. Based on the type of degradation found on the different lithotypes studied, nanostructured conservative treatments will be tested.



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