



UNIVERSITÀ DEGLI STUDI DI NAPOLI "FEDERICO II"

Dipartimento di Scienze Chimiche

Dottorato in Scienze Chimiche - XXXVI

***Ph.D. in Chemical Sciences
Cycle XXXVI***

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Research project title:

Advanced strategies for chemistry for cultural heritage

Keywords: Cultural heritage, proteomics.

Research project abstract:

With this PhD project, we intend to face some most challenging issues of chemistry applied to the cultural heritage field. The recently developed protease functionalized sheet to in-situ digest proteins on painted surfaces to identify proteins in binders, will be improved and adapted to work with other artistic/archaeological objects (in collaboration with museums and restorers) with the major goal of exploiting it for MALDI-imaging (in collaboration with Prof. C Tokarski, University of Bordeaux, France), to allow the in situ localization of ancient proteins in artworks or heritage objects.

The analysis of proteins associated with ancient pottery is at the forefront in the study of past diets, culinary practices and ancient commercial trading. This project aims at making sampling and extraction strategies more effective at recovering food proteins from vessel walls, since data reported so far it has been limited to exceptionally well-preserved examples.