



Image: Restoration of Wall Paintings in Terrace House 2, Ephesus / Wikimedia Commons



Università
Ca' Foscari
Venezia

Dipartimento di
Scienze Molecolari
e Nanosistemi

Colloid and Surface Chemistry for the conservation of Cultural Heritage

3 giugno 2024, ore 12.00

Sala Conferenze Orio Zanetto

Campus Scientifico - via Torino 155, Mestre (VE)

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ABSTRACT

We pioneered the synthesis and the application of several advanced systems for the cleaning and consolidation of works of art, as micellar systems, microemulsions, physical and chemical gels, and several nano- micro-particles systems for cellulose based artifacts protection. In this lecture we report on nano and micro-particles for paper consolidation and on new advanced cleaning systems: 1) twin-chain polymer hydrogels, based on poly(vinyl-alcohol), 2) the poly(vinyl alcohol/starch gels, and 3) "green" castor oil organogels. These gels outperform classic gels used in conservation (gellan, agar, klucel, etc..), allowing cleaning processes that cannot be achieved with conventional methodologies. These new systems mark a paradigm shift in conservation and have been used for paper cleaning and consolidation and on classic artifacts (as Michelangelo, Leonardo da Vinci, Piero della Francesca, Botticelli, Masaccio, etc.) and modern and contemporary artifacts as paintings by Picasso, Lichtenstein, Pollock, de Chirico, Banksy, Eva Hesse.