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*VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI*

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z naslovom:

**Application of soft matter to the conservation of
cultural heritage**

**v sredo, 20. 1. 2021 ob 15. uri,
preko spletnega orodja Zoom**

<https://uni-lj-si.zoom.us/j/98043918803?pwd=VS9BaFFPdUhCQVhoZ214RGVpQ1lQUT09>

(Meeting ID: 980 4391 8803, Passcode: 259340)

Vljudno vabljeni!

Abstract:

Art Conservation poses a formidable and exciting challenge to soft matter-colloid scientists in two respects. First, the majority of the most performing and environmentally safe cleaning and consolidation agents for artworks are soft matter systems. Second, the interaction of these agents with the artifact involves an exceptionally complicated range of interfacial interactions. Works of art surfaces interacting with the environment are the most prone to aging and decay; accordingly, soiling is a prime factor in the degradation of surfaces, chemical and mechanical degradation are often associated to soiling and lead to the disfigurement of a piece of art. The effects of these processes are usually strongly amplified in the presence of protective coatings (mainly acrylic and vinyl polymers), applied in previous restoration treatments. We pioneered the synthesis and the application of several advanced systems for the consolidation and the cleaning of works of art, as hydroxides nanoparticles, microemulsions and chemical gels. These systems mark a paradigm shift in modern conservation and have been used on classic, modern and contemporary artifacts as wall paintings of Beato Angelico, Piero della Francesca, or on modern and contemporary art paintings as paintings by Picasso, Lichtenstein, Pollock, de Chirico, etc.. I will summarize the main progresses and perspectives focusing on the recently developed Twin-chain polymer hydrogels (TCPH) based on poly(vinyl alcohol) that are the most advanced tool for the cleaning of modern and contemporary art.

Main References

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