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in kemijsko tehnologijo

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**VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI**

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z naslovom:

***The beauty of gold: a journey from
molecular to supramolecular inorganic
chemistry for biomedical applications***

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v predavalnici 1 v 1. nadstropju Fakultete
za kemijo in kemijsko tehnologijo, Večna pot 113

Vljudno vabljeni!

Abstract:

From wedding rings to stained glass windows, through Olympic medals, gold has been highly prized for millennia. Due to their unique chemical properties with respect to other metal-based compounds, organometallic gold compounds occupy nowadays an important place in bioinorganic chemistry. In fact, several studies have proven that they can be used to develop drugs with possible applications as therapeutic agents, as well as chemical probes to study the molecular mechanisms of diseases. This lecture summarizes the results obtained for different families of bioactive organometallic gold compounds including cyclometallated gold(III) complexes, gold(I) N-heterocyclic carbene complexes, as well as gold(I) alkynyl complexes, and provides some insights into their reactivity in biological environments. Most importantly, it will focus on recent developments in the field and discuss the potential of gold organometallic compounds in relation to their versatile chemistry and unprecedented mechanisms of action. The potential of novel Noble metal-based chemical entities, including supramolecular coordination complexes, for different applications in chemical biology, drug delivery, bio-analytical chemistry and physiology will also be highlighted. Overall, the final ambitious goal of this research is to define new trends in the periodic table aimed at rationalizing the behavior of metal-based compounds in complex living systems.