

Luminescent amphiphilic Pt(II) complexes and their assemblies

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Photoactive transition metal complexes (TMCs) have received a great deal of attention because of their rich and peculiar physico-chemical and redox properties. The growing interest in TMCs is currently driven by their potential use as markers for *in vivo* bioimaging applications.^{1,2} Amphiphilic molecules proved to be ideal for achieving this kind of goal, possessing soluble and stable properties in aqueous media and a good degree of hydrophobicity as well. The high tendency of square planar Pt(II) complexes, containing conjugated ligands, to self-assemble in supramolecular structures can be exploited in principle to significantly enhance the emissive properties because of the formation of new excited states (metal-metal ligand charge transfer bands, MMLCT) and an increasing rigidity due to the packing of the units. In this contribution we describe the synthesis and characterization of a series of luminescent amphiphilic platinum compounds, soluble in water, based on a N[^]N[^]N pyridil-triazolate and functionalized with different ancillary ligands.³ The photophysical properties of the here proposed complexes were deeply investigated proving their potential as novel luminescent probes for *in vivo* cellular imaging.

References

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2. A. Aliprandi et al. *Nature Chemistry*, **2016**, 10-15
3. A. Aliprandi, et al. *Isr. J. Chem.*, **2019**, *59*, 892 -89