Transition metal complexes of C₆₀substituted bipyridine ligands

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The long lived metal-to-ligand-charge-transfer (MLCT) excited states characterizing some transition metal complexes such as tris(2,2'-bipyridine) ruthenium(II), bis(1,10-phenanthroline) copper(I), or (2,2'-bipyridine) rhenium(I) have been widely exploited to design multicomponent molecular architectures featuring photoinduced energy- and electron-transfer processes. Interestingly, the MLCT excited states of these compounds have a marked reducing character that, in principle, make them ideal partners for the construction of donor-acceptor systems with fullerenes. Herein, we will report on our latest advances in this field.

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