Supramolecular assembly of polymers at interfaces

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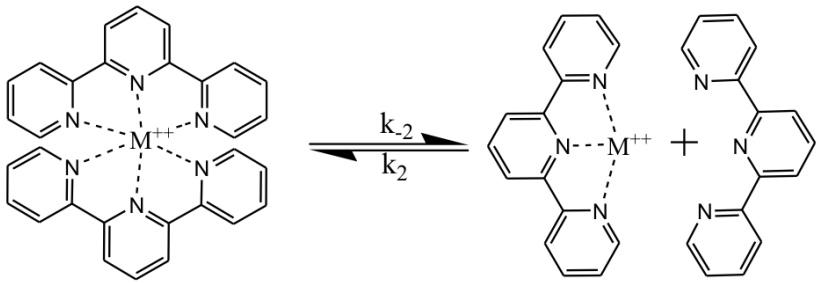
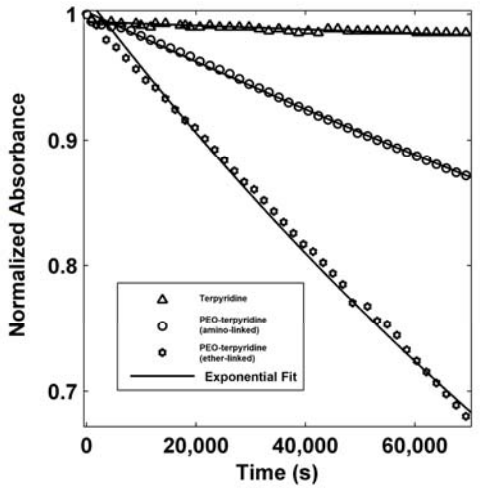
Substituent effects on kinetic stability of supramolecular complexes

We have studied the importance of the linking chemistry used to attach terpyridine ligands to polymers on the kinetic stabilities of the supramolecular associations. Using UV-vis absorption and nuclear magnetic resonance spectroscopies, we have established that the presence of amine or ether substituents at the 4' position of terpyridine leads to significant and occasionally dramatic effects on the dissociation rate constant of *bis* complexes. Linking chemistry represents an important, though generally overlooked, aspect of designing supramolecular polymer assemblies.

Decay of *bis* complexes of 4'-substituted terpyridines reveals a pronounced influence of substitution on kinetic stability (k_{-2})





I.M. Henderson, R.C. Hayward, *in prep.* (2011).