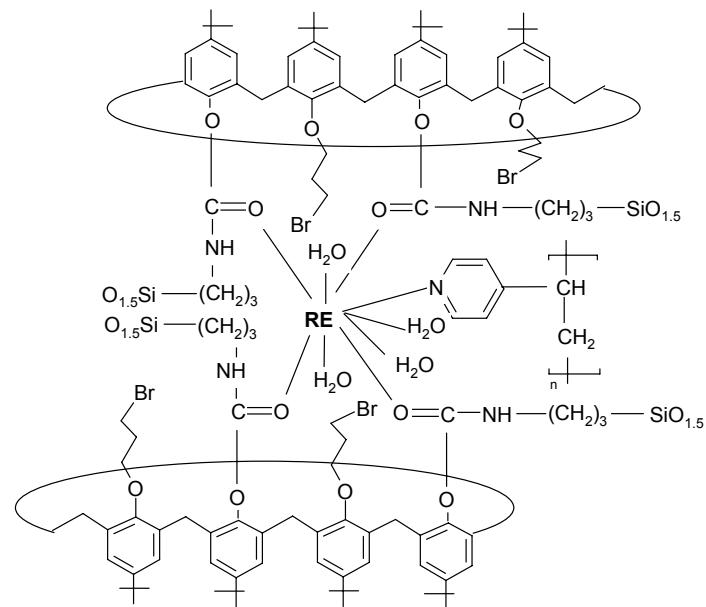
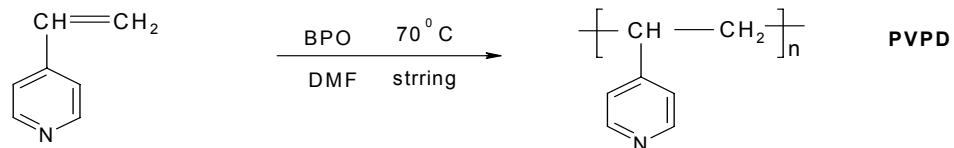
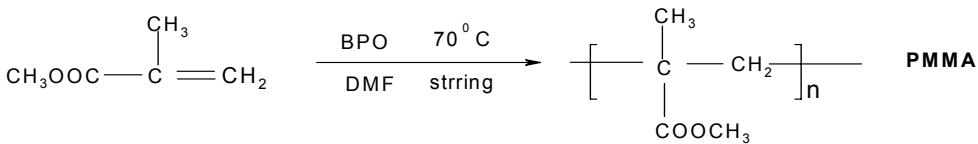


## Supporting information

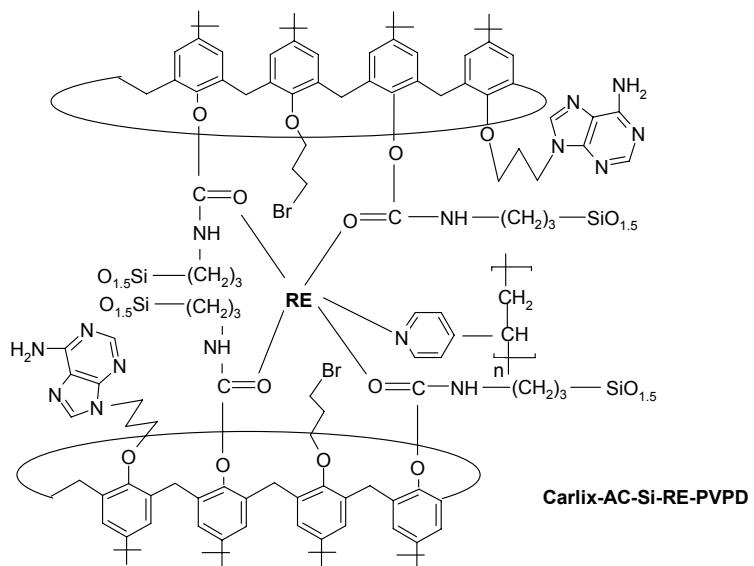
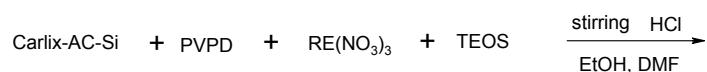
**Figure S1** The selected scheme for the synthesis process of the polymer PMMA, PVPD, and the scheme for the synthesis process of the hybrid polymeric materials Calix-Br-Si-RE-PVPD, Calix-AC-Si-RE-PVPD.

**Figure S2** The ultraviolet absorption spectra of Calix-Br and the precursor Calix-Br-Si (**A**); Calix-AC and the precursor Calix-AC-Si (**B**).

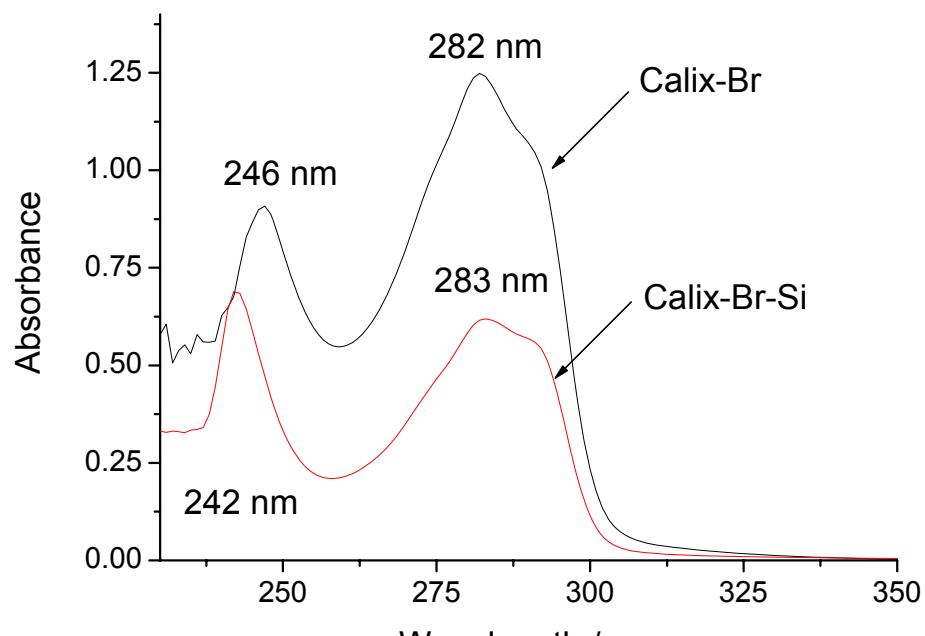
**Figure S3** The phosphorescence spectra of (**A**) the ligand Calix-Br, the precursor Calix-Br-Si and the polymer PVPD; and (**B**) the ligand Calix-AC, the precursor Calix-AC-Si and the polymer PVPD



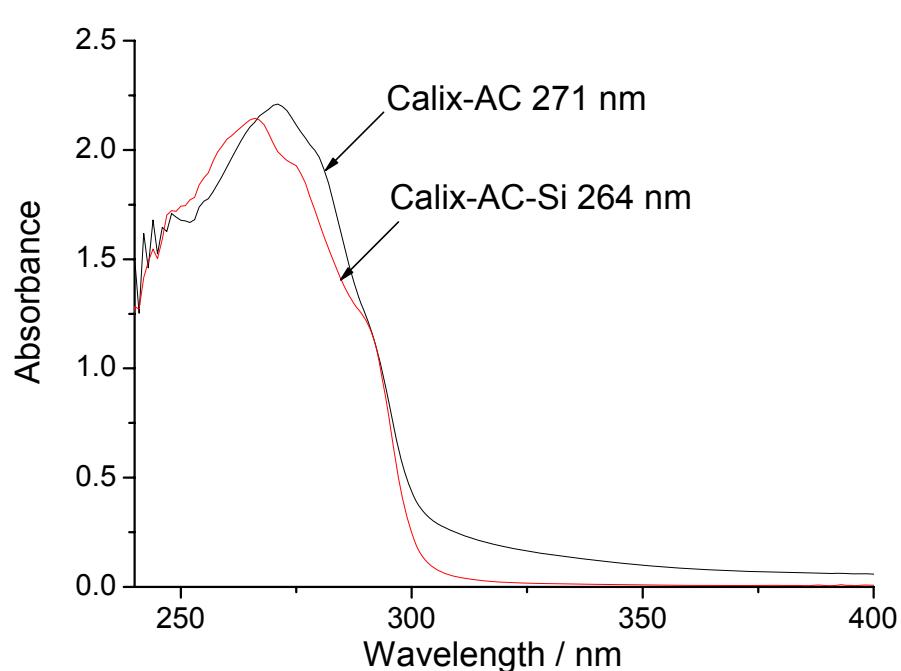
**Carlix-Br-Si-RE-PVPD**



**Figure S1**

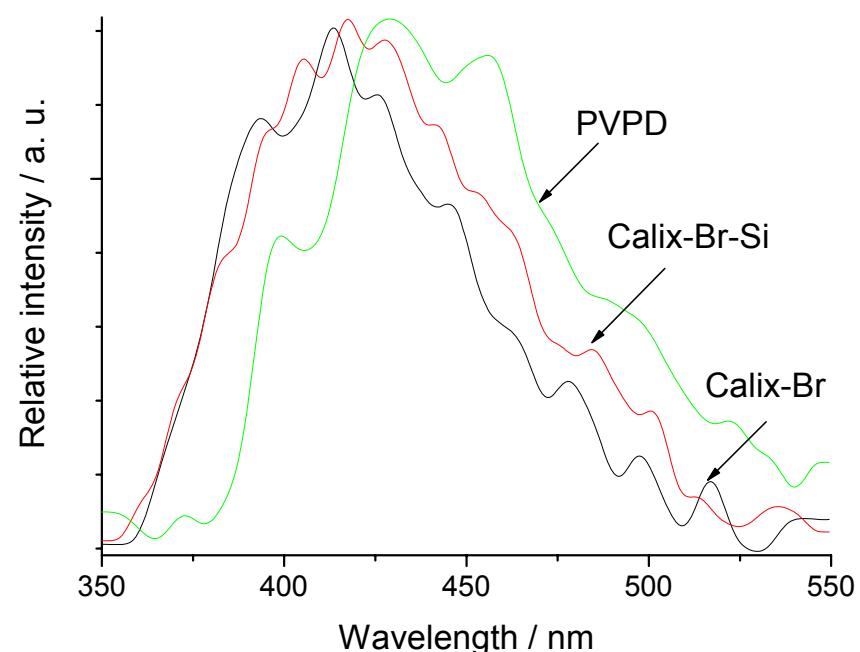


(A)

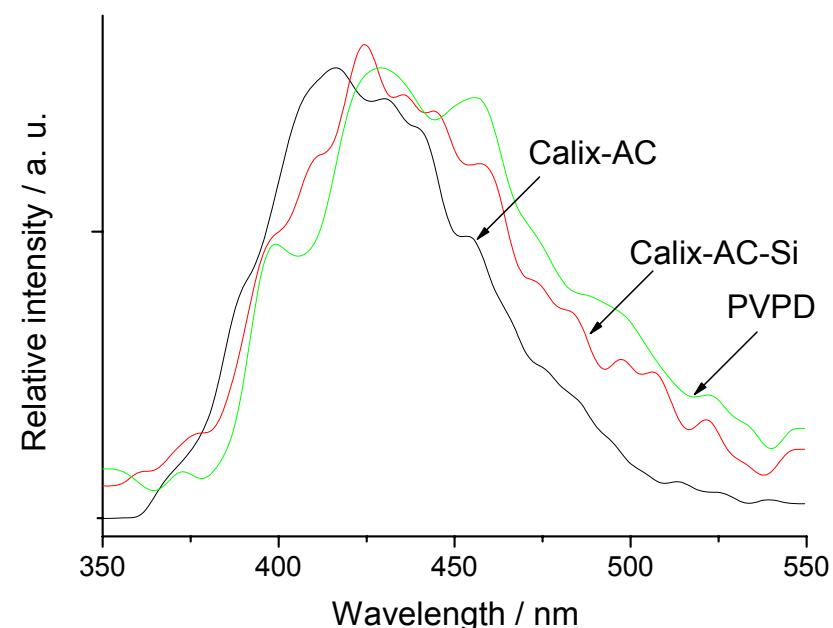


(B)

Figure S2



(A)



(B)

Figure S3