Electronic Supplementary Information

Polymerisable Octahedral Rhenium Cluster Complexes as Precursors for Photo/Electroluminescent Polymers

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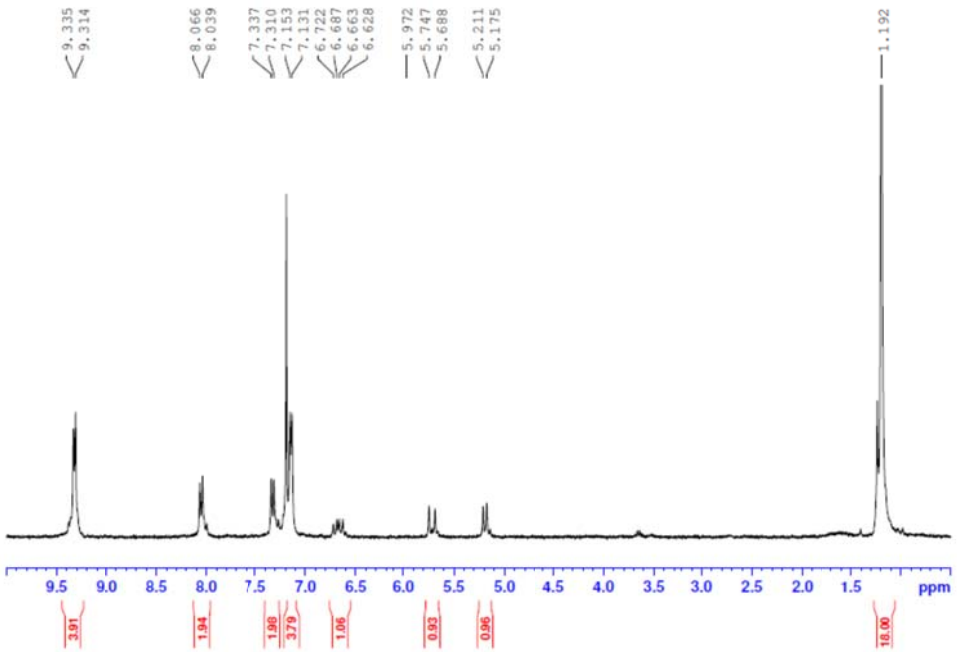
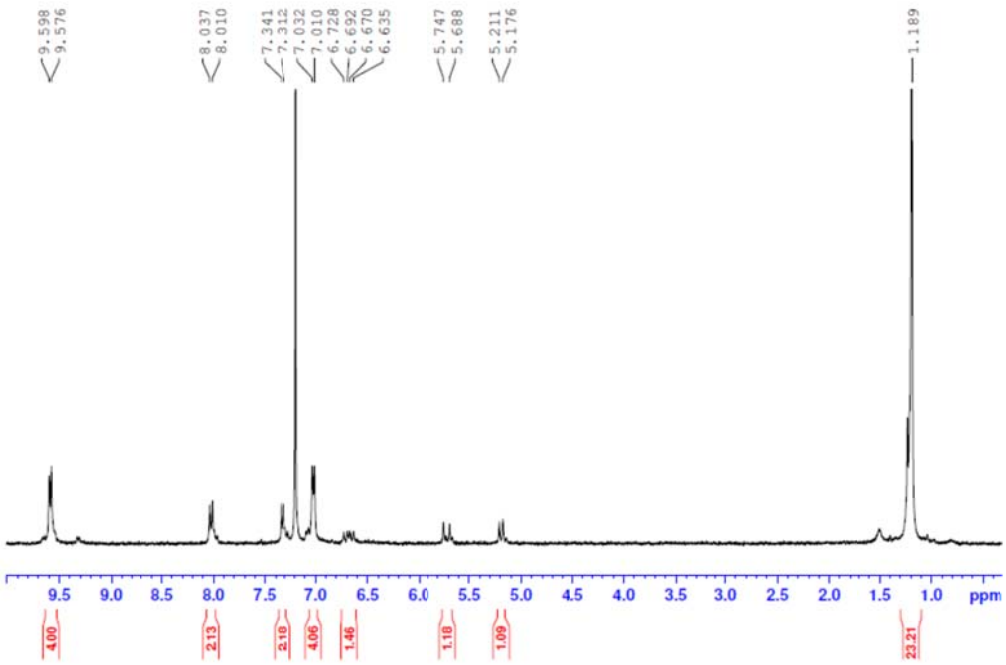
Content



a)



b)

Figure S1 ^{1}H NMR of compounds **1** (a) and **2** (b).

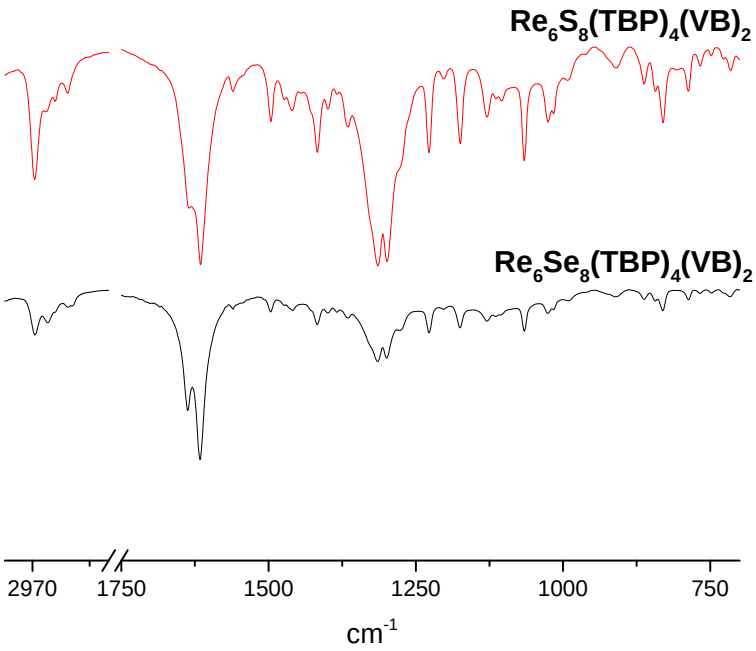


Figure S2 FTIR spectra of compounds **1** and **2**.

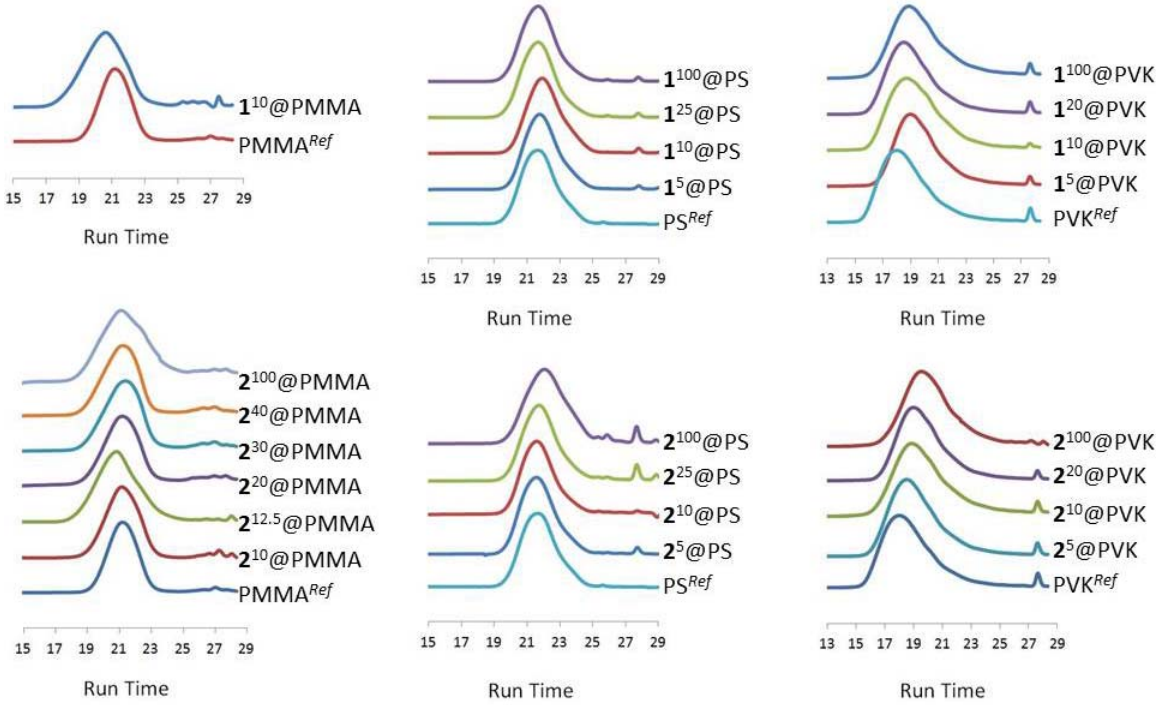
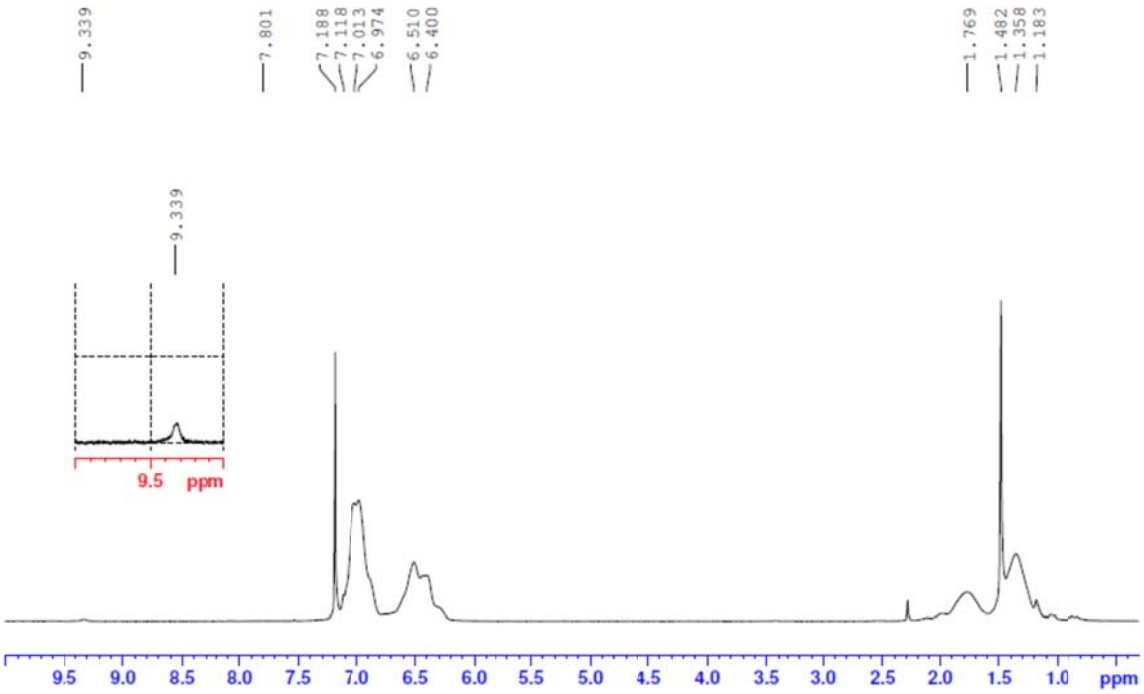
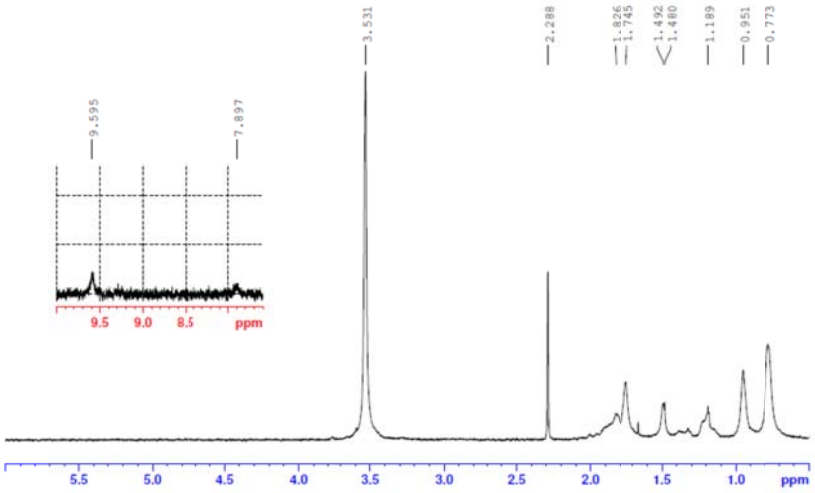


Figure S3 GPC traces of neat (*Ref*) and cluster doped polymers.

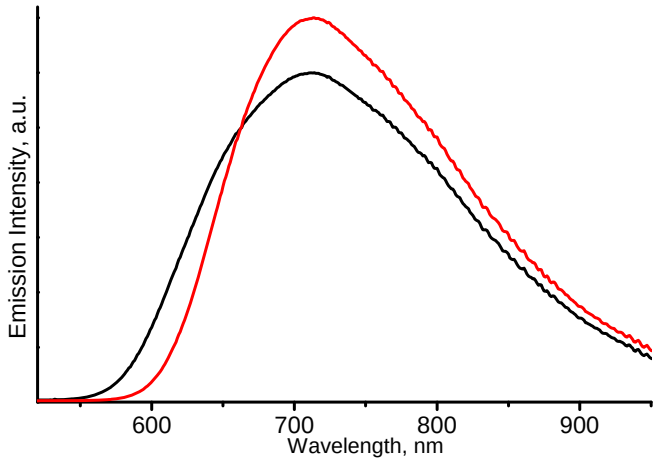


a)

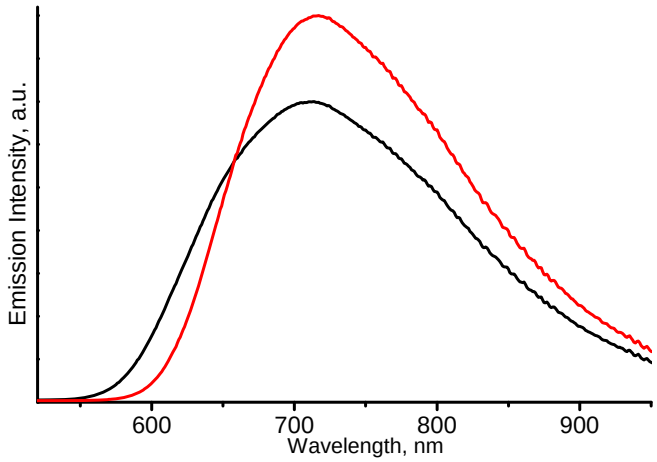


b)

Figure S4 ^{1}H NMR spectra of **1**^{100}@PS (a) and **2**^{100}@PMMA (b).



a)



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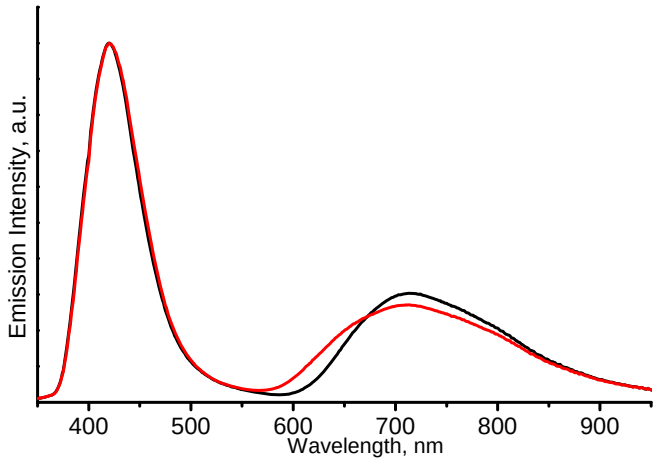
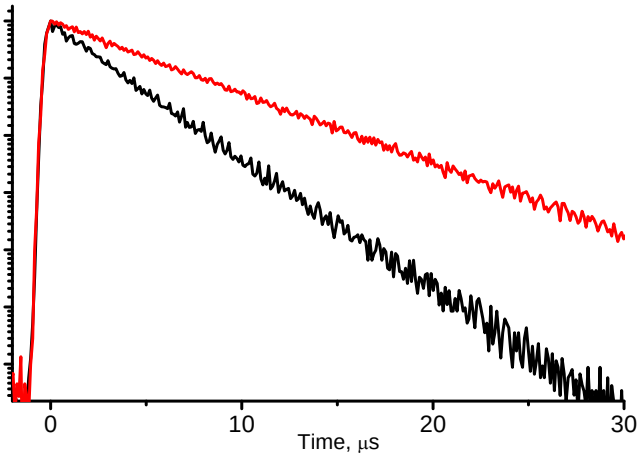
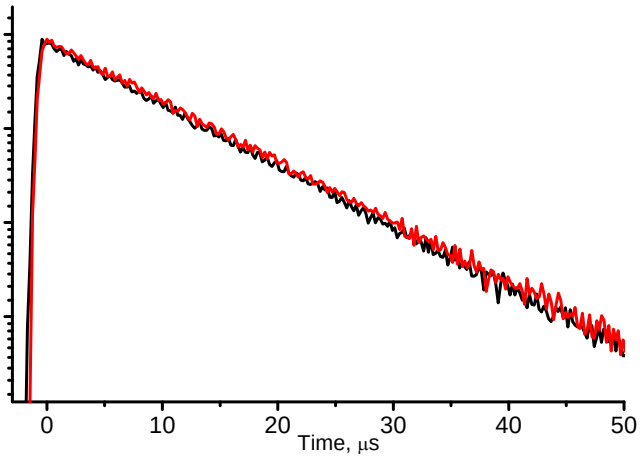


c)

Figure S5 Emission spectra of copolymers of **1** (black line) and **2** (red line) with:
a) poly(methyl methacrylate) (by the example of $\mathbf{1}^{10}$@PMMA and $\mathbf{2}^{10}$@PMMA);
b) polystyrene (by the example of $\mathbf{1}^{25}$@PS and $\mathbf{2}^{25}$@PS);
c) poly(N-vinylcarbazole) (by the example of $\mathbf{1}^{10}$@PVK and $\mathbf{2}^{10}$@PVK).



a)



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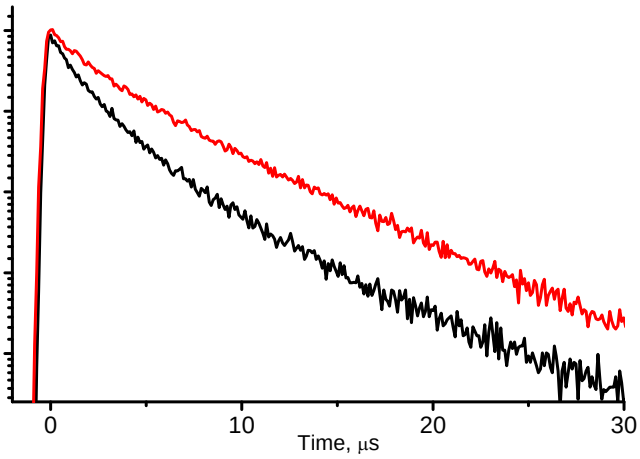
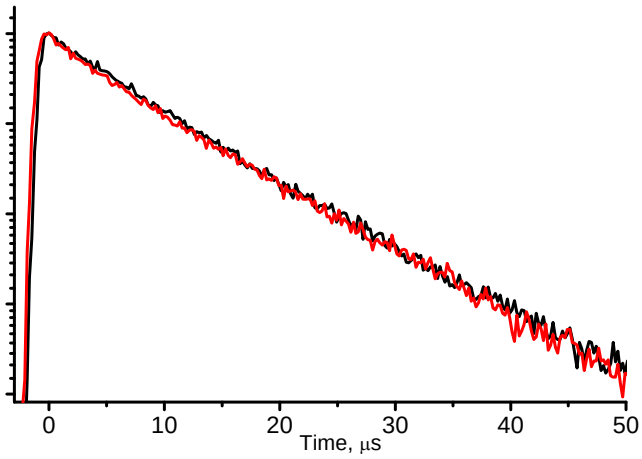
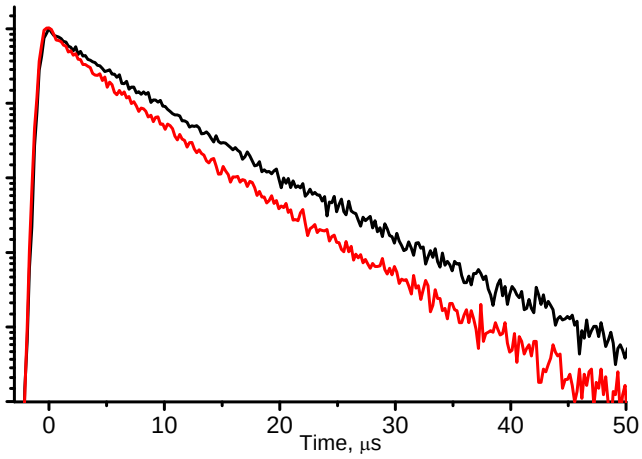


c)

Figure S6 Emission decay profiles of cluster complexes **1** (black line) and **2** (red line) in:
a) aerated dichloromethane solution; b) deaerated dichloromethane solution; c) the solid state.



a)



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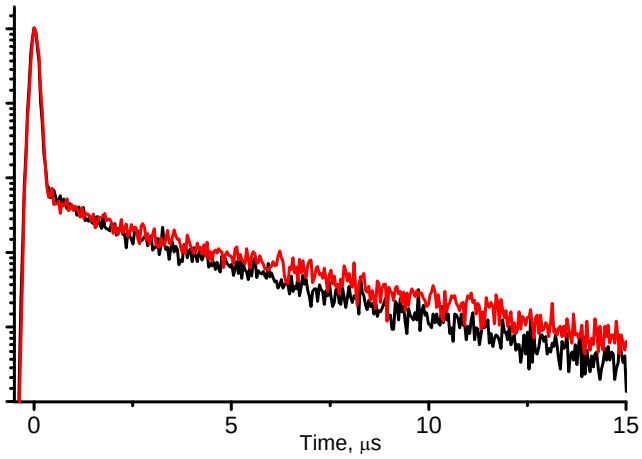

c)

Figure S7 Emission decay profiles of copolymers of **1** (black line) and **2** (red line) with:
a) poly(methyl methacrylate) (by the example of $\mathbf{1}^{10}$@PMMA and $\mathbf{2}^{10}$@PMMA);
b) polystyrene (by the example of $\mathbf{1}^{25}$@PS and $\mathbf{2}^{25}$@PS);
c) poly(N-vinylcarbazole) (by the example of $\mathbf{1}^{10}$@PVK and $\mathbf{2}^{10}$@PVK).

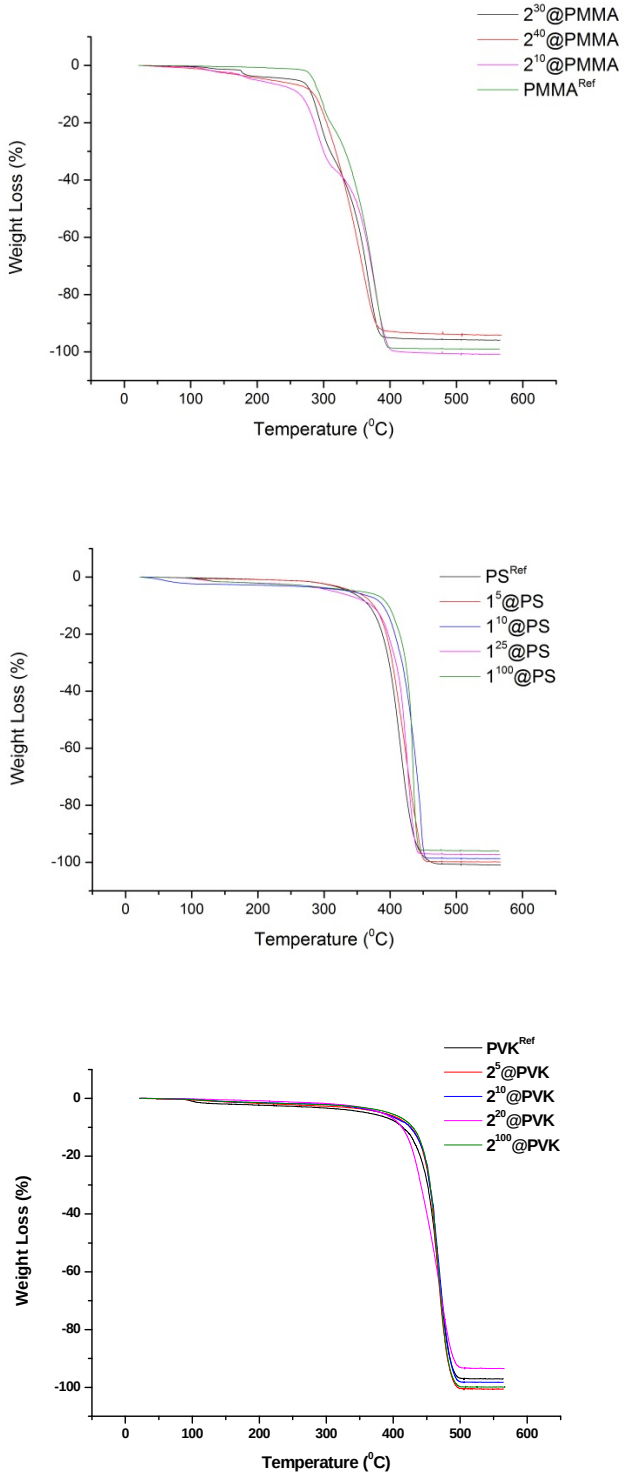

Figure S8 TGA diagrams of neat (*Ref*) and cluster doped polymers.

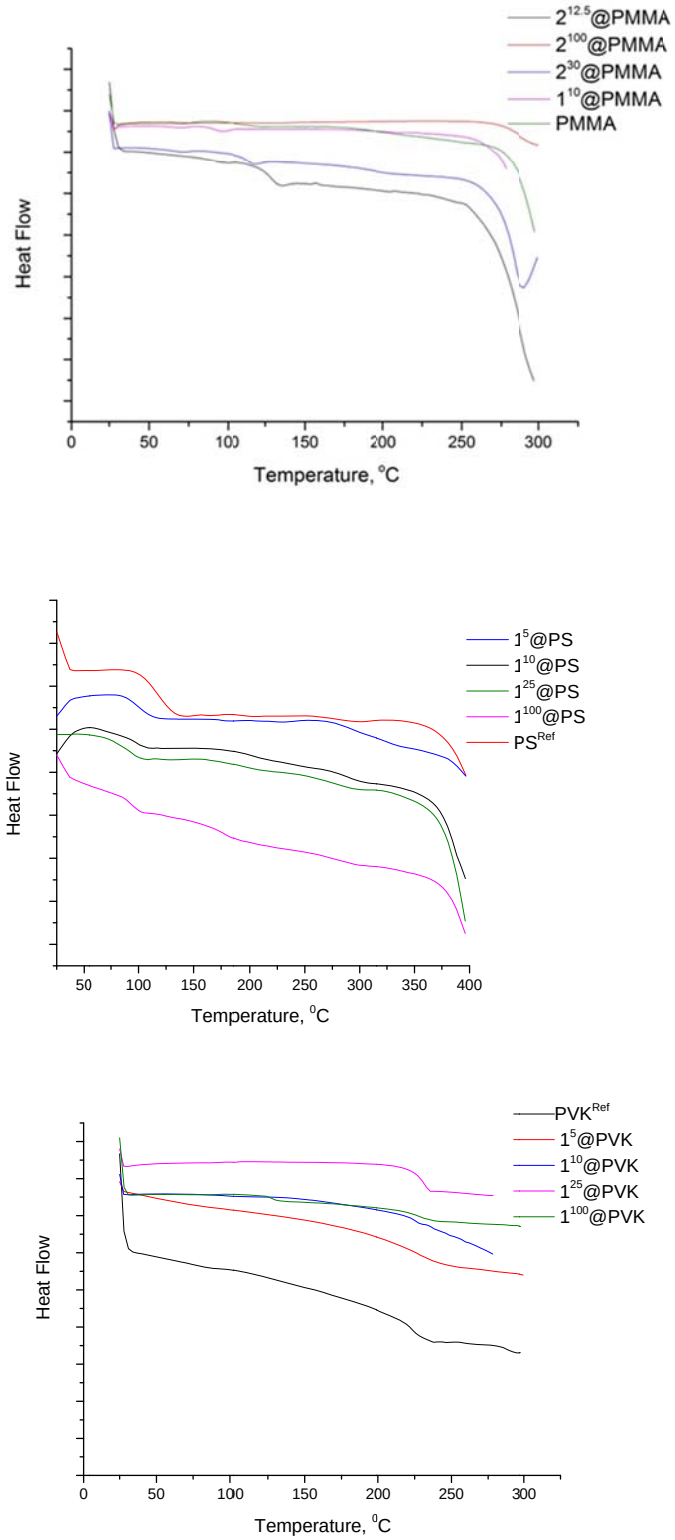

Figure S9 DSC diagrams of neat (*Ref*) and cluster doped polymers.

a) b)

Figure S10 Photographic images of the PLEDs with active layer **1** (a) and **2** (b).