Versatility of the Ionic Assembling Method to Design Highly Luminescent PMMA Nanocomposite Containing $[M_6Q^i_8L^a_6]^{n-}$ Octahedral Nano-building blocks.

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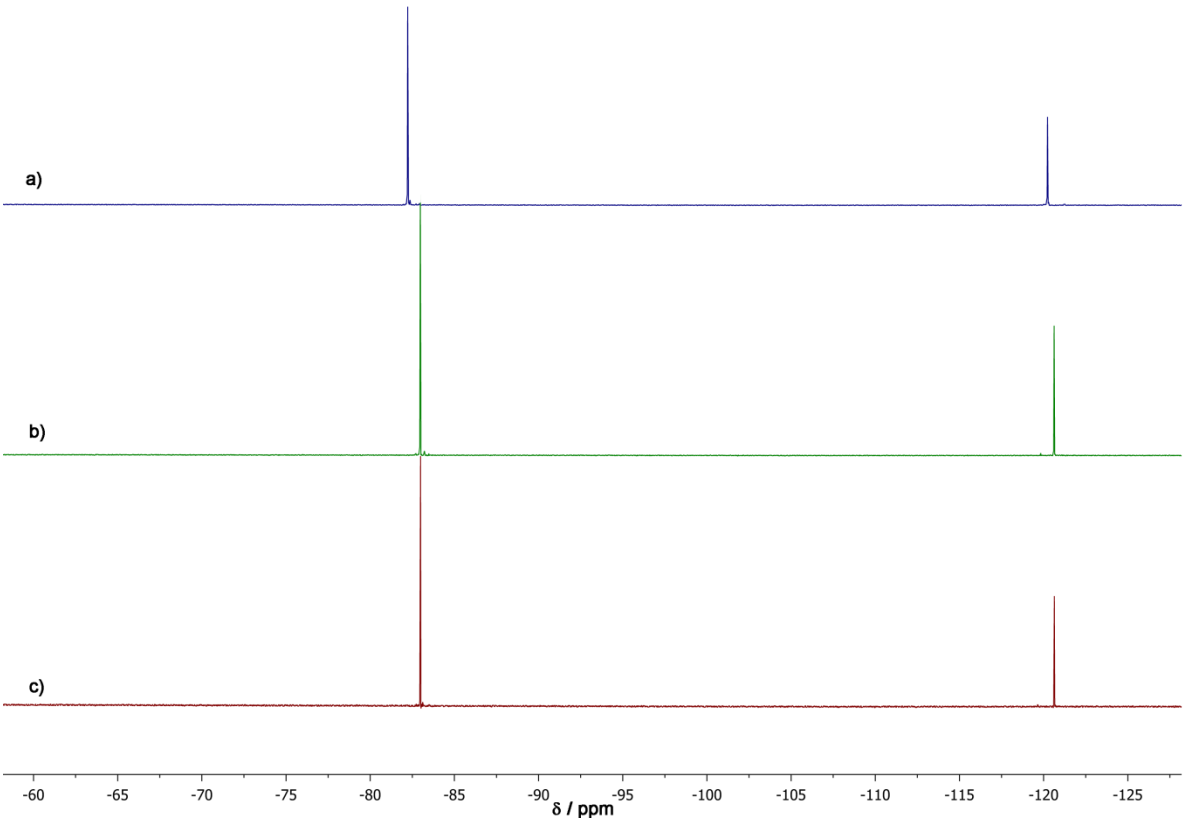
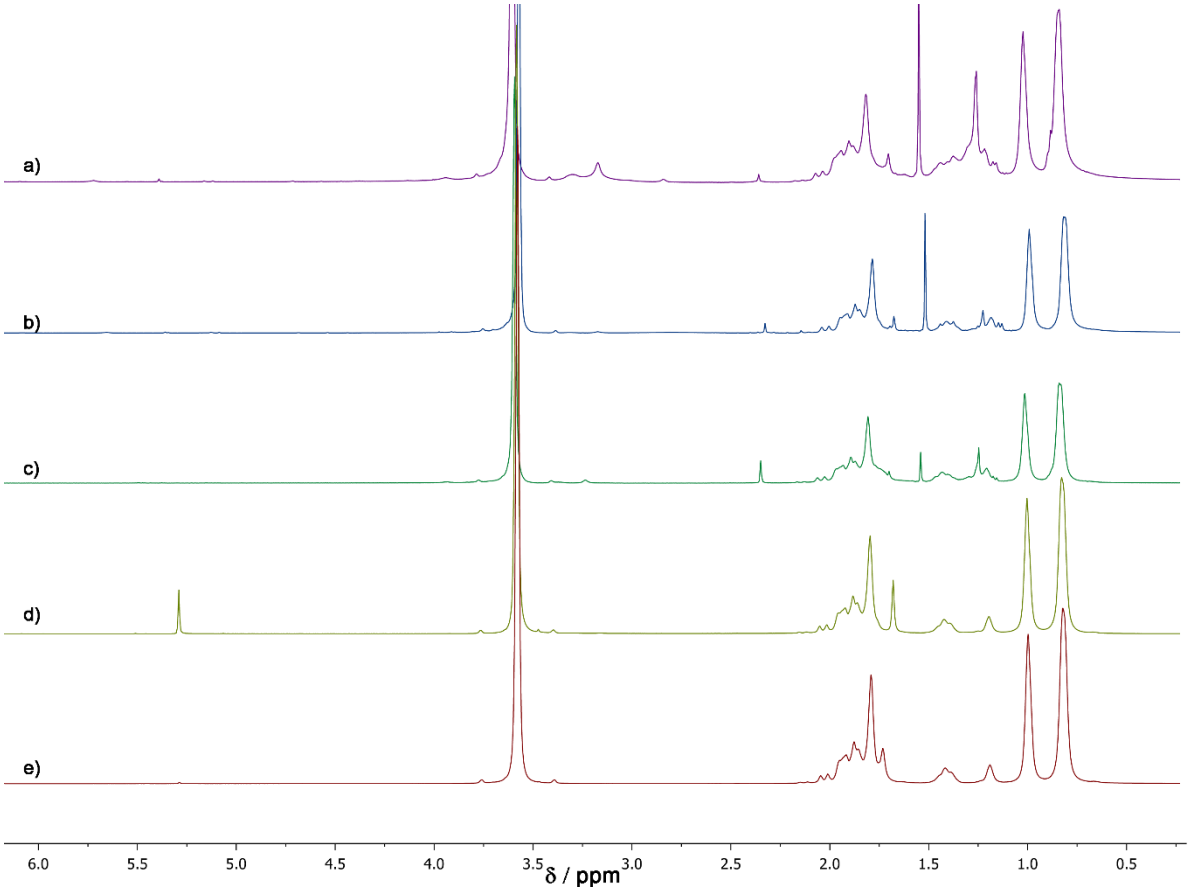
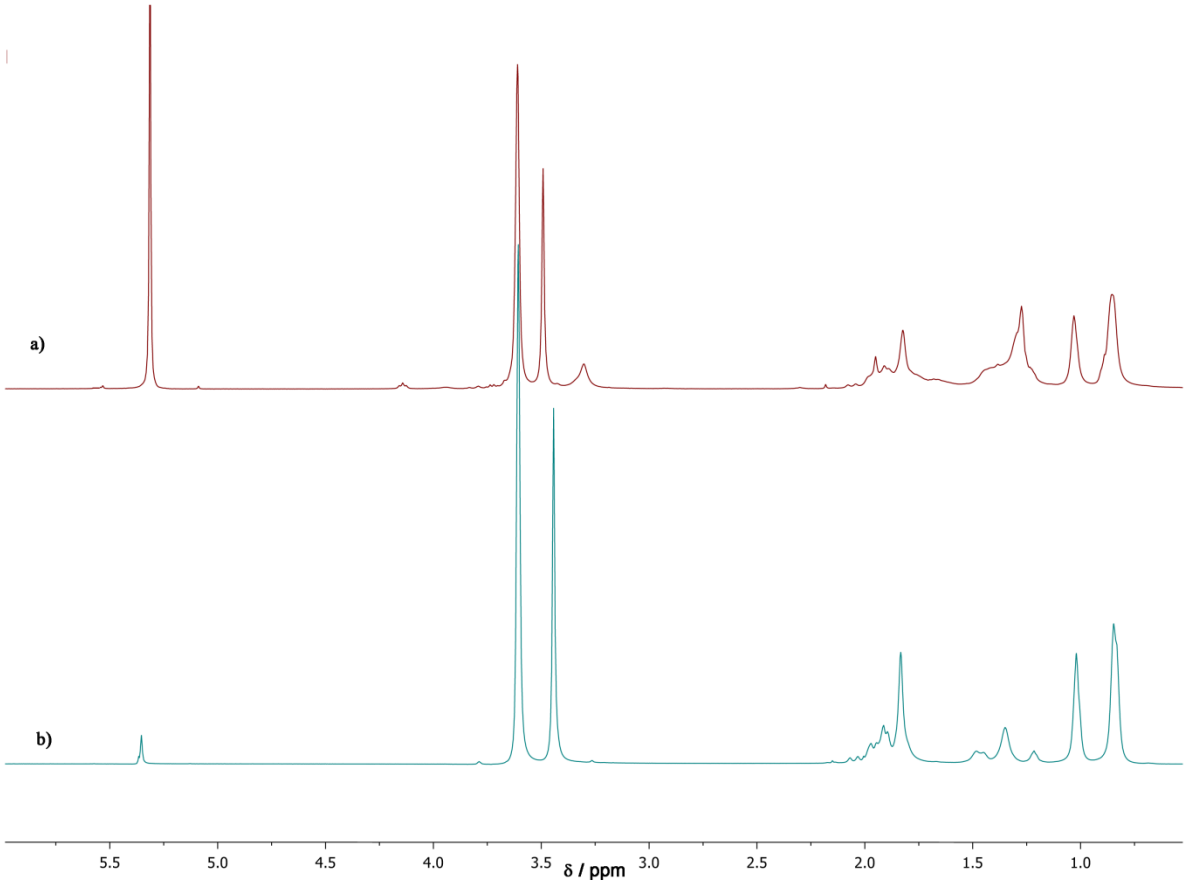
Electronic Supplementary Information



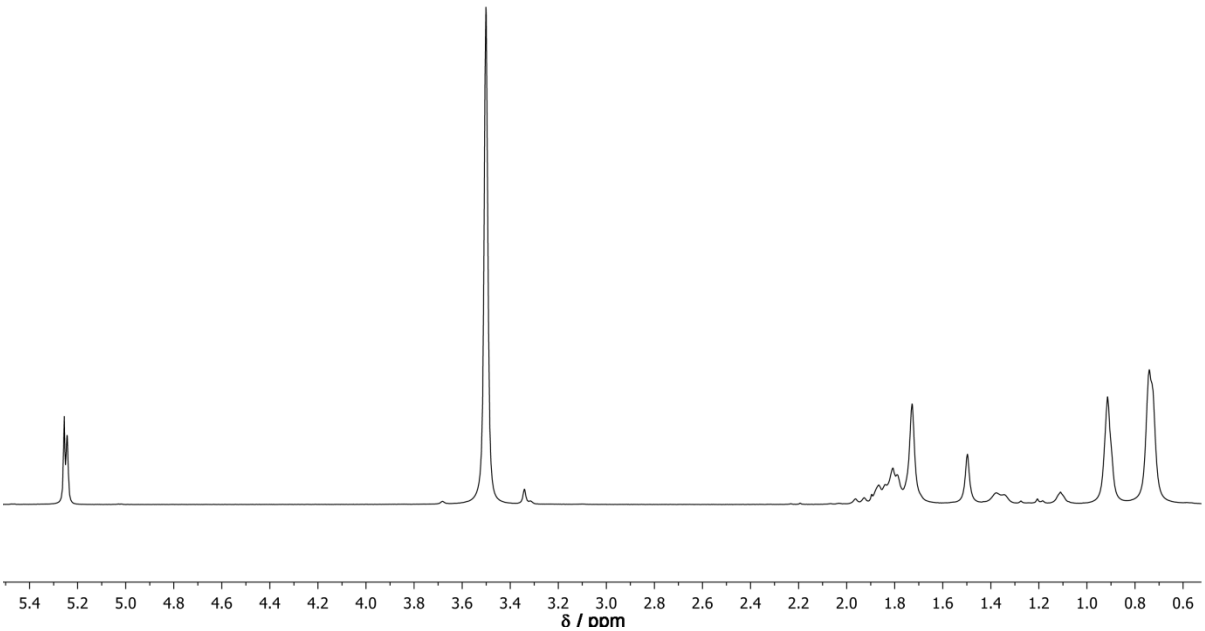
S1. ^{19}F-NMR (376MHz) spectra of a) PMMo50 ($CDCl_3$) b) (acetone-d_6) $(KATP)_2Mo_6I_8(C_2F_5COO)_6$, c) (acetone-$d_6$) cluster $Cs_2Mo_6I_8(C_2F_5COO)_6$.



S2. ^{1}H-NMR spectra (CDCl3, 400 MHz) of a) PMMo50, b) PMMo20, c) PMMo10, d) PMMo1, e) PMMo0.

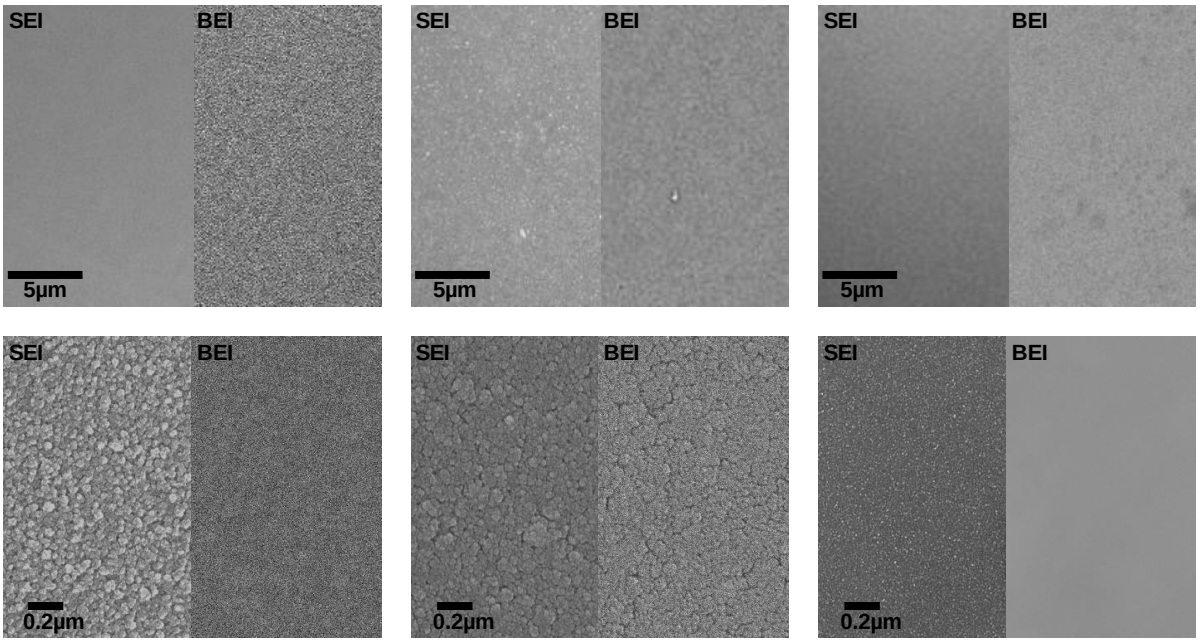


S3. ^{1}H-NMR spectra ($CDCl_3$, 400 MHz) of a) PMRe20, b) PMRe1.

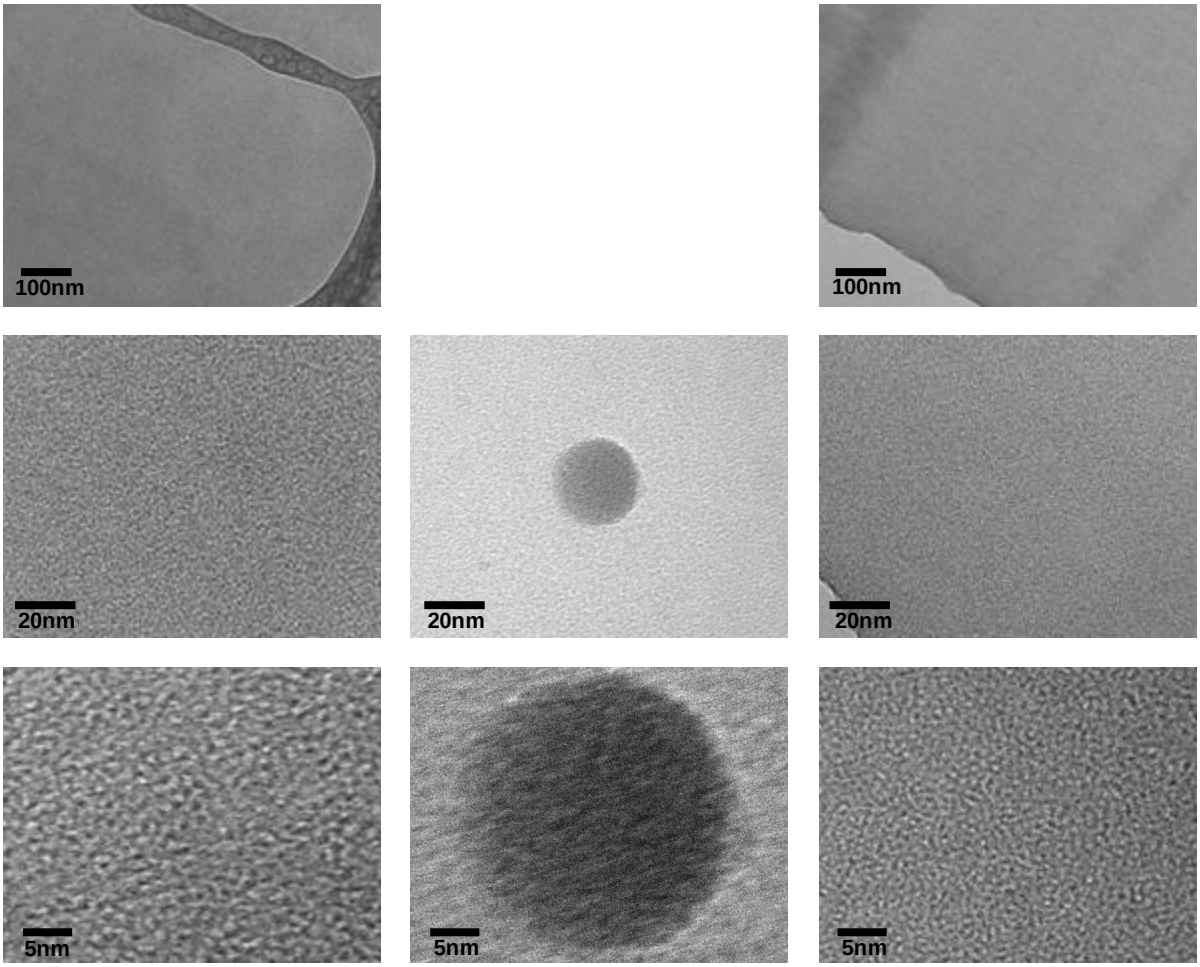


S4. ^{1}H-NMR spectrum ($CDCl_3$, 400 MHz) of PMW1.

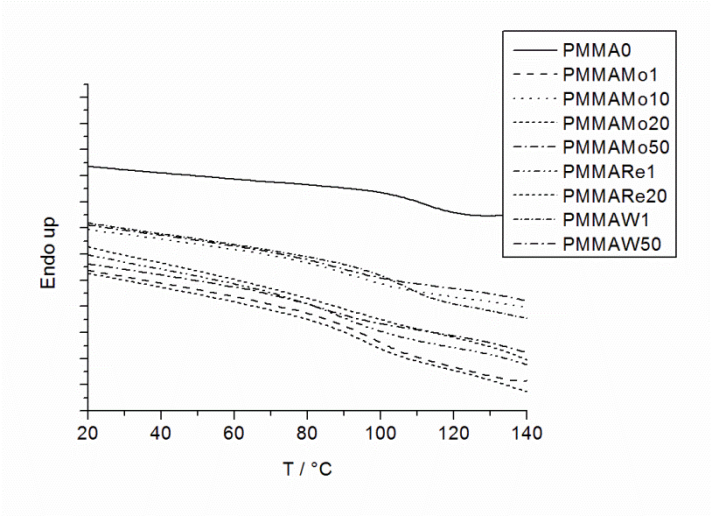
S5. Picture of pellets of PMMo1 (left), PMRe1 (middle) and PMW1 (right) under daylight.



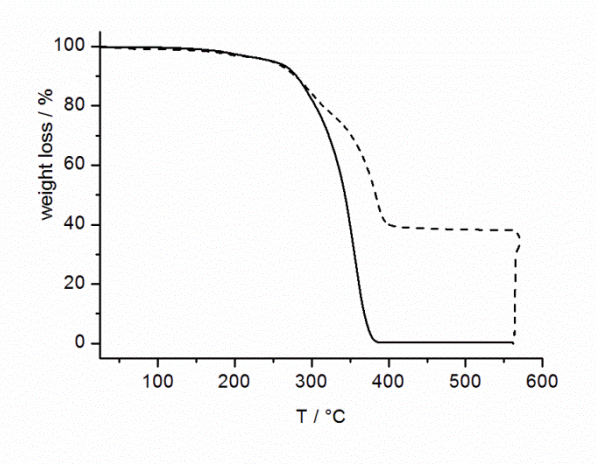
S6. SEM images of pellets of PMMo50 (left), PMRe20 (middle) and PMW50 (right). (SEI: secondary electron image, BEI: backscattered electron image).



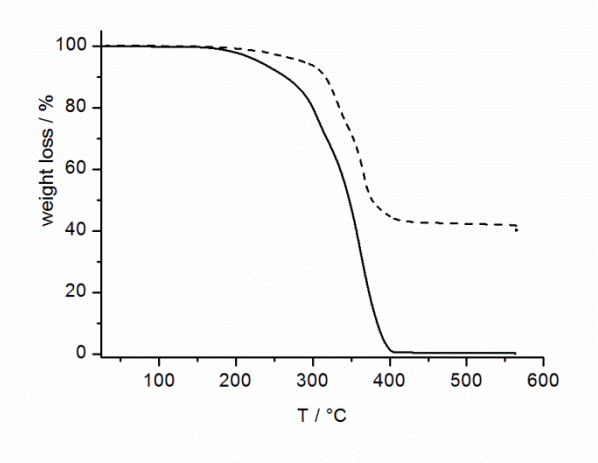
S7. TEM images of films of PMMo50 (left), PMRe20 (middle) and PMW50 (right).



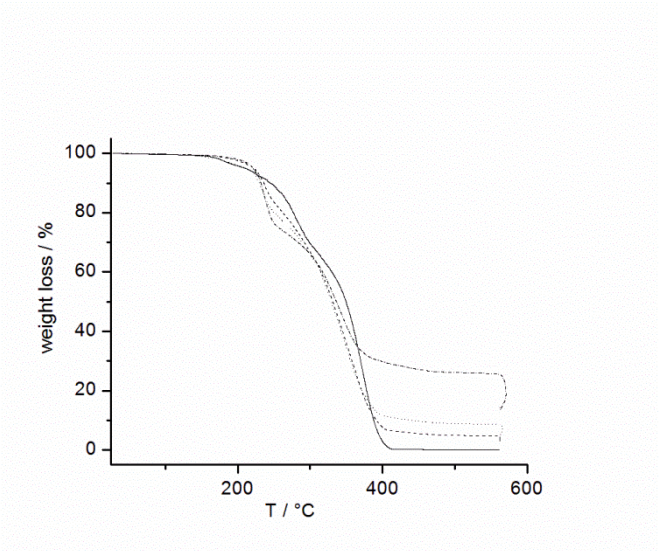
S8. DSC traces of PMMA-Mo_6 hybrids on cooling at 10 K min^{-1}.



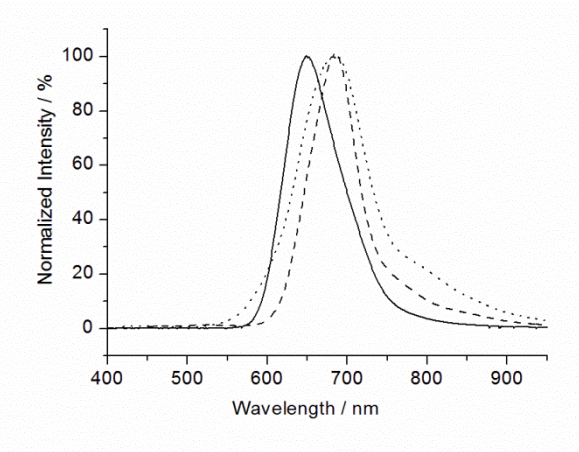
S9. TGA PMMRe1 (solid line) and PMRe20 (dashed line).



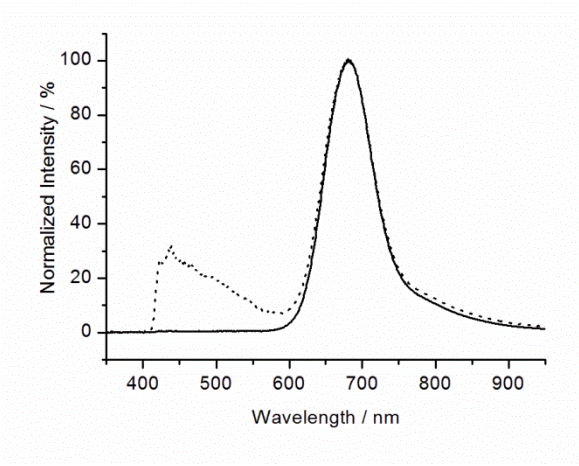
S10. TGA PMW1 (solid line) and PMW50 (dashed line).



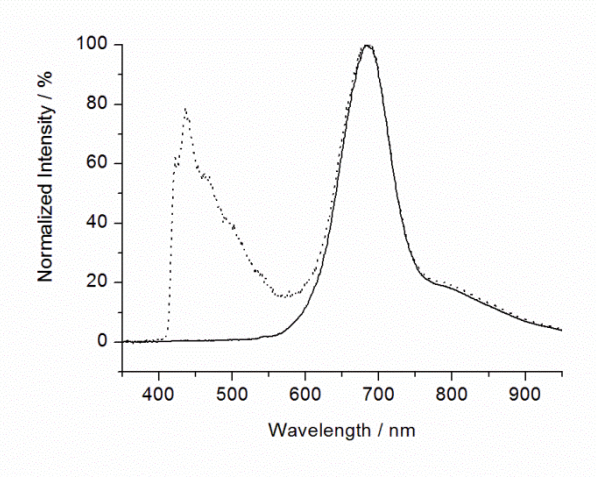
S11. TGA PMMo1(solid line), PMMo10 (dashed line), PMMo20 (dotted line), PMMo50 (dash-dotted line).



S12. Luminescence spectra (λ_{exc} = 350-380nm) in the solid state of $Cs_2Mo_6I_8(C_2F_5COO)_6$ (solid line), $K_4Re_6Se_8(CN)_6$ (dashed line), and $(H_3O)_2W_6Cl_{14}$ (dotted line).



S13. Luminescence spectra (λ_{exc} = 350-380nm) of PMRe1 (dashed line) and PMRe20 (plain line).



S14. Luminescence spectra (λ_{exc} = 350-380nm) of PMW1 (dashed line) and PMW50 (plain line).