Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C


# Deep Red Luminescent Hybrid coPolymer Materials With High Transition Metal Clusters Content.

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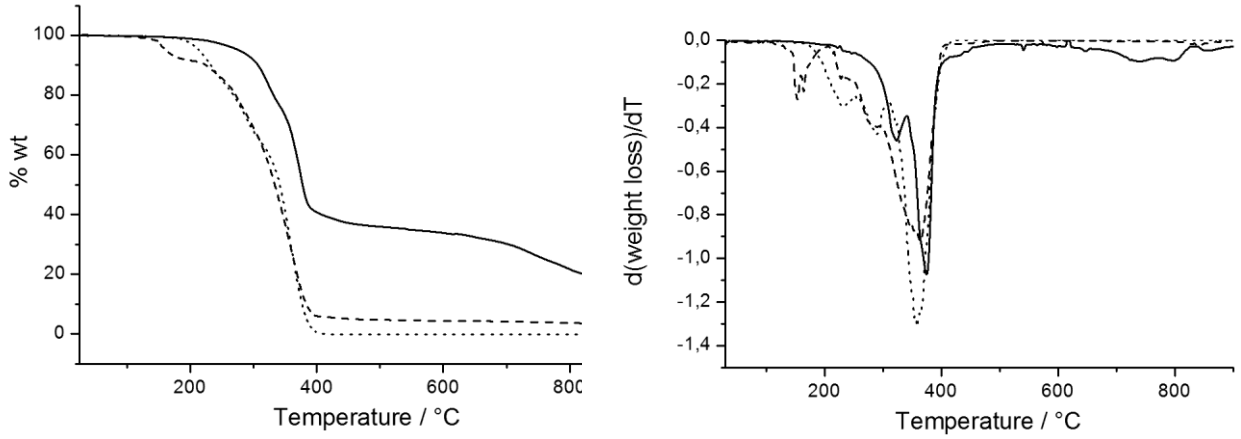
**Electronic Supplementary Informations**




**a)** **b)**

**Figure 1s: Thermograms obtained by TGA measurements left: % weight of sample; right: differential of weight loss of PM50 (plain line), PM10 (dashed line), PM1 (dotted line)**

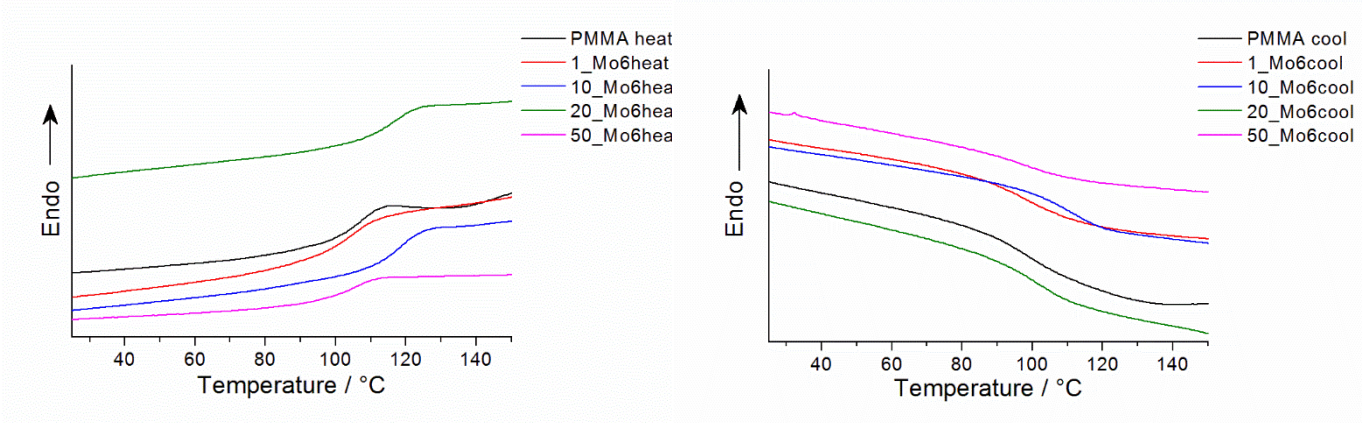



**Figure 2s**: DSC thermogramms obtained for all samples, a) on heating, b) on cooling at 10 K.min-

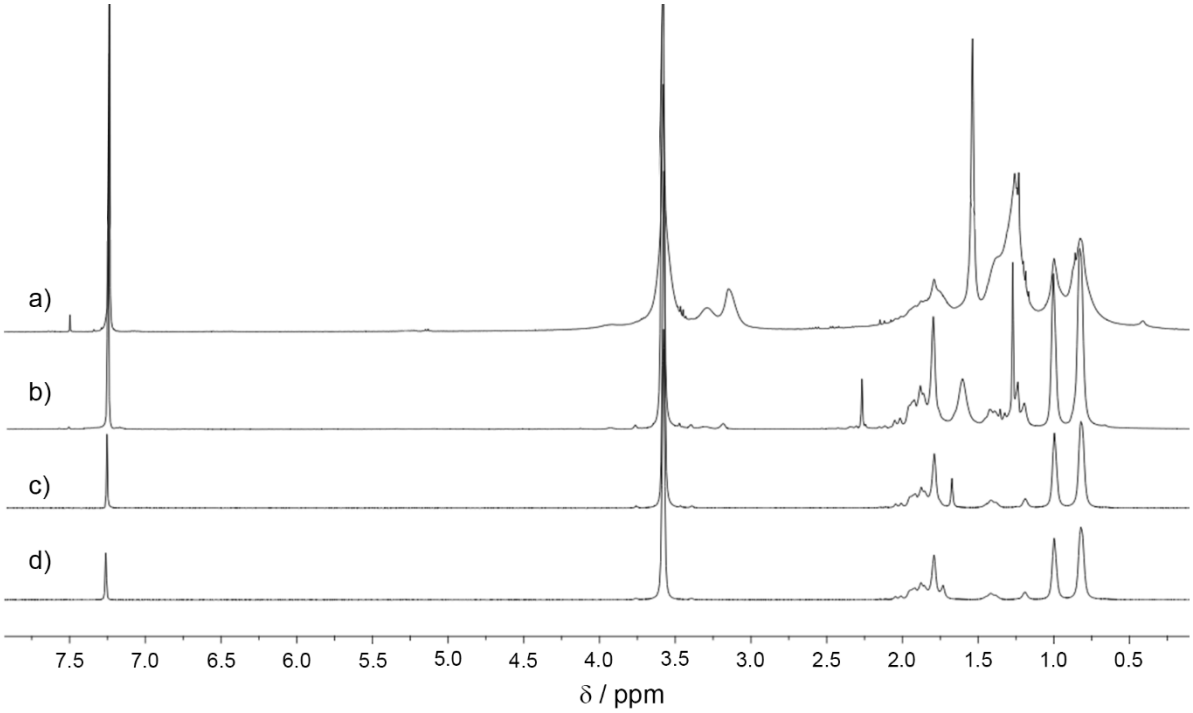



**Figure 3s**: $^{1}H$ 400 MHz NMR spectra of a) PM20 (soluble part), b) PM10, c) PM1, d) PM0 in $CDCl_3$.


**Figure4s**: Picture of pieces of PM20 (left) and PM50 (right) under daylight (top) and UV irradiation at 350-380 nm (bottom). The thickness of both samples is 1.2mm and 0.8 mm for PM20 and PM50 respectively.

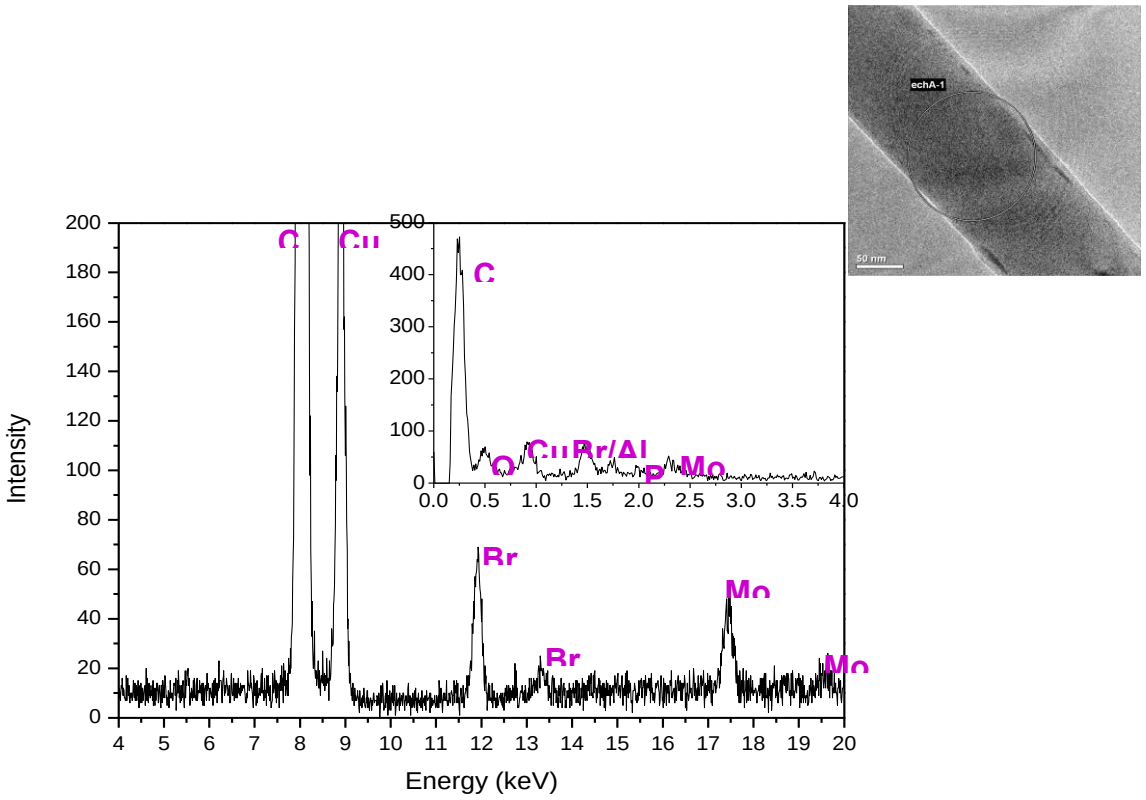



**Figure 5s:** EDAX analysis of PM10 sample.

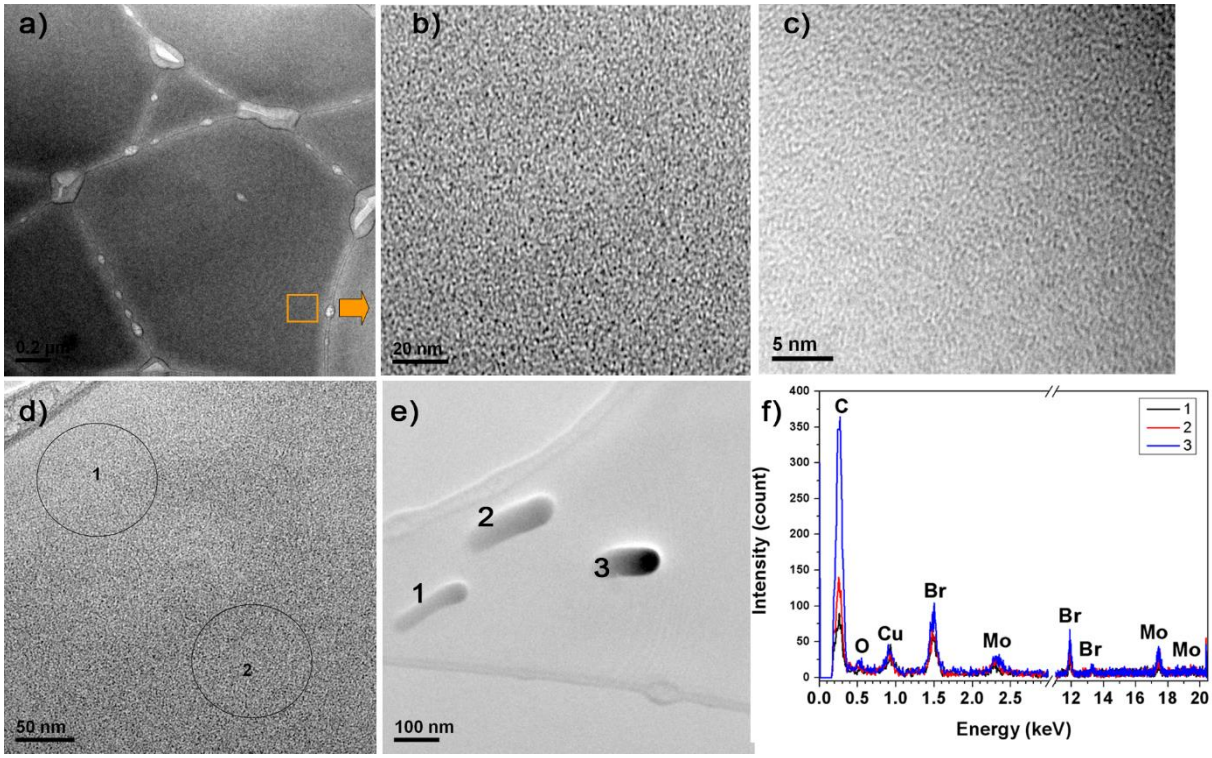



**Figure 6s**: TEM pictures of PM20 at different scales (a, b, c); TEM pictures of the same area before d) and after e) EDX analysis; f) graph of edx analysis of PM20

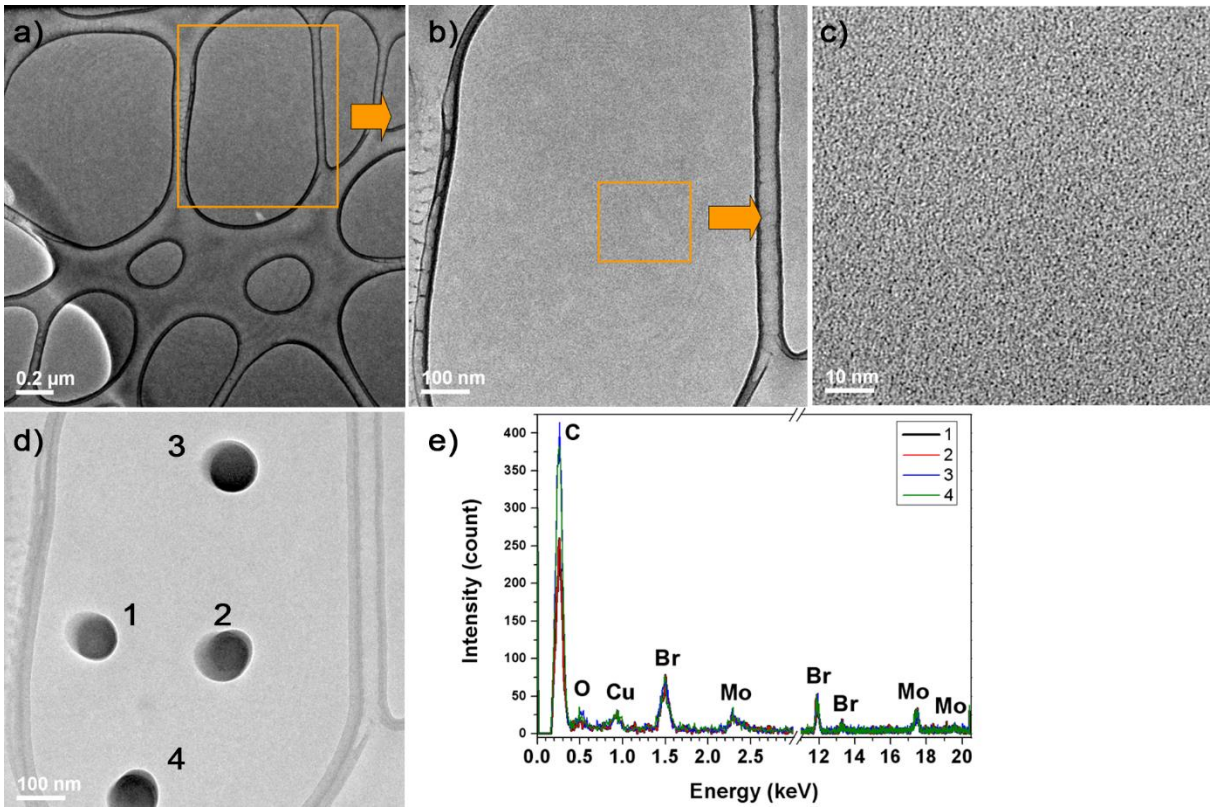



**Figure 7s:** TEM pictures of PM50 at different scales (a, b, c); TEM pictures of the same area before b) and after d) EDX analysis; e) graph of edx analysis of PM50

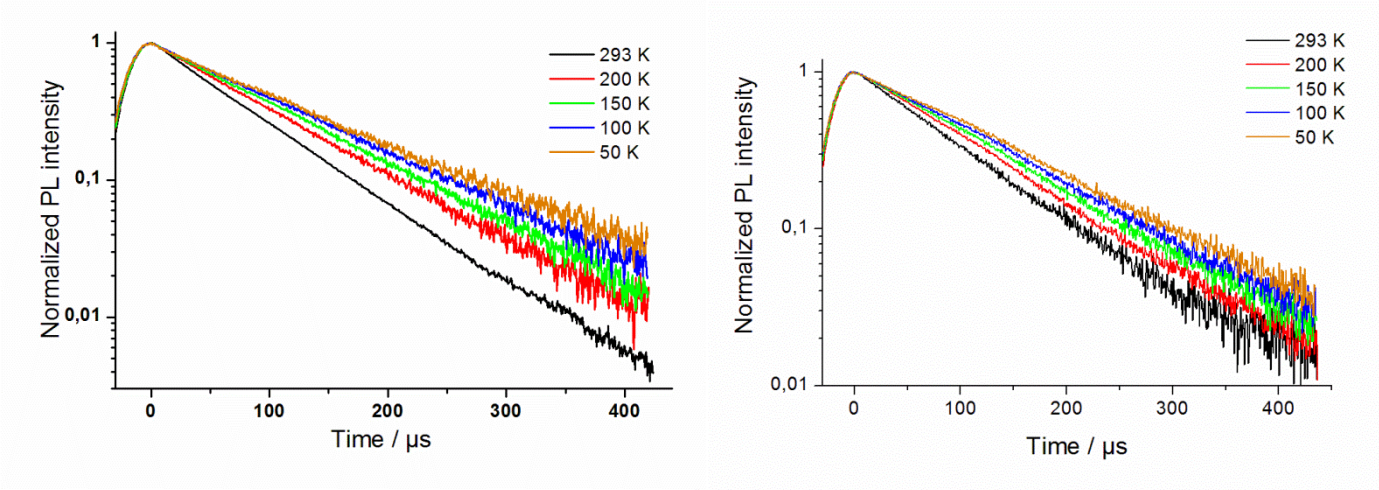



**Figure 8s**: Emission decay profiles as a function of temperature for (left) $[(n\text{-}C_4H_9)_4N)]_2[Mo_6Br_{14}]$ in its powdered form and (right) PM10.

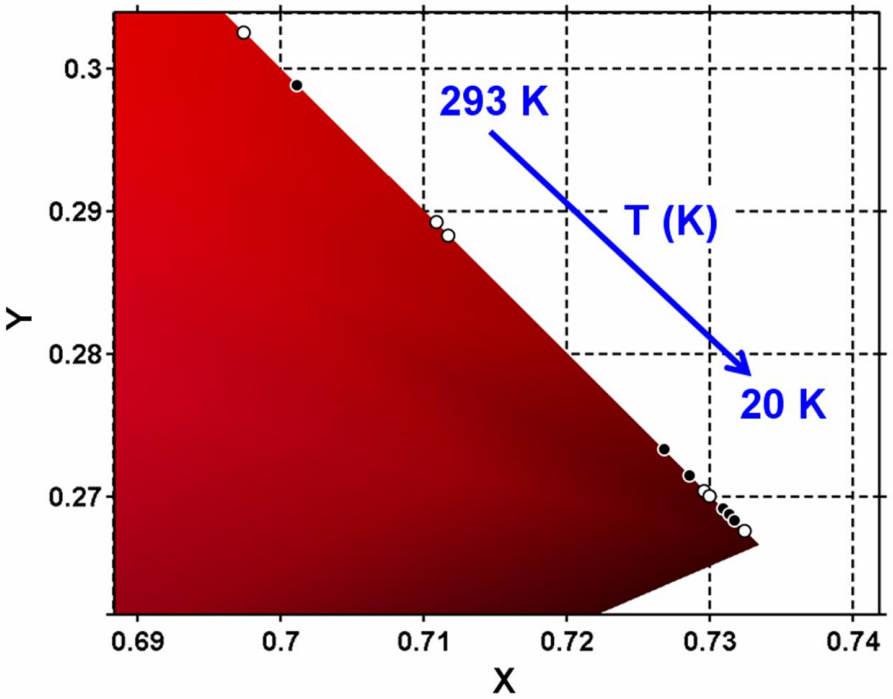



**Figure 9s**: Representation of $[(n\text{-}C_4H_9)_4N)]_2Mo_6Br_{14}$ (black circle) and PM10 (white circle) (x;y) coordinates in the CIE chromaticity diagram from 293 K to 20 K.