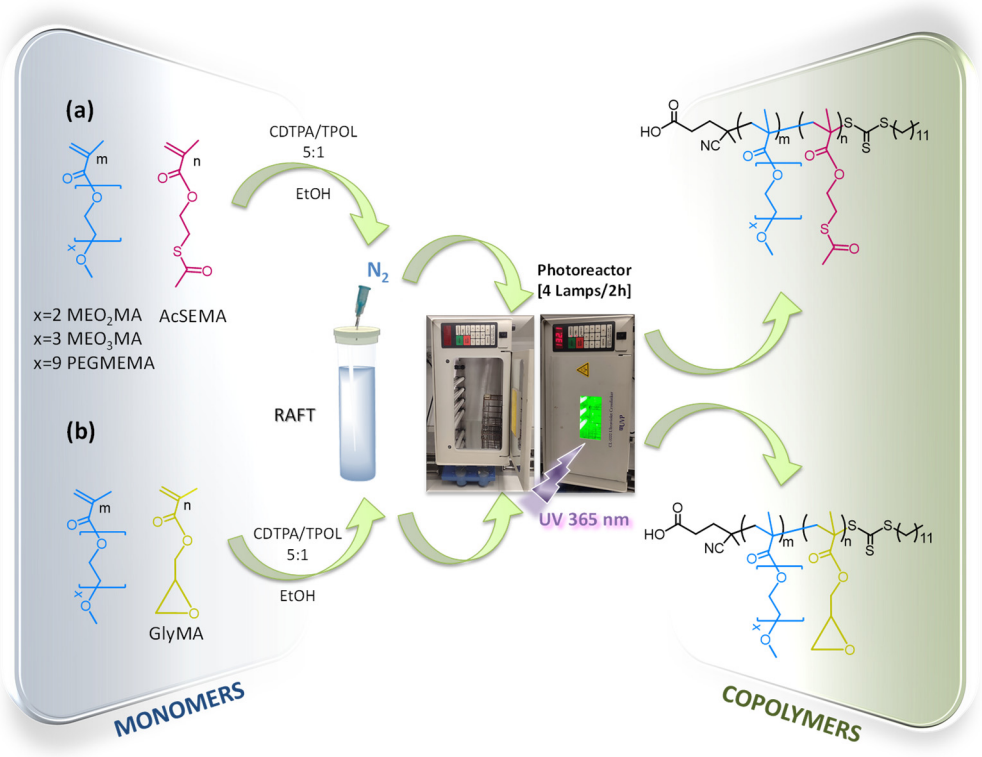
Scheme S1. Experimental procedure for the RAFT polymerization of oligoethylene glycol methacrylates with AcSEMA (a) and GlyMA (b) comonomers, using ethanol as solvent, photo-initiated by TPOL under 365 nm light and CDTPA/TPOL= 5:1……..……..2

Figure S1. Representative TEM images of ZnO QDs with GlyMA copolymer and GlyMA-APTES coating: (a) ZnO@EG_{95}-GM_5-2; (b) ZnO@EG_{90}-GM_{10}-2; (c) ZnO@EG_{80}-GM_{20}-2; (d) ZnO@DEG_{95}-GM_5-2; (e) ZnO@TEG_{95}-GM_5-2; (f) ZnO@AP-TEG_{95}-GM_5-2. Insert show particle size histograms corresponding to the samples indicated in the Figure ……..…….2

Figure S2. (a) Fluorescence intensity of ZnO@EG_{95}-GM_5-2 QDs in the presence of aqueous solutions of several cations (Li^+, Mg^{2+}, K^+, Ca^{2+}, Cr^{6+}, Mn^{2+}, Fe^{2+}, Fe^{3+}, Co^{2+}, Ni^{2+}, Cu^{2+}, Cd^{2+}, Hg^{2+}, and Pb^{2+}) in a concentration of 100 μM and (b) ratio between initial integrated emission (F_0) of the ZnO@EG_{95}-AcS_5-2 QDs and integrated emission (F) in the presence of 100 μM of the indicated metals.……...…….....3

Figure S3. Decrease in fluorescence emission of ZnO@EG_{95}-GM_5-2 as a function of metal concentration (5–100 μM) and in the insert the corresponding Stern–Volmer plot: (a) Cr^{6+}; (b) Fe^{2+} and (c) Cu^{2+}…...……4



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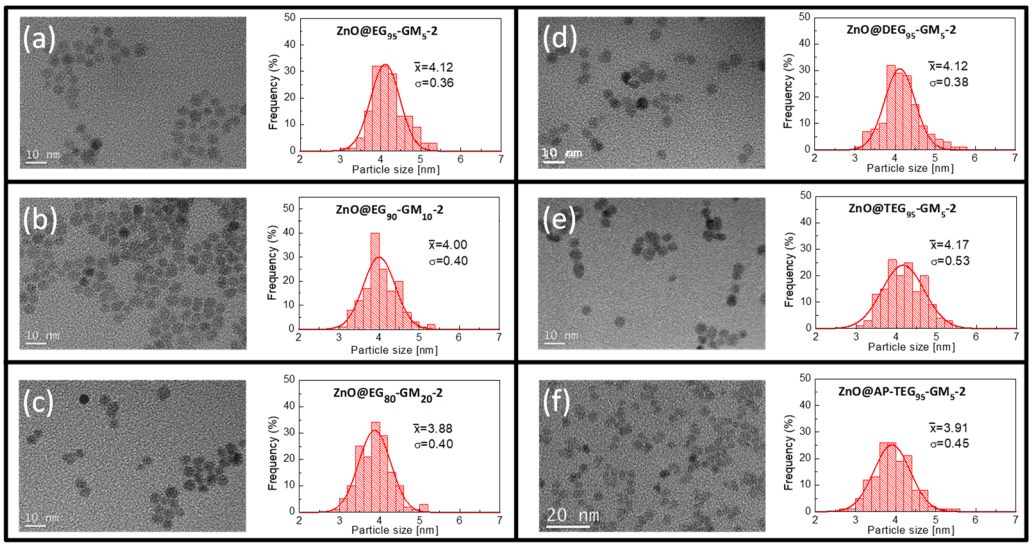

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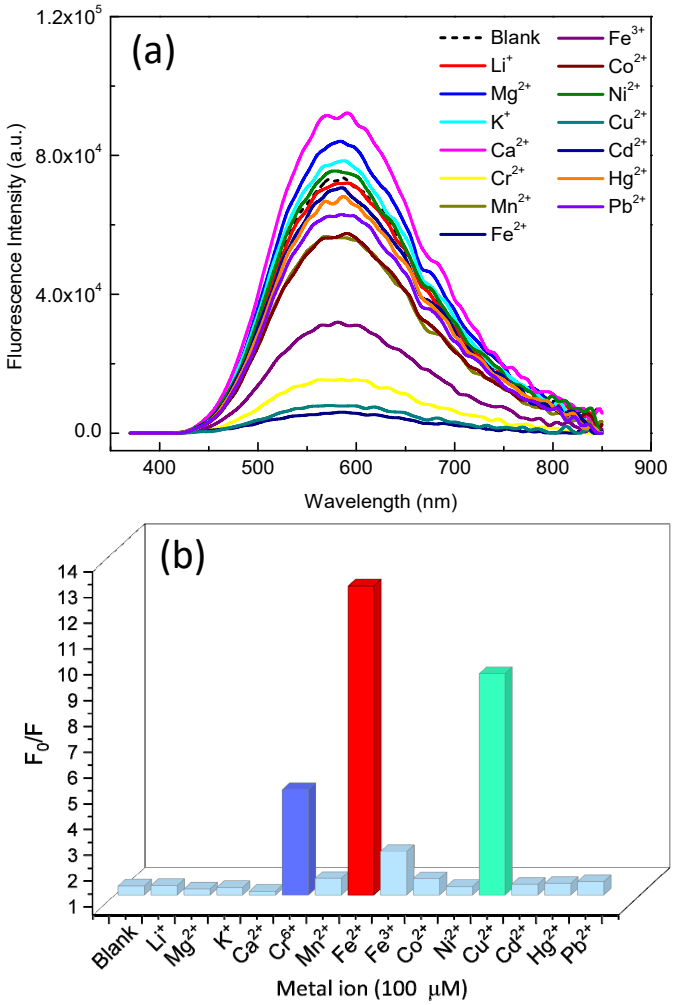

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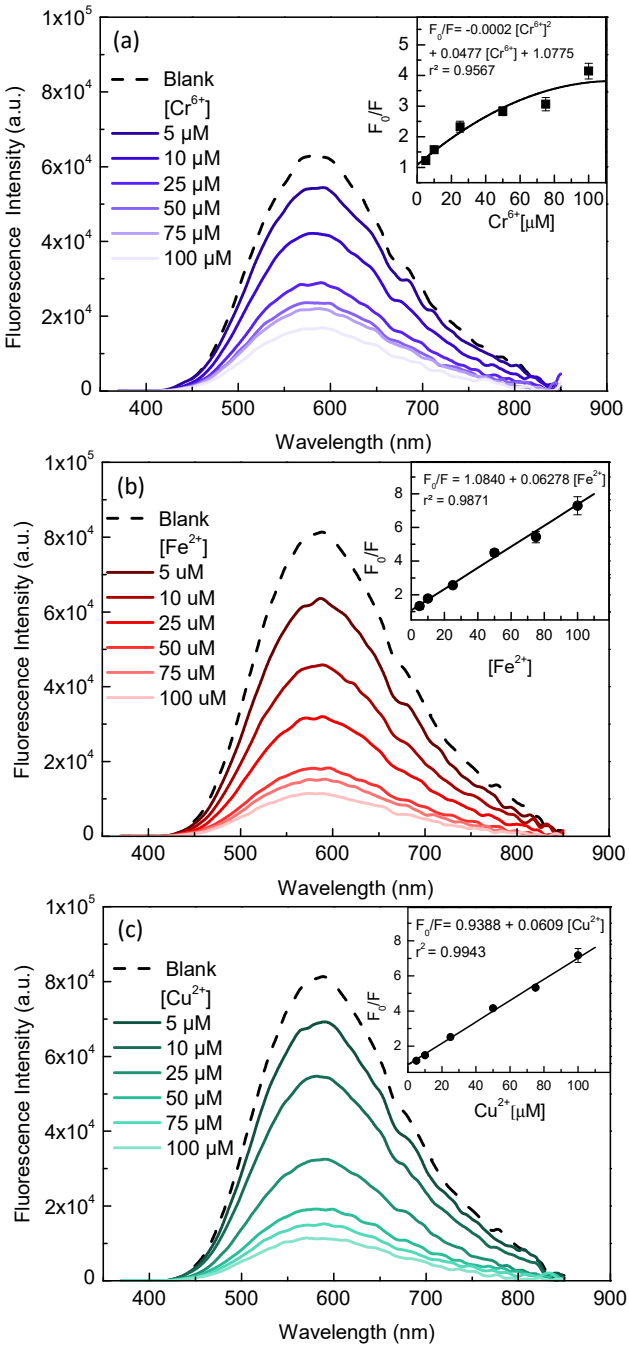

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