Supplementary materials

Easy sensing of lead and zinc in water using smart glass based on cationic porphyrin layers

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**Fig. S2**: UV-Vis spectra of [H2T4] 1μM (black line) in ultrapure water pH= 7 in presence of [Zn2+] = 500 μM (red line) or 5 mM (green line). UV-Vis spectra of H2T4 solutions are recorded after 15 minutes from the addition of metal cation into the initial porphyrin solution.

**Fig. S3**: UV-Vis spectra of [H2T4] 1μM (black line) in ultrapure water pH= 7 in presence of [Zn2+] = 5 mM after 1 hour (blue line) and 2 hours (red line).

**Fig. S4**: UV-Vis spectra of [H2T4] 1μM (black line) in ultrapure water pH= 7; in presence of [Zn2+] = 5 mM after 1 hour (blue line) and 2 hours (red line). UV-Vis spectra of H2T4 solutions are recorded after 15 minutes from the addition of metal cation into the initial porphyrin solution.

**Fig. S5**: UV-Vis spectra of H2T4 1 μM in water pH=7 (a) and related plot of A_{476}/A_{422} ratio (b), upon increasing [Pb2+]. UV-Vis spectra of H2T4 solutions are recorded after 15 minutes from the addition of metal cation into the initial porphyrin solution.

**Fig. S6**: UV-Vis spectra of a) H2T4 deposited on glass (red curve) and H2T4 in solution after desorption in SDS 10% solution (black line); b) H2T4 deposited on glass after dipping (15 min) in aqueous solution containing [Pb2+] = 5μM (red curve) and after desorption in SDS 10% solution (black line); c) H2T4 deposited on glass after dipping (30 min) in aqueous solution containing [Zn2+] = 5μM (red curve) and after desorption in SDS 10% solution (black line).
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**Fig. S4:** UV-Vis spectra of H2T4 1 μM in water pH=7 (a) and related plot of A_{476}/A_{422} ratio (b), upon increasing [Pb^{2+}].
**Fig. S5:** UV-Vis spectra of bare H2T4 1 μM in water pH=7 (dotted grey line), in presence of [Pb^{2+}]=1μM (black line) and after addition of [Zn^{2+}]=1 μM (red line); 5 μM (green line) and 10 μM (blue line).

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