Supplementary Material

Broadening the Scope of Polyoxometalates as Artificial Proteases in Surfactant Solutions: Hydrolysis of Ovalbumin by Zr(IV)-Substituted Keggin Complex

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shows a plot of $F_0/F$ versus the POM concentration. II. Derived Stern-Volmer plot used to calculate the association constant.

**Figure S4.** I. Tryptophan fluorescence quenching spectra of ovalbumin (10 μM) in the presence of 0.5 wt% of Zw3-12 solution in phosphate buffer (10 mM, pH 7.4) with increasing concentrations of Zr-K1:2 (0-10 μM). The insert shows a plot of $F_0/F$ versus the POM concentration. II. Derived Stern-Volmer plot used to calculate the association constant.

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**Figure S6.** $^{31}$P NMR of Zr-K1:2 (2 mM) in the presence of OVA (20 μM) incubated in phosphate buffer (10 mM, pH 7.4) at 60 °C. The Zr-K1:2 structure (-14.78 and -14.86 ppm) remains largely stable over time, the signal at -10.85 ppm is attributed to the lacunary Keggin.

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**Figure S8.** $^{31}$P NMR of Zr-K1:2 (2 mM) in the presence of OVA (20 μM) and 0.5 wt% of SDS incubated in phosphate buffer (10 mM, pH 7.4) at 60 °C. The Zr-K1:2 structure (-14.78 and -14.86 ppm) remains largely stable over time, the signal at -10.85 ppm is attributed to the lacunary Keggin.
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b) 2 mM Zr-K 1:2 + 0.5% SDS + 20 μM OVA in phosphate buffer, pH = 7.4, after 1 day

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