

## Supporting information.

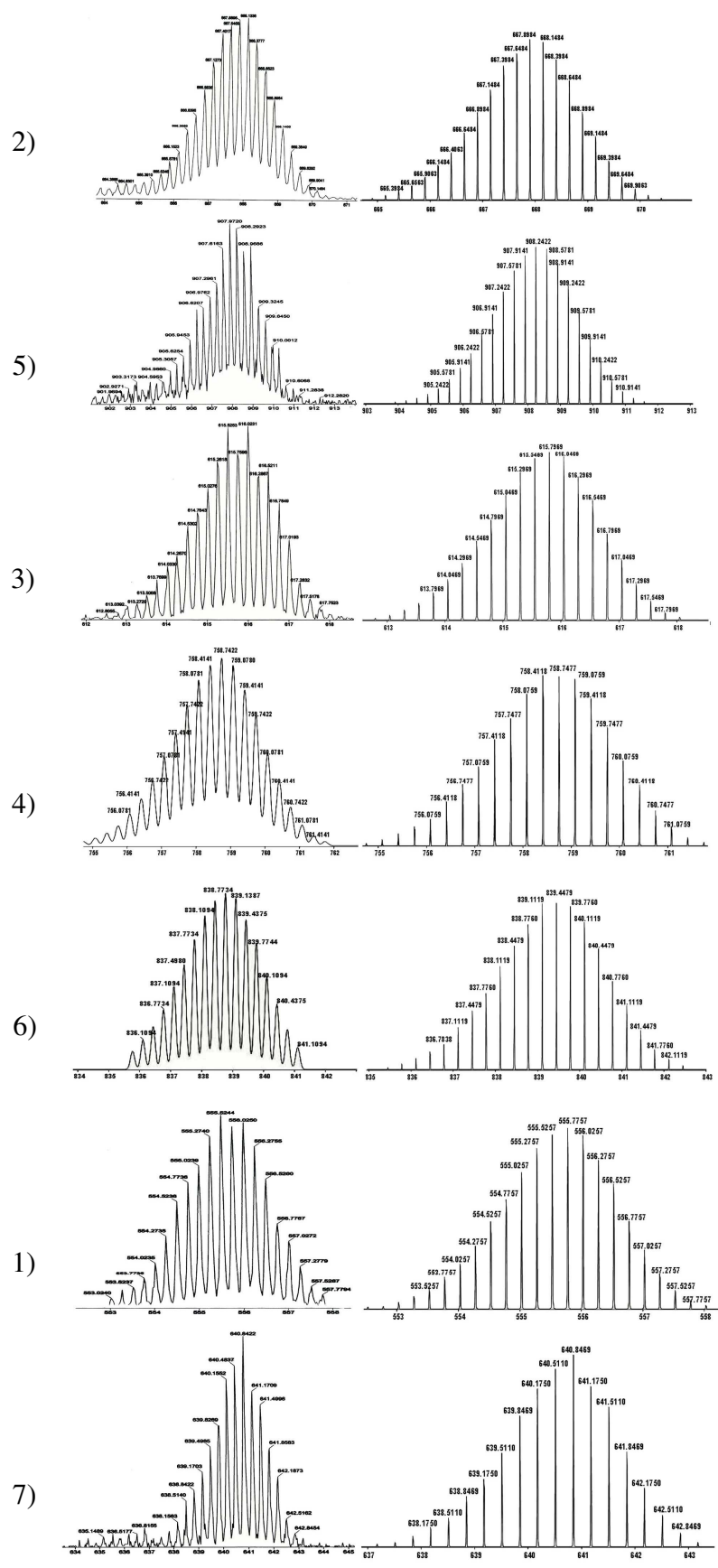
### From Monomers to Geometry-Constrained Molecules: One step Further towards Cyanide Bridged Wires

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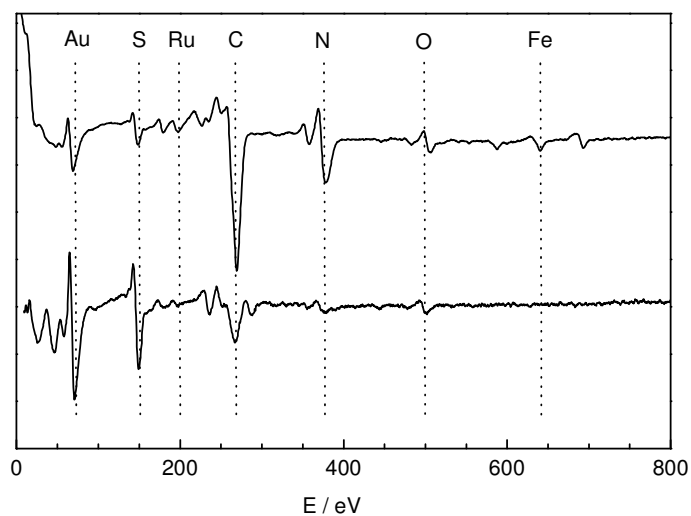
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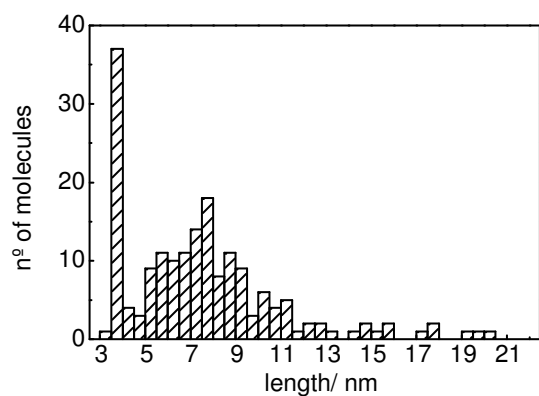
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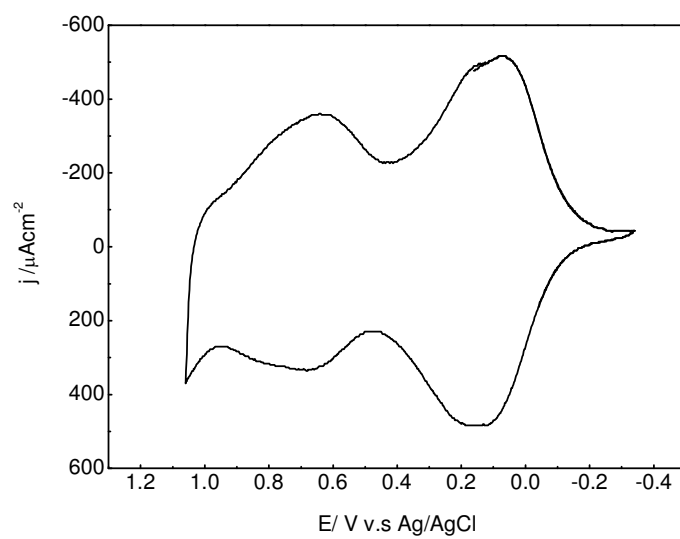
**Figure S1.** Experimental isotope distribution pattern for the most abundant ion (left) and its calculated isotope distribution.



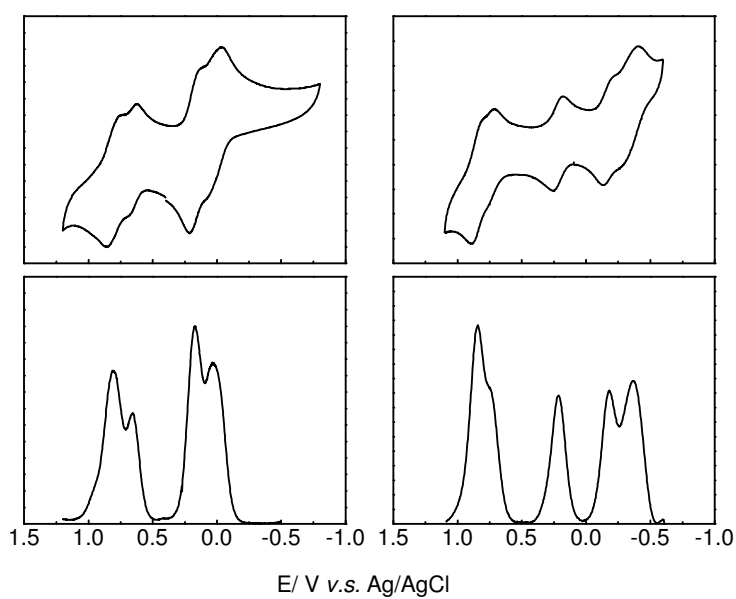
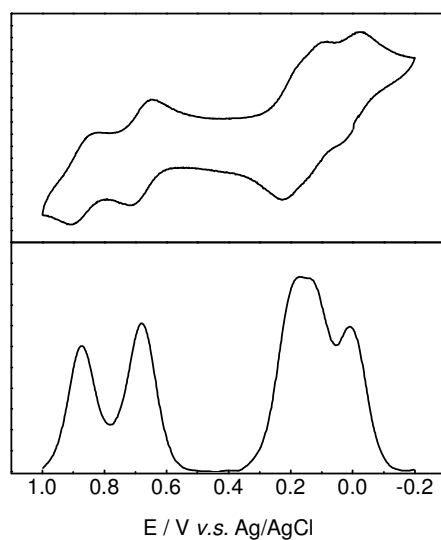
**Figure S2.** Auger spectra of the immobilized heptanuclear complex  $3^{6-}$  surface (top) and the free cysteamine-Au surface (bottom)



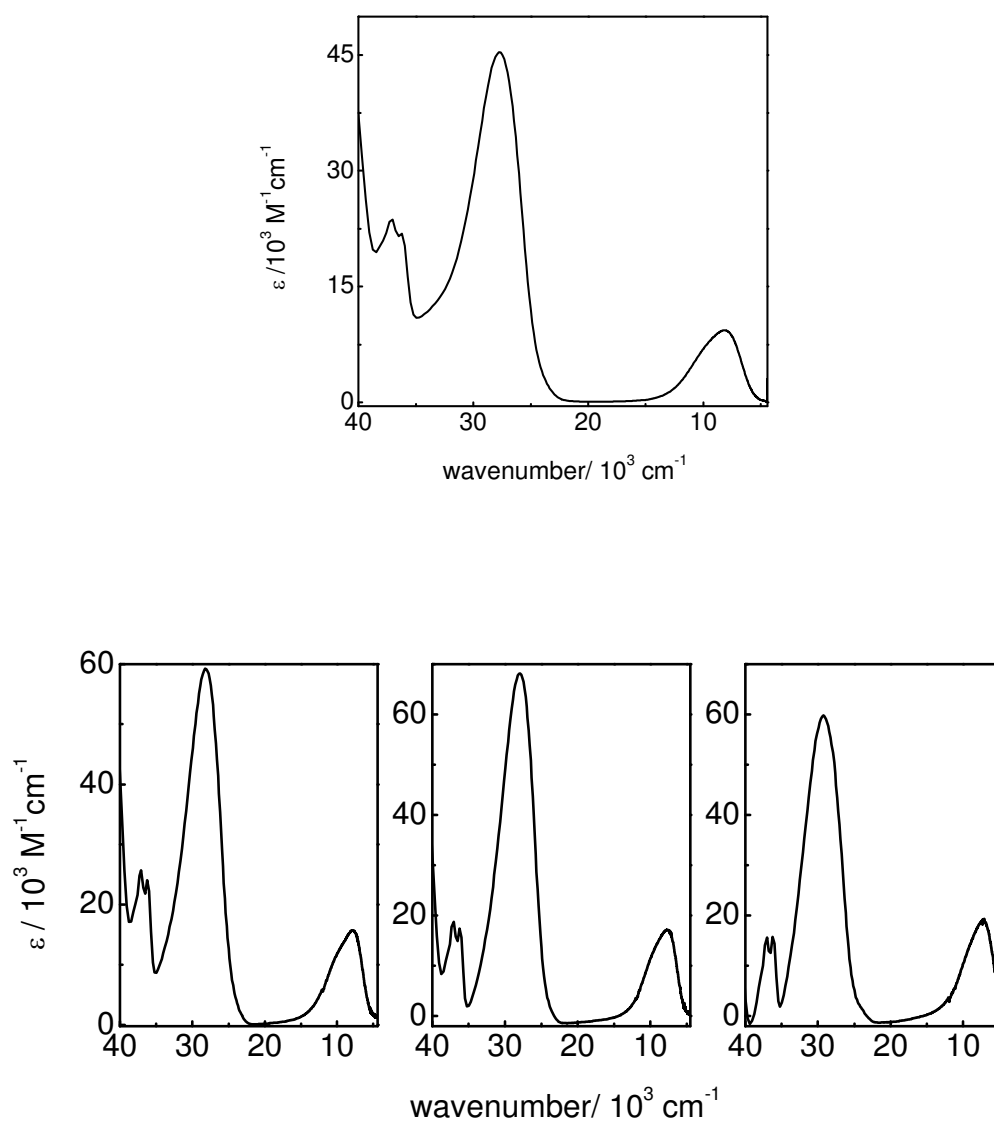
**Figure S3.** Statistical length distribution of species over the heptanuclear compound  $3^{6-}$  immobilized on the surface.



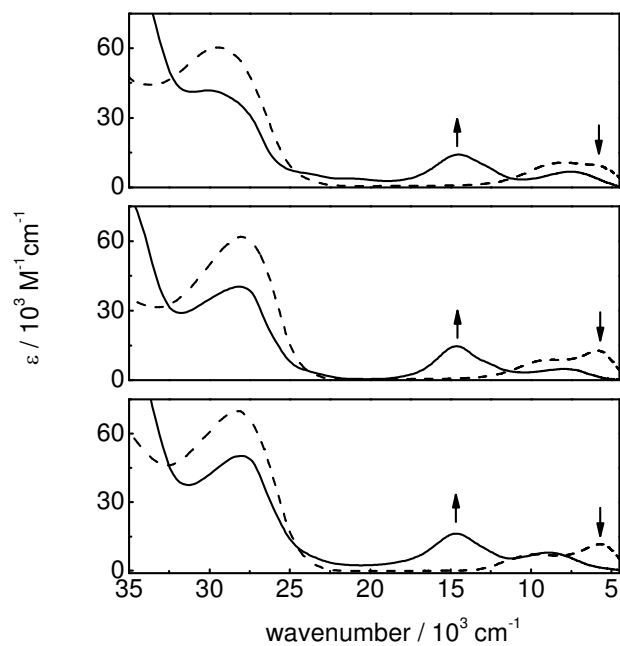
**Figure S4.** Cyclic voltammetry of the immobilized heptanuclear complex  $\mathbf{3}^{6-}$  immobilized on the surface in pH 3 adjusted phosphate aqueous solution.



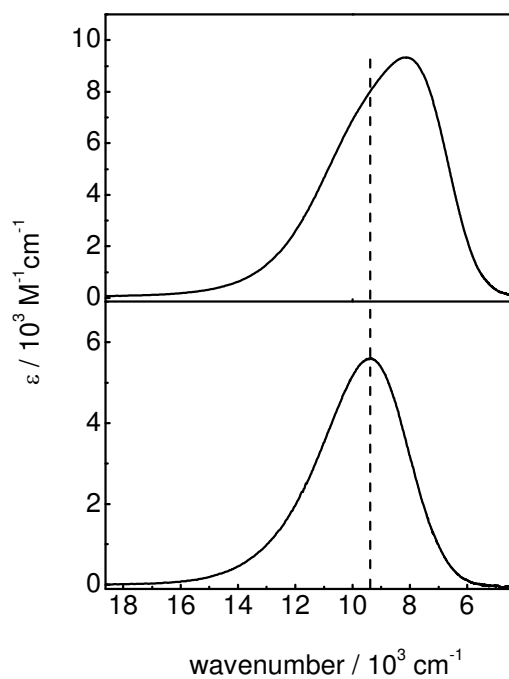
**Figure S5.** Top: Cyclic voltammetry (upper panel) and square wave voltammetry (bottom panel) of complex **7**. Bottom: Cyclic voltammetry (upper panel) and square wave voltammetry (bottom panel)  $2^{6-}$  (left, in water) and  $5^{6-}$  (right, in methanol).



**Figure S6.** Electronic spectra in methanol of complexes **7** (top figure) and **1-3** (left to right, bottom figure)



**Figure S7.** (---) Electronic spectra in methanol of complexes **4-6** (bottom to top); (—) electronic spectra after addition of 1 eq of Ce(IV). Arrows indicate spectral changes.



**Figure S8.** Top: NIR electronic spectrum in methanol of complex **7** Bottom: NIR electronic spectrum in methanol of the related trinuclear complex.