

Supporting Information for:

A β _{5-x} peptides: N-terminal truncation yields tunable Cu(II) complexes

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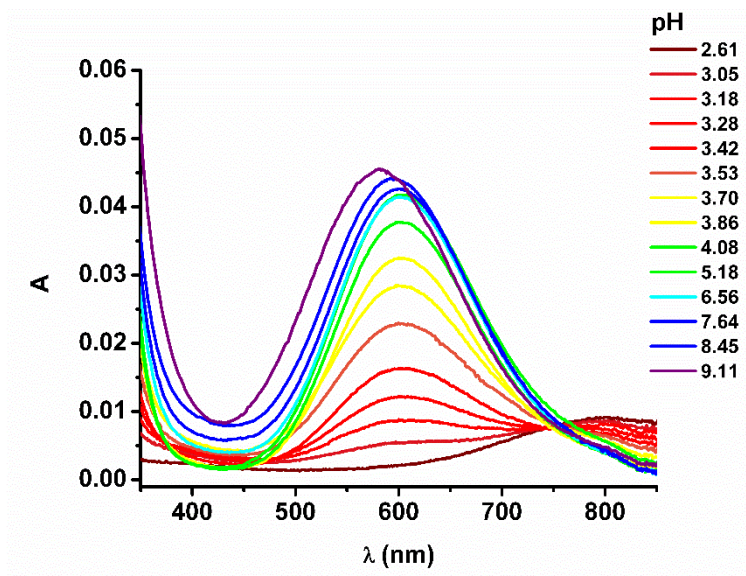


Figure S1. The pH dependence of UV-vis spectra recorded at 25 °C for 0.9 mM Cu(II) and 1.0 mM $A\beta_{5-9}$, at pH values color coded on the graphs.

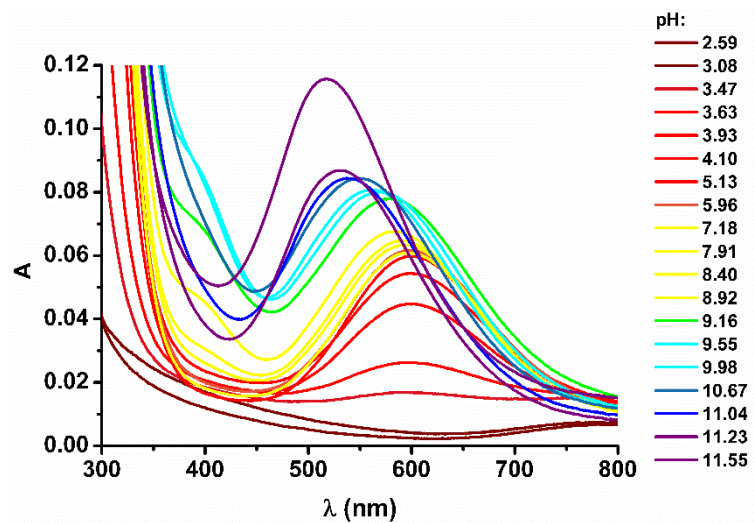


Figure S2. The pH dependence of UV-vis spectra recorded at 25 °C for 0.9 mM Cu(II) and 1.0 mM A β_{5-12} , at pH values color coded on the graphs.

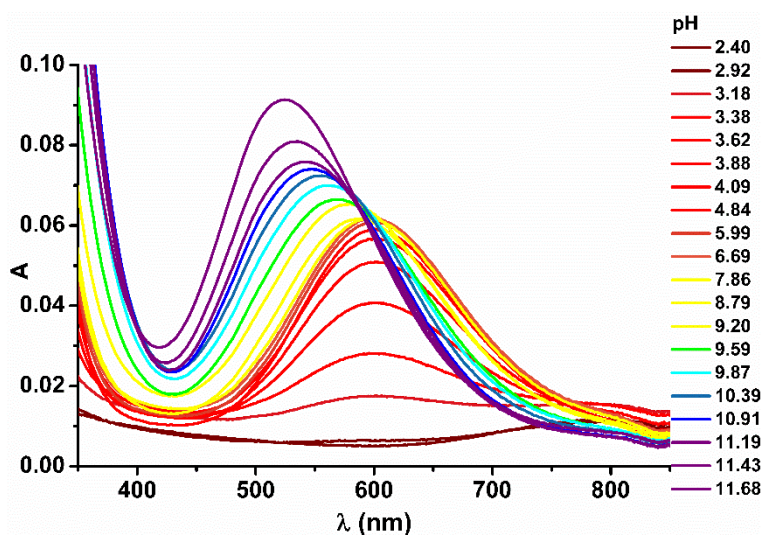


Figure S3. The pH dependence of UV-vis spectra recorded at 25 °C for 0.9 mM Cu(II) and 1.0 mM A β_{5-12F_3} , at pH values color coded on the graphs.

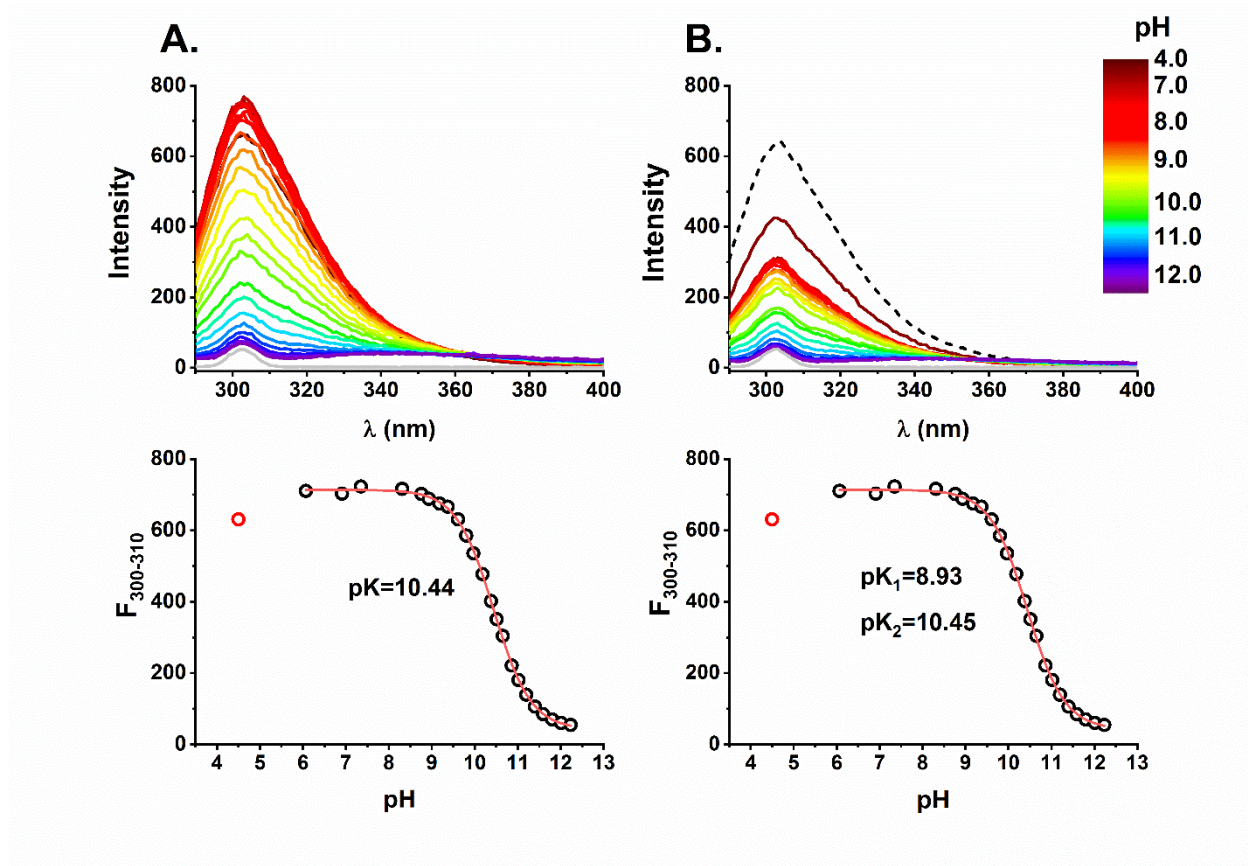


Fig. S4. Fluorescence spectra (top) and the respective curves (bottom) for 20 μ M $A\beta_{5-12}$ (A.) or 20 μ M $A\beta_{5-12}/Cu(II)$ (B.) titrated with NaOH at pH values color coded as present on the graph. The titration curves were generated by averaging spectral intensities over the 300-310 nm range for better signal-to-noise ratios.

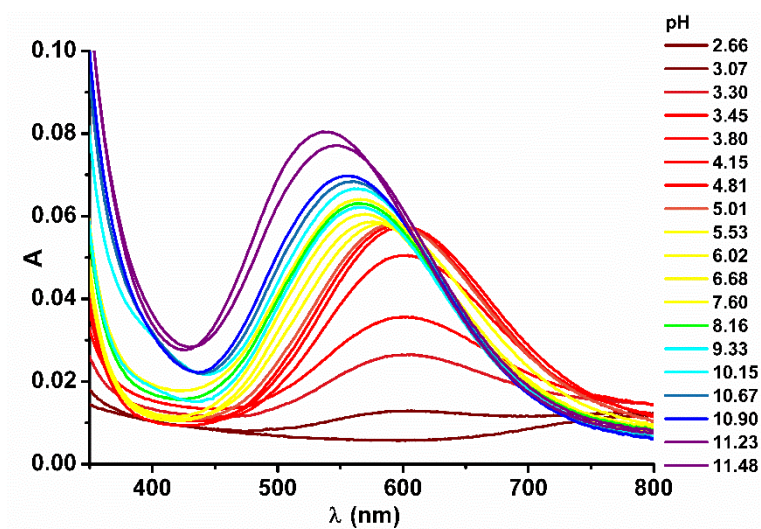


Figure S5. The pH dependence of UV-vis spectra recorded at 25 °C for 0.9 mM Cu(II) and 1.0 mM A β_{5-16} , at pH values color coded on the graphs.

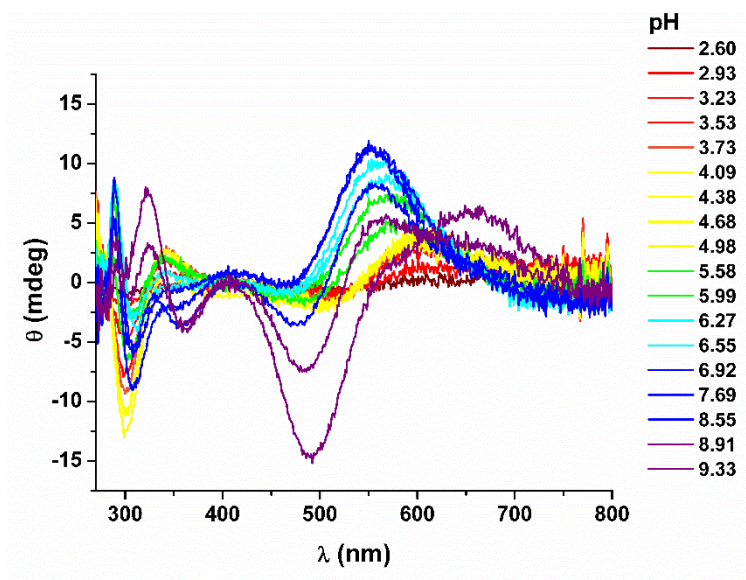


Figure S6. The pH dependence of CD spectra recorded at 25 °C for 1.8 mM Cu(II) and 1.0 mM A β_{5-16} , at pH values color coded on the graphs.

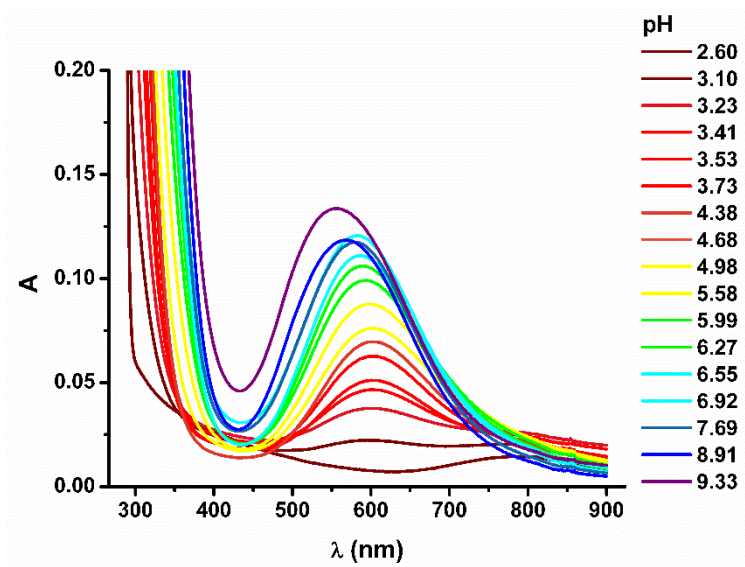


Figure S7. The pH dependence of UV-vis spectra recorded at 25 °C for 1.8 mM Cu(II) and 1.0 mM A β_{5-16} , at pH values color coded on the graphs.

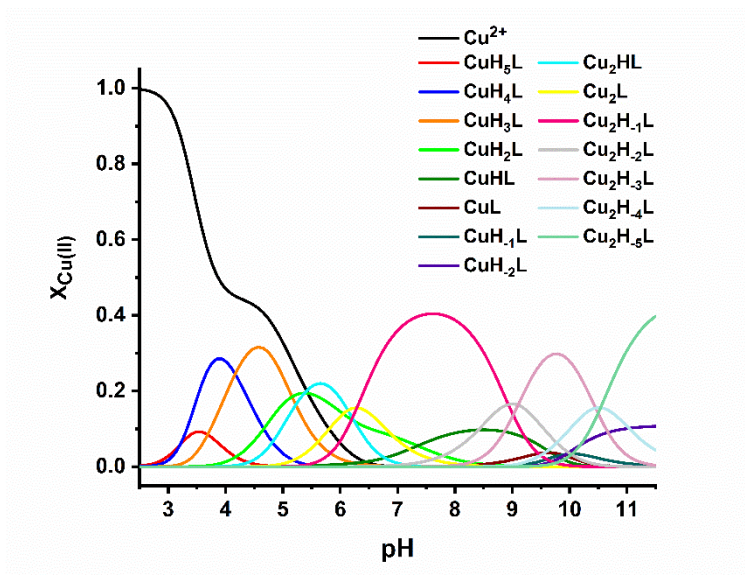


Figure S8. Species distribution calculated for 0.9 mM Cu(II) and 1.8 mM A β_{5-16} , on the basis of constants presented in Tables 1 and 2.

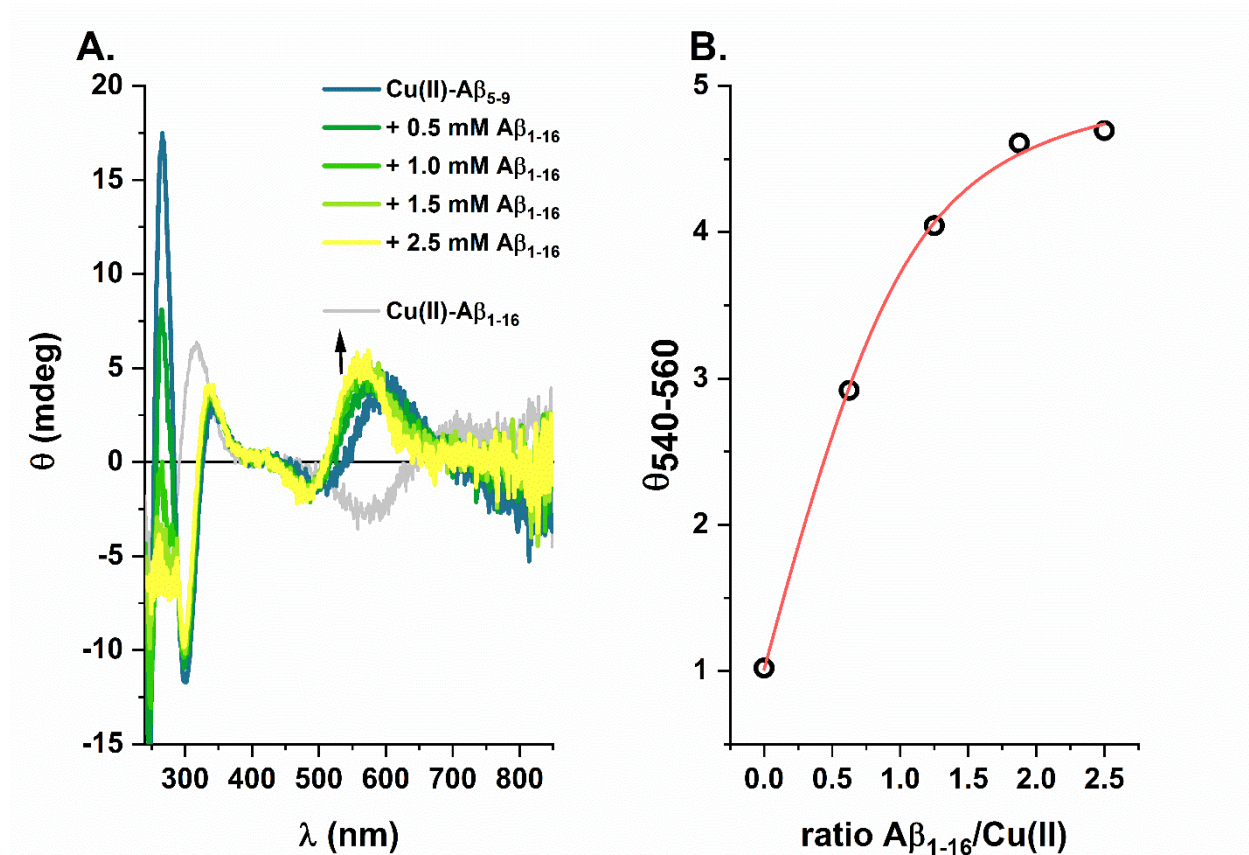


Fig. S9. CD titration spectra (A.) and a resulting titration curve (B.) for Cu(II) complexes of A β_{5-9} with A β_{1-16} for 1 mM A β_{5-x} and 0.8 mM Cu(II) at pH 7.4. The increasing A β_{1-16} concentrations are color-coded from blue to yellow. The control spectrum of 1 mM A β_{1-16} and 0.8 mM Cu(II) at pH 7.4 is present as a grey line. The directions of changes are marked by an arrow. The titration curves were generated by averaging spectral intensities over the given wavelength ranges for better signal-to-noise ratios.

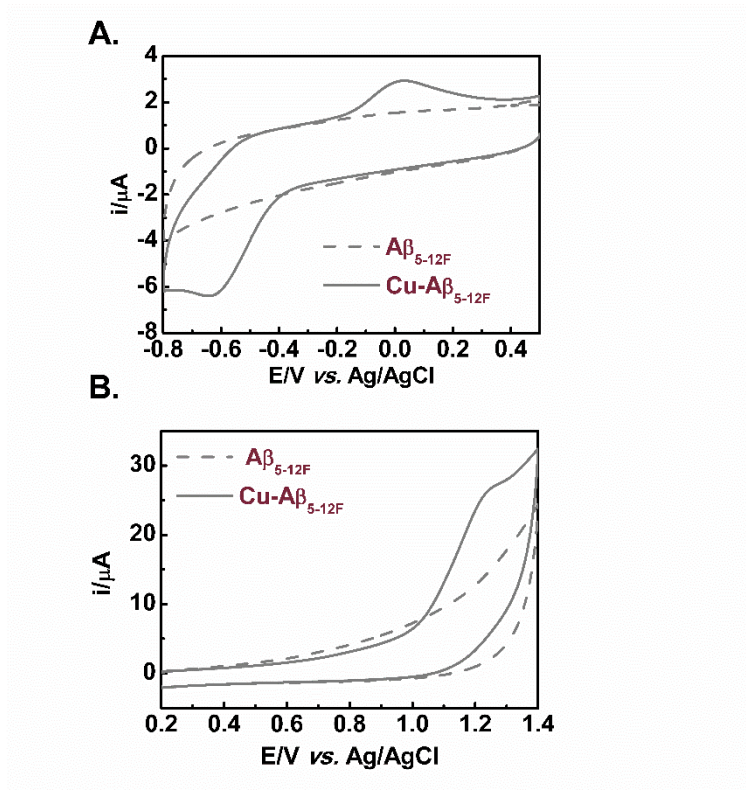


Figure S10. CV recorded in 0.5 mM $A\beta_{5-12F}$ solution in the absence (dashed lines) or the presence of 0.40 mM Cu(II) (solid lines) in 96 mM KNO_3 , 4 mM HNO_3 , pH 7.4, $v = 100$ mV/s over 0.5 to -0.8 V (A.) and 0.2 to 1.4 V (B.) potential range.

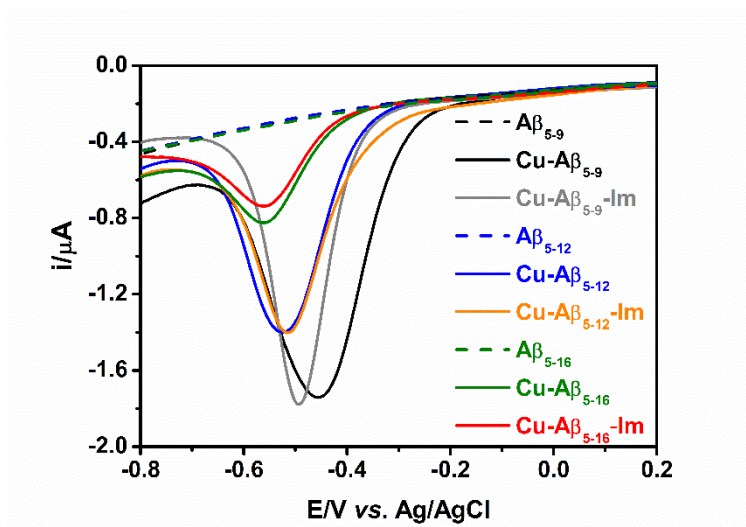


Figure S11. DPV recorded in 0.5 mM $A\beta_{5-9}$, $A\beta_{5-12}$, $A\beta_{5-16}$ solutions in the absence (dashed lines) or in the presence of 0.40 mM Cu(II) and 5 mM imidazole in 96 mM KNO_3 , 4 mM HNO_3 , pH 7.4.