

## **Supplementary Material**

### **The stabilization of S100A9 structure by calcium inhibits the formation of amyloid fibrils.**

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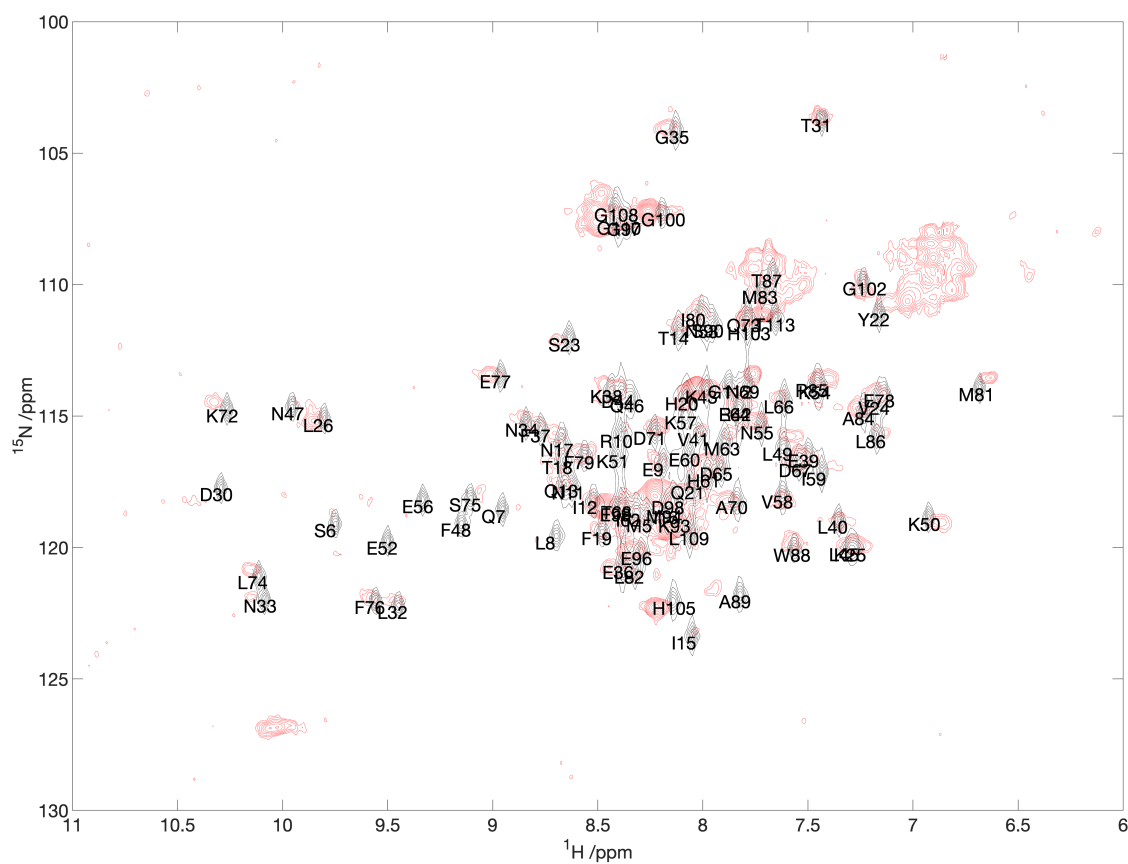
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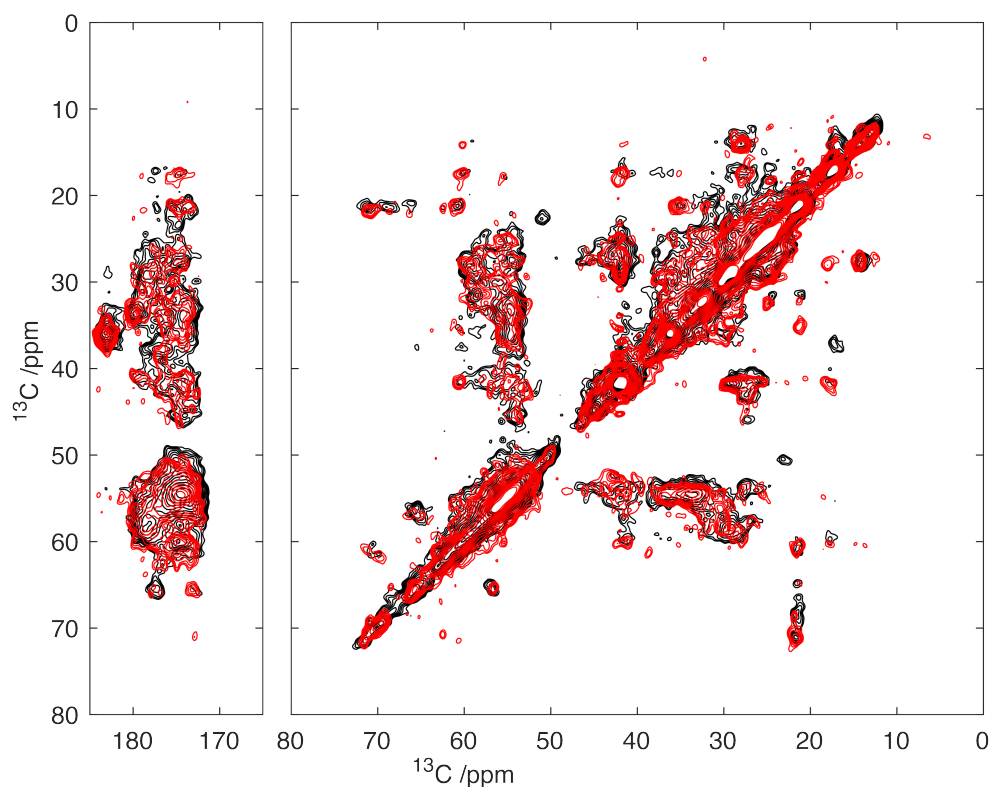
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### Supplementary Information.



**Supplementary Figure S1.**  $^1\text{H}/^{15}\text{N}$  HSQC spectra of S100A9 (100  $\mu\text{M}$  in 20 mM bisTris buffer pH 7.2) with 4.0 mM  $\text{CaCl}_2$  (red). Simulated  $^1\text{H}/^{15}\text{N}$  HSQC spectrum of the backbone resonances of S100A9 based on the published resonance assignment of S100A9<sup>43</sup> (black).



**Supplementary Figure S2.** 2D S100A9 fibril  $^{13}\text{C}/^{13}\text{C}$  DARR spectra (black) overlaid with S100A9 microcrystal  $^{13}\text{C}/^{13}\text{C}$  DARR spectra (red), both with a 25 ms mixing times, and processed with 100 Hz Gaussian broadening. Spectra were acquired at 600 MHz on a DD2 Agilent Spectrometer with 3.2mm MAS probe, spinning at 12.5 kHz. All data obtained at 0°C.