

Table I: Comparison of template (Gd20) and adder (myoglobin) protein properties.

Protein	# amino acids	mol. wt. (g/mol)	pI	GRAVY	AI	α (%)	TANGO
Gd20	20	2060	9.4	1.820	171.0	85	1477
Myoglobin	154	17083	7.2	-0.381	88.77	79	207

mol. wt. is the molecular weight in g/mol; pI is the isoelectric point; GRAVY is the grand average of hydropathicity; AI is the aliphatic index; α is the percent α -helix predicted from PSIPRED; TANGO is an algorithm that predicts the potential for the protein to form an amyloid structure. Gd20 has a high propensity for amyloid formation and myoglobin a low propensity.

Gd20 TFLILALLAI VATTATTAVR

Myoglobin MGLSDGEWQQ VLNWVGKVEA DIAGHGQEV L IRLFTGHPET LEKFDKFKHL KTEAEMKASE
DLKKHGTVVL TALGGILKKK GHHEAELKPL AQSHATKHKI PIKYLEFISD AIIHVLHSKH
PGDFGADAQG AMTKALELFR NDIAAKYKEL GFQG

Figure 1: Amino acid sequences of Gd20 and myoglobin.

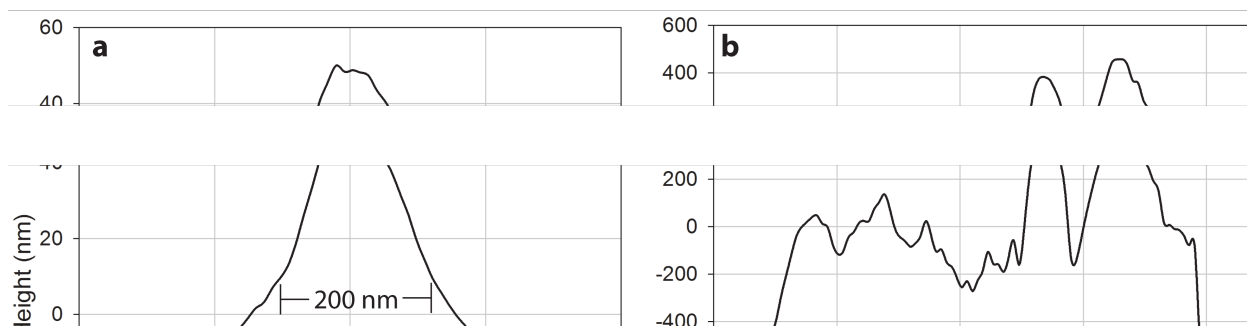


Figure 2: Cross sections of (a) X large fibrils and (b) XMy tapes at 72 hours. These graphs correspond to the AFM images of Figure 2a and 2b in the manuscript. The individual large fibrils comprising the XMy tape can be identified in the cross section.