

**Spin label scanning reveals likely locations of β -strands in the amyloid fibrils
of the Ure2 prion domain**

Jingzhou Wang, Giovanna Park, Yoon Kyung Lee, Matthew Nguyen, Tiffany San Fung, Tiffany Yuwen Lin, Frederick Hsu, and Zhefeng Guo*

Department of Neurology, Brain Research Institute, Molecular Biology Institute, University of California, Los Angeles, CA 90095, USA.

*To whom correspondence should be addressed: Zhefeng Guo, Department of Neurology, University of California, Los Angeles, 710 Westwood Plaza, Los Angeles, CA 90095. Phone: (310) 439-9843; E-mail: zhefeng@ucla.edu

Supplemental Table

Table S1. Values and fitting errors of Heisenberg exchange frequency (ω), rotational correlation time (τ) and order parameter (S) from spectral simulations of spin-labeled Ure2p₁₋₈₉-M fibrils.

Residue	Component 1			Component 2
	ω (MHz)	τ (ns)	S	τ (ns)
2	58.7 ± 0.61	5.2 ± 0.1	0.6 ± 0.01	1.06 ± 0.03
3	85.7 ± 0.8	7.3 ± 0.1	0.5 ± 0.01	1.2 ± 0.05
4	71.7 ± 0.7	6.9 ± 0.1	0.5 ± 0.01	1.1 ± 0.04
5	45.8 ± 0.6	7.04 ± 0.1	0.4 ± 0.02	1.4 ± 0.08
6	86.2 ± 0.9	8.7 ± 0.1	0.4 ± 0.4	1.5 ± 0.06
7	65.8 ± 0.8	6.98 ± 0.1	0.5 ± 0.02	1.1 ± 0.03
8	136.9 ± 1.2	7.8 ± 0.1	0.4 ± 0.01	
9	175.4 ± 1.1	6.6 ± 0.1	0.5 ± 0.01	
10	122.8 ± 0.8	7.8 ± 0.1	0.1 ± 0.05	
11	156.2 ± 0.95	6.03 ± 0.09	0.3 ± 0.01	
12	97.9 ± 0.5	5.8 ± 0.07	0.4 ± 0.02	
13	60.5 ± 0.4	6.7 ± 0.09	0.4 ± 0.02	
14	85.8 ± 0.4	7.1 ± 0.06	0.2 ± 0.03	
15	118.9 ± 0.7	6.7 ± 0.08	0.4 ± 0.02	
16	144.5 ± 0.9	4.99 ± 0.08	0.6 ± 0.007	
17	153.4 ± 0.9	5.5 ± 0.08	0.6 ± 0.004	
18	151.05 ± 0.9	4.9 ± 0.07	0.6 ± 0.01	
19	172.7 ± 1.1	6.1 ± 0.1	0.5 ± 0.007	
20	157.5 ± 1.2	6.3 ± 0.1	0.5 ± 0.01	
21	183.6 ± 1.02	4.7 ± 0.07	0.6 ± 0.004	
22	125.5 ± 0.7	3.5 ± 0.06	0.6 ± 0.008	
23	119.9 ± 0.7	3.2 ± 0.07	0.6 ± 0.007	
24	195.8 ± 1.02	4.3 ± 0.06	0.6 ± 0.004	
25	196.7 ± 1.8	5.9 ± 0.2	0.6 ± 0.008	
26	159.98 ± 0.8	4.7 ± 0.06	0.5 ± 0.006	
27	213.03 ± 1.8	6.9 ± 0.2	0.6 ± 0.005	
28	208.4 ± 1.6	7.9 ± 0.2	0.5 ± 0.006	
29	176.9 ± 1.01	5.9 ± 0.08	0.4 ± 0.009	
30	224.2 ± 1.9	8.7 ± 0.2	0.5 ± 0.007	
31	155.96 ± 0.9	5.5 ± 0.09	0.5 ± 0.007	
32	124.9 ± 0.6	6.9 ± 0.08	0.5 ± 0.009	
33	196.8 ± 1.4	8.8 ± 0.1	0.2 ± 0.02	
34	160.2 ± 0.8	8.8 ± 0.1	0.0	
35	191.5 ± 1.1	6.8 ± 0.1	0.53 ± 0.005	
36	124.98 ± 0.8	6.06 ± 0.09	0.3 ± 0.02	
37	151.9 ± 0.8	6.1 ± 0.08	0.4 ± 0.008	
38	158.99 ± 0.9	5.4 ± 0.08	0.5 ± 0.007	
39	114.7 ± 0.5	7.1 ± 0.07	0.3 ± 0.01	
40	159.06 ± 0.9	5.3 ± 0.08	0.5 ± 0.007	
41	149.6 ± 0.8	6.8 ± 0.1	0.5 ± 0.007	

42	43.3 0.9	4.4 ± 0.1	0.4 ± 0.02	
43	99.96 ± 0.7	5.9 ± 0.07	0.2 ± 0.02	
44	135.7 ± 0.6	5.06 ± 0.06	0.5 ± 0.006	
45	201.9 ± 1.4	4.97 ± 0.1	0.6 ± 0.006	
46	159.1 ± 0.9	5.5 ± 0.09	0.6 ± 0.006	
47	93.1 ± 0.4	4.8 ± 0.07	0.5 ± 0.01	
48	165.3 ± 0.8	5.6 ± 0.07	0.5 ± 0.007	
49	149.1 ± 0.5	4.7 ± 0.06	0.5 ± 0.007	
50	144.9 ± 1.4	7.5 ± 0.2	0.5 ± 0.01	
51	132.8 ± 0.7	4.9 ± 0.07	0.5 ± 0.008	
52	134.6 ± 0.7	3.97 ± 0.05	0.4 ± 0.001	
53	130.95 ± 0.6	6.2 ± 0.07	0.5 ± 0.008	
54	146.9 ± 0.9	5.3 ± 0.08	0.5 ± 0.008	
55	136.8 ± 0.8	4.6 ± 0.07	0.4 ± 0.01	
56	149.5 ± 0.8	4.7 ± 0.06	0.5 ± 0.008	
57	157.1 ± 0.8	5.3 ± 0.07	0.5 ± 0.006	
58	140.9 ± 0.8	4.4 ± 0.06	0.4 ± 0.01	
59	121.4 ± 0.7	4.2 ± 0.06	0.5 ± 0.001	
60	143.8 ± 0.8	5.1 ± 0.06	0.4 ± 0.009	
61	125.7 ± 0.7	3.8 ± 0.06	0.5 ± 0.008	
62	148.9 ± 3.5	5.2 ± 0.1	0.4 ± 0.08	
63	160.6 ± 0.9	5.4 ± 0.08	0.5 ± 0.007	
64	131.6 ± 0.8	4.3 ± 0.07	0.5 ± 0.01	
65	151.7 ± 0.9	7.7 ± 0.1	0.4 ± 0.01	
66	137.9 ± 1.9	6.02 ± 0.1	0.5 ± 0.01	1.2 ± 0.05
67	185.3 ± 2.3	9.9 ± 0.3	0.6 ± 0.005	1.6 ± 0.03
68	151.4 ± 2.3	6.9 ± 0.2	0.5 ± 0.008	1.4 ± 0.04
69	70.7 ± 1.1	2.9 ± 0.07	0.4 ± 0.02	0.7 ± 0.05
70	145.2 ± 2.03	13.7 ± 0.5	0.04 ± 0.01	1.5 ± 0.03
71	129.2 ± 2.5	6.4 ± 0.1	0.5 ± 0.01	1.7 ± 0.05
72	151.9 ± 1.9	9.5 ± 0.2	0.1 ± 0.04	0.6 ± 0.04
73	75.2 ± 0.8	6.9 ± 0.1	0.6 ± 0.001	1.5 ± 0.03
74	149.5 ± 2.2	13.3 ± 0.4	0.2 ± 0.03	1.8 ± 0.06
75	173.6 ± 1.8	13.0 ± 0.4	0.5 ± 0.01	0.9 ± 0.06
76	140.3 ± 2.1	7.3 ± 0.2	0.6 ± 0.01	1.5 ± 0.03
77	38.3 ± 1.2	5.3 ± 0.3	0.7 ± 0.02	1.6 ± 0.02
78	127.3 ± 2.3	8.9 ± 0.3	0.5 ± 0.02	1.6 ± 0.05
79	71.8 ± 1.4	7.9 ± 0.2	0.4 ± 0.02	1.5 ± 0.04
80	123.9 ± 2.04	9.1 ± 0.2	0.5 ± 0.01	1.98 ± 0.08