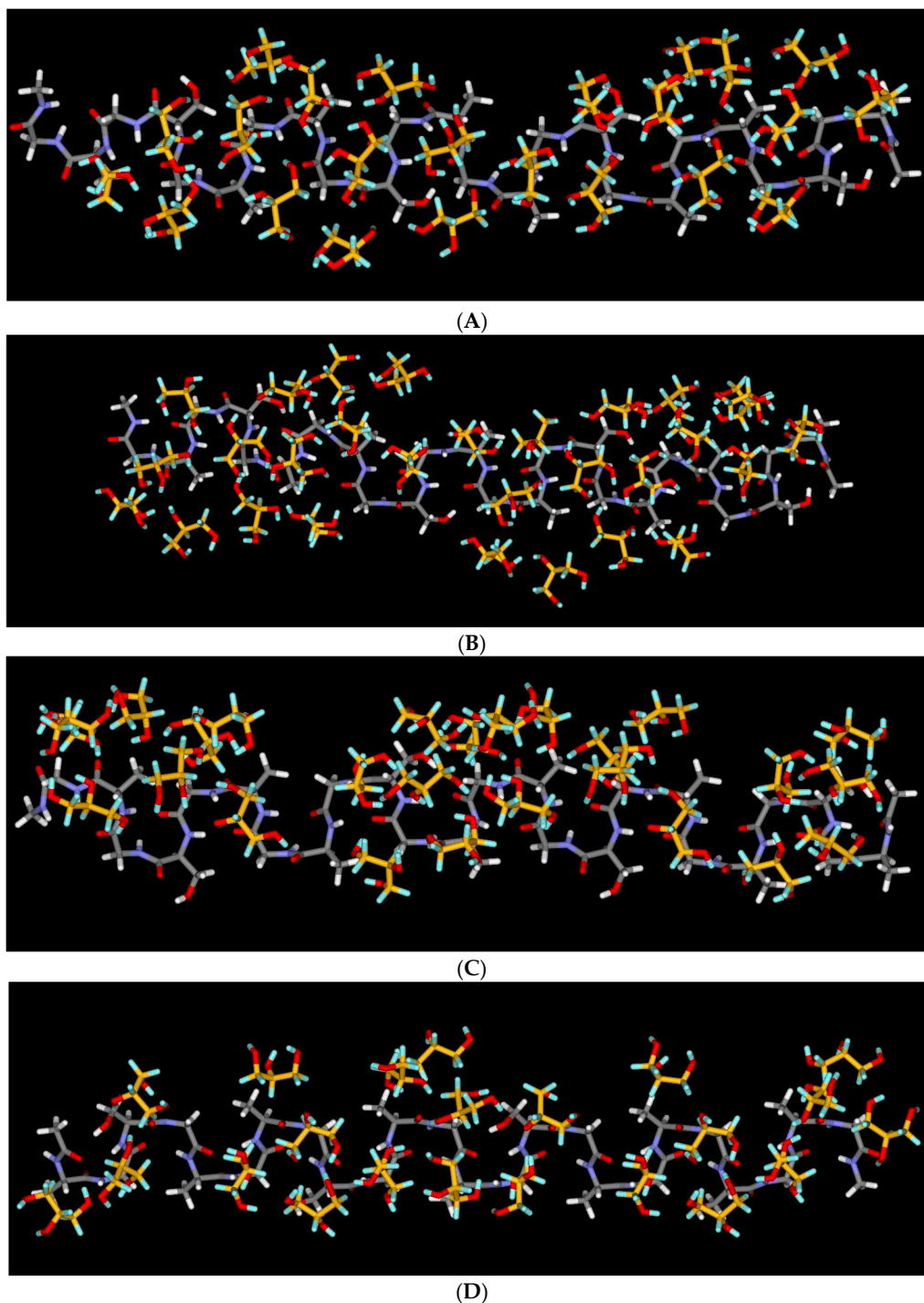


## Supplementary Materials: Glycerin-Induced Conformational Changes in *Bombyx mori* Silk Fibroin Film Monitored by $^{13}\text{C}$ CP/MAS NMR and $^1\text{H}$ DQMAS NMR

Tetsuo Asakura, Masanori Endo, Misaki Hirayama, Yuki Arai, Akihiro Aoki and Yugo Tasei



**Figure S1.** Four complex models, (A–D) of Glyc-SF model peptide, Acetyl-(Ala-Gly-Ala-Gly-Ser-Gly)<sub>2</sub>-NHCH<sub>3</sub> with Silk I\* forms after 500 ps of Molecular Dynamics (MD) simulations. Details of the calculation are described in Materials and Method.

**Table S1.** Fraction of several conformations determined from deconvolution of Ala C $\beta$  peaks in  $^{13}\text{C}$  Cross Polarization/Magic Angle Spinning nuclear magnetic resonance (CP/MAS NMR) spectra of silk fibroin (SF) and Glyc-blend SF films as a function of Glyc concentration.

Glyc (wt %)	$\beta$ -Sheet B (%)	$\beta$ -Sheet A (%)	r.c. (%)	Silk I* (%)
0	3.8	34.7	61.5	0.00
5	2.9	8.4	69.5	19.2
9	1.4	8.6	63.9	26.1
17	5.7	9.5	57.7	27.1
29	6.9	9.6	53.6	29.9
40	8.6	12.5	48.1	30.8
50	9.3	15.5	45.1	30.1
57	8.0	17.0	45.0	30.0
67	12.8	21.0	39.2	27.0

r.c.: random coil.