

Summary of integrative structure determination of The structural models of alpha-synuclein dimer (PDB ID: 9A1Q | pdb_00009a1q, PDB-Dev ID: PDBDEV_00000098)

1. Model Composition	
1.1. Entry composition	alpha-synuclein: chain(s) A, B (140 residues)
1.2. Datasets used for modeling	- Crosslinking-MS data, PRIDE: PXD030299 - De Novo model, Not available
2. Representation	
2.1. Number of representations	1
2.2. Scale	Atomic
2.3. Number of rigid and flexible segments	0, 2
3. Restraints	
3.1. Physical principles	Information about physical principles was not provided
3.2. Experimental data	- 1 unique CrossLinkRestraint: BS3, 1 crosslinks - 1 unique CrossLinkRestraint: Other, 0 crosslinks
4. Validation	
4.2. Number of ensembles	0
4.3. Number of models in ensembles	Not applicable
4.4. Number of deposited models	8
4.5. Model precision	Not available
4.6. Data quality	Data quality has not been assessed
4.7. Model quality: assessment of atomic segments	- Clashscore: 0.00-0.00 - Ramachandran outliers: 51-71 - Sidechain outliers: 45-62
4.8. Fit to data used for modeling	Satisfaction of crosslinks: 75.80-88.54%
4.9. Fit to data used for validation	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
1. 5.1. Method name	Design square-well functions based on cross-linking constraints

5.3. Method description	At this step, cross-linking constraints are collected from experiments and used to design square-well functions for DMD simulations.
2. 5.1. Method name	Perform DMD simulations
5.3. Method description	At this step, the designed square-well functions are incorporated into the force field. Start DMD simulations.
5.5. Software	DMD software (version Not available)