

	<p>10.5281/zenodo.7125978</p> <ul style="list-style-type: none"> - Single molecule FRET data, File: 10.5281/zenodo.7125978 - Single molecule FRET data, File: 10.5281/zenodo.7125978 - Single molecule FRET data, File: 10.5281/zenodo.7125978 - Single molecule FRET data, File: 10.5281/zenodo.7125978 - Integrative model, File: 10.5281/zenodo.7125978 - Comparative model, template PDB ID: Not available - Experimental model, PDB ID: 6QJD - Experimental model, PDB ID: 1KJW
2. Representation	
Resolution	Atomic
Number of rigid bodies , flexible units	0, 1
Flexible units	A: 1-417
Structural coverage (rigid bodies)	100%
3. Restraints	
Physical principles	Information about physical principles was not provided
Experimental data	
4. Validation	
Number of ensembles	2
Number of models in ensembles	4325, 114
Number of deposited models	200
Model precision (uncertainty of models)	None, Å, None, Å
Data quality	Data quality has not been assessed
	<ul style="list-style-type: none"> - Model-1: Clashscore = 6.35, Number of Ramachandran outliers = 15, Number of sidechain outliers = 64 - Model-2: Clashscore = 8.62, Number of Ramachandran outliers = 18, Number of sidechain outliers = 69 - Model-3: Clashscore = 9.22, Number of Ramachandran outliers = 14, Number of sidechain outliers = 57 - Model-4: Clashscore = 7.26, Number of Ramachandran outliers = 20, Number of sidechain outliers = 60 - Model-5: Clashscore = 7.11, Number of Ramachandran outliers = 11, Number of sidechain outliers = 60 - Model-6: Clashscore = 10.43, Number of Ramachandran outliers = 13, Number of sidechain

outliers = 66

- Model-7: Clashscore = 8.32, Number of Ramachandran outliers = 16, Number of sidechain outliers = 67
- Model-8: Clashscore = 7.41, Number of Ramachandran outliers = 15, Number of sidechain outliers = 59
- Model-9: Clashscore = 6.8, Number of Ramachandran outliers = 18, Number of sidechain outliers = 72
- Model-10: Clashscore = 11.04, Number of Ramachandran outliers = 15, Number of sidechain outliers = 71
- Model-11: Clashscore = 10.58, Number of Ramachandran outliers = 21, Number of sidechain outliers = 67
- Model-12: Clashscore = 9.83, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-13: Clashscore = 8.47, Number of Ramachandran outliers = 21, Number of sidechain outliers = 70
- Model-14: Clashscore = 8.47, Number of Ramachandran outliers = 16, Number of sidechain outliers = 65
- Model-15: Clashscore = 10.28, Number of Ramachandran outliers = 13, Number of sidechain outliers = 66
- Model-16: Clashscore = 6.8, Number of Ramachandran outliers = 16, Number of sidechain outliers = 62
- Model-17: Clashscore = 7.56, Number of Ramachandran outliers = 16, Number of sidechain outliers = 66
- Model-18: Clashscore = 7.26, Number of Ramachandran outliers = 16, Number of sidechain outliers = 64
- Model-19: Clashscore = 7.41, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-20: Clashscore = 8.62, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-21: Clashscore = 9.37, Number of Ramachandran outliers = 15, Number of sidechain outliers = 61
- Model-22: Clashscore = 9.22, Number of Ramachandran outliers = 13, Number of sidechain outliers = 68
- Model-23: Clashscore = 8.47, Number of Ramachandran outliers = 16, Number of sidechain outliers = 68
- Model-24: Clashscore = 8.16, Number of Ramachandran outliers = 20, Number of sidechain outliers = 67
- Model-25: Clashscore = 8.16, Number of Ramachandran outliers = 18, Number of sidechain outliers = 68
- Model-26: Clashscore = 7.86, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-27: Clashscore = 9.22, Number of Ramachandran outliers = 21, Number of sidechain outliers = 62

- Model-28: Clashscore = 8.62, Number of Ramachandran outliers = 20, Number of sidechain outliers = 72
- Model-29: Clashscore = 6.65, Number of Ramachandran outliers = 15, Number of sidechain outliers = 58
- Model-30: Clashscore = 7.56, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-31: Clashscore = 6.95, Number of Ramachandran outliers = 18, Number of sidechain outliers = 59
- Model-32: Clashscore = 8.92, Number of Ramachandran outliers = 16, Number of sidechain outliers = 68
- Model-33: Clashscore = 6.65, Number of Ramachandran outliers = 19, Number of sidechain outliers = 75
- Model-34: Clashscore = 7.11, Number of Ramachandran outliers = 18, Number of sidechain outliers = 72
- Model-35: Clashscore = 8.16, Number of Ramachandran outliers = 13, Number of sidechain outliers = 69
- Model-36: Clashscore = 10.28, Number of Ramachandran outliers = 18, Number of sidechain outliers = 62
- Model-37: Clashscore = 8.01, Number of Ramachandran outliers = 16, Number of sidechain outliers = 66
- Model-38: Clashscore = 8.01, Number of Ramachandran outliers = 14, Number of sidechain outliers = 66
- Model-39: Clashscore = 7.86, Number of Ramachandran outliers = 17, Number of sidechain outliers = 64
- Model-40: Clashscore = 8.32, Number of Ramachandran outliers = 15, Number of sidechain outliers = 76
- Model-41: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 66
- Model-42: Clashscore = 8.01, Number of Ramachandran outliers = 15, Number of sidechain outliers = 66
- Model-43: Clashscore = 7.26, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-44: Clashscore = 9.68, Number of Ramachandran outliers = 17, Number of sidechain outliers = 75
- Model-45: Clashscore = 5.75, Number of Ramachandran outliers = 20, Number of sidechain outliers = 73
- Model-46: Clashscore = 8.32, Number of Ramachandran outliers = 14, Number of sidechain outliers = 60
- Model-47: Clashscore = 9.68, Number of Ramachandran outliers = 17, Number of sidechain outliers = 66
- Model-48: Clashscore = 8.32, Number of Ramachandran outliers = 17, Number of sidechain outliers = 67
- Model-49: Clashscore = 6.95, Number of

Ramachandran outliers = 14, Number of sidechain outliers = 66

- Model-50: Clashscore = 8.01, Number of Ramachandran outliers = 15, Number of sidechain outliers = 61
- Model-51: Clashscore = 7.11, Number of Ramachandran outliers = 18, Number of sidechain outliers = 64
- Model-52: Clashscore = 8.47, Number of Ramachandran outliers = 17, Number of sidechain outliers = 71
- Model-53: Clashscore = 7.86, Number of Ramachandran outliers = 14, Number of sidechain outliers = 66
- Model-54: Clashscore = 5.59, Number of Ramachandran outliers = 18, Number of sidechain outliers = 69
- Model-55: Clashscore = 8.62, Number of Ramachandran outliers = 16, Number of sidechain outliers = 74
- Model-56: Clashscore = 10.13, Number of Ramachandran outliers = 13, Number of sidechain outliers = 78
- Model-57: Clashscore = 7.26, Number of Ramachandran outliers = 17, Number of sidechain outliers = 70
- Model-58: Clashscore = 7.41, Number of Ramachandran outliers = 20, Number of sidechain outliers = 59
- Model-59: Clashscore = 8.92, Number of Ramachandran outliers = 15, Number of sidechain outliers = 54
- Model-60: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 77
- Model-61: Clashscore = 10.13, Number of Ramachandran outliers = 15, Number of sidechain outliers = 64
- Model-62: Clashscore = 10.73, Number of Ramachandran outliers = 17, Number of sidechain outliers = 72
- Model-63: Clashscore = 6.95, Number of Ramachandran outliers = 16, Number of sidechain outliers = 60
- Model-64: Clashscore = 8.47, Number of Ramachandran outliers = 16, Number of sidechain outliers = 75
- Model-65: Clashscore = 7.71, Number of Ramachandran outliers = 14, Number of sidechain outliers = 61
- Model-66: Clashscore = 6.35, Number of Ramachandran outliers = 17, Number of sidechain outliers = 69
- Model-67: Clashscore = 9.37, Number of Ramachandran outliers = 17, Number of sidechain outliers = 62
- Model-68: Clashscore = 6.65, Number of Ramachandran outliers = 16, Number of sidechain outliers = 66
- Model-69: Clashscore = 8.77, Number of Ramachandran outliers = 17, Number of sidechain outliers = 61
- Model-70: Clashscore = 7.71, Number of Ramachandran outliers = 14, Number of sidechain

outliers = 71
- Model-71: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 71
- Model-72: Clashscore = 8.62, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-73: Clashscore = 8.62, Number of Ramachandran outliers = 18, Number of sidechain outliers = 63
- Model-74: Clashscore = 8.32, Number of Ramachandran outliers = 16, Number of sidechain outliers = 74
- Model-75: Clashscore = 8.77, Number of Ramachandran outliers = 13, Number of sidechain outliers = 78
- Model-76: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 65
- Model-77: Clashscore = 6.8, Number of Ramachandran outliers = 18, Number of sidechain outliers = 73
- Model-78: Clashscore = 8.47, Number of Ramachandran outliers = 15, Number of sidechain outliers = 68
- Model-79: Clashscore = 8.01, Number of Ramachandran outliers = 14, Number of sidechain outliers = 59
- Model-80: Clashscore = 8.01, Number of Ramachandran outliers = 16, Number of sidechain outliers = 71
- Model-81: Clashscore = 6.5, Number of Ramachandran outliers = 13, Number of sidechain outliers = 67
- Model-82: Clashscore = 7.86, Number of Ramachandran outliers = 14, Number of sidechain outliers = 66
- Model-83: Clashscore = 6.8, Number of Ramachandran outliers = 19, Number of sidechain outliers = 61
- Model-84: Clashscore = 9.98, Number of Ramachandran outliers = 15, Number of sidechain outliers = 66
- Model-85: Clashscore = 8.01, Number of Ramachandran outliers = 15, Number of sidechain outliers = 69
- Model-86: Clashscore = 9.98, Number of Ramachandran outliers = 14, Number of sidechain outliers = 70
- Model-87: Clashscore = 5.44, Number of Ramachandran outliers = 19, Number of sidechain outliers = 72
- Model-88: Clashscore = 8.01, Number of Ramachandran outliers = 18, Number of sidechain outliers = 77
- Model-89: Clashscore = 6.5, Number of Ramachandran outliers = 16, Number of sidechain outliers = 70
- Model-90: Clashscore = 8.32, Number of Ramachandran outliers = 23, Number of sidechain outliers = 56
- Model-91: Clashscore = 9.68, Number of Ramachandran outliers = 15, Number of sidechain outliers = 77

[Model quality: assessment of atomic segments](#)

- Model-92: Clashscore = 7.11, Number of Ramachandran outliers = 14, Number of sidechain outliers = 62
- Model-93: Clashscore = 8.77, Number of Ramachandran outliers = 16, Number of sidechain outliers = 62
- Model-94: Clashscore = 7.26, Number of Ramachandran outliers = 16, Number of sidechain outliers = 63
- Model-95: Clashscore = 9.83, Number of Ramachandran outliers = 17, Number of sidechain outliers = 72
- Model-96: Clashscore = 9.22, Number of Ramachandran outliers = 15, Number of sidechain outliers = 70
- Model-97: Clashscore = 8.92, Number of Ramachandran outliers = 17, Number of sidechain outliers = 62
- Model-98: Clashscore = 8.62, Number of Ramachandran outliers = 17, Number of sidechain outliers = 64
- Model-99: Clashscore = 8.16, Number of Ramachandran outliers = 17, Number of sidechain outliers = 67
- Model-100: Clashscore = 11.19, Number of Ramachandran outliers = 17, Number of sidechain outliers = 62
- Model-101: Clashscore = 6.95, Number of Ramachandran outliers = 19, Number of sidechain outliers = 61
- Model-102: Clashscore = 4.23, Number of Ramachandran outliers = 16, Number of sidechain outliers = 59
- Model-103: Clashscore = 7.41, Number of Ramachandran outliers = 19, Number of sidechain outliers = 65
- Model-104: Clashscore = 5.9, Number of Ramachandran outliers = 16, Number of sidechain outliers = 76
- Model-105: Clashscore = 7.71, Number of Ramachandran outliers = 16, Number of sidechain outliers = 59
- Model-106: Clashscore = 9.07, Number of Ramachandran outliers = 17, Number of sidechain outliers = 77
- Model-107: Clashscore = 6.05, Number of Ramachandran outliers = 14, Number of sidechain outliers = 70
- Model-108: Clashscore = 7.86, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-109: Clashscore = 7.11, Number of Ramachandran outliers = 18, Number of sidechain outliers = 73
- Model-110: Clashscore = 6.8, Number of Ramachandran outliers = 15, Number of sidechain outliers = 63
- Model-111: Clashscore = 7.26, Number of Ramachandran outliers = 17, Number of sidechain outliers = 77
- Model-112: Clashscore = 8.47, Number of Ramachandran outliers = 17, Number of sidechain outliers = 73
- Model-113: Clashscore = 7.86, Number of

Ramachandran outliers = 18, Number of sidechain outliers = 65

- Model-114: Clashscore = 8.16, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-115: Clashscore = 7.56, Number of Ramachandran outliers = 15, Number of sidechain outliers = 72
- Model-116: Clashscore = 7.56, Number of Ramachandran outliers = 18, Number of sidechain outliers = 69
- Model-117: Clashscore = 9.98, Number of Ramachandran outliers = 21, Number of sidechain outliers = 62
- Model-118: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 64
- Model-119: Clashscore = 8.62, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-120: Clashscore = 8.92, Number of Ramachandran outliers = 14, Number of sidechain outliers = 67
- Model-121: Clashscore = 7.41, Number of Ramachandran outliers = 12, Number of sidechain outliers = 54
- Model-122: Clashscore = 6.95, Number of Ramachandran outliers = 17, Number of sidechain outliers = 65
- Model-123: Clashscore = 7.26, Number of Ramachandran outliers = 18, Number of sidechain outliers = 65
- Model-124: Clashscore = 6.65, Number of Ramachandran outliers = 16, Number of sidechain outliers = 62
- Model-125: Clashscore = 7.56, Number of Ramachandran outliers = 14, Number of sidechain outliers = 68
- Model-126: Clashscore = 7.26, Number of Ramachandran outliers = 16, Number of sidechain outliers = 67
- Model-127: Clashscore = 7.86, Number of Ramachandran outliers = 17, Number of sidechain outliers = 61
- Model-128: Clashscore = 7.11, Number of Ramachandran outliers = 14, Number of sidechain outliers = 67
- Model-129: Clashscore = 6.95, Number of Ramachandran outliers = 18, Number of sidechain outliers = 75
- Model-130: Clashscore = 7.56, Number of Ramachandran outliers = 15, Number of sidechain outliers = 70
- Model-131: Clashscore = 7.71, Number of Ramachandran outliers = 20, Number of sidechain outliers = 80
- Model-132: Clashscore = 9.07, Number of Ramachandran outliers = 17, Number of sidechain outliers = 76
- Model-133: Clashscore = 7.86, Number of Ramachandran outliers = 16, Number of sidechain outliers = 64
- Model-134: Clashscore = 7.56, Number of Ramachandran outliers = 16, Number of sidechain

outliers = 63

- Model-135: Clashscore = 7.26, Number of Ramachandran outliers = 14, Number of sidechain outliers = 59
- Model-136: Clashscore = 6.8, Number of Ramachandran outliers = 13, Number of sidechain outliers = 65
- Model-137: Clashscore = 9.37, Number of Ramachandran outliers = 18, Number of sidechain outliers = 70
- Model-138: Clashscore = 8.62, Number of Ramachandran outliers = 16, Number of sidechain outliers = 68
- Model-139: Clashscore = 6.8, Number of Ramachandran outliers = 17, Number of sidechain outliers = 62
- Model-140: Clashscore = 7.26, Number of Ramachandran outliers = 17, Number of sidechain outliers = 66
- Model-141: Clashscore = 7.26, Number of Ramachandran outliers = 17, Number of sidechain outliers = 64
- Model-142: Clashscore = 8.16, Number of Ramachandran outliers = 21, Number of sidechain outliers = 69
- Model-143: Clashscore = 8.92, Number of Ramachandran outliers = 18, Number of sidechain outliers = 62
- Model-144: Clashscore = 7.41, Number of Ramachandran outliers = 16, Number of sidechain outliers = 62
- Model-145: Clashscore = 5.59, Number of Ramachandran outliers = 18, Number of sidechain outliers = 67
- Model-146: Clashscore = 8.01, Number of Ramachandran outliers = 15, Number of sidechain outliers = 69
- Model-147: Clashscore = 9.07, Number of Ramachandran outliers = 18, Number of sidechain outliers = 54
- Model-148: Clashscore = 8.77, Number of Ramachandran outliers = 20, Number of sidechain outliers = 84
- Model-149: Clashscore = 7.41, Number of Ramachandran outliers = 20, Number of sidechain outliers = 65
- Model-150: Clashscore = 8.77, Number of Ramachandran outliers = 17, Number of sidechain outliers = 65
- Model-151: Clashscore = 8.62, Number of Ramachandran outliers = 17, Number of sidechain outliers = 54
- Model-152: Clashscore = 5.9, Number of Ramachandran outliers = 15, Number of sidechain outliers = 71
- Model-153: Clashscore = 8.01, Number of Ramachandran outliers = 20, Number of sidechain outliers = 65
- Model-154: Clashscore = 6.65, Number of Ramachandran outliers = 20, Number of sidechain outliers = 72
- Model-155: Clashscore = 8.47, Number of Ramachandran outliers = 14, Number of sidechain outliers = 68

- Model-156: Clashscore = 10.58, Number of Ramachandran outliers = 15, Number of sidechain outliers = 70
- Model-157: Clashscore = 8.32, Number of Ramachandran outliers = 15, Number of sidechain outliers = 67
- Model-158: Clashscore = 8.62, Number of Ramachandran outliers = 18, Number of sidechain outliers = 62
- Model-159: Clashscore = 8.62, Number of Ramachandran outliers = 16, Number of sidechain outliers = 58
- Model-160: Clashscore = 6.8, Number of Ramachandran outliers = 18, Number of sidechain outliers = 70
- Model-161: Clashscore = 7.71, Number of Ramachandran outliers = 15, Number of sidechain outliers = 71
- Model-162: Clashscore = 7.11, Number of Ramachandran outliers = 15, Number of sidechain outliers = 58
- Model-163: Clashscore = 6.5, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-164: Clashscore = 6.95, Number of Ramachandran outliers = 17, Number of sidechain outliers = 65
- Model-165: Clashscore = 6.35, Number of Ramachandran outliers = 18, Number of sidechain outliers = 63
- Model-166: Clashscore = 8.77, Number of Ramachandran outliers = 18, Number of sidechain outliers = 69
- Model-167: Clashscore = 8.01, Number of Ramachandran outliers = 19, Number of sidechain outliers = 71
- Model-168: Clashscore = 5.9, Number of Ramachandran outliers = 15, Number of sidechain outliers = 74
- Model-169: Clashscore = 8.47, Number of Ramachandran outliers = 18, Number of sidechain outliers = 59
- Model-170: Clashscore = 7.56, Number of Ramachandran outliers = 13, Number of sidechain outliers = 70
- Model-171: Clashscore = 8.62, Number of Ramachandran outliers = 16, Number of sidechain outliers = 67
- Model-172: Clashscore = 8.01, Number of Ramachandran outliers = 21, Number of sidechain outliers = 65
- Model-173: Clashscore = 8.16, Number of Ramachandran outliers = 15, Number of sidechain outliers = 75
- Model-174: Clashscore = 8.92, Number of Ramachandran outliers = 13, Number of sidechain outliers = 75
- Model-175: Clashscore = 8.32, Number of Ramachandran outliers = 14, Number of sidechain outliers = 84
- Model-176: Clashscore = 6.95, Number of Ramachandran outliers = 16, Number of sidechain outliers = 80
- Model-177: Clashscore = 8.62, Number of

Ramachandran outliers = 16, Number of sidechain outliers = 77

- Model-178: Clashscore = 9.53, Number of Ramachandran outliers = 19, Number of sidechain outliers = 70
- Model-179: Clashscore = 7.71, Number of Ramachandran outliers = 16, Number of sidechain outliers = 56
- Model-180: Clashscore = 9.68, Number of Ramachandran outliers = 17, Number of sidechain outliers = 59
- Model-181: Clashscore = 8.32, Number of Ramachandran outliers = 15, Number of sidechain outliers = 62
- Model-182: Clashscore = 8.62, Number of Ramachandran outliers = 13, Number of sidechain outliers = 75
- Model-183: Clashscore = 8.77, Number of Ramachandran outliers = 17, Number of sidechain outliers = 64
- Model-184: Clashscore = 7.26, Number of Ramachandran outliers = 20, Number of sidechain outliers = 56
- Model-185: Clashscore = 8.92, Number of Ramachandran outliers = 18, Number of sidechain outliers = 69
- Model-186: Clashscore = 7.11, Number of Ramachandran outliers = 15, Number of sidechain outliers = 60
- Model-187: Clashscore = 9.37, Number of Ramachandran outliers = 15, Number of sidechain outliers = 51
- Model-188: Clashscore = 8.32, Number of Ramachandran outliers = 19, Number of sidechain outliers = 79
- Model-189: Clashscore = 7.26, Number of Ramachandran outliers = 13, Number of sidechain outliers = 54
- Model-190: Clashscore = 7.11, Number of Ramachandran outliers = 19, Number of sidechain outliers = 66
- Model-191: Clashscore = 8.47, Number of Ramachandran outliers = 17, Number of sidechain outliers = 59
- Model-192: Clashscore = 9.22, Number of Ramachandran outliers = 17, Number of sidechain outliers = 73
- Model-193: Clashscore = 8.01, Number of Ramachandran outliers = 16, Number of sidechain outliers = 69
- Model-194: Clashscore = 6.8, Number of Ramachandran outliers = 18, Number of sidechain outliers = 67
- Model-195: Clashscore = 7.41, Number of Ramachandran outliers = 18, Number of sidechain outliers = 54
- Model-196: Clashscore = 6.95, Number of Ramachandran outliers = 19, Number of sidechain outliers = 63
- Model-197: Clashscore = 8.92, Number of Ramachandran outliers = 16, Number of sidechain outliers = 74
- Model-198: Clashscore = 7.26, Number of Ramachandran outliers = 15, Number of sidechain

	<p>outliers = 64</p> <p>- Model-199: Clashscore = 8.01, Number of Ramachandran outliers = 17, Number of sidechain outliers = 71</p> <p>- Model-200: Clashscore = 7.26, Number of Ramachandran outliers = 18, Number of sidechain outliers = 64</p>
<i>Model quality: assessment of excluded volume</i>	Not applicable
<i>Fit to data used for modeling</i>	Fit of model to information used to compute it has not been determined
<i>Fit to data used for validation</i>	Fit of model to information not used to compute it has not been determined
5. Methodology and Software	
1. <i>Method</i>	Unbiased DMD Simulations
<i>Name</i>	DMD simulations
<i>Number of computed models</i>	20871
2. <i>Method</i>	FRET-guided screening of structures from molecular dynamics simulations
<i>Name</i>	None
<i>Number of computed models</i>	4439
<i>Software</i>	<ul style="list-style-type: none"> - AvTraj (version 0.0.9) - pDMD (version 1.100)