

Supporting Information

Prominent Role of Charge Transfer in the Spectral Tuning of Photosynthetic Light-Harvesting I Complex

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Table S1. CI coefficients (C_{ia}) of the excited state for the BChl a 16-mer obtained using canonical Kohn–Sham orbitals.

		virtual orbitals (α)																																
		33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
occupied orbitals (β)	1	0.003	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.048	-0.021	-0.017	0.000	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
	2	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.013	-0.042	0.000	-0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	3	0.000	-0.002	-0.001	-0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.022	0.035	-0.002	0.000	0.007	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	4	0.001	-0.001	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.015	-0.003	0.001	0.000	-0.035	0.003	-0.004	0.000	-0.002	-0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	5	0.000	0.000	0.000	0.000	0.000	-0.003	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.002	-0.002	0.000	-0.001	0.015	0.012	-0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	6	-0.001	-0.001	0.001	0.000	-0.005	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	0.000	0.000	0.000	-0.005	-0.027	0.033	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	7	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	-0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.004	0.005	0.000	-0.011	0.003	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	
	8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.003	0.032	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	9	0.000	0.000	0.000	0.000	0.001	0.000	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.002	0.000	0.013	-0.015	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	
	10	-0.051	-0.014	-0.081	-0.177	0.077	-0.019	-0.003	0.003	-0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.002	0.000	-0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	0.000	0.000	0.000	0.000	0.000	
	11	-0.086	-0.082	0.135	-0.062	-0.074	-0.022	0.009	0.005	0.006	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.004	0.000	0.001	0.000	-0.001	-0.001	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
	12	0.023	0.196	0.107	-0.011	0.019	-0.061	-0.003	0.017	-0.002	-0.001	0.000	0.000	0.000	-0.001	-0.001	0.000	0.000	-0.002	0.002	0.002	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	-0.007	0.000	0.000	0.001	0.000	0.000	
	14	-0.307	0.052	-0.121	0.042	-0.013	-0.014	0.002	0.007	-0.002	-0.001	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	
	15	-0.001	0.000	0.000	0.000	0.001	0.000	0.002	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	-0.001	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
	16	-0.070	0.119	0.063	-0.044	-0.001	0.084	0.000	-0.054	0.001	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	-0.001	-0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
	17	0.105	0.103	-0.113	-0.032	-0.140	0.000	0.027	0.001	0.038	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	0.001	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	18	0.040	0.045	-0.051	-0.016	-0.086	0.001	0.025	0.000	-0.052	0.000	-0.006	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	0.000	0.000	-0.002	-0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	
	19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	-0.016	0.000	0.000	
	20	-0.012	0.027	0.019	-0.017	0.001	0.093	0.000	0.130	0.000	-0.043	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.001	-0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	
	21	0.011	0.014	-0.017	-0.006	-0.047	0.000	-0.111	0.000	0.005	0.000	0.012	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	
	22	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.000	-0.001	0.000	0.001	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	
	23	0.003	-0.008	-0.006	0.006	-0.001	-0.047	0.000	-0.090	0.000	-0.056	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	
	24	-0.001	-0.002	0.002	0.001	0.010	0.000	0.049	0.000	-0.015	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	25	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.000	0.006	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.012	0.000	0.000
	26	0.000	-0.001	-0.001	0.001	0.000	-0.006	0.000	-0.015	0.000	-0.030	0.000	-0.072	0.000	0.000	0.000	0.000	0.000	-0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	27	0.000	0.000	0.000	0.000	0.001	0.000	0.007	0.000	-0.002	0.000	-0.008	0.000	-0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.001	0.000	-0.001	0.000
	28	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.003	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	0.000	0.000	0.000	0.000	0.000	0.000	-0.004	0.000
	29	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.008	0.000	0.026	0.000	0.108	0.000	0.000	0.000	0.000	0.000	-0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-0.003	0.001	0.000	0.000	0.000	0.000	
	30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	-0.001	0.000
	31	0.001	-0.003	0.001	0.000	-0.002	0.000	-0.014	0.000	0.007	0.000	-0.071	0.000	-0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.017	0.000	0.002	0.000	0.000	0.001	0.000	0.002
	32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	0.000	0.012	0.000	0.039	0.000	0.000	0.000	0.000	0.000	-0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0.001	0.000	0.001	0.000	0.000

Table S2. CI coefficients (C_{ia}) of the excited state for the BChl *a* 16-mer obtained using localized Kohn–Sham orbitals.

		virtual orbitals (α)																																																
		33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64																	
occupied orbitals (β)	1	0.023	-0.016	0.148	-0.003	0.031	0.001	0.009	0.000	0.002	0.000	0.000	0.000	-0.002	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000											
	2	-0.012	0.003	-0.047	0.001	-0.010	0.000	-0.003	0.000	0.000	-0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-0.001	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000									
	3	-0.001	0.000	-0.010	0.007	-0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000								
	4	-0.001	0.000	-0.033	-0.001	-0.006	-0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000						
	5	0.000	0.000	0.000	0.000	0.005	-0.001	0.005	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000						
	6	0.000	0.000	0.000	0.000	0.018	0.001	0.025	-0.001	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
	7	0.000	0.000	0.000	0.001	0.000	0.000	0.007	0.022	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					
	8	0.000	0.000	0.000	-0.003	-0.005	0.001	-0.117	0.002	-0.028	-0.002	-0.004	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
	9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.004	-0.006	-0.005	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
	10	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	-0.014	-0.001	-0.074	-0.010	-0.029	0.000	-0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
	11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	0.013	0.042	0.006	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
	12	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	-0.012	-0.001	-0.217	0.008	-0.081	0.000	0.006	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
	13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.000	-0.038	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
	14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-0.002	0.032	-0.002	0.235	0.004	-0.030	-0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
	15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.001	0.000	0.008	-0.002	-0.087	-0.062	0.018	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
	16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.025	0.002	-0.293	0.002	0.055	0.004	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
	17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.002	0.014	0.001	-0.058	0.035	-0.007	0.005	-0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.004	-0.002	-0.061	-0.002	0.240	0.022	0.028	-0.005	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	-0.001	0.000	0.005	0.001	0.041	-0.050	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	-0.004	-0.001	0.026	0.002	0.245	-0.016	0.030	-0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.003	0.000	-0.017	0.019	-0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	0.000	0.004	0.000	0.047	-0.004	0.137	0.000	0.017	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.026	0.031	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.023	0.001	0.178	-0.010	0.022	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.006	0.000	0.011	-0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	0.000	-0.003	0.000	-0.031	0.000	-0.079	0.000	-0.007	0.001	0.000	0.000	0.006	-0.														

Table S3. CI coefficients (C_{ia}) of the excited state for the BChl *a* 4-mer obtained using canonical Kohn–Sham orbitals.

		virtual orbitals (<i>a</i>)							
		9	10	11	12	13	14	15	16
occupied orbitals (<i>i</i>)	1	0.003	-0.001	0.000	-0.004	-0.048	-0.015	-0.016	-0.022
	2	-0.001	0.000	0.004	0.002	0.006	0.009	0.066	-0.016
	3	0.002	-0.001	-0.002	-0.002	0.033	-0.044	0.043	-0.009
	4	0.001	0.000	0.000	-0.001	-0.017	-0.010	0.018	0.073
	5	0.018	0.070	-0.049	-0.245	-0.008	-0.001	0.001	0.001
	6	-0.053	0.151	0.189	0.001	-0.002	0.001	-0.001	0.001
	7	0.316	0.160	-0.218	-0.010	-0.003	0.001	0.001	-0.001
	8	0.317	-0.204	0.160	-0.109	0.002	0.001	0.000	0.000

Table S4. CI coefficients (C_{ia}) of the excited state for the BChl *a* 4-mer obtained using localized Kohn–Sham orbitals.

		virtual orbitals (<i>a</i>)							
		9	10	11	12	13	14	15	16
occupied orbitals (<i>i</i>)	1	-0.019	-0.085	0.016	0.004	-0.003	0.000	0.000	0.000
	2	0.152	0.148	-0.034	-0.007	0.005	0.000	0.000	0.000
	3	0.006	0.007	-0.116	0.070	0.020	-0.002	0.001	0.000
	4	0.024	0.030	-0.406	-0.092	0.085	-0.001	0.006	-0.002
	5	0.001	0.001	-0.014	0.000	0.072	-0.045	0.008	-0.004
	6	-0.003	-0.003	0.058	0.007	-0.288	-0.026	-0.040	0.022
	7	0.000	0.000	-0.002	0.000	0.012	0.000	0.130	0.028
	8	0.000	0.000	-0.005	-0.001	0.039	0.003	0.324	-0.158

Table S5. Absorption energies of BChl *a* calculated using TDDFT.

	in <i>vacuo</i>		in acetone ^a	
	nm	eV	nm	eV
ω B97X/6-31G*	732	1.693	761	1.630
B3LYP/6-31G*	655	1.893	687	1.805
CAM-B3LYP/6-31G*	710	1.747	741	1.673
Exp. ^b	-	-	772	1.606

^aThe effect of acetone was included using the polarizable continuum model

(PCM)¹.

^bRef. ²

Table S6. Calculated absorption energies of BChl *a* in LH1.

Chromophore ^a	in <i>vacuo</i> (eV)	in protein (eV)
BChl <i>a</i> (A-101)	1.690	1.741
BChl <i>a</i> (B-101)	1.668	1.653
BChl <i>a</i> (D-101)	1.729	1.881
BChl <i>a</i> (E-102)	1.630	1.618
BChl <i>a</i> (F-101)	1.731	1.867
BChl <i>a</i> (G-102)	1.670	1.664
BChl <i>a</i> (I-101)	1.648	1.703
BChl <i>a</i> (J-102)	1.665	1.654
BChl <i>a</i> (K-101)	1.672	1.729
BChl <i>a</i> (N-102)	1.665	1.663
BChl <i>a</i> (O-101)	1.718	1.814
BChl <i>a</i> (P-102)	1.652	1.639
BChl <i>a</i> (Q-101)	1.737	1.875
BChl <i>a</i> (Q-102)	1.689	1.688
BChl <i>a</i> (S-101)	1.671	1.706
BChl <i>a</i> (T-102)	1.689	1.683
BChl <i>a</i> (U-101)	1.720	1.810
BChl <i>a</i> (V-102)	1.686	1.677
BChl <i>a</i> (W-101)	1.711	1.813
BChl <i>a</i> (X-102)	1.658	1.642
BChl <i>a</i> (Y-101)	1.726	1.825
BChl <i>a</i> (Z-102)	1.673	1.669
BChl <i>a</i> (1-101)	1.669	1.736
BChl <i>a</i> (2-102)	1.659	1.648
BChl <i>a</i> (3-101)	1.718	1.830
BChl <i>a</i> (4-102)	1.664	1.650
BChl <i>a</i> (5-202)	1.664	1.716
BChl <i>a</i> (6-102)	1.640	1.636
BChl <i>a</i> (7-101)	1.718	1.844
BChl <i>a</i> (8-102)	1.664	1.652
BChl <i>a</i> (9-101)	1.728	1.818
BChl <i>a</i> (0-102)	1.672	1.668

^aNumbers in parentheses indicate chain ID and residue ID as

defined in the Protein Data Bank (PDB) (PDB ID: 7EQD³).

Table S7. HOMO–LUMO gaps of the BChl *a* monomer and dimer in LH1, B850, and B800 (eV).^a

LH1			B850			B800		
1-mer	2-mer	Δ^b	1-mer	2-mer	Δ^b	1-mer	2-mer	Δ^b
4.375	4.185	0.190	4.340	4.223	0.117	4.469	4.380	0.089

^aHOMO–LUMO gaps were calculated with DFT at the ω B97X/6-31G* level.

^bDifference in the HOMO–LUMO gap between the monomer and the dimer.

Table S8. Excitonic couplings ($|V|$) between adjacent BChl a in LH1.

Chromophore pair ^a	$ V $	
	(cm ⁻¹)	(eV)
BChl a (A-101) - BChl a (B-101)	332.2	0.041
BChl a (B-101) - BChl a (D-101)	263.8	0.033
BChl a (D-101) - BChl a (E-102)	350.3	0.043
BChl a (E-102) - BChl a (F-101)	276.9	0.034
BChl a (F-101) - BChl a (G-102)	335.6	0.042
BChl a (G-102) - BChl a (I-101)	258.3	0.032
BChl a (I-101) - BChl a (J-102)	341.2	0.042
BChl a (J-102) - BChl a (K-101)	245.9	0.030
BChl a (K-101) - BChl a (N-102)	350.0	0.043
BChl a (N-102) - BChl a (O-101)	236.3	0.029
BChl a (O-101) - BChl a (P-102)	355.1	0.044
BChl a (P-102) - BChl a (Q-101)	270.2	0.033
BChl a (Q-101) - BChl a (Q-102)	331.7	0.041
BChl a (Q-102) - BChl a (S-101)	241.5	0.030
BChl a (S-101) - BChl a (T-102)	326.6	0.040
BChl a (T-102) - BChl a (U-101)	236.7	0.029
BChl a (U-101) - BChl a (V-102)	335.9	0.042
BChl a (V-102) - BChl a (W-101)	249.3	0.031
BChl a (W-101) - BChl a (X-102)	326.7	0.041
BChl a (X-102) - BChl a (Y-101)	249.4	0.031
BChl a (Y-101) - BChl a (Z-102)	383.1	0.048
BChl a (Z-102) - BChl a (1-101)	237.5	0.029
BChl a (1-101) - BChl a (2-102)	375.0	0.046
BChl a (2-102) - BChl a (3-101)	266.3	0.033
BChl a (3-101) - BChl a (4-102)	333.3	0.041
BChl a (4-102) - BChl a (5-202)	249.0	0.031
BChl a (5-202) - BChl a (6-102)	361.0	0.045
BChl a (6-102) - BChl a (7-101)	275.1	0.034
BChl a (7-101) - BChl a (8-102)	335.7	0.042
BChl a (8-102) - BChl a (9-101)	250.9	0.031
BChl a (9-101) - BChl a (0-102)	365.1	0.045
BChl a (0-102) - BChl a (A-101)	254.5	0.032

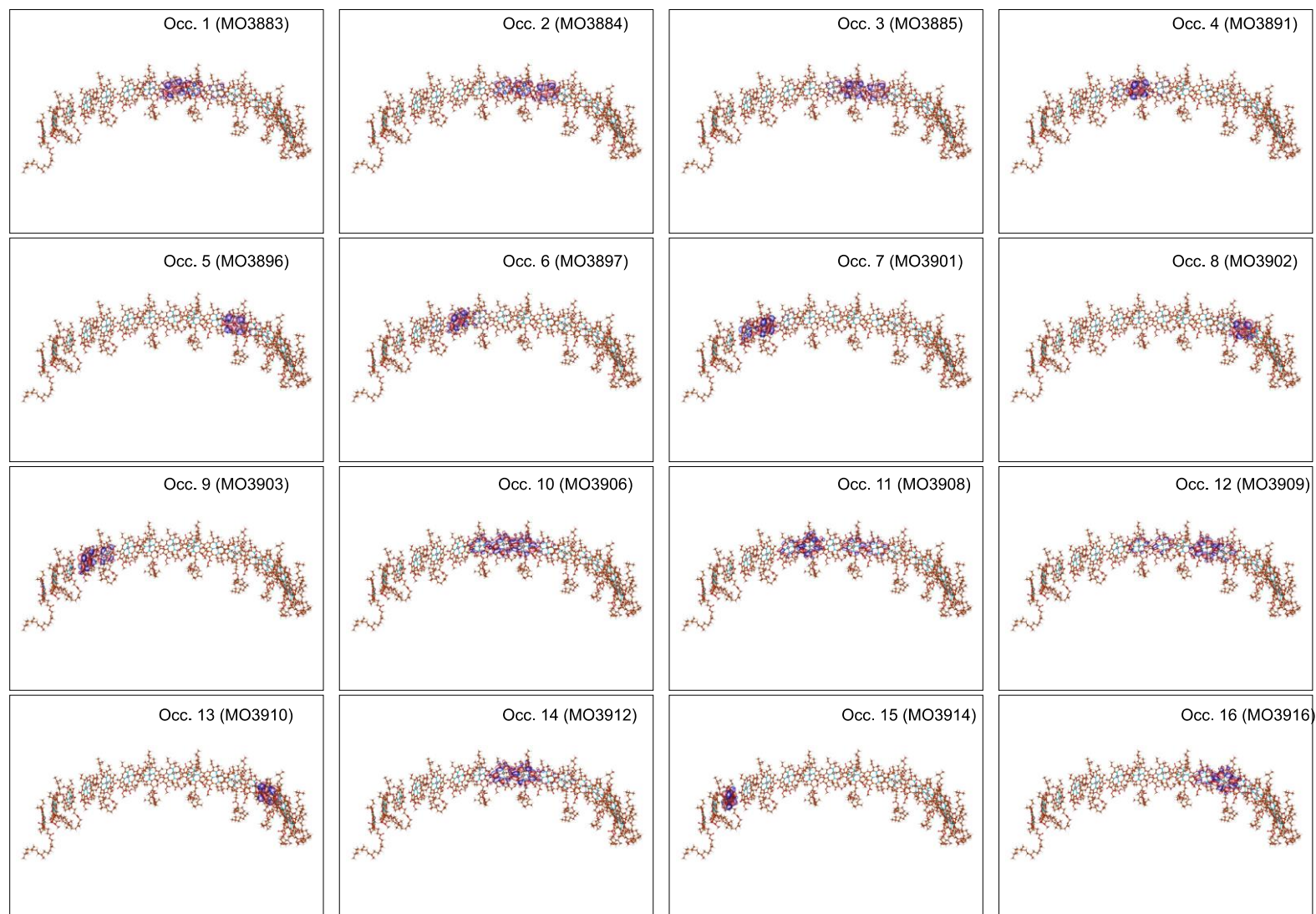
^aNumbers in parentheses indicate chain ID and residue ID as defined in the PDB (PDB ID: 7EQD³).

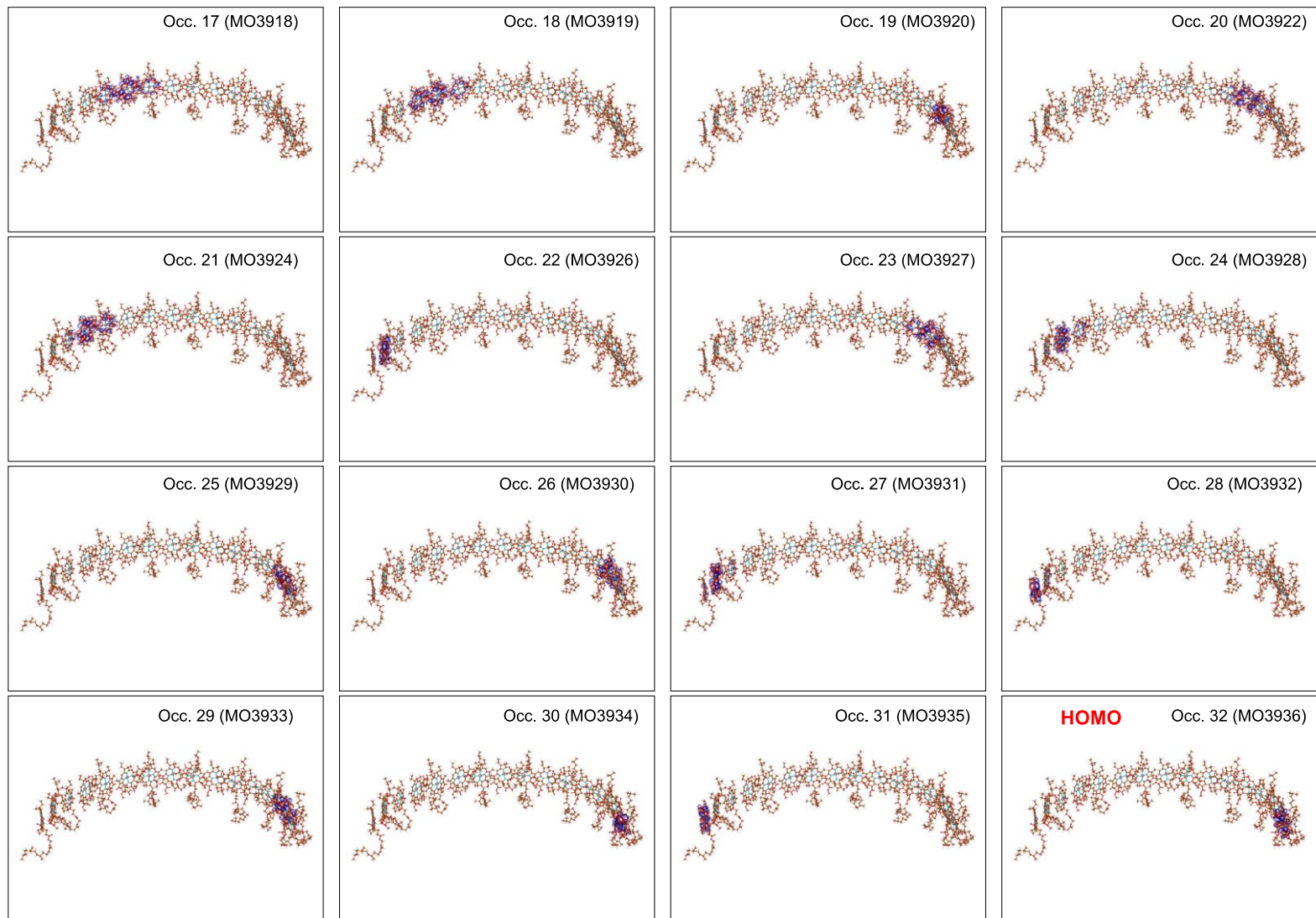
Table S9. Excitonic couplings ($|V|$) between adjacent BChl a in B850.

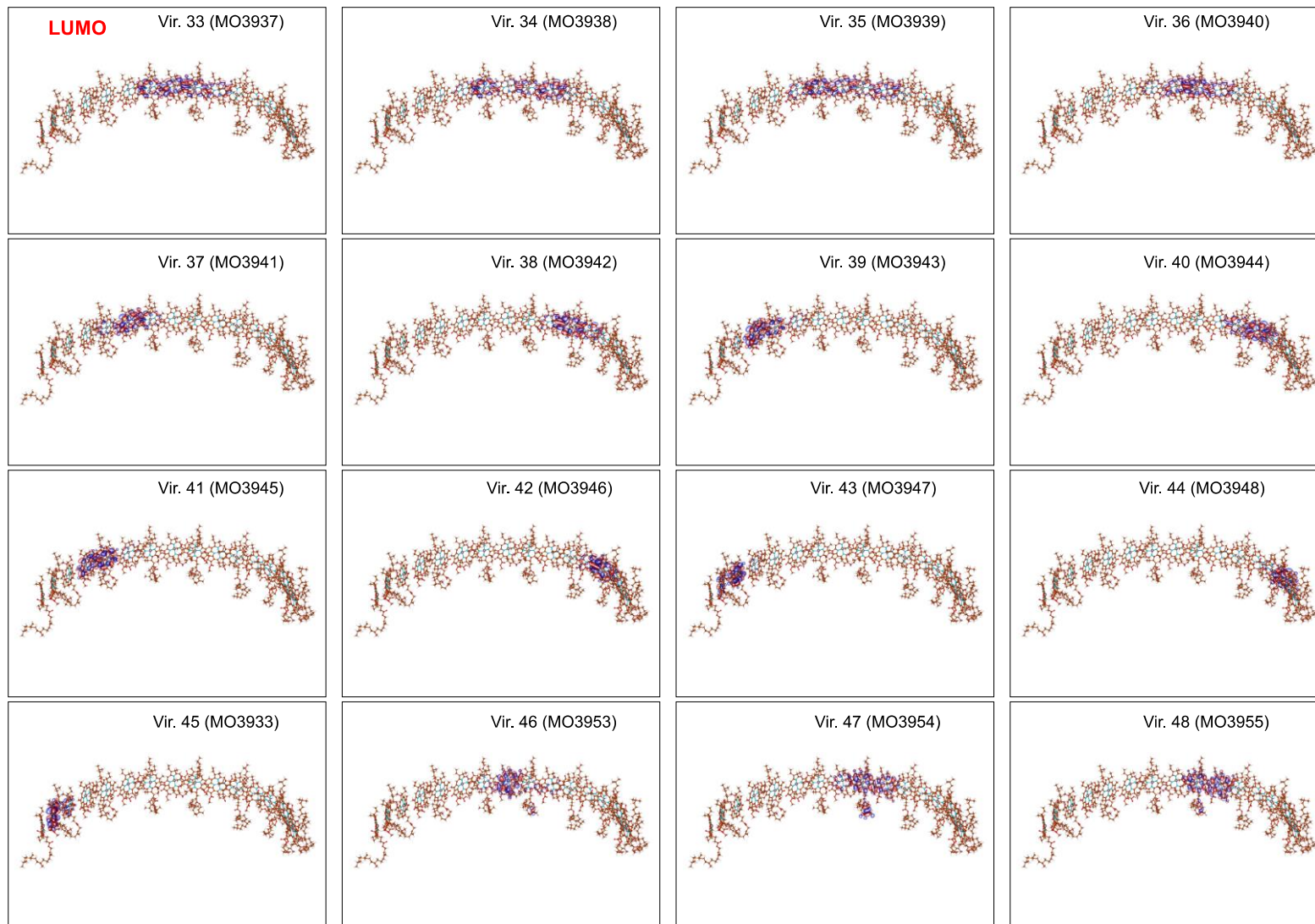
Chromophore pair ^a	$ V $	
	(cm ⁻¹)	(eV)
BChl a (2-A-301) - BChl a (2-B-302)	351.7	0.044
BChl a (1-E-305) - BChl a (1-F-306)	320.8	0.040
BChl a (1-C-303) - BChl a (1-D-304)	350.5	0.043
BChl a (1-A-301) - BChl a (1-B-302)	254.5	0.032
BChl a (3-E-305) - BChl a (3-F-306)	369.2	0.046
BChl a (3-C-303) - BChl a (3-D-304)	353.0	0.044
BChl a (3-A-301) - BChl a (3-B-302)	350.6	0.043
BChl a (2-E-305) - BChl a (2-F-306)	327.2	0.041
BChl a (2-C-303) - BChl a (2-D-304)	327.4	0.041
BChl a (2-A-301) - BChl a (1-F-306)	205.0	0.025
BChl a (1-E-305) - BChl a (1-D-304)	218.6	0.027
BChl a (1-C-303) - BChl a (1-B-302)	37.0	0.005
BChl a (1-A-301) - BChl a (3-F-306)	235.2	0.029
BChl a (3-E-305) - BChl a (3-D-304)	71.0	0.009
BChl a (3-C-303) - BChl a (3-B-302)	56.1	0.007
BChl a (3-A-301) - BChl a (2-F-306)	38.6	0.005
BChl a (2-E-305) - BChl a (2-D-304)	24.2	0.003
BChl a (2-B-302) - BChl a (2-C-303)	171.2	0.021

^aNumbers in parentheses indicate chain ID and residue ID as defined in the PDB (PDB ID: 1NKZ⁴).

Figure S1. Plots of canonical Kohn–Sham orbitals for the BChl *a* 16-mer considered in the CI coefficient analysis (Table S1).







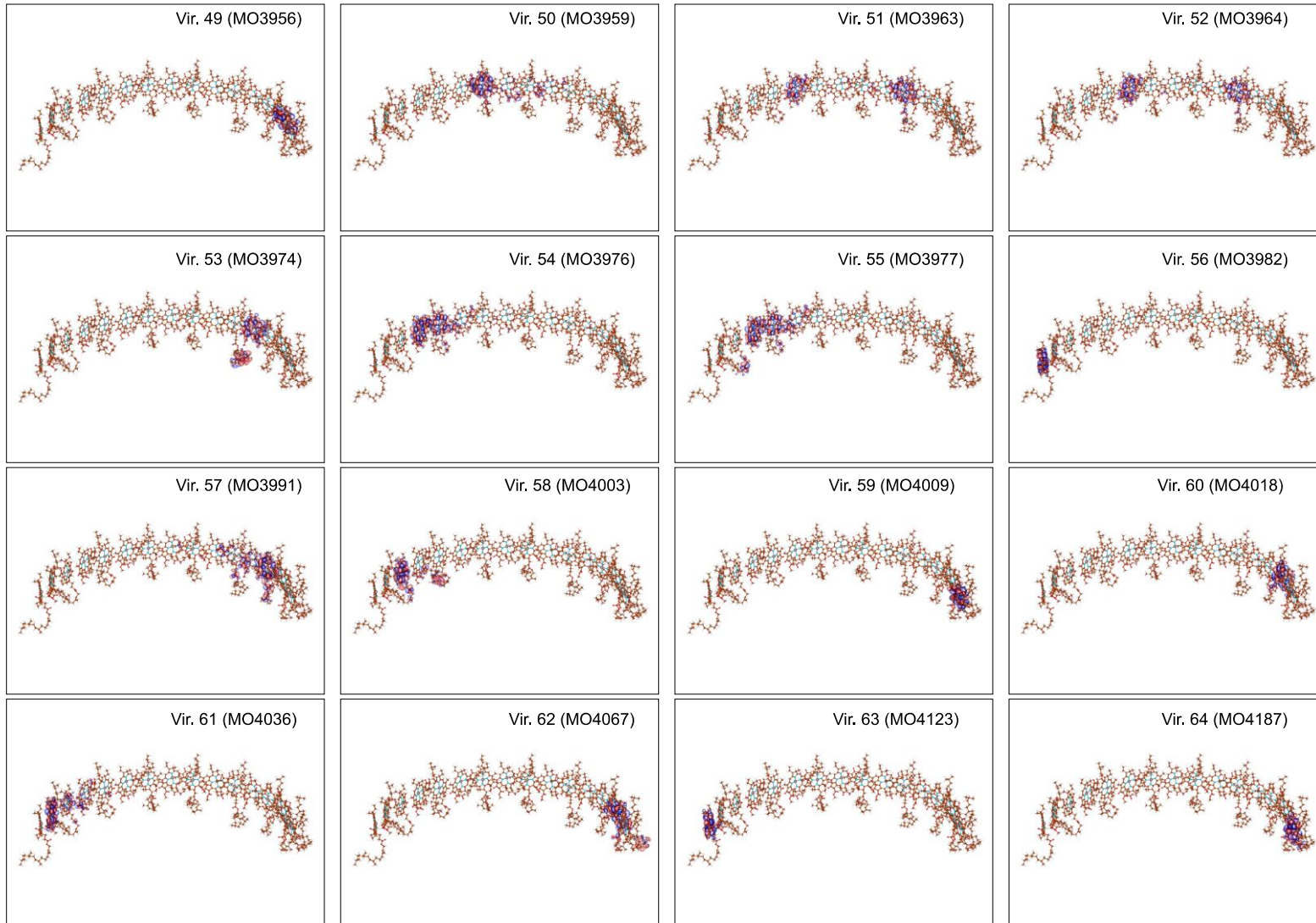
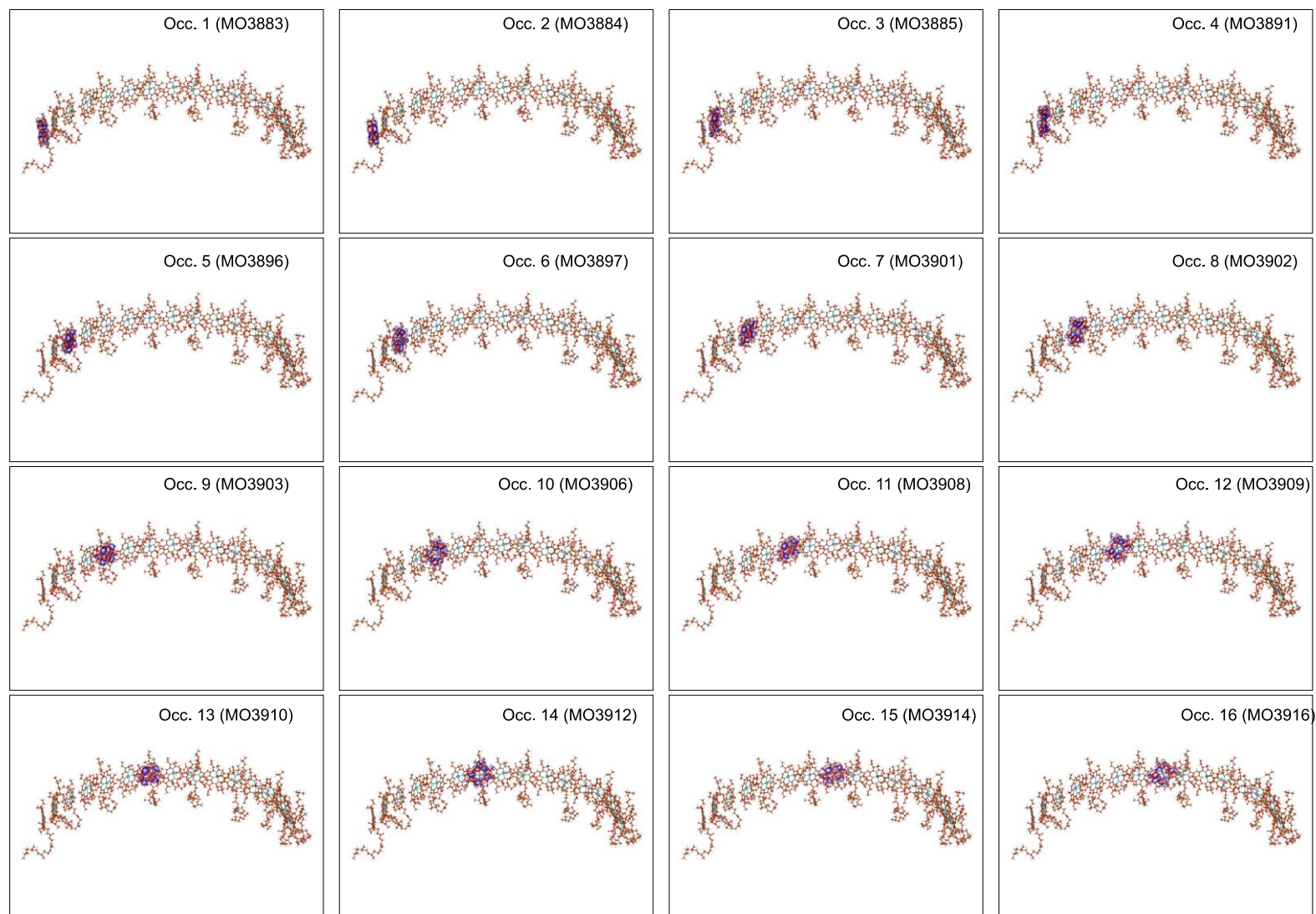
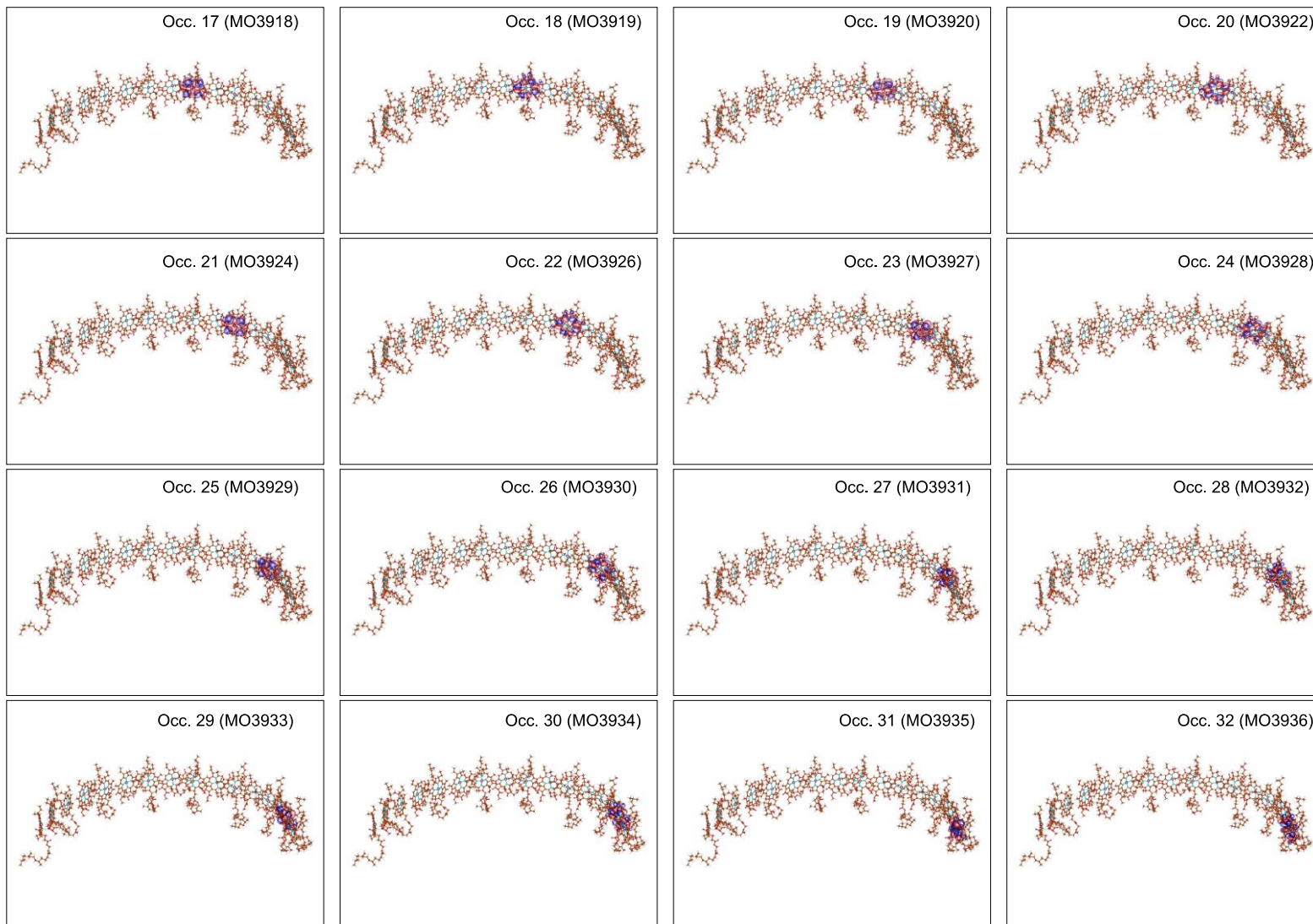
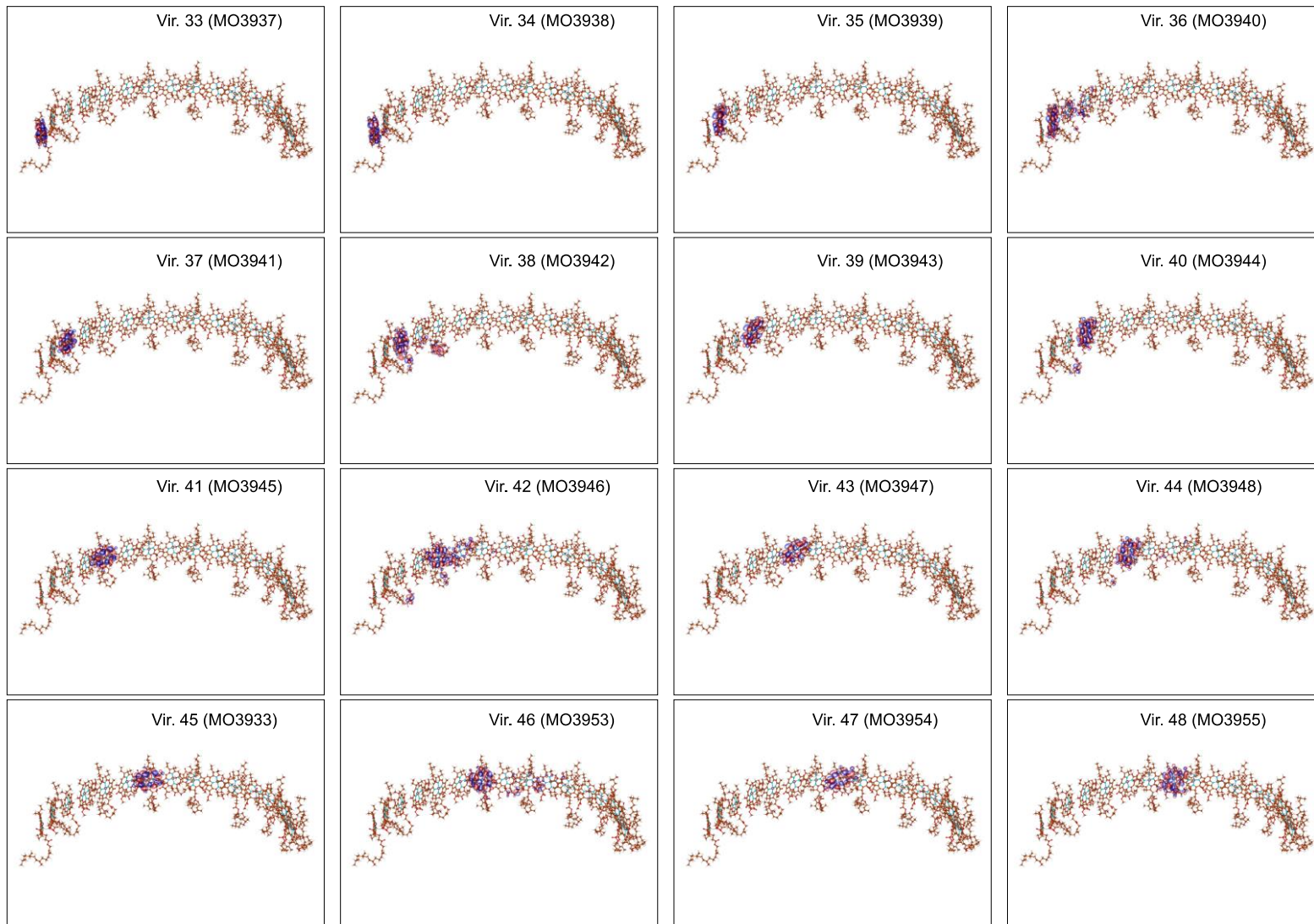
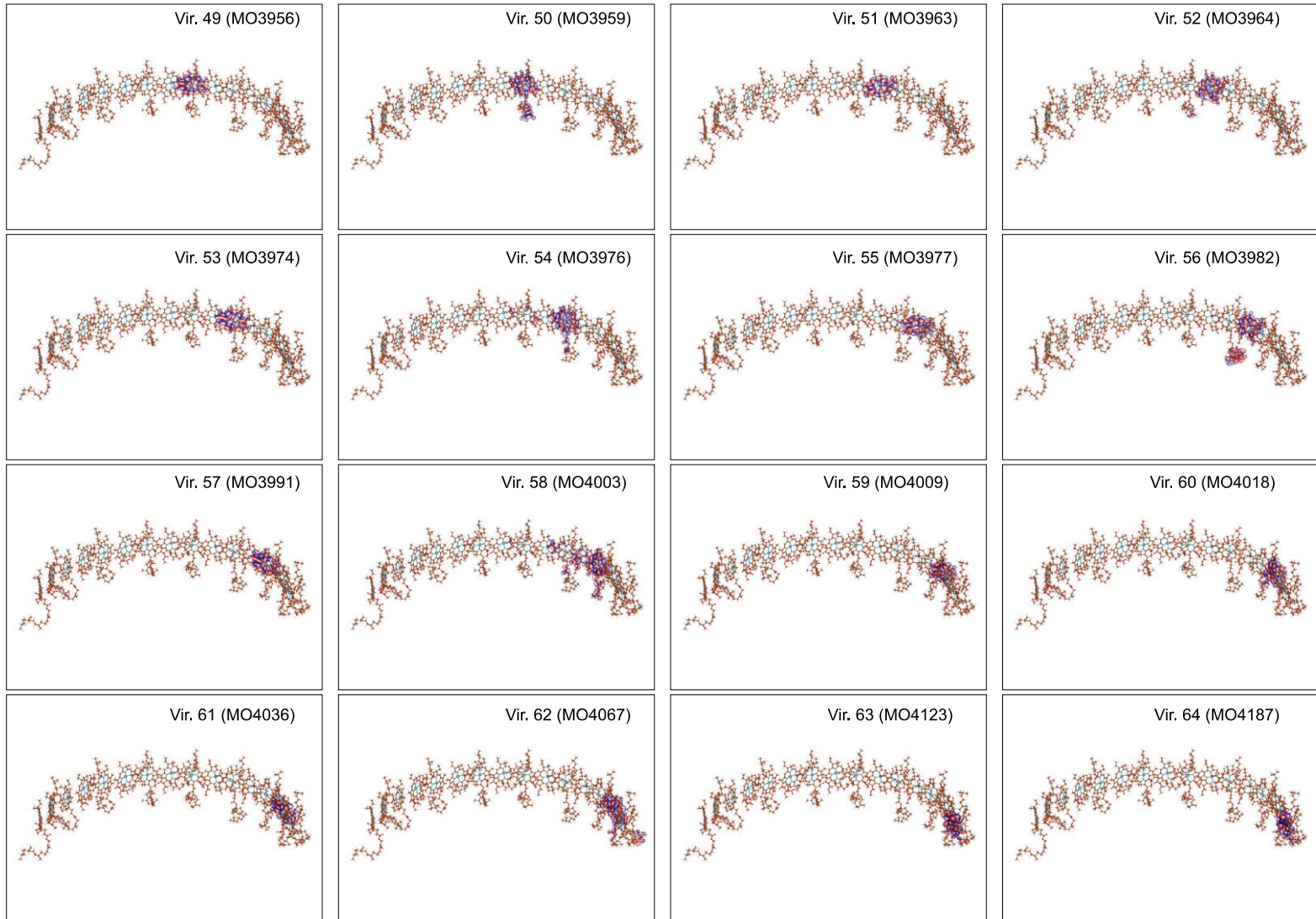


Figure S2. Plots of localized Kohn–Sham orbitals for the BChl *a* 16-mer considered in the CI coefficient analysis (Table S2).









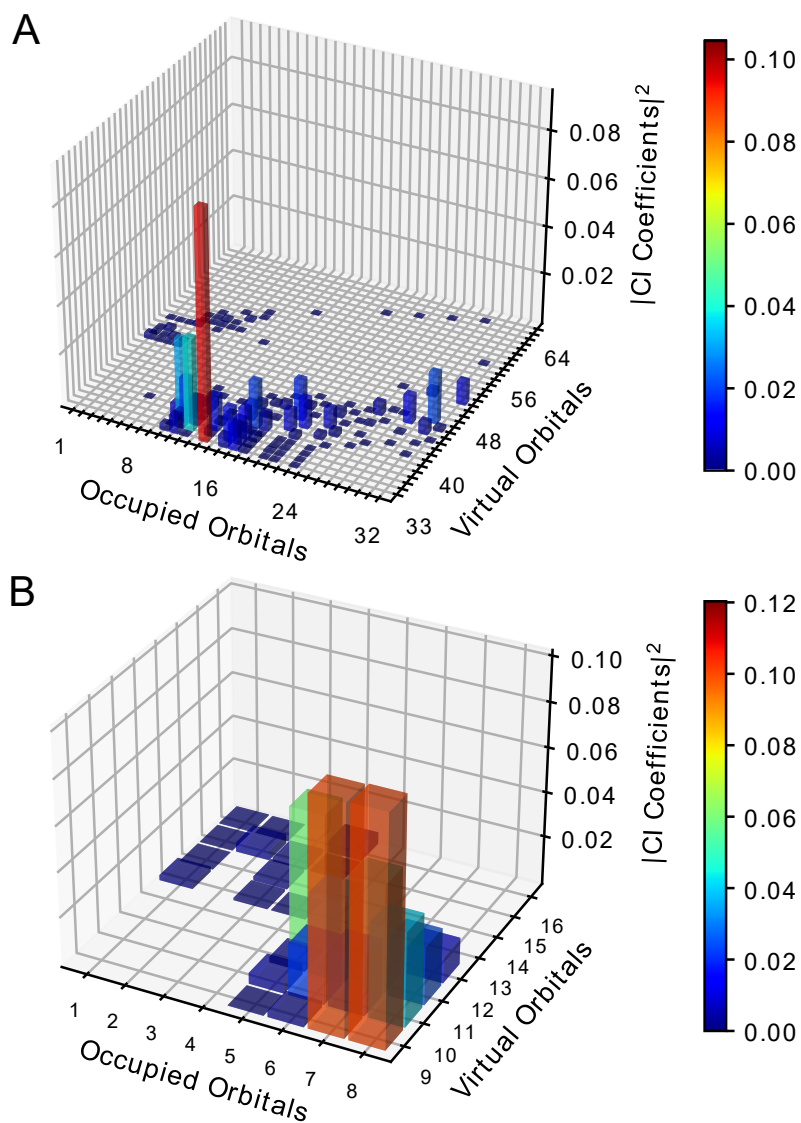


Figure S3. Plots of the CI coefficients of the excited states for the (A) BChl *a* 16-mer and (B) BChl *a* 4-mer obtained using canonical Kohn–Sham orbitals.

Figure S4. Plots of canonical Kohn–Sham orbitals for the BChl *a* 4-mer considered in the CI coefficient analysis (Table S3).

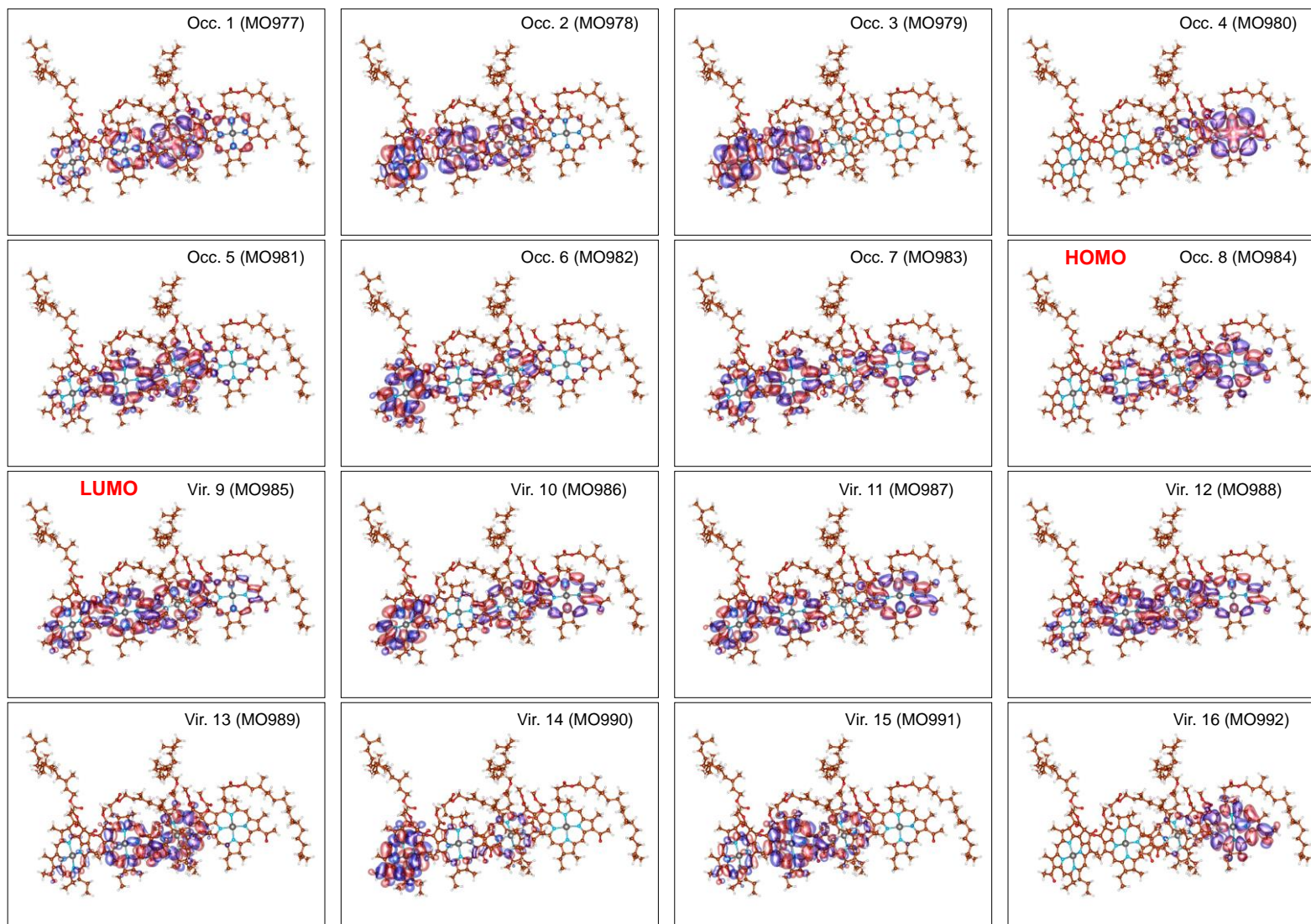
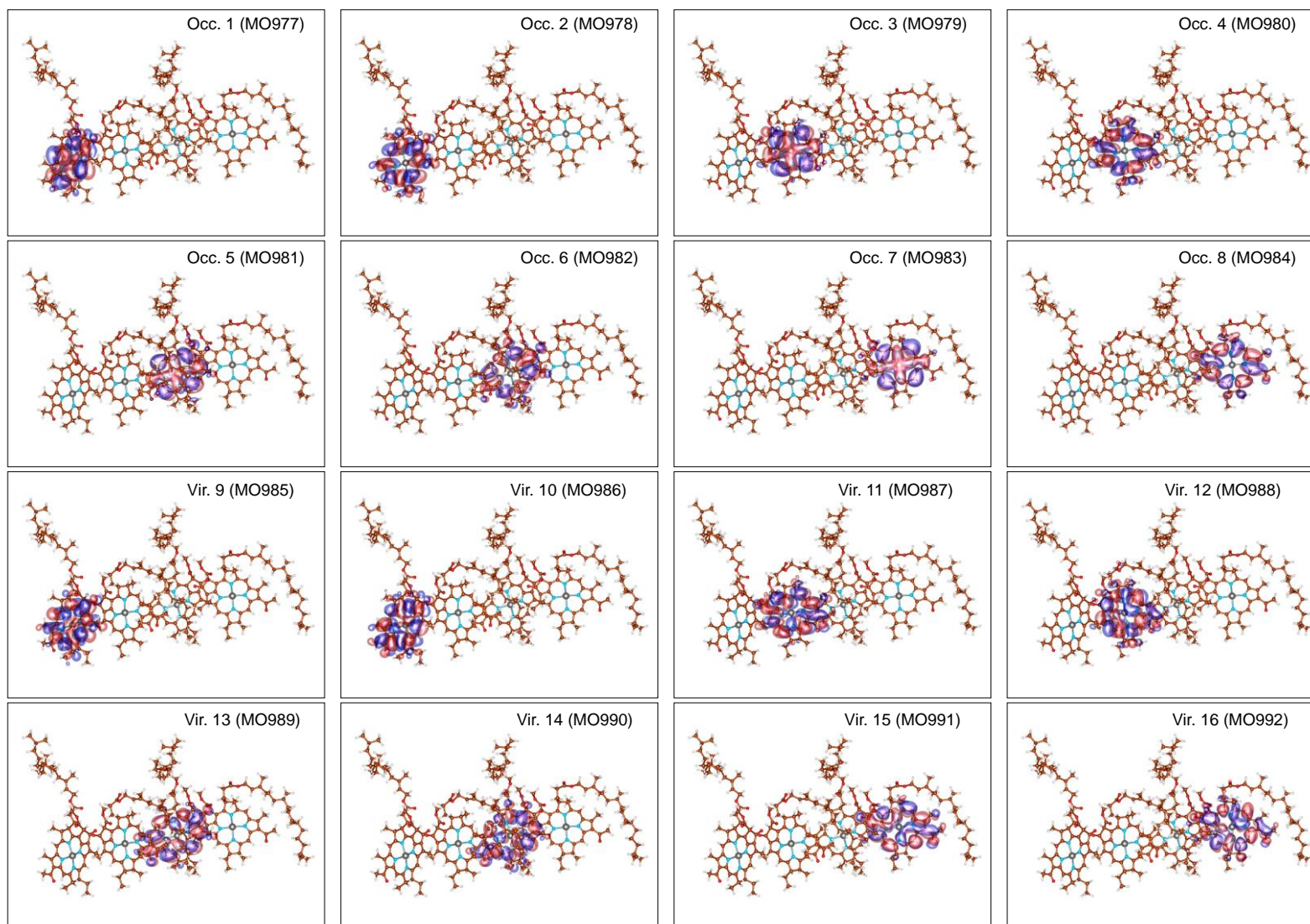


Figure S5. Plots of localized Kohn–Sham orbitals for the BChl *a* 4-mer considered in the CI coefficient analysis (Table S4).



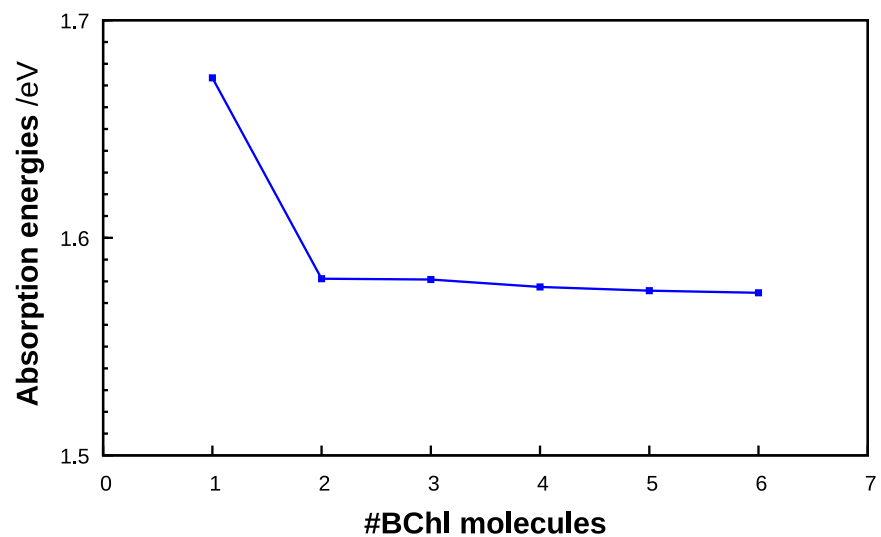


Figure S6. Calculated B850 BChl *a* absorption energies as a function of the number of BChl *a* molecules; TDDFT at the ω B97X/6-31G* level was employed. The BChl *a* arrangement considered in the multimer calculations was derived using the B850 structure as a template.

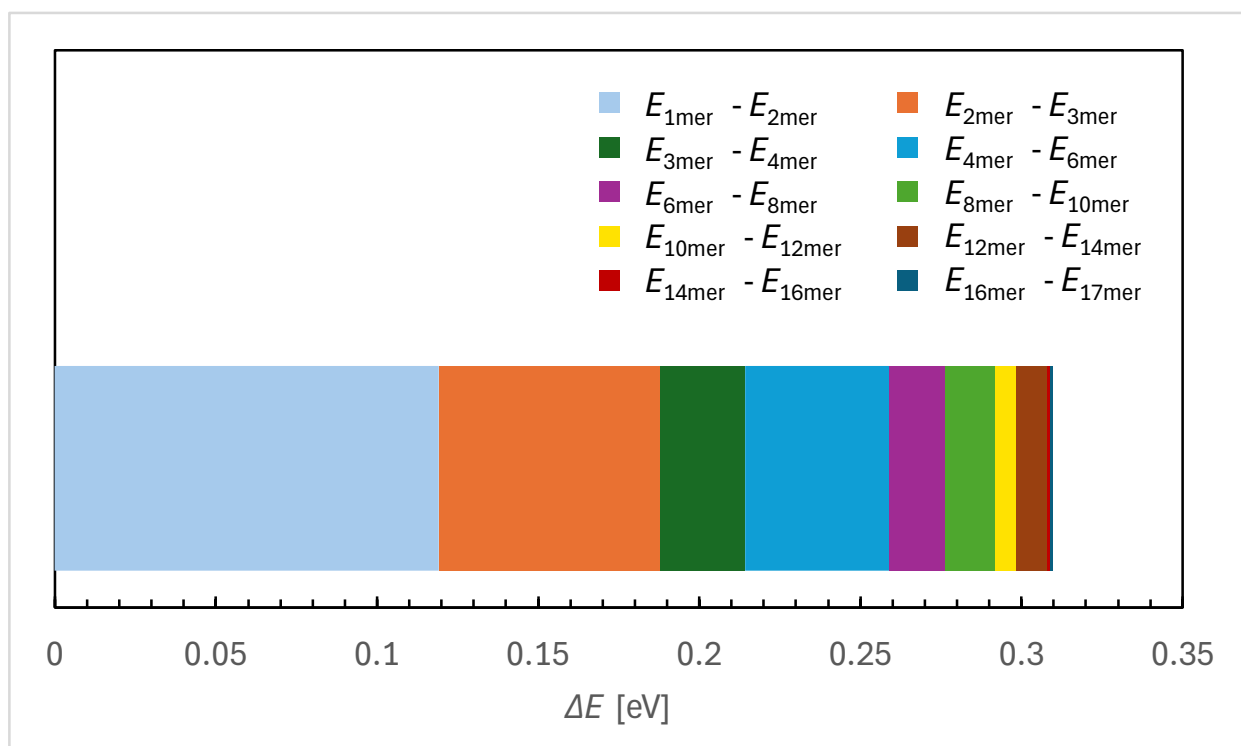


Figure S7. Differences in absorption energy between BChl *a* multimers shown in Figure 2 in the main text.

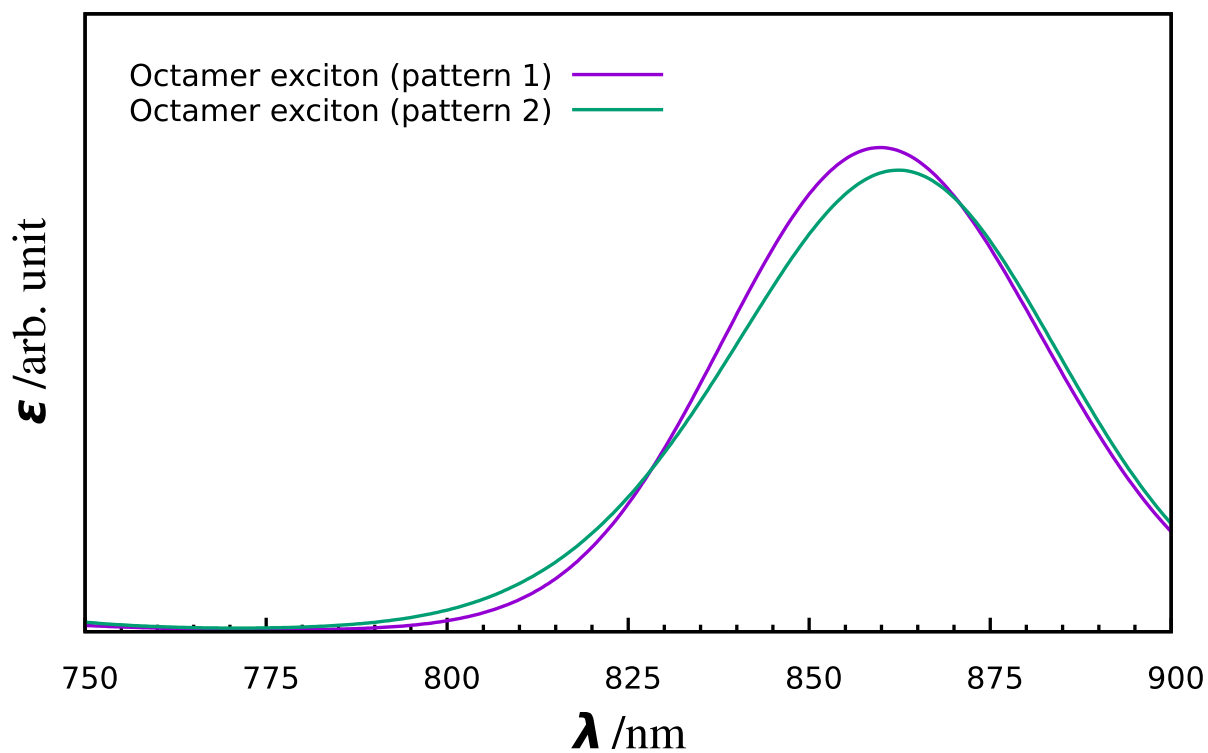


Figure S8. Theoretical absorption spectra of LH1 calculated with the octamer exciton model. Two patterns of building block (pattern 1: BChl *a* 1-to-8, 9-to-16, 17-to-24, and 25-to-32; and pattern 2: 5-to-12, 13-to-20, 21-to-28, and 29-to-4) were employed for the octamer exciton model calculations.

Atomic coordinates of optimized BChl *a* molecules (Å)

BChl a	(chain:A,resid:101)		
MG	178.510	124.489	123.276
N	179.163	126.363	122.339
C	178.884	126.800	121.064
C	178.290	125.991	120.127
C	177.913	126.295	118.677
C	177.253	124.960	118.147
C	177.372	123.995	119.212
C	177.129	122.669	119.595
C	176.569	121.555	118.769
H	176.499	121.859	117.723
H	177.191	120.655	118.834
H	175.558	121.278	119.090
O	176.758	124.895	117.028
C	179.097	126.592	117.783
O	179.844	125.770	117.305
O	179.242	127.930	117.544
C	180.353	128.255	116.704
H	180.415	129.343	116.701
H	180.190	127.884	115.688
H	181.274	127.820	117.101
H	177.199	127.118	118.601
C	177.934	124.647	120.342
N	178.035	123.832	121.400
C	177.558	122.601	120.968
C	177.519	121.483	121.825
H	177.135	120.571	121.396
C	177.917	121.404	123.144
C	177.870	120.116	123.951
C	178.419	120.544	125.334
C	179.596	119.702	125.842
H	179.255	118.694	126.095

H	180.044	120.135	126.739
H	180.379	119.610	125.082
H	177.615	120.482	126.073
C	176.469	119.492	124.043
C	176.491	118.193	124.843
H	175.482	117.798	124.985
H	176.913	118.344	125.839
H	177.113	117.442	124.342
H	176.078	119.304	123.034
H	175.793	120.216	124.515
H	178.544	119.379	123.490
N	178.411	122.441	123.890
C	178.726	122.017	125.133
C	179.271	122.811	126.141
H	179.406	122.342	127.104
C	179.721	124.132	126.054
C	180.383	124.882	127.117
C	180.791	126.084	126.558
C	181.534	127.216	127.195
H	182.471	126.883	127.647
H	181.781	127.976	126.454
H	180.949	127.703	127.983
C	180.498	124.429	128.518
O	179.982	123.375	128.883
C	181.233	125.277	129.536
H	181.174	124.776	130.503
H	182.286	125.395	129.263
H	180.794	126.276	129.620
N	179.685	124.897	124.915
C	180.319	126.078	125.185
C	180.451	127.139	124.273
H	181.028	127.988	124.618
C	179.922	127.270	122.997
C	180.166	128.513	122.143

C	181.648	128.819	121.945
H	182.164	128.991	122.893
H	182.125	127.968	121.451
H	181.784	129.709	121.318
H	179.688	129.372	122.624
C	179.434	128.192	120.816
H	180.165	128.133	119.997
C	178.394	129.256	120.416
H	177.723	129.459	121.257
H	177.769	128.904	119.595
C	179.127	130.527	119.989
H	179.859	130.284	119.207
H	179.720	130.937	120.818
C	178.274	131.651	119.455
O	177.070	131.725	119.402
O	179.097	132.654	118.999
C	178.458	133.845	118.507
H	177.579	134.058	119.128
H	178.099	133.674	117.486
C	179.482	134.933	118.610
H	180.071	134.864	119.523
C	179.716	135.967	117.792
C	178.965	136.221	116.511
H	179.655	136.363	115.669
H	178.292	135.400	116.256
H	178.364	137.139	116.580
C	180.713	137.023	118.233
H	181.321	136.607	119.045
H	180.154	137.862	118.677
C	181.654	137.634	117.178
H	182.315	138.322	117.723
H	181.078	138.263	116.487
C	182.516	136.647	116.369
H	181.949	136.287	115.497

H	182.723	135.757	116.976
C	183.857	137.249	115.892
C	183.688	138.649	115.285
H	184.644	139.027	114.900
H	182.980	138.611	114.449
H	183.307	139.374	116.008
H	184.501	137.346	116.780
C	184.596	136.356	114.877
H	185.576	136.816	114.673
H	184.048	136.381	113.922
C	184.812	134.899	115.304
H	183.871	134.343	115.216
H	185.076	134.869	116.369
C	185.927	134.183	114.527
H	185.984	133.143	114.876
H	186.889	134.644	114.796
C	185.822	134.170	112.988
C	184.475	133.609	112.511
H	184.407	133.566	111.418
H	184.324	132.591	112.888
H	183.636	134.218	112.863
H	185.906	135.210	112.629
C	187.009	133.358	112.425
H	186.856	132.308	112.701
H	187.930	133.666	112.942
C	187.243	133.459	110.908
H	186.281	133.409	110.384
H	187.822	132.591	110.568
C	187.992	134.730	110.498
H	188.982	134.718	110.977
H	187.466	135.597	110.917
C	188.182	134.909	108.981
C	186.858	135.092	108.226
H	187.039	135.200	107.149

H	186.188	134.239	108.355
H	186.322	135.989	108.564
H	188.656	133.992	108.603
C	189.140	136.070	108.672
H	190.104	135.933	109.177
H	189.332	136.150	107.594
H	188.718	137.030	109.006

BChl a			(chain:B,resid:101)
MG	171.935	122.805	117.015
N	171.984	124.757	116.108
C	172.745	125.810	116.532
C	173.366	125.850	117.757
C	174.264	126.928	118.337
C	174.621	126.407	119.794
C	174.027	125.090	119.908
C	173.917	123.934	120.691
C	174.378	123.691	122.087
H	173.945	124.430	122.771
H	174.085	122.702	122.445
H	175.463	123.779	122.178
O	175.323	127.053	120.558
C	173.645	128.304	118.385
O	172.635	128.618	118.971
O	174.374	129.191	117.656
C	173.885	130.535	117.734
H	174.665	131.154	117.291
H	173.718	130.815	118.771
H	172.945	130.633	117.180
H	175.202	127.006	117.778
C	173.328	124.818	118.699
N	172.800	123.592	118.674
C	173.167	123.009	119.870
C	172.784	121.701	120.195

H	173.169	121.333	121.134
C	171.932	120.868	119.489
C	171.365	119.585	120.073
C	170.403	119.086	118.976
C	168.986	118.764	119.465
H	169.003	117.896	120.129
H	168.318	118.538	118.629
H	168.560	119.598	120.029
H	170.823	118.181	118.542
C	172.414	118.539	120.474
C	171.809	117.399	121.294
H	172.549	116.626	121.522
H	170.990	116.919	120.756
H	171.399	117.761	122.242
H	173.220	119.020	121.045
H	172.875	118.151	119.556
H	170.783	119.855	120.961
N	171.407	121.128	118.253
C	170.508	120.168	117.916
C	169.763	120.143	116.747
H	169.102	119.298	116.616
C	169.710	121.103	115.728
C	168.790	121.077	114.605
C	168.981	122.267	113.908
C	168.304	122.762	112.668
H	167.222	122.849	112.795
H	168.678	123.748	112.380
H	168.484	122.089	111.827
C	167.860	119.976	114.297
O	168.018	118.836	114.734
C	166.686	120.267	113.396
H	166.045	119.388	113.349
H	166.113	121.128	113.752
H	167.040	120.502	112.392

N	170.443	122.263	115.693
C	170.022	122.981	114.598
C	170.517	124.245	114.228
H	170.124	124.672	113.311
C	171.396	125.052	114.923
C	171.719	126.479	114.495
C	170.505	127.385	114.699
H	169.666	127.055	114.077
H	170.180	127.366	115.746
H	170.764	128.416	114.440
H	172.024	126.510	113.444
C	172.872	126.857	115.451
H	172.738	127.868	115.854
C	174.272	126.758	114.824
H	174.312	125.895	114.150
H	175.008	126.593	115.616
C	174.672	128.035	114.086
H	175.744	128.006	113.853
H	174.479	128.880	114.750
C	173.937	128.296	112.796
O	173.331	129.324	112.548
O	174.078	127.271	111.932
C	173.507	127.440	110.600
H	174.330	127.205	109.922
H	173.239	128.486	110.489
C	172.341	126.545	110.330
H	172.584	125.539	110.001
C	171.052	126.907	110.410
C	170.572	128.250	110.903
H	169.798	128.107	111.669
H	171.358	128.865	111.342
H	170.094	128.812	110.087
C	169.938	125.958	110.030
H	169.102	126.553	109.633

H	169.555	125.502	110.955
C	170.256	124.839	109.036
H	170.997	124.155	109.468
H	170.714	125.268	108.134
C	168.995	124.038	108.695
H	168.265	124.684	108.183
H	168.528	123.752	109.642
C	169.232	122.776	107.846
C	169.571	123.125	106.394
H	169.766	122.220	105.806
H	168.739	123.659	105.921
H	170.460	123.765	106.327
H	170.103	122.255	108.275
C	168.048	121.792	107.944
H	168.264	120.920	107.312
H	167.136	122.253	107.539
C	167.839	121.337	109.394
H	167.350	122.135	109.958
H	168.836	121.229	109.839
C	167.082	120.028	109.631
H	167.311	119.708	110.649
H	167.468	119.259	108.947
C	165.558	120.083	109.515
C	164.942	120.996	110.581
H	164.908	120.518	111.560
H	165.487	121.938	110.694
H	163.921	121.268	110.329
H	165.343	120.504	108.525
C	164.954	118.659	109.535
H	165.354	118.117	108.665
H	163.869	118.715	109.385
C	165.178	117.785	110.783
H	164.595	118.178	111.625
H	166.227	117.810	111.099

C	164.785	116.333	110.477
H	165.386	116.017	109.613
H	163.735	116.304	110.149
C	164.991	115.293	111.592
C	163.999	115.463	112.743
H	164.257	114.823	113.594
H	163.985	116.498	113.089
H	162.988	115.186	112.422
H	166.001	115.438	111.999
C	164.888	113.873	111.024
H	165.612	113.709	110.218
H	165.067	113.121	111.799
H	163.886	113.686	110.615

BChI a (chain:D,resid:101)

MG	163.722	123.100	114.026
N	164.409	124.909	113.003
C	163.835	125.513	111.904
C	162.884	124.888	111.144
C	162.195	125.366	109.868
C	161.218	124.179	109.476
C	161.453	123.127	110.428
C	161.106	121.818	110.811
C	160.165	120.875	110.132
H	159.973	121.207	109.111
H	160.572	119.858	110.092
H	159.192	120.826	110.636
O	160.441	124.272	108.529
C	163.153	125.593	108.717
O	163.724	124.738	108.079
O	163.313	126.931	108.465
C	164.196	127.256	107.389
H	163.633	127.308	106.451
H	164.989	126.510	107.301

H	164.613	128.239	107.621
H	161.623	126.284	110.024
C	162.389	123.590	111.387
N	162.636	122.680	112.338
C	161.863	121.573	112.001
C	161.867	120.404	112.797
H	161.232	119.598	112.461
C	162.572	120.165	113.954
C	162.508	118.848	114.708
C	163.523	119.046	115.859
C	164.623	117.979	115.932
H	164.191	117.010	116.196
H	165.371	118.221	116.691
H	165.138	117.872	114.973
H	162.993	119.049	116.815
C	161.101	118.496	115.212
C	161.071	117.126	115.882
H	160.086	116.914	116.307
H	161.787	117.063	116.705
H	161.334	116.342	115.161
H	160.393	118.519	114.372
H	160.780	119.270	115.919
H	162.844	118.042	114.044
N	163.436	121.045	114.563
C	164.027	120.456	115.619
C	165.030	121.030	116.407
H	165.389	120.442	117.238
C	165.696	122.236	116.206
C	166.822	122.737	116.996
C	167.232	123.913	116.398
C	168.291	124.876	116.834
H	169.252	124.388	117.001
H	168.443	125.651	116.083
H	168.002	125.376	117.766

C	167.356	122.078	118.211
O	166.879	121.017	118.602
C	168.490	122.710	118.987
H	168.652	122.127	119.893
H	169.412	122.696	118.396
H	168.268	123.747	119.256
N	165.428	123.117	115.183
C	166.347	124.125	115.258
C	166.406	125.218	114.381
H	167.253	125.880	114.510
C	165.516	125.581	113.378
C	165.754	126.802	112.491
C	167.029	126.647	111.671
H	167.912	126.534	112.307
H	166.943	125.755	111.038
H	167.185	127.517	111.018
H	165.826	127.706	113.103
C	164.494	126.841	111.594
H	164.784	126.862	110.537
C	163.616	128.082	111.851
H	163.570	128.291	112.924
H	162.591	127.915	111.506
C	164.230	129.281	111.105
H	164.077	129.163	110.029
H	165.315	129.288	111.287
C	163.752	130.641	111.548
O	163.731	131.052	112.687
O	163.405	131.416	110.473
C	163.090	132.802	110.774
H	162.567	132.837	111.731
H	162.425	133.115	109.970
C	164.362	133.592	110.817
H	165.002	133.342	111.660
C	164.809	134.482	109.918

C	164.015	134.966	108.729
H	164.049	136.062	108.673
H	164.436	134.597	107.785
H	162.967	134.661	108.761
C	166.212	135.040	110.034
H	166.593	134.870	111.047
H	166.195	136.128	109.879
C	167.201	134.408	109.021
H	168.148	134.962	109.074
H	166.821	134.570	108.004
C	167.455	132.904	109.270
H	166.761	132.551	110.040
H	168.464	132.762	109.677
C	167.277	131.971	108.058
C	165.841	132.047	107.532
H	165.674	131.339	106.717
H	165.131	131.827	108.336
H	165.604	133.041	107.143
H	167.961	132.300	107.262
C	167.657	130.533	108.466
H	167.034	130.245	109.324
H	168.692	130.546	108.831
C	167.508	129.458	107.379
H	166.485	129.481	106.986
H	167.610	128.469	107.842
C	168.502	129.551	106.206
H	169.456	129.097	106.498
H	168.731	130.603	105.984
C	167.966	128.865	104.930
C	169.083	128.259	104.071
H	168.683	127.813	103.152
H	169.828	129.012	103.784
H	169.607	127.473	104.624
H	167.327	128.034	105.257

C	167.071	129.839	104.131
H	166.416	130.355	104.843
H	166.407	129.275	103.464
C	167.849	130.876	103.304
H	168.273	130.383	102.421
H	168.712	131.234	103.878
C	167.012	132.079	102.847
H	166.103	131.720	102.344
H	167.577	132.647	102.087
C	166.607	133.054	103.968
C	167.816	133.677	104.676
H	167.495	134.376	105.457
H	168.447	132.926	105.157
H	168.438	134.232	103.957
H	166.029	132.499	104.716
C	165.708	134.164	103.419
H	164.878	133.751	102.837
H	165.294	134.775	104.230
H	166.289	134.831	102.764

BChl a	(chain:E,resid:102)		
MG	155.411	122.833	110.131
N	155.407	124.872	109.486
C	156.429	125.762	109.661
C	157.463	125.579	110.537
C	158.668	126.453	110.784
C	159.382	125.781	112.042
C	158.710	124.507	112.243
C	158.714	123.281	112.919
C	159.591	122.811	114.026
H	159.443	123.417	114.928
H	159.391	121.770	114.288
H	160.646	122.897	113.761
O	160.325	126.312	112.601

C	158.410	127.924	110.990
O	157.406	128.430	111.445
O	159.474	128.641	110.559
C	159.356	130.059	110.714
H	160.377	130.443	110.723
H	158.846	130.302	111.644
H	158.787	130.477	109.875
H	159.383	126.371	109.958
C	157.613	124.453	111.342
N	156.935	123.306	111.408
C	157.597	122.551	112.352
C	157.130	121.286	112.718
H	157.754	120.733	113.401
C	155.918	120.711	112.367
C	155.345	119.524	113.116
C	154.008	119.256	112.397
C	152.803	119.112	113.329
H	152.900	118.207	113.935
H	151.867	119.049	112.767
H	152.733	119.962	114.013
H	154.106	118.332	111.824
C	156.269	118.309	113.148
C	155.772	117.194	114.061
H	156.411	116.310	113.979
H	154.755	116.892	113.803
H	155.759	117.508	115.108
H	157.275	118.614	113.466
H	156.350	117.946	112.115
H	155.146	119.853	114.141
N	155.053	121.165	111.416
C	153.934	120.392	111.392
C	152.858	120.562	110.537
H	152.061	119.837	110.619
C	152.625	121.598	109.620

C	151.398	121.793	108.868
C	151.515	123.031	108.232
C	150.535	123.745	107.352
H	149.568	123.882	107.842
H	150.899	124.739	107.084
H	150.356	123.201	106.416
C	150.286	120.839	108.802
O	150.381	119.679	109.206
C	148.971	121.277	108.205
H	148.284	120.433	108.262
H	148.551	122.131	108.746
H	149.087	121.570	107.158
N	153.467	122.660	109.408
C	152.807	123.547	108.590
C	153.298	124.823	108.247
H	152.646	125.448	107.646
C	154.455	125.428	108.693
C	154.800	126.875	108.396
C	154.058	127.870	109.290
H	152.981	127.829	109.094
H	154.244	127.660	110.348
H	154.422	128.881	109.082
H	154.559	127.086	107.364
C	156.310	126.913	108.705
H	156.593	127.863	109.162
C	157.231	126.622	107.508
H	156.828	125.788	106.932
H	158.221	126.322	107.866
C	157.389	127.854	106.618
H	157.945	127.616	105.705
H	157.923	128.614	107.187
C	156.050	128.449	106.286
O	155.646	129.506	106.721
O	155.324	127.661	105.453

C	153.971	128.120	105.178
H	154.009	128.804	104.325
H	153.631	128.695	106.045
C	153.115	126.923	104.941
H	153.249	126.128	105.672
C	152.182	126.766	103.993
C	151.868	127.776	102.918
H	150.881	128.228	103.093
H	152.601	128.584	102.856
H	151.819	127.286	101.937
C	151.348	125.509	103.978
H	150.291	125.767	103.835
H	151.417	125.026	104.956
C	151.776	124.474	102.918
H	152.855	124.317	103.029
H	151.631	124.869	101.903
C	151.036	123.134	103.089
H	150.822	123.000	104.157
H	151.709	122.311	102.821
C	149.736	122.934	102.280
C	148.832	124.174	102.200
H	147.923	123.947	101.629
H	148.516	124.520	103.188
H	149.338	125.008	101.699
H	150.040	122.699	101.248
C	148.969	121.709	102.825
H	149.681	120.888	102.992
H	148.267	121.351	102.058
C	148.172	121.970	104.110
H	147.382	122.697	103.887
H	148.807	122.446	104.867
C	147.519	120.702	104.688
H	148.186	120.230	105.419
H	147.384	119.967	103.882

C	146.139	120.987	105.302
C	146.174	121.946	106.493
H	145.161	122.117	106.863
H	146.738	121.533	107.327
H	146.607	122.919	106.242
H	145.574	121.479	104.496
C	145.371	119.705	105.639
H	145.381	119.065	104.749
H	144.317	119.958	105.815
C	145.873	118.866	106.824
H	145.613	119.353	107.773
H	146.967	118.779	106.807
C	145.252	117.473	106.729
H	145.595	117.033	105.781
H	144.159	117.578	106.637
C	145.525	116.460	107.844
C	144.755	116.778	109.129
H	144.976	116.053	109.919
H	145.006	117.770	109.510
H	143.673	116.744	108.948
H	146.600	116.466	108.077
C	145.135	115.076	107.317
H	145.892	114.673	106.638
H	144.996	114.364	108.131
H	144.192	115.138	106.760

BChl a	(chain:F,resid:101)		
MG	146.954	124.696	110.202
N	147.644	126.378	109.011
C	146.894	127.162	108.160
C	145.615	126.843	107.793
C	144.661	127.577	106.866
C	143.372	126.617	106.778
C	143.670	125.488	107.614

C	143.185	124.258	108.099
C	141.912	123.562	107.741
H	141.377	124.131	106.981
H	142.102	122.558	107.345
H	141.238	123.456	108.601
O	142.379	126.912	106.120
C	145.181	127.844	105.475
O	146.057	127.241	104.889
O	144.512	128.884	104.902
C	144.887	129.162	103.552
H	144.207	129.939	103.203
H	144.795	128.267	102.932
H	145.926	129.509	103.504
H	144.314	128.529	107.282
C	144.945	125.676	108.206
N	145.278	124.672	109.024
C	144.214	123.781	108.972
C	144.238	122.568	109.693
H	143.349	121.962	109.635
C	145.256	122.046	110.454
C	145.202	120.652	111.062
C	146.582	120.516	111.747
C	147.385	119.282	111.316
H	146.907	118.372	111.691
H	148.405	119.305	111.707
H	147.436	119.209	110.224
H	146.443	120.472	112.829
C	144.028	120.434	112.029
C	143.971	118.996	112.542
H	143.205	118.882	113.313
H	144.918	118.698	112.999
H	143.764	118.294	111.726
H	143.084	120.688	111.527
H	144.136	121.129	112.871

H	145.115	119.916	110.248
N	146.452	122.668	110.727
C	147.247	121.845	111.438
C	148.544	122.141	111.867
H	149.034	121.398	112.478
C	149.320	123.253	111.549
C	150.718	123.462	111.932
C	151.140	124.605	111.282
C	152.490	125.245	111.284
H	153.267	124.546	110.969
H	152.512	126.088	110.597
H	152.774	125.619	112.272
C	151.472	122.613	112.878
O	150.954	121.612	113.361
C	152.881	122.986	113.288
H	153.201	122.298	114.071
H	153.573	122.902	112.443
H	152.934	124.011	113.665
N	148.909	124.290	110.745
C	149.986	125.110	110.551
C	149.978	126.253	109.744
H	150.921	126.775	109.645
C	148.922	126.803	109.029
C	149.135	127.950	108.050
C	149.934	127.464	106.839
H	150.886	127.031	107.160
H	149.373	126.690	106.303
H	150.130	128.289	106.140
H	149.673	128.772	108.534
C	147.694	128.341	107.655
H	147.605	128.409	106.563
C	147.228	129.678	108.250
H	147.397	129.694	109.332
H	146.153	129.808	108.089

C	148.006	130.821	107.576
H	147.912	130.726	106.489
H	149.065	130.742	107.839
C	147.536	132.189	107.981
O	147.838	132.785	108.994
O	146.715	132.712	107.026
C	146.350	134.099	107.213
H	146.147	134.267	108.273
H	145.438	134.226	106.627
C	147.487	134.950	106.733
H	148.318	135.002	107.433
C	147.638	135.507	105.523
C	146.592	135.509	104.437
H	146.913	134.904	103.578
H	145.628	135.120	104.767
H	146.433	136.530	104.060
C	148.965	136.133	105.158
H	149.590	136.175	106.057
H	148.820	137.172	104.823
C	149.743	135.365	104.059
H	150.759	135.782	104.026
H	149.301	135.570	103.074
C	149.812	133.845	104.294
H	148.937	133.364	103.845
H	149.721	133.646	105.368
C	151.115	133.170	103.816
C	151.478	133.460	102.351
H	152.427	132.977	102.088
H	150.720	133.094	101.651
H	151.593	134.537	102.180
H	151.907	133.647	104.407
C	151.153	131.659	104.171
H	150.628	131.518	105.124
H	152.195	131.379	104.366

C	150.600	130.660	103.137
H	150.649	129.661	103.588
H	151.274	130.630	102.271
C	149.175	130.935	102.651
H	149.159	131.903	102.143
H	148.510	131.052	103.518
C	148.542	129.876	101.714
C	149.537	129.160	100.788
H	149.016	128.450	100.135
H	150.094	129.854	100.146
H	150.265	128.586	101.367
H	148.119	129.097	102.361
C	147.350	130.510	100.946
H	146.931	131.299	101.579
H	146.556	129.763	100.847
C	147.604	131.053	99.523
H	146.642	131.409	99.132
H	147.871	130.201	98.890
C	148.682	132.144	99.304
H	149.155	131.960	98.328
H	149.482	132.028	100.041
C	148.232	133.623	99.304
C	147.262	133.940	98.156
H	147.045	135.015	98.108
H	147.672	133.628	97.187
H	146.302	133.431	98.292
H	149.147	134.214	99.132
C	147.636	134.078	100.639
H	148.309	133.877	101.477
H	147.414	135.153	100.631
H	146.698	133.554	100.827

BChl a (chain:G,resid:102)

MG	137.823	126.276	109.476
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N	137.994	128.308	108.800
C	139.174	128.956	108.571
C	140.384	128.501	109.025
C	141.741	129.144	108.868
C	142.695	128.271	109.788
C	141.893	127.164	110.278
C	141.875	125.974	111.022
C	142.955	125.344	111.833
H	143.302	126.026	112.617
H	142.611	124.430	112.323
H	143.827	125.096	111.223
O	143.868	128.571	109.938
C	141.790	130.591	109.282
O	141.191	131.077	110.215
O	142.586	131.318	108.464
C	142.632	132.710	108.809
H	143.438	133.140	108.213
H	142.830	132.840	109.872
H	141.669	133.171	108.574
H	142.120	129.074	107.844
C	140.574	127.336	109.778
N	139.751	126.347	110.134
C	140.521	125.483	110.894
C	139.964	124.327	111.467
H	140.629	123.696	112.047
C	138.637	123.937	111.428
C	138.135	122.695	112.135
C	136.608	122.780	111.977
C	135.839	122.735	113.299
H	135.975	121.760	113.778
H	134.769	122.896	113.146
H	136.207	123.493	113.996
H	136.278	121.940	111.372
C	138.730	121.395	111.579

C	138.433	120.208	112.498
H	138.713	119.251	112.050
H	137.370	120.171	112.731
H	138.952	120.292	113.458
H	139.812	121.525	111.454
H	138.318	121.222	110.577
H	138.384	122.741	113.194
N	137.612	124.606	110.814
C	136.426	124.025	111.127
C	135.177	124.467	110.712
H	134.331	123.885	111.046
C	134.860	125.607	109.964
C	133.514	126.071	109.679
C	133.643	127.308	109.050
C	132.588	128.231	108.526
H	131.933	128.604	109.320
H	133.030	129.099	108.032
H	131.957	127.730	107.786
C	132.279	125.342	109.998
O	132.258	124.138	110.251
C	130.984	126.105	109.994
H	130.190	125.452	110.351
H	131.044	127.000	110.618
H	130.741	126.424	108.980
N	135.768	126.517	109.487
C	135.055	127.560	108.942
C	135.625	128.730	108.410
H	134.939	129.479	108.029
C	136.961	129.073	108.373
C	137.456	130.436	107.913
C	137.231	131.493	109.000
H	136.162	131.627	109.202
H	137.725	131.190	109.930
H	137.663	132.449	108.686

H	136.949	130.734	106.995
C	138.959	130.165	107.692
H	139.574	131.017	107.995
C	139.291	129.759	106.242
H	138.457	129.172	105.844
H	140.174	129.115	106.256
C	139.617	130.945	105.319
H	139.597	130.627	104.272
H	140.619	131.297	105.568
C	138.673	132.100	105.526
O	138.955	133.097	106.165
O	137.467	131.880	104.965
C	136.394	132.822	105.280
H	136.310	133.498	104.426
H	136.696	133.405	106.150
C	135.132	132.054	105.529
H	134.840	131.948	106.570
C	134.403	131.437	104.588
C	134.754	131.481	103.121
H	134.016	132.068	102.557
H	135.744	131.899	102.936
H	134.735	130.469	102.696
C	133.229	130.566	104.971
H	133.028	130.663	106.044
H	133.545	129.527	104.820
C	131.931	130.788	104.176
H	132.138	130.671	103.105
H	131.597	131.826	104.312
C	130.792	129.835	104.584
H	129.924	130.029	103.938
H	130.473	130.084	105.604
C	131.136	128.333	104.524
C	131.680	127.915	103.153
H	131.867	126.836	103.123

H	130.957	128.148	102.360
H	132.621	128.419	102.905
H	131.914	128.149	105.275
C	129.949	127.438	104.924
H	130.290	126.394	104.901
H	129.155	127.508	104.165
C	129.372	127.759	106.308
H	128.651	128.582	106.222
H	130.175	128.141	106.948
C	128.696	126.574	107.015
H	129.460	125.885	107.389
H	128.098	126.005	106.288
C	127.764	127.060	108.137
C	128.464	127.854	109.250
H	127.781	128.563	109.714
H	128.823	127.209	110.051
H	129.312	128.440	108.888
H	127.108	127.754	107.602
C	126.835	125.974	108.707
H	126.206	125.612	107.888
H	126.139	126.446	109.414
C	127.457	124.742	109.393
H	127.778	124.995	110.411
H	128.356	124.408	108.859
C	126.423	123.608	109.398
H	126.219	123.376	108.345
H	125.477	123.989	109.813
C	126.759	122.283	110.096
C	126.974	122.427	111.604
H	127.195	121.459	112.068
H	127.802	123.100	111.827
H	126.072	122.819	112.091
H	127.687	121.889	109.654
C	125.625	121.285	109.836

H	125.415	121.164	108.768
H	125.857	120.301	110.255
H	124.697	121.641	110.300

BChl a		(chain:I,resid:101)	
MG	130.415	129.498	112.543
N	130.999	131.190	111.294
C	130.166	132.165	110.803
C	128.802	132.074	110.871
C	127.763	133.052	110.357
C	126.362	132.335	110.657
C	126.685	131.067	111.251
C	126.154	129.876	111.774
C	124.724	129.441	111.811
H	124.087	130.201	111.356
H	124.580	128.497	111.270
H	124.367	129.287	112.837
O	125.289	132.873	110.413
C	127.859	133.347	108.880
O	128.099	132.554	107.995
O	127.614	134.666	108.629
C	127.602	135.016	107.244
H	127.282	136.057	107.201
H	126.902	134.387	106.694
H	128.597	134.894	106.802
H	127.781	134.006	110.892
C	128.093	130.980	111.399
N	128.472	129.841	111.989
C	127.296	129.135	112.223
C	127.318	127.852	112.814
H	126.359	127.363	112.950
C	128.427	127.124	113.191
C	128.330	125.709	113.728
C	129.808	125.295	113.910

C	130.207	123.994	113.203
H	129.702	123.143	113.669
H	131.283	123.813	113.266
H	129.924	124.014	112.145
H	130.016	125.177	114.974
C	127.512	125.592	115.022
C	127.342	124.136	115.445
H	126.835	124.058	116.411
H	128.306	123.633	115.554
H	126.775	123.587	114.684
H	126.526	126.056	114.877
H	128.016	126.162	115.812
H	127.851	125.079	112.966
N	129.737	127.533	113.091
C	130.564	126.529	113.452
C	131.961	126.569	113.418
H	132.477	125.693	113.782
C	132.786	127.571	112.909
C	134.246	127.519	112.811
C	134.638	128.662	112.140
C	136.017	129.118	111.783
H	136.563	128.363	111.214
H	135.978	130.021	111.175
H	136.609	129.351	112.675
C	135.101	126.455	113.376
O	134.602	125.471	113.913
C	136.610	126.571	113.318
H	137.037	125.748	113.892
H	136.966	126.498	112.285
H	136.964	127.520	113.729
N	132.335	128.745	112.352
C	133.425	129.412	111.863
C	133.375	130.636	111.185
H	134.317	131.012	110.807

C	132.271	131.431	110.917
C	132.363	132.668	110.026
C	132.696	132.252	108.590
H	133.656	131.728	108.551
H	131.928	131.567	108.215
H	132.745	133.121	107.922
H	133.135	133.352	110.392
C	130.948	133.285	110.147
H	130.536	133.495	109.150
C	130.896	134.581	110.974
H	131.462	134.446	111.903
H	129.869	134.804	111.275
C	131.456	135.761	110.182
H	130.927	135.846	109.220
H	132.513	135.620	109.926
C	131.297	137.084	110.889
O	130.634	137.309	111.872
O	131.996	138.074	110.251
C	131.878	139.376	110.870
H	132.173	139.298	111.921
H	130.831	139.687	110.857
C	132.782	140.279	110.101
H	133.842	140.052	110.208
C	132.426	141.258	109.260
C	131.008	141.703	109.009
H	130.796	141.765	107.935
H	130.263	141.040	109.453
H	130.844	142.710	109.415
C	133.489	141.980	108.467
H	134.467	141.808	108.931
H	133.306	143.064	108.498
C	133.570	141.559	106.984
H	134.366	142.161	106.522
H	132.647	141.853	106.472

C	133.869	140.067	106.731
H	134.545	139.703	107.515
H	134.443	139.988	105.797
C	132.676	139.084	106.645
C	133.178	137.727	106.133
H	132.377	136.979	106.142
H	133.556	137.802	105.104
H	133.991	137.343	106.758
H	132.290	138.929	107.658
C	131.493	139.609	105.798
H	130.986	140.400	106.361
H	130.757	138.801	105.705
C	131.860	140.151	104.397
H	131.718	139.374	103.638
H	132.929	140.384	104.378
C	131.065	141.413	104.006
H	130.917	142.029	104.904
H	130.060	141.126	103.669
C	131.726	142.303	102.927
C	131.939	141.524	101.621
H	132.185	142.188	100.785
H	132.747	140.791	101.718
H	131.029	140.977	101.351
H	131.015	143.117	102.706
C	133.000	142.961	103.499
H	133.702	142.183	103.819
H	132.704	143.479	104.420
C	133.772	143.960	102.618
H	134.367	144.595	103.288
H	133.065	144.640	102.116
C	134.720	143.338	101.580
H	134.141	142.914	100.752
H	135.248	142.489	102.037
C	135.769	144.316	101.012

C	136.908	144.579	102.008
H	137.628	145.306	101.614
H	136.533	144.959	102.964
H	137.454	143.650	102.214
H	135.262	145.276	100.818
C	136.334	143.797	99.682
H	135.539	143.678	98.933
H	137.097	144.470	99.273
H	136.802	142.815	99.822

BChl a (chain:J,resid:102)

MG	121.922	132.715	114.632
N	122.220	134.748	113.992
C	123.379	135.255	113.467
C	124.584	134.606	113.560
C	125.951	135.117	113.164
C	126.959	133.976	113.659
C	126.133	132.954	114.267
C	126.122	131.699	114.887
C	127.266	130.831	115.281
H	127.943	131.359	115.961
H	126.933	129.924	115.789
H	127.861	130.533	114.414
O	128.163	134.038	113.472
C	126.257	136.437	113.834
O	125.785	136.820	114.885
O	127.118	137.177	113.109
C	127.465	138.418	113.738
H	128.215	138.871	113.094
H	127.880	138.243	114.730
H	126.576	139.047	113.841
H	126.097	135.229	112.084
C	124.777	133.370	114.184
N	123.934	132.480	114.713

C	124.722	131.429	115.135
C	124.172	130.292	115.743
H	124.879	129.514	115.989
C	122.850	130.085	116.100
C	122.388	128.889	116.919
C	120.898	129.184	117.177
C	120.498	129.154	118.656
H	120.561	128.133	119.043
H	119.474	129.511	118.800
H	121.168	129.777	119.255
H	120.302	128.442	116.651
C	122.613	127.534	116.229
C	122.377	126.358	117.178
H	122.377	125.399	116.654
H	121.416	126.456	117.687
H	123.144	126.309	117.955
H	123.628	127.483	115.815
H	121.927	127.481	115.373
H	122.909	128.902	117.884
N	121.815	130.944	115.852
C	120.689	130.509	116.471
C	119.478	131.179	116.496
H	118.672	130.692	117.024
C	119.179	132.454	116.005
C	117.934	133.156	116.250
C	118.094	134.445	115.742
C	117.130	135.591	115.727
H	116.857	135.906	116.739
H	117.560	136.457	115.220
H	116.203	135.338	115.200
C	116.749	132.558	116.877
O	116.606	131.340	117.003
C	115.658	133.471	117.364
H	114.893	132.868	117.850

H	116.040	134.223	118.060
H	115.208	134.000	116.522
N	120.049	133.276	115.336
C	119.417	134.490	115.173
C	119.989	135.600	114.525
H	119.383	136.497	114.464
C	121.260	135.706	113.993
C	121.830	137.023	113.489
C	122.195	137.898	114.693
H	121.293	138.215	115.226
H	122.838	137.344	115.385
H	122.765	138.769	114.361
H	121.117	137.539	112.844
C	123.112	136.572	112.761
H	123.921	137.296	112.884
C	122.950	136.208	111.272
H	122.150	135.470	111.210
H	123.877	135.706	110.991
C	122.664	137.325	110.221
H	121.847	137.018	109.563
H	123.558	137.482	109.613
C	122.332	138.647	110.847
O	123.168	139.417	111.275
O	121.005	138.862	110.926
C	120.581	140.041	111.658
H	120.621	140.887	110.959
H	121.304	140.236	112.450
C	119.210	139.818	112.223
H	119.109	139.996	113.291
C	118.142	139.403	111.528
C	118.198	139.106	110.048
H	117.270	139.426	109.557
H	119.046	139.586	109.555
H	118.300	138.029	109.872

C	116.811	139.170	112.199
H	116.038	139.730	111.648
H	116.822	139.573	113.217
C	116.389	137.688	112.234
H	117.057	137.136	112.907
H	116.533	137.258	111.237
C	114.927	137.512	112.656
H	114.298	138.119	111.985
H	114.785	137.930	113.663
C	114.397	136.067	112.627
C	114.582	135.413	111.251
H	114.169	134.399	111.246
H	114.057	135.989	110.476
H	115.634	135.338	110.959
H	114.964	135.489	113.368
C	112.910	136.033	113.032
H	112.445	135.126	112.622
H	112.404	136.877	112.539
C	112.621	136.072	114.541
H	111.610	136.478	114.683
H	113.294	136.778	115.046
C	112.671	134.695	115.231
H	113.703	134.337	115.304
H	112.141	133.976	114.591
C	111.980	134.729	116.610
C	112.856	135.231	117.758
H	112.259	135.281	118.675
H	113.685	134.564	117.974
H	113.269	136.226	117.563
H	111.188	135.468	116.468
C	111.214	133.453	116.993
H	110.665	133.108	116.111
H	110.451	133.748	117.727
C	111.939	132.232	117.574

H	112.480	132.505	118.488
H	112.684	131.837	116.871
C	110.863	131.182	117.875
H	110.317	130.986	116.941
H	110.127	131.640	118.555
C	111.260	129.827	118.469
C	111.951	129.944	119.828
H	112.186	128.956	120.240
H	112.885	130.504	119.751
H	111.301	130.448	120.555
H	111.956	129.333	117.776
C	109.988	128.985	118.592
H	109.567	128.733	117.612
H	110.167	128.058	119.142
H	109.222	129.553	119.135

BChl a (chain:K,resid:101)

MG	116.496	136.432	119.936
N	116.993	138.203	118.759
C	116.280	139.366	118.660
C	115.010	139.497	119.185
C	114.079	140.702	119.149
C	112.725	140.183	119.828
C	112.984	138.801	120.210
C	112.434	137.662	120.798
C	111.057	137.465	121.345
H	110.453	138.363	121.205
H	110.545	136.621	120.866
H	111.077	137.252	122.423
O	111.738	140.881	119.961
C	113.781	141.243	117.768
O	113.871	140.628	116.724
O	113.362	142.522	117.841
C	112.995	143.112	116.585

H	112.611	144.104	116.828
H	112.228	142.512	116.094
H	113.868	143.186	115.931
H	114.453	141.524	119.770
C	114.312	138.468	119.832
N	114.617	137.198	120.139
C	113.491	136.674	120.754
C	113.458	135.357	121.243
H	112.542	135.040	121.723
C	114.476	134.419	121.203
C	114.314	133.006	121.739
C	115.682	132.352	121.419
C	115.622	131.092	120.549
H	115.061	130.301	121.061
H	116.629	130.705	120.364
H	115.158	131.289	119.580
H	116.176	132.088	122.360
C	113.964	132.942	123.236
C	113.579	131.528	123.673
H	113.451	131.459	124.760
H	114.362	130.808	123.405
H	112.657	131.198	123.186
H	113.149	133.637	123.467
H	114.840	133.276	123.810
H	113.515	132.499	121.187
N	115.717	134.606	120.666
C	116.470	133.481	120.778
C	117.774	133.322	120.329
H	118.241	132.369	120.533
C	118.572	134.229	119.614
C	119.924	134.001	119.120
C	120.284	135.139	118.403
C	121.582	135.468	117.732
H	121.848	134.730	116.966

H	121.547	136.441	117.248
H	122.408	135.490	118.453
C	120.734	132.804	119.400
O	120.318	131.909	120.130
C	122.119	132.661	118.791
H	122.550	131.717	119.128
H	122.070	132.657	117.695
H	122.782	133.480	119.083
N	118.151	135.473	119.213
C	119.163	136.039	118.478
C	119.102	137.312	117.889
H	119.942	137.586	117.263
C	118.123	138.279	118.012
C	118.190	139.587	117.238
C	118.034	139.367	115.728
H	118.840	138.735	115.342
H	117.082	138.869	115.526
H	118.055	140.324	115.196
H	119.158	140.062	117.433
C	117.028	140.407	117.849
H	116.372	140.793	117.064
C	117.530	141.589	118.697
H	118.234	141.223	119.457
H	116.695	142.048	119.239
C	118.220	142.621	117.790
H	117.536	142.921	116.993
H	119.102	142.158	117.334
C	118.687	143.831	118.554
O	119.635	143.864	119.309
O	117.902	144.898	118.283
C	118.256	146.133	118.969
H	118.540	145.871	119.993
H	117.325	146.694	118.969
C	119.361	146.825	118.241

H	120.323	146.321	118.309
C	119.254	147.919	117.473
C	117.998	148.740	117.319
H	117.828	149.005	116.271
H	117.105	148.222	117.676
H	118.095	149.681	117.876
C	120.422	148.371	116.629
H	121.351	147.937	117.021
H	120.524	149.462	116.679
C	120.247	147.948	115.149
H	121.049	148.410	114.562
H	119.311	148.373	114.768
C	120.254	146.417	114.936
H	120.248	145.908	115.908
H	121.191	146.123	114.448
C	119.074	145.865	114.113
C	117.744	146.019	114.863
H	116.911	145.590	114.297
H	117.795	145.503	115.829
H	117.500	147.066	115.062
H	119.016	146.449	113.189
C	119.329	144.387	113.757
H	119.271	143.807	114.693
H	120.362	144.267	113.407
C	118.405	143.729	112.715
H	117.357	143.989	112.908
H	118.461	142.641	112.867
C	118.769	143.990	111.242
H	118.133	143.341	110.624
H	119.799	143.635	111.086
C	118.666	145.441	110.734
C	117.251	146.007	110.908
H	117.162	147.011	110.484
H	116.509	145.363	110.421

H	116.976	146.067	111.967
H	119.348	146.045	111.344
C	119.197	145.568	109.290
H	120.194	145.109	109.290
H	119.351	146.631	109.061
C	118.343	144.929	108.177
H	117.828	144.046	108.577
H	119.006	144.549	107.389
C	117.326	145.873	107.522
H	117.848	146.791	107.220
H	116.567	146.176	108.256
C	116.615	145.277	106.295
C	115.789	144.036	106.657
H	115.257	143.641	105.783
H	116.412	143.224	107.049
H	115.037	144.269	107.424
H	117.390	144.962	105.578
C	115.730	146.331	105.616
H	116.309	147.210	105.319
H	115.246	145.913	104.725
H	114.936	146.657	106.301

BChI a	(chain:N,resid:102)		
MG	109.654	140.615	125.079
N	110.014	142.661	124.512
C	111.015	143.095	123.686
C	112.068	142.291	123.311
C	113.307	142.666	122.526
C	114.239	141.358	122.579
C	113.484	140.380	123.322
C	113.475	139.065	123.800
C	114.545	138.031	123.744
H	114.803	137.770	122.715
H	115.461	138.393	124.224

H	114.251	137.112	124.256
O	115.336	141.298	122.045
C	114.028	143.825	123.157
O	113.938	144.166	124.319
O	114.811	144.468	122.270
C	115.585	145.504	122.879
H	116.125	145.986	122.066
H	116.285	145.080	123.597
H	114.932	146.197	123.415
H	113.133	142.886	121.467
C	112.254	140.966	123.727
N	111.500	140.119	124.430
C	112.200	138.931	124.457
C	111.688	137.785	125.081
H	112.280	136.892	124.963
C	110.547	137.690	125.851
C	110.221	136.466	126.690
C	108.926	136.874	127.421
C	108.966	136.652	128.935
H	109.015	135.583	129.161
H	108.081	137.065	129.426
H	109.851	137.127	129.368
H	108.098	136.296	127.008
C	110.093	135.155	125.903
C	109.878	133.946	126.816
H	109.779	133.017	126.247
H	108.972	134.063	127.413
H	110.710	133.817	127.514
H	110.991	135.001	125.291
H	109.250	135.258	125.207
H	111.026	136.350	127.425
N	109.643	138.697	126.060
C	108.721	138.312	126.974
C	107.682	139.098	127.448

H	107.020	138.640	128.167
C	107.412	140.444	127.172
C	106.394	141.241	127.835
C	106.560	142.552	127.390
C	105.842	143.801	127.802
H	105.915	143.965	128.881
H	106.266	144.682	127.317
H	104.776	143.769	127.547
C	105.389	140.710	128.764
O	105.244	139.508	128.980
C	104.468	141.671	129.462
H	103.791	141.098	130.096
H	105.030	142.381	130.075
H	103.881	142.241	128.740
N	108.129	141.241	126.315
C	107.635	142.520	126.429
C	108.134	143.635	125.732
H	107.648	144.585	125.928
C	109.222	143.695	124.878
C	109.735	145.008	124.307
C	110.346	145.904	125.387
H	109.655	146.064	126.217
H	111.261	145.448	125.783
H	110.591	146.877	124.950
H	108.915	145.551	123.830
C	110.809	144.546	123.293
H	111.734	145.114	123.438
C	110.394	144.670	121.820
H	109.407	144.220	121.667
H	111.104	144.108	121.204
C	110.387	146.125	121.319
H	110.298	146.117	120.226
H	111.323	146.617	121.598
C	109.268	146.988	121.855

O	109.410	147.979	122.539
O	108.071	146.519	121.429
C	106.898	147.245	121.852
H	106.209	147.146	121.005
H	107.160	148.299	121.970
C	106.317	146.651	123.104
H	106.603	145.621	123.301
C	105.451	147.263	123.921
C	104.987	148.685	123.695
H	105.766	149.307	123.243
H	104.112	148.726	123.031
H	104.685	149.147	124.641
C	104.825	146.546	125.094
H	104.978	147.148	126.002
H	105.325	145.586	125.262
C	103.311	146.312	124.918
H	103.159	145.578	124.115
H	102.839	147.243	124.579
C	102.633	145.832	126.206
H	102.712	146.619	126.971
H	103.200	144.978	126.595
C	101.153	145.428	126.060
C	100.276	146.597	125.596
H	99.237	146.273	125.463
H	100.277	147.398	126.345
H	100.616	147.021	124.646
H	101.096	144.640	125.292
C	100.613	144.841	127.380
H	99.515	144.820	127.350
H	100.883	145.517	128.203
C	101.124	143.424	127.650
H	102.219	143.428	127.626
H	100.794	142.787	126.819
C	100.677	142.784	128.965

H	101.102	141.780	129.030
H	99.586	142.648	128.955
C	101.040	143.572	130.230
C	102.516	143.968	130.364
H	102.651	144.781	131.082
H	103.113	143.138	130.734
H	102.955	144.311	129.423
H	100.463	144.498	130.147
C	100.558	142.831	131.490
H	99.461	142.840	131.498
H	100.866	143.411	132.367
C	101.025	141.359	131.661
H	101.676	141.272	132.536
H	101.635	141.030	130.812
C	99.807	140.441	131.808
H	99.184	140.576	130.912
H	99.202	140.809	132.649
C	100.013	138.933	132.008
C	100.875	138.575	133.222
H	101.033	137.495	133.284
H	101.860	139.052	133.191
H	100.373	138.872	134.150
H	100.510	138.523	131.119
C	98.629	138.290	132.145
H	97.987	138.495	131.284
H	98.692	137.206	132.257
H	98.116	138.697	133.025

BChl a		(chain:O,resid:101)	
MG	106.744	144.360	132.141
N	107.209	146.201	131.065
C	106.636	147.438	131.261
C	105.544	147.625	132.063
C	104.757	148.904	132.312

C	103.614	148.469	133.320
C	103.752	147.050	133.511
C	103.217	145.911	134.137
C	102.010	145.814	135.014
H	101.311	146.619	134.783
H	101.486	144.862	134.880
H	102.263	145.916	136.077
O	102.829	149.286	133.790
C	104.103	149.435	131.056
O	103.237	148.880	130.419
O	104.618	150.650	130.696
C	104.036	151.221	129.520
H	104.715	152.015	129.204
H	103.052	151.643	129.749
H	103.934	150.467	128.736
H	105.364	149.698	132.753
C	104.885	146.612	132.780
N	105.097	145.299	132.908
C	104.079	144.838	133.734
C	103.973	143.471	134.068
H	103.169	143.204	134.739
C	104.767	142.433	133.635
C	104.524	140.991	134.033
C	105.616	140.218	133.259
C	105.087	139.084	132.373
H	104.751	138.248	132.992
H	105.853	138.706	131.692
H	104.233	139.417	131.775
H	106.317	139.789	133.978
C	104.597	140.757	135.549
C	104.277	139.308	135.893
H	104.388	139.115	136.964
H	104.942	138.613	135.376
H	103.256	139.066	135.575

H	103.895	141.429	136.061
H	105.603	141.021	135.899
H	103.527	140.684	133.686
N	105.849	142.542	132.796
C	106.359	141.322	132.529
C	107.438	141.064	131.680
H	107.739	140.032	131.587
C	108.158	141.959	130.886
C	109.230	141.609	129.952
C	109.587	142.780	129.305
C	110.601	142.990	128.226
H	110.444	142.313	127.383
H	110.553	144.009	127.839
H	111.621	142.820	128.587
C	109.807	140.257	129.793
O	109.395	139.315	130.465
C	110.928	140.012	128.804
H	111.266	138.982	128.923
H	110.572	140.143	127.778
H	111.770	140.692	128.962
N	107.922	143.310	130.818
C	108.763	143.834	129.875
C	108.810	145.189	129.513
H	109.489	145.448	128.709
C	108.092	146.252	130.044
C	108.150	147.652	129.437
C	107.584	147.664	128.022
H	108.111	146.959	127.378
H	106.527	147.373	128.056
H	107.648	148.664	127.574
H	109.182	148.016	129.419
C	107.272	148.495	130.387
H	106.483	148.998	129.813
C	108.058	149.599	131.117

H	109.015	149.208	131.475
H	107.511	149.969	131.989
C	108.287	150.738	130.109
H	107.328	151.203	129.868
H	108.689	150.308	129.181
C	109.273	151.800	130.513
O	110.441	151.629	130.788
O	108.693	153.036	130.459
C	109.567	154.171	130.636
H	110.384	153.887	131.305
H	108.946	154.933	131.107
C	110.090	154.611	129.303
H	110.698	153.859	128.800
C	109.879	155.781	128.684
C	109.103	156.933	129.276
H	108.436	157.384	128.531
H	108.494	156.641	130.132
H	109.785	157.730	129.605
C	110.450	156.005	127.295
H	111.425	155.510	127.219
H	110.632	157.079	127.134
C	109.556	155.469	126.157
H	109.406	154.392	126.312
H	110.106	155.576	125.212
C	108.188	156.151	126.035
H	108.339	157.230	125.868
H	107.654	156.054	126.988
C	107.288	155.578	124.926
C	107.936	155.665	123.534
H	107.223	155.387	122.749
H	108.307	156.673	123.312
H	108.787	154.982	123.456
H	107.166	154.506	125.140
C	105.856	156.160	124.986

H	105.395	155.807	125.918
H	105.267	155.713	124.173
C	105.664	157.687	124.937
H	106.159	158.158	125.797
H	104.591	157.879	125.073
C	106.141	158.372	123.647
H	105.957	157.709	122.792
H	107.229	158.507	123.695
C	105.476	159.736	123.370
C	104.043	159.575	122.845
H	103.554	160.549	122.722
H	104.033	159.054	121.879
H	103.431	158.987	123.536
H	105.416	160.274	124.327
C	106.331	160.606	122.426
H	107.256	160.900	122.937
H	105.792	161.545	122.210
C	106.750	159.947	121.110
H	105.866	159.650	120.532
H	107.293	159.022	121.331
C	107.641	160.873	120.277
H	108.427	161.279	120.927
H	107.048	161.750	119.973
C	108.311	160.228	119.045
C	109.547	159.412	119.448
H	110.041	158.992	118.568
H	110.282	160.034	119.970
H	109.279	158.580	120.109
H	108.654	161.044	118.392
C	107.336	159.355	118.242
H	106.396	159.887	118.020
H	107.786	159.027	117.298
H	107.058	158.454	118.798

BChI a	(chain:P,resid:102)		
MG	102.565	148.707	139.277
N	103.174	150.707	138.774
C	103.906	151.070	137.675
C	104.623	150.167	136.929
C	105.568	150.422	135.774
C	106.268	149.006	135.515
C	105.586	148.071	136.375
C	105.468	146.727	136.740
C	106.262	145.554	136.276
H	107.332	145.714	136.451
H	105.976	144.638	136.797
H	106.142	145.386	135.204
O	107.176	148.847	134.716
C	106.592	151.481	136.070
O	107.014	151.775	137.168
O	106.993	152.103	134.939
C	107.978	153.116	135.171
H	108.333	153.416	134.186
H	108.796	152.718	135.768
H	107.527	153.954	135.713
H	105.049	150.694	134.848
C	104.659	148.791	137.174
N	103.983	147.999	138.010
C	104.436	146.720	137.750
C	103.956	145.616	138.463
H	104.299	144.654	138.117
C	103.157	145.634	139.591
C	102.934	144.401	140.447
C	102.045	144.925	141.592
C	102.539	144.569	142.996
H	102.461	143.490	143.156
H	101.951	145.072	143.768
H	103.587	144.855	143.124

H	101.046	144.510	141.463
C	102.326	143.213	139.693
C	102.257	141.939	140.534
H	101.771	141.127	139.987
H	101.689	142.103	141.452
H	103.253	141.594	140.826
H	102.907	143.016	138.782
H	101.320	143.509	139.370
H	103.908	144.102	140.852
N	102.568	146.740	140.137
C	101.943	146.411	141.295
C	101.262	147.293	142.122
H	100.800	146.868	143.000
C	101.151	148.685	142.010
C	100.554	149.562	143.004
C	100.800	150.869	142.582
C	100.442	152.167	143.239
H	100.886	152.257	144.234
H	100.789	153.019	142.651
H	99.358	152.272	143.354
C	99.822	149.113	144.196
O	99.451	147.948	144.350
C	99.502	150.118	145.273
H	99.007	149.599	146.093
H	100.409	150.609	145.636
H	98.834	150.897	144.898
N	101.698	149.442	141.005
C	101.508	150.764	141.334
C	101.993	151.850	140.584
H	101.789	152.840	140.976
C	102.764	151.816	139.437
C	103.358	153.065	138.804
C	104.581	153.550	139.587
H	104.295	153.836	140.605

H	105.337	152.759	139.642
H	105.033	154.410	139.081
H	102.608	153.853	138.759
C	103.745	152.551	137.403
H	104.660	153.019	137.031
C	102.601	152.705	136.381
H	101.661	152.450	136.880
H	102.760	151.969	135.591
C	102.483	154.090	135.704
H	101.482	154.208	135.278
H	103.217	154.147	134.899
C	102.779	155.231	136.644
O	103.859	155.790	136.705
O	101.733	155.527	137.442
C	101.983	156.457	138.541
H	101.724	157.458	138.190
H	103.052	156.440	138.759
C	101.168	156.021	139.715
H	101.569	155.167	140.256
C	100.000	156.534	140.129
C	99.294	157.687	139.462
H	98.948	158.409	140.211
H	99.922	158.212	138.739
H	98.403	157.330	138.929
C	99.271	155.914	141.299
H	99.117	156.667	142.083
H	99.897	155.127	141.736
C	97.918	155.293	140.886
H	98.088	154.737	139.957
H	97.196	156.085	140.640
C	97.309	154.334	141.926
H	98.126	153.821	142.446
H	96.757	153.553	141.390
C	96.331	154.930	142.955

C	96.879	156.165	143.684
H	96.179	156.502	144.459
H	97.836	155.960	144.176
H	97.033	157.000	142.991
H	95.442	155.255	142.392
C	95.864	153.832	143.941
H	95.584	152.936	143.368
H	94.947	154.171	144.444
C	96.892	153.462	145.015
H	97.070	154.345	145.642
H	97.857	153.235	144.550
C	96.475	152.297	145.932
H	96.738	151.337	145.473
H	95.381	152.291	146.044
C	97.097	152.452	147.332
C	98.628	152.503	147.339
H	98.983	152.938	148.273
H	99.073	151.511	147.265
H	99.036	153.116	146.531
H	96.741	153.440	147.654
C	96.553	151.464	148.376
H	95.470	151.615	148.440
H	96.945	151.750	149.362
C	96.797	149.955	148.180
H	97.831	149.696	148.442
H	96.660	149.670	147.129
C	95.788	149.195	149.050
H	94.795	149.492	148.692
H	95.864	149.568	150.083
C	95.801	147.661	149.097
C	97.046	147.089	149.778
H	97.042	145.995	149.762
H	97.962	147.423	149.285
H	97.086	147.391	150.832

H	95.771	147.280	148.065
C	94.531	147.204	149.829
H	93.627	147.495	149.282
H	94.507	146.122	149.970
H	94.476	147.664	150.824

BChI a (chain:Q,resid:101)

MG	102.893	152.195	147.293
N	103.023	154.052	146.142
C	102.845	155.334	146.621
C	102.193	155.589	147.795
C	101.900	156.914	148.475
C	101.094	156.510	149.808
C	101.032	155.074	149.806
C	100.627	153.943	150.543
C	99.864	153.901	151.828
H	99.173	154.744	151.887
H	99.276	152.983	151.921
H	100.520	153.974	152.705
O	100.697	157.340	150.619
C	101.125	157.936	147.679
O	100.523	157.759	146.640
O	101.166	159.144	148.298
C	100.346	160.151	147.701
H	100.513	161.058	148.281
H	99.294	159.862	147.748
H	100.622	160.305	146.653
H	102.817	157.412	148.809
C	101.701	154.585	148.656
N	101.757	153.248	148.634
C	101.095	152.826	149.782
C	100.922	151.452	150.071
H	100.396	151.228	150.987
C	101.307	150.367	149.320

C	100.942	148.933	149.678
C	101.537	148.114	148.506
C	100.526	147.214	147.783
H	100.183	146.420	148.453
H	100.968	146.740	146.903
H	99.650	147.786	147.460
H	102.350	147.482	148.876
C	101.468	148.487	151.052
C	101.002	147.081	151.425
H	101.458	146.757	152.364
H	101.286	146.349	150.664
H	99.910	147.042	151.530
H	101.142	149.202	151.820
H	102.564	148.524	151.032
H	99.846	148.836	149.683
N	102.022	150.420	148.144
C	102.162	149.185	147.628
C	102.802	148.872	146.424
H	102.890	147.824	146.177
C	103.288	149.751	145.458
C	103.892	149.379	144.177
C	104.138	150.558	143.499
C	104.814	150.770	142.181
H	104.306	150.255	141.363
H	104.852	151.831	141.934
H	105.847	150.409	142.208
C	104.178	147.990	143.743
O	103.839	147.038	144.438
C	104.883	147.732	142.429
H	105.043	146.657	142.336
H	104.268	148.066	141.588
H	105.846	148.248	142.382
N	103.212	151.124	145.546
C	103.676	151.635	144.366

C	103.738	153.000	144.055
H	104.072	153.242	143.054
C	103.484	154.092	144.877
C	103.765	155.523	144.425
C	102.971	155.977	143.201
H	102.965	155.206	142.425
H	101.941	156.199	143.479
H	103.406	156.887	142.774
H	104.820	155.579	144.163
C	103.518	156.345	145.714
H	102.893	157.225	145.535
C	104.847	156.750	146.388
H	105.413	155.831	146.573
H	104.662	157.195	147.371
C	105.756	157.671	145.551
H	105.750	157.333	144.510
H	106.781	157.618	145.924
C	105.335	159.111	145.526
O	104.338	159.564	144.997
O	106.255	159.890	146.164
C	106.130	161.306	145.995
H	106.378	161.748	146.962
H	105.093	161.548	145.754
C	107.066	161.741	144.901
H	107.642	160.925	144.469
C	107.226	162.978	144.422
C	106.501	164.168	144.994
H	105.829	164.619	144.252
H	105.893	163.907	145.865
H	107.210	164.952	145.294
C	108.185	163.212	143.262
H	109.198	162.985	143.614
H	108.190	164.274	142.994
C	107.896	162.346	142.003

H	107.213	161.542	142.292
H	108.823	161.850	141.691
C	107.337	163.051	140.754
H	107.230	162.274	139.986
H	108.094	163.746	140.364
C	105.987	163.807	140.858
C	106.159	165.271	141.299
H	105.205	165.811	141.223
H	106.497	165.353	142.335
H	106.894	165.791	140.670
H	105.585	163.846	139.833
C	104.936	163.094	141.724
H	104.065	163.760	141.830
H	105.328	162.947	142.736
C	104.439	161.749	141.186
H	105.270	161.037	141.106
H	104.058	161.893	140.166
C	103.347	161.159	142.085
H	102.552	161.912	142.193
H	103.761	160.997	143.088
C	102.729	159.839	141.598
C	102.120	159.958	140.190
H	101.597	159.035	139.926
H	101.401	160.783	140.120
H	102.895	160.123	139.432
H	103.545	159.106	141.518
C	101.745	159.255	142.643
H	102.341	158.822	143.451
H	101.200	158.423	142.181
C	100.737	160.202	143.314
H	101.285	160.926	143.930
H	100.153	159.597	144.021
C	99.783	160.955	142.378
H	99.403	160.267	141.610

H	100.334	161.739	141.836
C	98.579	161.604	143.082
C	98.995	162.476	144.273
H	98.126	162.948	144.744
H	99.506	161.886	145.040
H	99.675	163.276	143.943
H	97.951	160.788	143.462
C	97.737	162.416	142.089
H	97.419	161.799	141.240
H	96.838	162.825	142.565
H	98.318	163.260	141.690

BChI a (chain:Q,resid:102)

MG	102.465	155.806	155.793
N	103.206	157.762	155.243
C	103.530	158.138	153.970
C	103.738	157.244	152.956
C	104.154	157.533	151.529
C	104.426	156.099	150.917
C	104.037	155.127	151.924
C	103.877	153.768	152.241
C	104.225	152.555	151.447
H	105.284	152.560	151.171
H	104.039	151.637	152.010
H	103.657	152.505	150.515
O	104.846	155.976	149.780
C	105.367	158.432	151.408
O	106.434	158.277	151.957
O	105.110	159.501	150.607
C	106.211	160.410	150.469
H	105.857	161.190	149.792
H	107.089	159.911	150.056
H	106.475	160.839	151.441
H	103.342	157.982	150.949

C	103.629	155.850	153.075
N	103.219	155.054	154.067
C	103.351	153.762	153.586
C	103.058	152.643	154.389
H	103.207	151.668	153.940
C	102.676	152.647	155.719
C	102.477	151.374	156.526
C	102.243	151.889	157.961
C	103.221	151.334	159.002
H	103.046	150.263	159.147
H	103.100	151.834	159.967
H	104.257	151.458	158.678
H	101.237	151.614	158.274
C	101.320	150.499	156.025
C	101.338	149.122	156.692
H	100.460	148.525	156.428
H	101.359	149.224	157.778
H	102.231	148.551	156.416
H	101.383	150.400	154.934
H	100.376	151.018	156.235
H	103.389	150.771	156.503
N	102.478	153.759	156.494
C	102.260	153.395	157.780
C	102.071	154.270	158.839
H	101.884	153.822	159.804
C	102.163	155.664	158.840
C	102.117	156.484	160.032
C	102.408	157.785	159.639
C	102.420	159.043	160.455
H	103.262	159.088	161.151
H	102.471	159.927	159.813
H	101.507	159.133	161.051
C	101.869	155.985	161.392
O	101.247	154.947	161.623

C	102.401	156.828	162.512
H	102.455	156.250	163.427
H	103.380	157.249	162.283
H	101.702	157.648	162.676
N	102.446	156.452	157.752
C	102.613	157.737	158.214
C	102.990	158.833	157.420
H	103.114	159.783	157.929
C	103.262	158.836	156.065
C	103.751	160.067	155.311
C	105.226	160.347	155.610
H	105.371	160.571	156.673
H	105.843	159.481	155.347
H	105.569	161.200	155.013
H	103.152	160.937	155.574
C	103.546	159.644	153.841
H	104.359	160.003	153.201
C	102.193	160.074	153.239
H	101.420	159.976	154.007
H	101.941	159.382	152.431
C	102.189	161.483	152.633
H	101.180	161.733	152.285
H	102.859	161.492	151.774
C	102.655	162.573	153.563
O	103.623	163.280	153.357
O	101.871	162.684	154.658
C	102.329	163.603	155.693
H	101.882	164.579	155.497
H	103.414	163.701	155.591
C	101.959	163.062	157.032
H	102.488	162.155	157.318
C	101.104	163.594	157.917
C	100.253	164.813	157.664
H	100.354	165.537	158.482

H	100.481	165.318	156.723
H	99.193	164.528	157.636
C	100.969	162.970	159.287
H	101.503	163.604	160.007
H	101.492	162.008	159.289
C	99.520	162.756	159.769
H	98.914	162.470	158.900
H	99.095	163.700	160.139
C	99.356	161.648	160.822
H	99.981	160.800	160.515
H	98.318	161.293	160.777
C	99.669	161.942	162.301
C	101.102	162.442	162.528
H	101.325	162.588	163.588
H	101.833	161.723	162.139
H	101.276	163.403	162.035
H	98.974	162.722	162.654
C	99.384	160.644	163.083
H	100.054	159.866	162.697
H	98.369	160.297	162.842
C	99.523	160.718	164.607
H	98.701	161.315	165.009
H	100.428	161.267	164.860
C	99.543	159.329	165.274
H	98.951	158.642	164.652
H	99.017	159.376	166.233
C	100.948	158.702	165.513
C	102.062	159.291	164.625
H	102.978	158.703	164.696
H	101.781	159.310	163.572
H	102.316	160.322	164.883
H	101.221	158.894	166.559
C	100.882	157.174	165.392
H	101.903	156.773	165.387

H	100.446	156.901	164.423
C	100.108	156.461	166.499
H	99.116	156.910	166.631
H	100.632	156.598	167.452
C	99.960	154.974	166.159
H	100.932	154.601	165.810
H	99.299	154.902	165.288
C	99.461	154.044	167.289
C	100.601	153.275	167.948
H	100.185	152.522	168.616
H	101.227	152.759	167.211
H	101.253	153.927	168.541
H	98.811	153.293	166.856
C	98.594	154.745	168.326
H	97.761	155.270	167.845
H	98.156	154.025	169.018
H	99.191	155.454	168.906

BChl a	(chain:S,resid:101)		
MG	105.821	158.147	163.108
N	105.979	160.075	162.102
C	106.138	161.300	162.685
C	105.997	161.499	164.043
C	106.123	162.791	164.837
C	105.784	162.372	166.341
C	105.532	160.934	166.302
C	105.197	159.811	167.059
C	104.918	159.711	168.524
H	104.934	160.694	168.989
H	103.941	159.252	168.718
H	105.668	159.093	169.036
O	105.777	163.168	167.260
C	105.234	163.930	164.397
O	104.223	163.842	163.732

O	105.708	165.103	164.866
C	104.900	166.244	164.541
H	105.364	167.091	165.045
H	103.880	166.092	164.894
H	104.884	166.402	163.459
H	107.152	163.163	164.835
C	105.685	160.488	164.961
N	105.465	159.169	164.839
C	105.167	158.717	166.114
C	104.902	157.362	166.375
H	104.684	157.094	167.399
C	104.923	156.311	165.475
C	104.618	154.879	165.879
C	104.707	154.109	164.538
C	103.423	153.363	164.152
H	103.239	152.553	164.869
H	103.518	152.908	163.162
H	102.555	154.026	164.152
H	105.518	153.374	164.599
C	105.576	154.310	166.937
C	105.104	152.947	167.441
H	105.828	152.486	168.123
H	104.975	152.244	166.609
H	104.135	153.028	167.942
H	105.681	155.004	167.777
H	106.570	154.203	166.480
H	103.597	154.820	166.281
N	105.192	156.404	164.140
C	105.118	155.185	163.546
C	105.307	154.930	162.195
H	105.247	153.896	161.887
C	105.518	155.846	161.150
C	105.625	155.534	159.733
C	105.727	156.754	159.063

C	105.849	157.017	157.594
H	105.017	156.569	157.038
H	105.845	158.084	157.375
H	106.770	156.595	157.185
C	105.660	154.172	159.175
O	105.583	153.181	159.896
C	105.808	153.965	157.676
H	105.911	152.896	157.486
H	104.920	154.333	157.144
H	106.675	154.489	157.269
N	105.582	157.208	161.315
C	105.719	157.779	160.074
C	105.853	159.159	159.837
H	105.893	159.459	158.797
C	105.984	160.191	160.750
C	106.119	161.649	160.320
C	104.872	162.177	159.602
H	104.621	161.563	158.733
H	104.026	162.149	160.286
H	105.024	163.208	159.270
H	106.980	161.738	159.652
C	106.396	162.380	161.657
H	105.678	163.191	161.810
C	107.820	162.959	161.737
H	108.545	162.186	161.450
H	108.061	163.238	162.770
C	107.925	164.174	160.806
H	107.192	164.924	161.111
H	107.681	163.845	159.790
C	109.303	164.789	160.766
O	110.285	164.275	160.272
O	109.294	166.016	161.331
C	110.562	166.733	161.302
H	111.362	166.004	161.456

H	110.501	167.405	162.156
C	110.723	167.450	160.000
H	111.082	166.826	159.183
C	110.419	168.731	159.748
C	109.888	169.709	160.765
H	108.875	170.030	160.501
H	109.839	169.285	161.770
H	110.513	170.610	160.799
C	110.616	169.291	158.359
H	110.971	168.487	157.701
H	111.412	170.044	158.402
C	109.372	169.956	157.740
H	109.612	170.204	156.698
H	109.181	170.909	158.246
C	108.109	169.089	157.783
H	107.734	169.038	158.814
H	108.368	168.053	157.518
C	106.995	169.577	156.843
C	106.698	171.079	157.006
H	105.819	171.362	156.416
H	106.498	171.334	158.053
H	107.542	171.687	156.671
H	107.367	169.430	155.818
C	105.713	168.730	156.973
H	105.960	167.669	156.810
H	105.035	169.007	156.155
C	104.948	168.868	158.299
H	104.948	169.913	158.628
H	105.456	168.298	159.089
C	103.489	168.413	158.175
H	103.449	167.334	157.953
H	103.051	168.913	157.301
C	102.617	168.714	159.409
C	102.860	167.696	160.530

H	102.335	167.955	161.455
H	102.524	166.692	160.235
H	103.927	167.617	160.775
H	102.917	169.700	159.788
C	101.137	168.796	158.992
H	100.839	167.826	158.571
H	101.049	169.510	158.165
C	100.133	169.155	160.095
H	100.115	168.335	160.825
H	99.128	169.157	159.654
C	100.354	170.472	160.863
H	101.312	170.426	161.401
H	99.582	170.505	161.644
C	100.288	171.800	160.069
C	101.603	172.161	159.362
H	101.552	173.164	158.929
H	102.442	172.136	160.069
H	101.835	171.458	158.556
H	100.111	172.582	160.818
C	99.102	171.839	159.096
H	98.164	171.591	159.609
H	98.989	172.830	158.646
H	99.228	171.114	158.284

BChl a	(chain:T,resid:102)		
MG	108.848	161.371	171.414
N	109.574	163.298	170.722
C	109.586	163.746	169.427
C	109.363	162.912	168.355
C	109.367	163.234	166.866
C	109.174	161.822	166.149
C	108.997	160.859	167.210
C	108.724	159.517	167.504
C	108.596	158.360	166.571

H	107.834	158.538	165.807
H	109.539	158.180	166.040
H	108.336	157.437	167.094
O	109.142	161.701	164.933
C	110.633	163.913	166.403
O	111.764	163.511	166.556
O	110.353	165.095	165.789
C	111.507	165.792	165.310
H	111.110	166.682	164.819
H	112.074	165.177	164.608
H	112.164	166.073	166.140
H	108.519	163.864	166.578
C	109.102	161.536	168.455
N	108.914	160.716	169.494
C	108.665	159.470	168.946
C	108.458	158.339	169.751
H	108.250	157.422	169.222
C	108.553	158.250	171.127
C	108.502	156.923	171.867
C	108.652	157.341	173.346
C	109.696	156.534	174.119
H	109.359	155.502	174.246
H	109.881	156.956	175.112
H	110.640	156.507	173.570
H	107.685	157.217	173.841
C	107.237	156.101	171.599
C	107.269	154.722	172.259
H	106.356	154.160	172.047
H	107.360	154.804	173.345
H	108.115	154.125	171.906
H	107.089	155.985	170.518
H	106.382	156.680	171.974
H	109.375	156.332	171.563
N	108.783	159.294	171.983

C	108.901	158.838	173.254
C	109.179	159.626	174.366
H	109.221	159.116	175.319
C	109.461	160.997	174.410
C	109.908	161.723	175.587
C	110.188	163.021	175.175
C	110.677	164.185	175.982
H	111.710	164.048	176.318
H	110.638	165.111	175.406
H	110.063	164.337	176.877
C	110.073	161.149	176.936
O	109.417	160.184	177.328
C	111.100	161.793	177.840
H	111.300	161.140	178.686
H	112.032	162.003	177.308
H	110.711	162.737	178.225
N	109.465	161.841	173.327
C	109.899	163.070	173.763
C	110.092	164.192	172.940
H	110.432	165.098	173.431
C	109.969	164.281	171.564
C	110.352	165.541	170.802
C	111.862	165.796	170.830
H	112.235	165.869	171.856
H	112.398	164.980	170.331
H	112.087	166.734	170.311
H	109.847	166.398	171.252
C	109.846	165.244	169.370
H	110.617	165.483	168.626
C	108.560	165.993	168.992
H	107.797	165.810	169.757
H	108.178	165.590	168.049
C	108.745	167.514	168.821
H	107.872	167.905	168.287

H	109.646	167.725	168.237
C	108.772	168.267	170.131
O	107.800	168.390	170.847
O	109.984	168.806	170.396
C	110.080	169.566	171.639
H	109.191	170.192	171.722
H	110.954	170.201	171.462
C	110.292	168.725	172.860
H	111.250	168.209	172.914
C	109.445	168.638	173.900
C	108.092	169.312	173.931
H	108.171	170.346	174.295
H	107.628	169.318	172.943
H	107.425	168.788	174.622
C	109.848	167.928	175.171
H	110.808	167.423	175.025
H	109.114	167.150	175.419
C	109.964	168.931	176.340
H	108.962	169.273	176.625
H	110.481	169.823	175.961
C	110.721	168.433	177.578
H	110.863	169.295	178.247
H	111.732	168.123	177.281
C	110.090	167.301	178.416
C	108.684	167.669	178.902
H	108.240	166.857	179.486
H	108.710	168.564	179.539
H	108.007	167.874	178.065
H	110.004	166.404	177.789
C	111.054	166.994	179.582
H	111.328	167.946	180.057
H	111.989	166.597	179.162
C	110.573	166.044	180.687
H	109.720	166.483	181.221

H	111.378	165.992	181.426
C	110.225	164.608	180.255
H	110.728	164.385	179.306
H	109.148	164.522	180.056
C	110.661	163.554	181.302
C	112.140	163.192	181.094
H	112.269	162.529	180.234
H	112.738	164.085	180.890
H	112.563	162.690	181.971
H	110.564	164.018	182.297
C	109.743	162.320	181.300
H	109.644	161.932	180.279
H	108.739	162.649	181.602
C	110.197	161.177	182.222
H	110.682	161.594	183.115
H	110.964	160.580	181.712
C	109.021	160.293	182.657
H	108.433	160.015	181.773
H	108.352	160.919	183.263
C	109.356	159.004	183.456
C	110.710	159.040	184.168
H	110.886	158.095	184.691
H	111.523	159.179	183.451
H	110.758	159.847	184.908
H	109.397	158.168	182.745
C	108.242	158.717	184.470
H	107.266	158.618	183.983
H	108.438	157.799	185.033
H	108.172	159.536	185.198

BChI a		(chain:U,resid:101)	
MG	115.092	162.433	177.208
N	115.030	164.450	176.338
C	115.568	165.591	176.886

C	116.029	165.645	178.177
C	116.676	166.800	178.920
C	116.846	166.267	180.425
C	116.380	164.905	180.410
C	116.178	163.753	181.191
C	116.421	163.571	182.656
H	116.588	164.538	183.133
H	115.570	163.088	183.149
H	117.311	162.962	182.858
O	117.321	166.960	181.317
C	115.925	168.107	178.932
O	114.730	168.265	178.779
O	116.776	169.139	179.162
C	116.153	170.415	179.337
H	116.957	171.146	179.369
H	115.607	170.441	180.280
H	115.461	170.628	178.516
H	117.686	167.006	178.550
C	115.962	164.578	179.093
N	115.537	163.313	178.999
C	115.647	162.782	180.279
C	115.224	161.465	180.573
H	115.308	161.154	181.608
C	114.654	160.550	179.714
C	114.111	159.207	180.176
C	113.547	158.587	178.875
C	112.070	158.181	178.962
H	111.960	157.306	179.610
H	111.661	157.922	177.983
H	111.462	158.986	179.385
H	114.131	157.701	178.614
C	115.170	158.313	180.834
C	114.583	157.006	181.365
H	115.373	156.343	181.729

H	114.052	156.460	180.581
H	113.871	157.194	182.178
H	115.665	158.859	181.649
H	115.934	158.099	180.078
H	113.299	159.380	180.897
N	114.475	160.724	178.363
C	113.852	159.651	177.835
C	113.477	159.511	176.494
H	113.040	158.566	176.213
C	113.484	160.477	175.486
C	112.964	160.310	174.127
C	113.039	161.549	173.517
C	112.684	161.932	172.116
H	111.646	161.693	171.877
H	112.814	163.003	171.961
H	113.319	161.418	171.388
C	112.501	159.034	173.553
O	112.443	158.025	174.249
C	112.111	158.939	172.091
H	111.890	157.894	171.869
H	111.223	159.541	171.879
H	112.915	159.286	171.436
N	113.902	161.776	175.652
C	113.623	162.450	174.496
C	113.872	163.812	174.282
H	113.545	164.215	173.331
C	114.511	164.713	175.119
C	114.722	166.167	174.715
C	113.429	166.927	174.395
H	113.072	166.725	173.385
H	112.633	166.639	175.083
H	113.579	168.011	174.474
H	115.357	166.181	173.822
C	115.500	166.753	175.917

H	114.944	167.579	176.377
C	116.883	167.272	175.500
H	117.453	166.462	175.029
H	117.456	167.606	176.370
C	116.728	168.437	174.507
H	116.218	169.275	174.993
H	116.130	168.114	173.650
C	118.055	168.885	173.975
O	118.717	168.312	173.134
O	118.455	170.042	174.569
C	119.716	170.565	174.093
H	120.411	169.729	173.981
H	120.047	171.232	174.890
C	119.500	171.268	172.791
H	119.320	170.594	171.957
C	119.375	172.586	172.583
C	119.583	173.653	173.625
H	118.700	174.301	173.704
H	119.782	173.250	174.620
H	120.425	174.303	173.345
C	118.881	173.070	171.240
H	118.926	172.239	170.528
H	119.527	173.868	170.844
C	117.422	173.594	171.309
H	117.018	173.622	170.287
H	117.417	174.634	171.663
C	116.513	172.746	172.211
H	116.739	172.977	173.259
H	116.768	171.688	172.096
C	115.010	172.916	171.964
C	114.576	174.391	172.027
H	113.484	174.484	171.981
H	114.913	174.880	172.946
H	114.995	174.956	171.185

H	114.815	172.585	170.934
C	114.180	171.964	172.858
H	114.375	170.940	172.516
H	113.115	172.148	172.662
C	114.407	171.999	174.381
H	115.433	171.691	174.621
H	113.762	171.226	174.814
C	114.108	173.354	175.046
H	113.296	173.846	174.494
H	114.986	174.004	174.943
C	113.703	173.281	176.530
C	112.289	172.702	176.679
H	111.998	172.616	177.729
H	111.546	173.331	176.174
H	112.218	171.702	176.242
H	114.397	172.589	177.032
C	113.855	174.633	177.271
H	114.911	174.920	177.261
H	113.603	174.454	178.325
C	112.997	175.824	176.790
H	112.929	176.553	177.610
H	111.970	175.467	176.643
C	113.427	176.582	175.514
H	112.529	177.058	175.092
H	113.771	175.880	174.750
C	114.485	177.693	175.667
C	115.842	177.199	176.182
H	116.579	178.010	176.174
H	115.776	176.830	177.206
H	116.229	176.386	175.553
H	114.103	178.428	176.390
C	114.673	178.419	174.328
H	113.720	178.807	173.944
H	115.365	179.263	174.435

H	115.082	177.737	173.570
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BChl a (chain:V,resid:102)

MG	121.408	164.221	183.968
N	122.127	166.104	183.183
C	121.693	166.704	182.031
C	120.929	166.041	181.098
C	120.501	166.518	179.723
C	119.827	165.236	179.039
C	119.860	164.197	180.039
C	119.514	162.869	180.321
C	118.870	161.856	179.439
H	117.908	162.209	179.060
H	119.495	161.635	178.566
H	118.694	160.914	179.964
O	119.391	165.250	177.897
C	121.663	166.967	178.878
O	122.800	166.552	178.959
O	121.290	167.903	177.979
C	122.350	168.278	177.095
H	121.920	169.002	176.402
H	122.718	167.411	176.550
H	123.183	168.700	177.663
H	119.746	167.312	179.740
C	120.503	164.706	181.200
N	120.583	163.792	182.171
C	119.968	162.656	181.672
C	119.876	161.474	182.426
H	119.380	160.635	181.954
C	120.416	161.239	183.676
C	120.371	159.876	184.341
C	121.226	160.070	185.608
C	122.355	159.050	185.775
H	121.934	158.069	186.008

H	123.038	159.328	186.581
H	122.934	158.958	184.852
H	120.571	160.002	186.475
C	118.965	159.340	184.644
C	118.995	157.851	185.002
H	118.003	157.468	185.256
H	119.647	157.668	185.860
H	119.382	157.249	184.173
H	118.307	159.511	183.783
H	118.544	159.926	185.471
H	120.870	159.164	183.682
N	121.141	162.134	184.418
C	121.663	161.517	185.504
C	122.503	162.102	186.438
H	122.822	161.474	187.257
C	123.058	163.384	186.421
C	124.091	163.847	187.329
C	124.492	165.097	186.870
C	125.553	166.007	187.403
H	126.519	165.504	187.486
H	125.694	166.868	186.748
H	125.292	166.391	188.393
C	124.571	163.104	188.503
O	123.914	162.206	189.030
C	125.910	163.467	189.089
H	126.134	162.758	189.884
H	126.700	163.449	188.332
H	125.881	164.472	189.513
N	122.812	164.346	185.475
C	123.661	165.398	185.730
C	123.725	166.577	184.970
H	124.430	167.330	185.302
C	123.037	166.885	183.808
C	123.310	168.158	183.019

C	124.706	168.165	182.388
H	125.487	168.020	183.139
H	124.793	167.365	181.645
H	124.871	169.128	181.894
H	123.216	169.024	183.682
C	122.208	168.132	181.933
H	122.641	168.315	180.943
C	121.084	169.150	182.171
H	120.728	169.072	183.201
H	120.238	168.907	181.519
C	121.491	170.606	181.879
H	120.580	171.217	181.891
H	121.961	170.666	180.892
C	122.443	171.262	182.852
O	123.581	171.604	182.588
O	121.833	171.479	184.035
C	122.597	172.174	185.065
H	121.869	172.857	185.508
H	123.378	172.752	184.573
C	123.127	171.220	186.087
H	122.392	170.865	186.806
C	124.382	170.754	186.182
C	125.496	171.129	185.241
H	125.749	170.270	184.608
H	125.237	171.941	184.563
H	126.401	171.400	185.800
C	124.743	169.782	187.285
H	125.365	168.978	186.874
H	123.832	169.301	187.653
C	125.487	170.438	188.465
H	124.860	171.248	188.859
H	126.407	170.916	188.099
C	125.859	169.463	189.598
H	126.335	170.036	190.407

H	126.622	168.764	189.232
C	124.682	168.656	190.180
C	123.511	169.555	190.596
H	122.717	168.963	191.066
H	123.839	170.308	191.325
H	123.067	170.084	189.746
H	124.324	167.986	189.390
C	125.091	167.764	191.367
H	124.220	167.148	191.626
H	125.274	168.398	192.249
C	126.305	166.844	191.162
H	127.230	167.403	191.357
H	126.372	166.525	190.117
C	126.249	165.607	192.073
H	125.545	164.878	191.653
H	125.831	165.903	193.046
C	127.617	164.963	192.335
C	128.376	164.514	191.086
H	129.324	164.063	191.392
H	127.839	163.750	190.529
H	128.596	165.339	190.401
H	128.204	165.764	192.805
C	127.551	163.831	193.369
H	126.939	164.172	194.209
H	128.563	163.674	193.767
C	126.996	162.460	192.959
H	127.670	161.964	192.249
H	126.025	162.561	192.454
C	126.835	161.632	194.237
H	126.158	162.190	194.901
H	127.804	161.604	194.761
C	126.315	160.192	194.147
C	127.335	159.223	193.545
H	126.925	158.211	193.468

H	127.644	159.533	192.544
H	128.229	159.162	194.180
H	125.419	160.179	193.509
C	125.932	159.753	195.565
H	125.018	160.248	195.908
H	125.786	158.673	195.628
H	126.729	160.027	196.267

BChl a (chain:W,resid:101)

MG	129.529	163.670	186.822
N	129.583	165.742	186.094
C	130.491	166.721	186.431
C	131.364	166.588	187.475
C	132.409	167.568	187.983
C	133.060	166.834	189.242
C	132.372	165.576	189.371
C	132.281	164.382	190.108
C	133.014	164.011	191.357
H	133.443	164.902	191.820
H	132.351	163.528	192.084
H	133.849	163.329	191.155
O	133.991	167.330	189.870
C	131.873	168.910	188.420
O	131.014	169.110	189.249
O	132.514	169.918	187.752
C	132.189	171.249	188.160
H	132.903	171.581	188.920
H	131.174	171.287	188.562
H	132.284	171.880	187.277
H	133.188	167.752	187.239
C	131.442	165.459	188.306
N	130.802	164.286	188.310
C	131.294	163.603	189.416
C	130.825	162.315	189.747

H	131.327	161.831	190.568
C	129.846	161.576	189.121
C	129.387	160.220	189.624
C	128.238	159.849	188.656
C	126.892	159.589	189.346
H	126.959	158.703	189.985
H	126.095	159.416	188.619
H	126.608	160.442	189.972
H	128.510	158.960	188.082
C	130.492	159.158	189.695
C	130.018	157.888	190.401
H	130.786	157.110	190.377
H	129.128	157.469	189.923
H	129.762	158.098	191.447
H	131.364	159.570	190.221
H	130.816	158.930	188.673
H	128.993	160.361	190.634
N	129.129	161.964	188.019
C	128.208	161.031	187.705
C	127.295	161.117	186.649
H	126.652	160.263	186.494
C	127.058	162.202	185.803
C	126.046	162.270	184.750
C	126.118	163.543	184.213
C	125.378	164.126	183.053
H	124.296	164.026	183.153
H	125.600	165.187	182.949
H	125.678	163.639	182.119
C	125.168	161.150	184.348
O	125.193	160.086	184.959
C	124.238	161.298	183.164
H	123.766	160.334	182.977
H	123.458	162.037	183.373
H	124.779	161.618	182.269

N	127.726	163.402	185.867
C	127.172	164.235	184.938
C	127.584	165.556	184.700
H	126.988	166.118	183.991
C	128.681	166.229	185.215
C	128.983	167.682	184.853
C	127.871	168.629	185.285
H	126.930	168.366	184.792
H	127.722	168.572	186.370
H	128.114	169.670	185.030
H	129.112	167.768	183.770
C	130.322	167.956	185.575
H	130.241	168.847	186.214
C	131.478	168.182	184.587
H	131.465	167.403	183.818
H	132.444	168.118	185.095
C	131.319	169.564	183.938
H	131.495	170.351	184.678
H	130.289	169.678	183.572
C	132.210	169.785	182.748
O	132.340	169.045	181.797
O	132.858	170.984	182.831
C	133.702	171.276	181.698
H	133.113	171.208	180.781
H	134.473	170.498	181.633
C	134.286	172.631	181.918
H	134.816	172.765	182.860
C	134.233	173.646	181.047
C	133.502	173.519	179.724
H	134.013	172.832	179.041
H	132.488	173.130	179.864
H	133.407	174.483	179.217
C	134.940	174.951	181.361
H	135.824	175.068	180.718

H	135.317	174.898	182.389
C	134.067	176.206	181.197
H	133.742	176.285	180.151
H	134.682	177.098	181.377
C	132.831	176.205	182.106
H	133.108	176.524	183.122
H	132.480	175.172	182.201
C	131.681	177.076	181.578
C	132.091	178.552	181.478
H	131.266	179.167	181.097
H	132.369	178.939	182.468
H	132.949	178.690	180.810
H	131.459	176.720	180.560
C	130.386	176.933	182.397
H	129.611	177.531	181.897
H	130.535	177.401	183.383
C	129.891	175.483	182.596
H	130.325	174.828	181.828
H	128.807	175.443	182.441
C	130.208	174.943	183.996
H	129.665	175.568	184.714
H	131.272	175.106	184.217
C	129.889	173.454	184.236
C	128.488	173.051	183.758
H	128.279	172.006	184.009
H	127.708	173.667	184.222
H	128.384	173.147	182.673
H	130.614	172.885	183.634
C	130.148	173.041	185.707
H	131.075	173.516	186.042
H	130.350	171.964	185.713
C	129.024	173.258	186.744
H	129.350	172.792	187.685
H	128.161	172.668	186.418

C	128.528	174.685	187.053
H	127.505	174.602	187.447
H	128.431	175.265	186.128
C	129.329	175.507	188.084
C	130.832	175.609	187.794
H	131.322	176.254	188.536
H	131.320	174.632	187.830
H	131.014	176.041	186.801
H	129.214	175.005	189.055
C	128.722	176.910	188.220
H	127.652	176.863	188.452
H	129.217	177.483	189.015
H	128.836	177.472	187.282

BChl a (chain:X,resid:102)

MG	137.835	163.488	190.486
N	138.551	165.230	189.440
C	137.833	165.959	188.533
C	136.678	165.509	187.950
C	135.834	166.197	186.905
C	134.738	165.104	186.500
C	134.950	163.982	187.401
C	134.497	162.719	187.807
C	133.383	161.892	187.265
H	133.532	161.678	186.201
H	133.299	160.937	187.786
H	132.424	162.409	187.354
O	133.918	165.299	185.619
C	136.604	166.728	185.718
O	137.679	166.328	185.322
O	135.965	167.775	185.160
C	136.666	168.355	184.050
H	135.976	169.073	183.612
H	136.927	167.590	183.319

H	137.582	168.838	184.404
H	135.299	167.053	187.326
C	136.076	164.277	188.217
N	136.355	163.306	189.090
C	135.398	162.331	188.872
C	135.424	161.117	189.574
H	134.654	160.397	189.325
C	136.382	160.695	190.481
C	136.387	159.289	191.051
C	137.685	159.243	191.881
C	138.621	158.084	191.526
H	138.174	157.133	191.827
H	139.588	158.181	192.029
H	138.799	158.036	190.448
H	137.415	159.153	192.932
C	135.133	158.949	191.867
C	135.039	157.457	192.179
H	134.178	157.234	192.816
H	135.934	157.107	192.697
H	134.946	156.862	191.264
H	134.242	159.272	191.313
H	135.153	159.537	192.794
H	136.455	158.573	190.229
N	137.458	161.417	190.921
C	138.262	160.636	191.691
C	139.476	161.022	192.241
H	139.988	160.280	192.835
C	140.176	162.224	192.065
C	141.531	162.481	192.529
C	141.897	163.725	192.014
C	143.175	164.494	192.178
H	144.024	163.986	191.707
H	143.099	165.487	191.729
H	143.426	164.642	193.235

C	142.336	161.571	193.360
O	141.839	160.667	194.032
C	143.834	161.774	193.390
H	144.298	160.978	193.970
H	144.256	161.793	192.380
H	144.067	162.727	193.867
N	139.738	163.287	191.316
C	140.767	164.198	191.259
C	140.746	165.383	190.500
H	141.644	165.991	190.520
C	139.750	165.827	189.654
C	139.918	167.032	188.739
C	140.786	166.692	187.523
H	141.807	166.436	187.827
H	140.355	165.849	186.974
H	140.808	167.545	186.838
H	140.358	167.864	189.293
C	138.463	167.310	188.302
H	138.416	167.616	187.257
C	137.743	168.335	189.196
H	138.048	168.137	190.225
H	136.662	168.171	189.146
C	138.005	169.811	188.817
H	137.803	170.476	189.662
H	137.344	170.062	187.991
C	139.393	170.019	188.279
O	139.662	169.934	187.097
O	140.323	170.231	189.236
C	141.690	170.172	188.769
H	141.907	171.078	188.195
H	141.774	169.330	188.076
C	142.581	169.982	189.955
H	142.117	169.445	190.778
C	143.872	170.328	190.026

C	144.606	171.022	188.903
H	145.292	170.324	188.403
H	143.941	171.422	188.133
H	145.223	171.845	189.291
C	144.737	170.015	191.228
H	145.055	170.969	191.682
H	145.674	169.558	190.872
C	144.134	169.125	192.317
H	143.803	168.174	191.881
H	143.236	169.608	192.719
C	145.135	168.857	193.445
H	145.499	169.821	193.836
H	146.015	168.347	193.028
C	144.600	168.034	194.630
C	143.431	168.732	195.337
H	143.064	168.120	196.168
H	143.746	169.701	195.748
H	142.585	168.911	194.664
H	144.226	167.077	194.237
C	145.752	167.741	195.621
H	145.348	167.670	196.640
H	146.433	168.604	195.627
C	146.535	166.453	195.324
H	147.499	166.481	195.850
H	146.778	166.397	194.256
C	145.767	165.204	195.774
H	144.822	165.123	195.216
H	145.481	165.343	196.827
C	146.530	163.876	195.646
C	146.819	163.536	194.176
H	147.275	162.548	194.063
H	145.902	163.535	193.581
H	147.493	164.269	193.720
H	147.491	164.004	196.165

C	145.762	162.772	196.397
H	144.781	162.620	195.930
H	145.551	163.142	197.412
C	146.471	161.419	196.521
H	147.498	161.569	196.888
H	146.566	160.955	195.531
C	145.722	160.478	197.474
H	144.688	160.366	197.118
H	145.654	160.962	198.457
C	146.348	159.081	197.631
C	145.887	158.369	198.904
H	146.421	157.424	199.035
H	146.053	158.973	199.804
H	144.819	158.132	198.836
H	147.440	159.205	197.681
C	146.013	158.224	196.411
H	146.274	158.768	195.501
H	146.535	157.260	196.420
H	144.937	158.012	196.378

BChl a (chain:Y,resid:101)

MG	146.373	161.708	189.761
N	146.463	163.817	189.164
C	147.575	164.628	189.185
C	148.738	164.278	189.819
C	150.027	165.081	189.986
C	150.966	164.148	190.871
C	150.193	162.972	191.171
C	150.189	161.740	191.849
C	151.267	161.166	192.713
H	151.821	161.967	193.209
H	150.860	160.509	193.487
H	152.003	160.596	192.133
O	152.117	164.469	191.157

C	149.795	166.381	190.718
O	149.472	166.501	191.878
O	149.972	167.465	189.896
C	149.742	168.728	190.523
H	149.657	169.456	189.713
H	150.582	168.991	191.175
H	148.822	168.705	191.112
H	150.516	165.297	189.032
C	148.936	163.076	190.522
N	148.166	162.003	190.725
C	148.910	161.164	191.550
C	148.379	159.942	192.015
H	149.025	159.351	192.650
C	147.126	159.419	191.779
C	146.639	158.131	192.417
C	145.193	157.993	191.885
C	144.129	157.850	192.978
H	144.261	156.909	193.521
H	143.120	157.859	192.564
H	144.200	158.670	193.697
H	145.130	157.125	191.223
C	147.518	156.915	192.098
C	147.066	155.671	192.857
H	147.675	154.804	192.587
H	146.030	155.410	192.629
H	147.137	155.837	193.939
H	148.563	157.142	192.347
H	147.481	156.736	191.016
H	146.623	158.264	193.507
N	146.150	159.983	190.993
C	145.029	159.237	191.032
C	143.815	159.558	190.415
H	143.014	158.843	190.527
C	143.463	160.733	189.753

C	142.131	161.071	189.245
C	142.214	162.358	188.748
C	141.163	163.163	188.054
H	140.242	163.238	188.633
H	141.521	164.173	187.866
H	140.898	162.723	187.086
C	140.963	160.168	189.234
O	141.038	159.050	189.734
C	139.658	160.593	188.594
H	138.983	159.736	188.601
H	139.194	161.404	189.164
H	139.796	160.938	187.566
N	144.315	161.789	189.530
C	143.590	162.786	188.939
C	144.101	164.037	188.572
H	143.393	164.742	188.154
C	145.403	164.502	188.683
C	145.776	165.944	188.342
C	145.141	166.932	189.330
H	144.049	166.868	189.318
H	145.476	166.724	190.353
H	145.422	167.962	189.074
H	145.440	166.194	187.330
C	147.320	165.915	188.430
H	147.704	166.782	188.980
C	148.007	165.863	187.051
H	147.442	165.205	186.384
H	149.012	165.439	187.146
C	148.103	167.267	186.426
H	148.764	167.874	187.050
H	147.110	167.733	186.435
C	148.532	167.166	184.975
O	147.907	166.521	184.172
O	149.692	167.749	184.540

C	150.307	168.867	185.178
H	151.331	168.570	185.434
H	149.798	169.129	186.107
C	150.304	170.007	184.201
H	150.423	169.688	183.167
C	150.159	171.313	184.459
C	149.966	171.882	185.843
H	149.092	172.547	185.872
H	149.821	171.107	186.600
H	150.833	172.479	186.157
C	150.178	172.298	183.310
H	149.187	172.773	183.227
H	150.315	171.735	182.383
C	151.253	173.408	183.430
H	151.667	173.633	182.439
H	152.094	173.033	184.025
C	150.708	174.705	184.050
H	151.538	175.336	184.399
H	150.127	174.447	184.943
C	149.830	175.525	183.078
C	150.689	176.421	182.176
H	150.084	176.904	181.400
H	151.183	177.210	182.757
H	151.475	175.845	181.675
H	149.306	174.816	182.423
C	148.733	176.321	183.813
H	148.004	175.609	184.226
H	148.183	176.938	183.088
C	149.235	177.204	184.959
H	150.007	177.896	184.594
H	149.724	176.570	185.707
C	148.134	178.028	185.639
H	147.244	177.403	185.796
H	147.822	178.840	184.966

C	148.599	178.607	186.990
C	148.525	177.562	188.111
H	148.913	177.962	189.056
H	147.494	177.235	188.283
H	149.112	176.672	187.866
H	149.661	178.874	186.864
C	147.874	179.909	187.369
H	148.084	180.668	186.601
H	148.297	180.292	188.310
C	146.364	179.835	187.582
H	146.139	179.110	188.371
H	145.860	179.476	186.675
C	145.805	181.211	187.962
H	145.906	181.881	187.094
H	146.430	181.649	188.760
C	144.346	181.195	188.431
C	144.188	180.529	189.804
H	143.144	180.537	190.132
H	144.522	179.487	189.800
H	144.777	181.066	190.560
H	143.784	180.607	187.695
C	143.756	182.606	188.457
H	143.846	183.095	187.481
H	142.697	182.596	188.724
H	144.275	183.230	189.202

BChl a	(chain:Z,resid:102)		
MG	155.534	160.140	190.327
N	156.119	161.923	189.293
C	155.264	162.876	188.807
C	153.912	162.675	188.679
C	152.871	163.604	188.088
C	151.539	162.718	188.035
C	151.876	161.457	188.651

C	151.387	160.209	189.056
C	150.032	159.628	188.847
H	149.788	159.580	187.780
H	149.959	158.617	189.251
H	149.256	160.238	189.316
O	150.487	163.141	187.584
C	153.252	164.113	186.720
O	153.932	163.515	185.915
O	152.777	165.359	186.495
C	153.203	165.905	185.236
H	152.643	166.829	185.096
H	152.992	165.221	184.415
H	154.279	166.089	185.285
H	152.658	164.469	188.725
C	153.248	161.489	189.014
N	153.644	160.365	189.615
C	152.519	159.561	189.676
C	152.575	158.280	190.247
H	151.652	157.714	190.256
C	153.694	157.640	190.749
C	153.649	156.227	191.294
C	155.127	155.905	191.576
C	155.636	154.637	190.892
H	155.159	153.764	191.344
H	156.718	154.530	191.000
H	155.394	154.649	189.825
H	155.246	155.779	192.648
C	152.758	156.065	192.532
C	152.467	154.590	192.807
H	151.950	154.433	193.757
H	153.395	154.017	192.839
H	151.856	154.147	192.013
H	151.824	156.624	192.389
H	153.262	156.529	193.389

H	153.276	155.547	190.527
N	154.966	158.143	190.789
C	155.833	157.195	191.212
C	157.206	157.353	191.347
H	157.749	156.492	191.707
C	157.999	158.449	190.993
C	159.451	158.469	191.005
C	159.840	159.667	190.407
C	161.216	160.192	190.124
H	161.771	159.529	189.453
H	161.171	161.171	189.641
H	161.810	160.309	191.039
C	160.301	157.411	191.566
O	159.890	156.588	192.384
C	161.745	157.359	191.136
H	162.196	156.450	191.531
H	161.854	157.388	190.049
H	162.276	158.219	191.548
N	157.531	159.619	190.453
C	158.623	160.368	190.086
C	158.544	161.627	189.464
H	159.482	162.111	189.210
C	157.403	162.320	189.108
C	157.445	163.618	188.317
C	157.727	163.309	186.846
H	158.720	162.861	186.737
H	156.982	162.607	186.458
H	157.659	164.223	186.248
H	158.209	164.288	188.717
C	156.012	164.155	188.500
H	155.645	164.648	187.597
C	155.850	165.082	189.719
H	156.434	164.663	190.547
H	154.797	165.049	190.003

C	156.223	166.573	189.510
H	156.558	167.017	190.451
H	155.340	167.110	189.161
C	157.278	166.729	188.453
O	157.036	166.857	187.270
O	158.530	166.625	188.950
C	159.591	166.515	187.979
H	159.809	167.520	187.592
H	159.221	165.932	187.134
C	160.807	165.851	188.554
H	161.410	165.365	187.787
C	161.234	165.774	189.821
C	160.537	166.394	191.008
H	161.275	166.864	191.673
H	159.789	167.128	190.720
H	160.029	165.628	191.602
C	162.513	165.032	190.151
H	163.231	165.756	190.570
H	162.970	164.634	189.236
C	162.332	163.906	191.184
H	161.718	163.108	190.751
H	161.763	164.302	192.029
C	163.665	163.339	191.691
H	164.375	164.171	191.830
H	164.106	162.691	190.923
C	163.582	162.576	193.028
C	163.155	163.494	194.182
H	163.036	162.920	195.107
H	163.920	164.262	194.361
H	162.208	164.008	193.990
H	162.832	161.779	192.928
C	164.943	161.936	193.369
H	164.984	161.746	194.451
H	165.730	162.677	193.162

C	165.271	160.620	192.653
H	166.335	160.403	192.818
H	165.153	160.734	191.568
C	164.449	159.427	193.167
H	163.429	159.462	192.766
H	164.349	159.519	194.259
C	165.099	158.069	192.860
C	165.102	157.723	191.363
H	165.805	156.910	191.154
H	164.127	157.388	191.017
H	165.382	158.584	190.747
H	166.149	158.166	193.178
C	164.515	156.930	193.714
H	163.453	156.777	193.484
H	164.564	157.228	194.771
C	165.309	155.636	193.522
H	166.372	155.908	193.472
H	165.072	155.205	192.543
C	165.161	154.564	194.604
H	165.273	155.028	195.593
H	166.007	153.874	194.491
C	163.881	153.709	194.653
C	163.297	153.404	193.281
H	162.437	152.734	193.357
H	162.960	154.326	192.798
H	164.038	152.905	192.642
H	163.111	154.250	195.216
C	164.219	152.405	195.371
H	164.603	152.569	196.383
H	163.358	151.743	195.425
H	164.993	151.879	194.802

BChl a		(chain:1,resid:101)	
MG	162.818	157.321	187.164

N	163.050	159.395	186.534
C	164.211	160.012	186.165
C	165.444	159.435	186.362
C	166.810	160.044	186.098
C	167.841	158.968	186.655
C	167.032	157.834	187.099
C	167.055	156.561	187.677
C	168.241	155.734	188.051
H	168.902	155.584	187.188
H	168.843	156.205	188.835
H	167.950	154.739	188.397
O	169.041	159.169	186.676
C	167.033	161.371	186.784
O	166.720	161.632	187.926
O	167.652	162.238	185.947
C	167.914	163.551	186.463
H	168.971	163.770	186.292
H	167.665	163.582	187.522
H	167.296	164.261	185.908
H	166.979	160.181	185.026
C	165.664	158.170	186.922
N	164.843	157.211	187.375
C	165.663	156.196	187.839
C	165.126	155.044	188.447
H	165.826	154.305	188.809
C	163.791	154.761	188.679
C	163.319	153.660	189.620
C	161.796	153.619	189.371
C	160.978	153.468	190.656
H	161.132	152.470	191.084
H	159.909	153.571	190.458
H	161.252	154.215	191.403
H	161.547	152.779	188.706
C	164.013	152.295	189.558

C	163.998	151.648	188.179
H	164.413	150.635	188.216
H	164.554	152.244	187.452
H	162.976	151.545	187.796
H	163.500	151.636	190.273
H	165.045	152.378	189.909
H	163.468	154.056	190.632
N	162.723	155.494	188.241
C	161.551	154.904	188.598
C	160.279	155.406	188.354
H	159.447	154.777	188.636
C	159.920	156.663	187.846
C	158.568	157.175	187.657
C	158.702	158.489	187.211
C	157.648	159.447	186.750
H	156.904	159.657	187.527
H	158.079	160.395	186.438
H	157.105	159.039	185.888
C	157.330	156.410	187.895
O	157.355	155.256	188.314
C	155.976	157.045	187.625
H	155.204	156.307	187.843
H	155.818	157.922	188.265
H	155.882	157.374	186.585
N	160.825	157.643	187.514
C	160.115	158.760	187.152
C	160.692	159.982	186.762
H	160.003	160.806	186.632
C	162.011	160.259	186.456
C	162.482	161.652	186.050
C	162.304	162.643	187.201
H	161.248	162.741	187.475
H	162.849	162.277	188.077
H	162.690	163.630	186.927

H	161.914	161.996	185.179
C	163.968	161.427	185.678
H	164.604	162.105	186.257
C	164.254	161.660	184.178
H	163.463	161.196	183.577
H	165.191	161.171	183.883
C	164.325	163.168	183.921
H	165.192	163.592	184.434
H	163.437	163.642	184.367
C	164.332	163.608	182.473
O	163.839	163.015	181.538
O	164.910	164.833	182.376
C	164.802	165.512	181.094
H	163.931	165.101	180.572
H	165.689	165.264	180.508
C	164.652	166.974	181.382
H	163.808	167.199	182.034
C	165.402	167.989	180.933
C	166.596	167.822	180.023
H	167.534	167.966	180.573
H	166.626	166.833	179.562
H	166.574	168.564	179.216
C	165.062	169.419	181.305
H	164.151	169.422	181.918
H	164.819	169.963	180.380
C	166.178	170.185	182.045
H	165.866	171.233	182.143
H	167.083	170.186	181.428
C	166.481	169.613	183.434
H	166.830	168.574	183.332
H	165.537	169.547	183.996
C	167.506	170.411	184.262
C	168.897	170.392	183.623
H	169.622	170.918	184.253

H	169.245	169.357	183.511
H	168.898	170.855	182.633
H	167.164	171.456	184.289
C	167.542	169.888	185.719
H	168.565	169.929	186.115
H	167.257	168.827	185.728
C	166.614	170.672	186.658
H	166.392	170.070	187.551
H	165.648	170.824	186.156
C	167.209	172.015	187.107
H	167.633	172.538	186.240
H	168.051	171.797	187.779
C	166.191	172.925	187.820
C	165.236	173.585	186.815
H	164.467	174.173	187.327
H	165.770	174.235	186.115
H	164.716	172.826	186.217
H	165.579	172.267	188.458
C	166.822	173.954	188.785
H	167.377	173.400	189.557
H	165.988	174.437	189.312
C	167.735	175.048	188.195
H	167.681	175.905	188.874
H	167.334	175.382	187.230
C	169.204	174.634	188.029
H	169.268	173.795	187.324
H	169.570	174.238	188.991
C	170.153	175.747	187.548
C	170.209	176.926	188.530
H	170.950	177.669	188.224
H	169.237	177.404	188.668
H	170.521	176.543	189.516
H	169.781	176.084	186.571
C	171.558	175.174	187.330

H	171.521	174.316	186.648
H	172.251	175.903	186.901
H	171.987	174.809	188.274

BChl a (chain:2,resid:102)

MG	171.290	154.852	184.540
N	171.662	156.528	183.198
C	170.791	157.545	182.911
C	169.476	157.525	183.284
C	168.420	158.581	183.074
C	167.065	157.866	183.491
C	167.437	156.569	184.029
C	166.994	155.377	184.623
C	165.611	154.897	184.887
H	165.036	154.837	183.957
H	165.609	153.903	185.339
H	165.079	155.573	185.557
O	165.991	158.432	183.372
C	168.318	159.182	181.692
O	168.283	158.585	180.640
O	168.292	160.536	181.798
C	168.132	161.275	180.582
H	168.707	162.195	180.715
H	167.080	161.516	180.438
H	168.495	160.697	179.730
H	168.589	159.417	183.755
C	168.850	156.450	183.923
N	169.314	155.301	184.419
C	168.199	154.622	184.874
C	168.292	153.341	185.434
H	167.366	152.923	185.804
C	169.414	152.534	185.518
C	169.346	151.079	185.950
C	170.820	150.617	185.875

C	171.035	149.350	185.037
H	170.537	148.497	185.505
H	172.097	149.111	184.931
H	170.615	149.461	184.035
H	171.183	150.428	186.887
C	168.696	150.876	187.326
C	168.389	149.412	187.630
H	168.039	149.274	188.657
H	169.274	148.789	187.496
H	167.620	149.021	186.960
H	167.767	151.459	187.380
H	169.377	151.293	188.080
H	168.761	150.526	185.204
N	170.685	152.895	185.177
C	171.536	151.854	185.351
C	172.899	151.889	185.077
H	173.458	150.992	185.309
C	173.641	152.911	184.465
C	175.028	152.804	184.053
C	175.330	153.961	183.342
C	176.641	154.403	182.764
H	176.979	153.761	181.945
H	176.579	155.425	182.380
H	177.425	154.392	183.529
C	175.883	151.627	184.267
O	175.719	150.844	185.204
C	176.976	151.373	183.262
H	177.321	150.349	183.390
H	176.637	151.532	182.235
H	177.810	152.053	183.439
N	173.132	154.107	184.022
C	174.123	154.744	183.315
C	173.940	155.923	182.563
H	174.760	156.216	181.916

C	172.790	156.683	182.459
C	172.594	157.802	181.450
C	172.111	157.321	180.085
H	172.873	156.720	179.603
H	171.189	156.741	180.165
H	171.916	158.189	179.448
H	173.523	158.336	181.287
C	171.458	158.622	182.088
H	170.792	158.999	181.307
C	171.895	159.809	182.953
H	172.458	159.460	183.821
H	171.002	160.324	183.325
C	172.742	160.794	182.144
H	172.901	161.709	182.729
H	172.233	161.084	181.219
C	174.116	160.281	181.753
O	174.658	160.486	180.686
O	174.715	159.660	182.795
C	176.062	159.171	182.609
H	176.323	159.271	181.551
H	176.024	158.108	182.864
C	176.970	159.965	183.510
H	176.490	160.824	183.970
C	178.251	159.718	183.803
C	179.009	160.636	184.729
H	179.934	160.995	184.257
H	178.406	161.506	185.007
H	179.305	160.122	185.652
C	179.022	158.548	183.243
H	179.877	158.937	182.673
H	178.404	157.976	182.540
C	179.599	157.597	184.302
H	178.804	157.269	184.983
H	180.325	158.145	184.917

C	180.271	156.370	183.676
H	180.866	156.673	182.800
H	179.489	155.705	183.294
C	181.185	155.617	184.662
C	182.557	156.295	184.765
H	183.172	155.817	185.537
H	183.095	156.214	183.812
H	182.470	157.360	185.013
H	180.708	155.662	185.654
C	181.337	154.130	184.312
H	182.036	153.679	185.031
H	181.811	154.030	183.326
C	180.004	153.361	184.354
H	179.512	153.416	183.377
H	179.328	153.862	185.061
C	180.152	151.898	184.782
H	179.161	151.466	184.949
H	180.665	151.879	185.755
C	180.933	151.023	183.792
C	180.158	150.728	182.504
H	179.179	150.304	182.715
H	180.008	151.611	181.875
H	180.688	149.974	181.915
H	181.844	151.580	183.537
C	181.388	149.714	184.444
H	181.929	149.956	185.367
H	182.112	149.214	183.786
C	180.278	148.715	184.783
H	179.851	148.305	183.860
H	179.454	149.208	185.313
C	180.854	147.599	185.646
H	181.282	148.058	186.550
H	181.696	147.139	185.106
C	179.913	146.478	186.087

C	179.362	145.680	184.905
H	178.729	144.853	185.241
H	178.765	146.310	184.242
H	180.184	145.249	184.318
H	179.060	146.929	186.615
C	180.681	145.571	187.050
H	180.798	146.028	188.039
H	180.179	144.610	187.170
H	181.685	145.371	186.657

BChl a (chain:3,resid:101)

MG	177.199	151.204	179.225
N	177.539	153.305	178.659
C	178.635	153.834	178.011
C	179.810	153.136	177.903
C	181.147	153.569	177.299
C	182.089	152.303	177.450
C	181.326	151.322	178.183
C	181.343	150.027	178.729
C	182.495	149.076	178.797
H	183.428	149.600	178.578
H	182.578	148.615	179.789
H	182.405	148.269	178.060
O	183.210	152.273	176.952
C	181.732	154.752	178.041
O	182.241	154.741	179.137
O	181.562	155.899	177.311
C	181.886	157.137	177.949
H	181.103	157.844	177.660
H	182.860	157.483	177.589
H	181.918	157.007	179.033
H	181.062	153.833	176.241
C	180.016	151.828	178.389
N	179.219	150.940	178.997

C	180.015	149.822	179.230
C	179.504	148.678	179.885
H	180.204	147.867	180.038
C	178.235	148.476	180.387
C	177.834	147.227	181.151
C	176.357	147.496	181.533
C	176.066	147.378	183.036
H	176.183	146.340	183.360
H	175.045	147.685	183.275
H	176.758	147.993	183.621
H	175.704	146.794	181.006
C	178.012	145.933	180.350
C	177.666	144.710	181.191
H	177.809	143.783	180.628
H	176.624	144.726	181.519
H	178.290	144.696	182.092
H	179.047	145.860	179.989
H	177.366	145.981	179.466
H	178.447	147.153	182.062
N	177.188	149.363	180.306
C	176.108	148.875	180.950
C	174.890	149.547	181.117
H	174.098	149.000	181.607
C	174.587	150.868	180.789
C	173.319	151.555	181.038
C	173.476	152.850	180.587
C	172.444	153.921	180.463
H	172.092	154.289	181.430
H	172.841	154.757	179.897
H	171.574	153.561	179.907
C	172.114	150.958	181.654
O	172.080	149.763	181.923
C	170.919	151.828	181.981
H	170.169	151.218	182.481

H	171.210	152.651	182.641
H	170.476	152.254	181.076
N	175.473	151.749	180.209
C	174.844	152.957	180.103
C	175.417	154.115	179.551
H	174.827	155.014	179.645
C	176.609	154.264	178.857
C	177.035	155.594	178.234
C	177.270	156.683	179.287
H	176.361	156.880	179.865
H	178.047	156.367	179.991
H	177.591	157.616	178.809
H	176.260	155.946	177.546
C	178.326	155.220	177.457
H	179.122	155.932	177.686
C	178.157	155.147	175.907
H	177.151	155.482	175.622
H	178.241	154.106	175.591
C	179.213	155.933	175.081
H	179.267	155.527	174.069
H	180.191	155.828	175.556
C	178.873	157.395	175.016
O	178.840	158.166	175.954
O	178.553	157.783	173.733
C	177.800	158.996	173.605
H	177.675	159.417	174.609
H	176.815	158.693	173.229
C	178.324	160.079	172.706
H	177.507	160.744	172.418
C	179.548	160.406	172.276
C	180.792	159.599	172.522
H	181.473	160.107	173.218
H	180.553	158.618	172.927
H	181.351	159.460	171.587

C	179.736	161.673	171.467
H	178.763	162.016	171.101
H	180.347	161.444	170.582
C	180.435	162.829	172.216
H	180.609	163.642	171.496
H	181.428	162.492	172.542
C	179.701	163.385	173.448
H	180.272	164.246	173.827
H	179.723	162.629	174.243
C	178.227	163.787	173.237
C	178.007	164.688	172.015
H	176.943	164.916	171.880
H	178.546	165.639	172.093
H	178.355	164.196	171.105
H	177.693	162.853	173.034
C	177.591	164.364	174.534
H	178.095	163.924	175.404
H	176.555	164.010	174.589
C	177.526	165.895	174.680
H	176.949	166.127	175.584
H	176.936	166.301	173.849
C	178.851	166.673	174.730
H	178.601	167.745	174.702
H	179.430	166.472	173.820
C	179.750	166.416	175.951
C	179.045	166.773	177.269
H	179.746	166.770	178.112
H	178.565	167.760	177.229
H	178.259	166.048	177.499
H	179.957	165.339	175.992
C	181.139	167.083	175.766
H	181.675	166.502	175.003
H	181.718	166.969	176.694
C	181.179	168.555	175.318

H	180.547	168.676	174.432
H	182.202	168.790	174.986
C	180.787	169.589	176.382
H	181.537	169.567	177.187
H	179.836	169.315	176.850
C	180.660	171.022	175.834
C	179.388	171.202	174.995
H	179.302	172.221	174.599
H	179.358	170.506	174.151
H	178.495	171.015	175.602
H	181.532	171.213	175.189
C	180.682	172.051	176.971
H	181.635	172.016	177.521
H	180.518	173.066	176.584
H	179.886	171.855	177.697

BChl a (chain:4,resid:102)

MG	184.212	147.664	174.258
N	184.668	149.415	173.072
C	184.025	150.624	173.134
C	182.806	150.777	173.753
C	181.874	151.971	173.726
C	180.516	151.431	174.385
C	180.800	150.093	174.827
C	180.256	148.960	175.440
C	178.880	148.766	175.985
H	178.126	149.061	175.247
H	178.690	147.724	176.253
H	178.701	149.379	176.874
O	179.492	152.093	174.428
C	181.558	152.448	172.333
O	181.668	151.798	171.313
O	181.085	153.713	172.346
C	180.623	154.154	171.064

H	180.278	155.177	171.205
H	179.800	153.528	170.718
H	181.434	154.090	170.336
H	182.206	152.823	174.331
C	182.113	149.749	174.410
N	182.416	148.484	174.704
C	181.310	147.977	175.359
C	181.267	146.647	175.799
H	180.382	146.374	176.349
C	182.186	145.644	175.557
C	181.922	144.193	175.917
C	183.187	143.468	175.416
C	182.906	142.214	174.585
H	182.478	141.432	175.219
H	183.817	141.821	174.125
H	182.184	142.430	173.793
H	183.779	143.176	176.286
C	181.655	143.962	177.408
C	181.276	142.517	177.733
H	181.090	142.385	178.802
H	182.069	141.821	177.449
H	180.372	142.209	177.200
H	180.865	144.637	177.760
H	182.572	144.245	177.940
H	181.054	143.853	175.341
N	183.377	145.788	174.898
C	183.967	144.579	174.732
C	185.160	144.352	174.057
H	185.521	143.333	174.044
C	185.915	145.263	173.310
C	187.048	144.921	172.463
C	187.383	146.074	171.757
C	188.457	146.302	170.735
H	188.357	145.623	169.884

H	188.414	147.317	170.334
H	189.461	146.164	171.156
C	187.695	143.604	172.406
O	187.487	142.724	173.241
C	188.673	143.325	171.291
H	189.063	142.318	171.424
H	188.204	143.419	170.307
H	189.506	144.026	171.321
N	185.617	146.596	173.156
C	186.478	147.098	172.210
C	186.478	148.426	171.757
H	187.215	148.681	171.003
C	185.681	149.473	172.179
C	185.832	150.864	171.594
C	185.578	150.892	170.094
H	186.160	150.128	169.574
H	184.515	150.710	169.895
H	185.865	151.869	169.698
H	186.852	151.212	171.783
C	184.790	151.694	172.378
H	184.123	152.218	171.685
C	185.406	152.728	173.330
H	186.132	152.240	173.989
H	184.618	153.142	173.968
C	186.088	153.892	172.591
H	186.279	154.702	173.307
H	185.432	154.269	171.801
C	187.414	153.574	171.932
O	187.677	153.758	170.761
O	188.298	153.107	172.843
C	189.646	152.860	172.377
H	190.231	152.881	173.303
H	189.949	153.696	171.746
C	189.783	151.536	171.684

H	189.180	150.733	172.106
C	190.611	151.256	170.666
C	191.505	152.272	169.999
H	191.332	152.281	168.915
H	191.353	153.289	170.368
H	192.564	152.019	170.148
C	190.717	149.854	170.106
H	190.695	149.927	169.011
H	189.843	149.265	170.410
C	191.997	149.083	170.503
H	192.878	149.680	170.235
H	192.048	148.177	169.889
C	192.028	148.730	171.995
H	191.121	148.157	172.228
H	191.941	149.669	172.557
C	193.256	147.942	172.534
C	194.565	148.301	171.818
H	195.414	147.796	172.295
H	194.550	148.000	170.765
H	194.756	149.382	171.852
H	193.374	148.253	173.582
C	193.025	146.417	172.591
H	192.146	146.234	173.220
H	193.871	145.951	173.117
C	192.815	145.707	171.252
H	193.741	145.729	170.659
H	192.067	146.253	170.670
C	192.339	144.257	171.410
H	191.344	144.270	171.868
H	192.994	143.725	172.113
C	192.287	143.501	170.073
C	191.530	144.319	169.007
H	191.272	143.708	168.138
H	190.580	144.686	169.408

H	192.101	145.182	168.650
H	193.336	143.395	169.766
C	191.662	142.086	170.138
H	192.036	141.512	169.279
H	190.586	142.183	169.964
C	191.853	141.230	171.399
H	191.415	141.744	172.263
H	192.920	141.090	171.617
C	191.157	139.877	171.189
H	191.656	139.376	170.353
H	190.135	140.088	170.853
C	191.079	138.881	172.358
C	190.198	137.685	171.974
H	190.112	136.969	172.797
H	189.190	137.990	171.683
H	190.640	137.143	171.129
H	190.613	139.391	173.214
C	192.459	138.364	172.771
H	193.121	139.174	173.097
H	192.382	137.639	173.589
H	192.928	137.841	171.929

BChI a (chain:5,resid:202)

MG	187.379	143.834	167.444
N	187.734	145.863	166.759
C	188.561	146.271	165.746
C	189.504	145.431	165.193
C	190.539	145.730	164.119
C	191.334	144.351	163.928
C	190.746	143.428	164.895
C	190.795	142.129	165.402
C	191.704	141.006	165.017
H	192.657	141.383	164.643
H	191.904	140.339	165.863

H	191.272	140.392	164.214
O	192.224	144.189	163.114
C	191.506	146.842	164.473
O	191.623	147.378	165.557
O	192.265	147.151	163.406
C	193.272	148.142	163.654
H	193.788	148.280	162.704
H	193.969	147.789	164.415
H	192.814	149.073	163.987
H	190.072	145.990	163.163
C	189.697	144.096	165.580
N	189.100	143.301	166.484
C	189.736	142.073	166.387
C	189.310	140.959	167.133
H	189.842	140.029	166.975
C	188.235	140.897	168.004
C	187.759	139.603	168.634
C	186.720	140.080	169.678
C	187.102	139.865	171.146
H	187.177	138.793	171.361
H	186.325	140.278	171.800
H	188.048	140.349	171.397
H	185.772	139.558	169.508
C	187.110	138.670	167.593
C	186.987	137.248	168.143
H	186.271	136.633	167.586
H	186.637	137.258	169.183
H	187.963	136.765	168.118
H	187.698	138.668	166.672
H	186.118	139.071	167.344
H	188.582	139.055	169.104
N	187.433	141.939	168.370
C	186.532	141.545	169.310
C	185.562	142.344	169.896

H	184.908	141.862	170.611
C	185.317	143.710	169.690
C	184.280	144.516	170.319
C	184.455	145.818	169.855
C	183.604	147.025	170.093
H	183.605	147.345	171.142
H	183.940	147.855	169.483
H	182.561	146.829	169.821
C	183.228	144.009	171.220
O	183.115	142.815	171.475
C	182.233	144.974	171.847
H	181.600	144.412	172.534
H	182.738	145.774	172.399
H	181.598	145.445	171.090
N	186.074	144.511	168.868
C	185.585	145.790	168.963
C	186.122	146.898	168.281
H	185.702	147.860	168.541
C	187.074	146.927	167.278
C	187.575	148.224	166.653
C	188.551	148.939	167.595
H	188.060	149.173	168.544
H	189.414	148.295	167.797
H	188.913	149.867	167.142
H	186.728	148.884	166.433
C	188.269	147.715	165.369
H	189.177	148.270	165.138
C	187.315	147.725	164.156
H	186.409	147.179	164.450
H	187.767	147.158	163.333
C	186.869	149.104	163.666
H	186.504	149.709	164.507
H	186.015	149.000	162.989
C	187.938	149.901	162.956

O	189.136	149.715	163.027
O	187.365	150.888	162.224
C	188.236	151.752	161.463
H	187.906	151.654	160.423
H	189.254	151.363	161.542
C	188.111	153.162	161.962
H	187.694	153.261	162.963
C	188.482	154.248	161.275
C	189.108	154.142	159.903
H	190.177	153.900	159.971
H	188.637	153.340	159.323
H	189.014	155.075	159.342
C	188.332	155.638	161.845
H	187.859	155.571	162.834
H	187.643	156.210	161.204
C	189.663	156.405	161.959
H	189.456	157.398	162.379
H	190.071	156.569	160.956
C	190.679	155.673	162.840
H	190.997	154.745	162.342
H	190.162	155.348	163.753
C	191.919	156.496	163.220
C	192.703	156.946	161.980
H	193.604	157.500	162.263
H	193.015	156.070	161.394
H	192.091	157.583	161.337
H	191.563	157.394	163.750
C	192.835	155.727	164.188
H	193.708	156.352	164.409
H	193.226	154.839	163.670
C	192.152	155.297	165.505
H	191.241	155.890	165.660
H	192.799	155.532	166.357
C	191.775	153.808	165.574

H	191.135	153.542	164.722
H	191.156	153.638	166.467
C	192.963	152.827	165.608
C	192.443	151.386	165.697
H	193.259	150.654	165.695
H	191.861	151.213	166.612
H	191.779	151.147	164.857
H	193.502	152.911	164.654
C	193.990	153.148	166.717
H	194.499	154.092	166.484
H	194.763	152.372	166.690
C	193.402	153.228	168.130
H	192.943	152.263	168.375
H	192.585	153.959	168.153
C	194.389	153.573	169.255
H	193.802	153.670	170.179
H	194.835	154.561	169.076
C	195.510	152.531	169.482
C	196.812	152.915	168.764
H	197.565	152.124	168.871
H	196.652	153.086	167.696
H	197.229	153.832	169.197
H	195.161	151.569	169.077
C	195.775	152.316	170.978
H	194.871	151.968	171.493
H	196.556	151.562	171.140
H	196.099	153.245	171.463

BChl a	(chain:6,resid:102)		
MG	191.622	139.702	160.155
N	191.912	141.488	159.002
C	191.519	142.753	159.360
C	190.603	143.001	160.350
C	189.957	144.312	160.740

C	188.865	143.909	161.843
C	189.007	142.477	162.024
C	188.581	141.363	162.754
C	187.508	141.277	163.784
H	186.541	141.579	163.366
H	187.400	140.264	164.177
H	187.707	141.949	164.621
O	188.125	144.721	162.375
C	189.284	144.970	159.563
O	188.792	144.391	158.615
O	189.290	146.309	159.682
C	188.578	146.976	158.635
H	188.522	148.016	158.943
H	187.577	146.559	158.534
H	189.107	146.857	157.683
H	190.644	145.027	161.203
C	189.999	142.007	161.123
N	190.203	140.693	161.221
C	189.378	140.269	162.241
C	189.363	138.930	162.649
H	188.787	138.718	163.535
C	189.975	137.851	162.033
C	189.658	136.416	162.410
C	190.521	135.590	161.430
C	189.741	134.517	160.665
H	189.404	133.731	161.346
H	190.357	134.055	159.887
H	188.855	134.947	160.190
H	191.322	135.102	161.989
C	189.895	136.077	163.884
C	189.357	134.696	164.255
H	189.647	134.398	165.266
H	189.728	133.937	163.566
H	188.266	134.666	164.201

H	189.425	136.837	164.521
H	190.976	136.131	164.069
H	188.602	136.249	162.179
N	190.825	137.907	160.968
C	191.160	136.658	160.557
C	191.984	136.363	159.480
H	192.165	135.316	159.282
C	192.576	137.250	158.567
C	193.290	136.863	157.364
C	193.607	138.041	156.690
C	194.391	138.228	155.426
H	193.842	137.899	154.538
H	194.666	139.277	155.281
H	195.323	137.655	155.455
C	193.557	135.483	156.935
O	193.556	134.530	157.717
C	193.817	135.243	155.465
H	193.712	134.179	155.272
H	193.118	135.800	154.835
H	194.834	135.546	155.199
N	192.474	138.618	158.615
C	193.082	139.117	157.487
C	193.118	140.478	157.130
H	193.581	140.719	156.179
C	192.561	141.542	157.809
C	192.460	142.952	157.240
C	191.185	143.041	156.388
H	191.227	142.301	155.585
H	190.302	142.828	156.998
H	191.052	144.045	155.972
H	193.342	143.225	156.655
C	192.283	143.768	158.531
H	191.742	144.706	158.373
C	193.596	144.008	159.304

H	194.195	143.092	159.262
H	193.305	144.175	160.342
C	194.454	145.213	158.889
H	195.415	145.163	159.411
H	193.940	146.119	159.197
C	194.716	145.313	157.412
O	194.158	146.082	156.656
O	195.647	144.423	157.010
C	195.944	144.426	155.592
H	196.041	145.469	155.274
H	195.088	144.003	155.060
C	197.207	143.650	155.411
H	198.002	143.939	156.097
C	197.436	142.662	154.534
C	196.417	142.157	153.548
H	196.148	141.120	153.780
H	195.499	142.746	153.533
H	196.830	142.151	152.531
C	198.764	141.939	154.533
H	199.440	142.449	155.228
H	199.228	142.007	153.536
C	198.644	140.443	154.927
H	197.761	140.317	155.567
H	199.505	140.177	155.549
C	198.558	139.471	153.742
H	199.524	139.463	153.212
H	197.822	139.837	153.015
C	198.178	138.029	154.128
C	199.176	137.446	155.140
H	198.914	136.426	155.426
H	200.186	137.422	154.710
H	199.217	138.041	156.058
H	197.193	138.079	154.613
C	198.040	137.156	152.862

H	199.033	136.774	152.580
H	197.718	137.794	152.027
C	197.048	135.983	152.934
H	196.981	135.564	151.929
H	196.043	136.375	153.143
C	197.385	134.880	153.948
H	197.102	135.234	154.948
H	198.475	134.746	153.984
C	196.753	133.472	153.725
C	195.445	133.451	152.924
H	195.271	132.447	152.521
H	194.581	133.716	153.534
H	195.450	134.147	152.083
H	197.486	132.878	153.158
C	196.557	132.830	155.113
H	195.912	133.503	155.689
H	197.526	132.830	155.630
C	195.951	131.421	155.193
H	195.121	131.327	154.484
H	195.494	131.321	156.186
C	196.949	130.264	155.012
H	197.939	130.597	155.354
H	197.062	130.007	153.948
C	196.566	129.006	155.813
C	195.275	128.359	155.298
H	194.987	127.502	155.914
H	194.438	129.067	155.296
H	195.411	127.994	154.273
H	196.375	129.334	156.845
C	197.716	127.996	155.857
H	198.634	128.461	156.238
H	197.474	127.152	156.512
H	197.934	127.594	154.862

BChI a	(chain:7,resid:101)		
MG	191.523	135.839	152.280
N	192.222	137.824	151.659
C	192.836	138.157	150.469
C	193.362	137.211	149.634
C	194.123	137.394	148.324
C	194.465	135.924	147.855
C	193.956	135.039	148.874
C	193.810	133.698	149.273
C	194.352	132.475	148.605
H	195.201	132.740	147.972
H	194.690	131.733	149.336
H	193.609	131.998	147.953
O	195.026	135.710	146.785
C	195.396	138.196	148.493
O	196.426	137.813	148.999
O	195.231	139.466	148.016
C	196.331	140.360	148.210
H	195.894	141.357	148.302
H	197.004	140.310	147.347
H	196.885	140.095	149.113
H	193.511	137.886	147.562
C	193.298	135.822	149.857
N	192.737	135.073	150.814
C	193.050	133.757	150.488
C	192.680	132.683	151.329
H	192.972	131.698	150.994
C	192.023	132.736	152.539
C	191.786	131.513	153.415
C	191.093	132.103	154.668
C	191.805	131.781	155.988
H	191.747	130.709	156.197
H	191.351	132.308	156.831
H	192.863	132.061	155.939

H	190.066	131.730	154.733
C	190.967	130.405	152.733
C	190.834	129.157	153.605
H	190.193	128.410	153.126
H	190.380	129.391	154.571
H	191.814	128.704	153.800
H	191.438	130.141	151.775
H	189.973	130.805	152.497
H	192.761	131.091	153.697
N	191.543	133.876	153.140
C	191.023	133.587	154.349
C	190.488	134.516	155.250
H	190.060	134.116	156.158
C	190.507	135.908	155.171
C	189.986	136.843	156.171
C	190.279	138.115	155.715
C	189.868	139.442	156.273
H	190.133	139.556	157.325
H	190.333	140.262	155.725
H	188.783	139.569	156.185
C	189.298	136.453	157.420
O	189.173	135.268	157.713
C	188.766	137.510	158.359
H	188.211	137.013	159.156
H	189.593	138.067	158.811
H	188.115	138.216	157.841
N	191.083	136.618	154.142
C	191.000	137.944	154.464
C	191.519	138.990	153.688
H	191.478	139.976	154.132
C	192.040	138.934	152.404
C	192.539	140.179	151.678
C	193.782	140.761	152.348
H	193.537	141.057	153.373

H	194.587	140.018	152.389
H	194.140	141.640	151.799
H	191.762	140.947	151.685
C	192.808	139.659	150.251
H	193.749	140.043	149.855
C	191.674	139.977	149.257
H	190.751	139.527	149.638
H	191.879	139.492	148.297
C	191.366	141.472	149.033
H	191.133	141.938	149.997
H	190.489	141.571	148.389
C	192.492	142.278	148.445
O	193.571	142.494	148.962
O	192.137	142.808	147.235
C	193.060	143.744	146.659
H	193.054	143.554	145.583
H	194.059	143.537	147.058
C	192.651	145.144	147.009
H	192.120	145.224	147.956
C	192.919	146.264	146.327
C	193.678	146.289	145.024
H	194.662	146.763	145.151
H	193.853	145.290	144.618
H	193.140	146.876	144.268
C	192.520	147.607	146.893
H	191.850	147.453	147.747
H	191.951	148.175	146.143
C	193.722	148.461	147.350
H	193.341	149.378	147.823
H	194.294	148.786	146.470
C	194.645	147.717	148.320
H	195.122	146.887	147.785
H	194.038	147.245	149.104
C	195.721	148.588	148.988

C	196.584	149.347	147.963
H	197.413	149.866	148.461
H	197.017	148.679	147.212
H	195.991	150.100	147.432
H	195.194	149.362	149.569
C	196.549	147.782	150.020
H	195.907	147.602	150.892
H	197.371	148.421	150.376
C	197.129	146.421	149.595
H	196.314	145.714	149.392
H	197.659	146.014	150.465
C	198.074	146.456	148.389
H	198.771	147.300	148.497
H	197.486	146.661	147.486
C	198.878	145.164	148.152
C	199.933	144.911	149.239
H	200.513	144.008	149.014
H	200.637	145.744	149.336
H	199.467	144.759	150.217
H	198.169	144.325	148.209
C	199.456	145.126	146.715
H	198.626	144.889	146.037
H	200.166	144.292	146.636
C	200.112	146.404	146.163
H	199.358	147.201	146.127
H	200.393	146.209	145.118
C	201.352	146.908	146.912
H	202.048	146.071	147.056
H	201.074	147.244	147.919
C	202.087	148.056	146.198
C	201.240	149.335	146.157
H	201.747	150.121	145.581
H	200.267	149.160	145.688
H	201.053	149.713	147.172

H	202.275	147.748	145.162
C	203.441	148.332	146.862
H	204.089	147.449	146.830
H	203.974	149.154	146.363
H	203.308	148.600	147.919

BChI a (chain:8,resid:102)

MG	191.969	131.704	144.089
N	192.100	133.506	142.966
C	192.096	134.766	143.497
C	191.738	135.042	144.793
C	191.694	136.382	145.495
C	191.053	136.066	146.922
C	190.953	134.611	146.987
C	190.663	133.510	147.795
C	190.108	133.486	149.176
H	190.604	134.223	149.813
H	189.040	133.740	149.185
H	190.214	132.509	149.654
O	190.773	136.933	147.724
C	190.914	137.425	144.744
O	190.021	137.198	143.956
O	191.350	138.668	145.017
C	190.666	139.676	144.261
H	191.084	140.627	144.585
H	189.590	139.641	144.445
H	190.821	139.486	143.199
H	192.699	136.775	145.685
C	191.352	134.087	145.732
N	191.311	132.751	145.696
C	190.939	132.360	146.967
C	190.848	131.004	147.297
H	190.651	130.767	148.333
C	190.957	129.933	146.432

C	190.546	128.537	146.848
C	190.787	127.703	145.575
C	189.583	126.866	145.143
H	189.371	126.098	145.894
H	189.761	126.369	144.186
H	188.693	127.495	145.046
H	191.629	127.037	145.761
C	191.263	128.012	148.093
C	190.655	126.711	148.610
H	191.213	126.303	149.456
H	190.636	125.947	147.830
H	189.618	126.854	148.935
H	191.222	128.768	148.885
H	192.322	127.861	147.845
H	189.472	128.558	147.058
N	191.325	129.972	145.116
C	191.242	128.736	144.559
C	191.559	128.408	143.249
H	191.462	127.364	142.982
C	191.964	129.263	142.214
C	192.191	128.881	140.831
C	192.483	130.050	140.133
C	192.834	130.235	138.686
H	191.942	130.203	138.045
H	193.328	131.193	138.517
H	193.507	129.451	138.331
C	192.076	127.516	140.284
O	192.285	126.507	140.954
C	191.669	127.387	138.829
H	191.208	126.414	138.671
H	190.964	128.170	138.526
H	192.541	127.459	138.177
N	192.108	130.621	142.338
C	192.413	131.120	141.093

C	192.564	132.483	140.794
H	192.805	132.733	139.767
C	192.409	133.559	141.648
C	192.506	134.994	141.174
C	191.254	135.417	140.398
H	191.134	134.816	139.491
H	190.366	135.284	141.026
H	191.343	136.471	140.132
H	193.387	135.093	140.543
C	192.629	135.769	142.508
H	192.030	136.681	142.492
C	194.077	136.096	142.915
H	194.693	135.212	142.723
H	194.125	136.285	143.994
C	194.629	137.319	142.183
H	195.696	137.432	142.398
H	194.099	138.210	142.530
C	194.404	137.202	140.698
O	193.527	137.783	140.092
O	195.321	136.388	140.125
C	195.358	136.344	138.666
H	196.377	136.635	138.409
H	194.665	137.104	138.301
C	195.004	135.018	138.079
H	193.937	134.810	138.002
C	195.863	134.159	137.506
C	197.363	134.284	137.562
H	197.794	134.316	136.553
H	197.705	135.159	138.118
H	197.790	133.401	138.055
C	195.332	133.050	136.630
H	195.496	133.363	135.587
H	194.245	132.984	136.755
C	195.925	131.641	136.750

H	195.677	131.205	137.726
H	197.017	131.672	136.685
C	195.352	130.766	135.631
H	195.671	131.169	134.658
H	194.256	130.858	135.647
C	195.688	129.271	135.687
C	197.194	128.996	135.611
H	197.400	127.920	135.643
H	197.614	129.391	134.677
H	197.731	129.456	136.447
H	195.323	128.893	136.654
C	194.917	128.544	134.570
H	195.350	128.813	133.596
H	193.884	128.925	134.556
C	194.839	127.021	134.709
H	195.825	126.560	134.576
H	194.220	126.639	133.891
C	194.235	126.570	136.051
H	193.624	127.386	136.461
H	195.036	126.401	136.782
C	193.345	125.318	135.938
C	191.916	125.719	135.544
H	191.346	126.048	136.422
H	191.922	126.569	134.853
H	191.362	124.901	135.075
H	193.746	124.689	135.133
C	193.387	124.488	137.226
H	192.980	125.072	138.062
H	194.440	124.304	137.467
C	192.663	123.149	137.127
H	193.196	122.521	136.401
H	191.659	123.299	136.714
C	192.542	122.421	138.472
H	191.760	122.904	139.069

H	193.464	122.534	139.050
C	192.229	120.923	138.341
C	191.071	120.685	137.376
H	190.745	119.648	137.434
H	190.212	121.317	137.629
H	191.375	120.893	136.347
H	191.901	120.557	139.318
C	193.475	120.119	137.954
H	194.285	120.294	138.669
H	193.270	119.045	137.945
H	193.841	120.389	136.958

BChl a (chain:9,resid:101)

MG	188.338	129.022	136.777
N	189.118	130.924	136.018
C	189.305	131.286	134.701
C	189.233	130.373	133.681
C	189.405	130.587	132.188
C	189.260	129.121	131.553
C	189.013	128.236	132.660
C	188.779	126.899	133.028
C	188.716	125.685	132.158
H	189.290	125.839	131.244
H	189.115	124.801	132.667
H	187.693	125.455	131.837
O	189.336	128.914	130.348
C	190.710	131.190	131.734
O	191.766	131.200	132.335
O	190.564	131.727	130.497
C	191.764	132.212	129.892
H	191.472	132.598	128.916
H	192.485	131.401	129.773
H	192.218	133.000	130.502
H	188.603	131.198	131.763

C	188.978	128.998	133.857
N	188.732	128.238	134.931
C	188.621	126.938	134.452
C	188.402	125.844	135.318
H	188.354	124.869	134.851
C	188.274	125.864	136.689
C	188.106	124.604	137.522
C	188.118	125.138	138.975
C	189.224	124.538	139.854
H	189.024	123.478	140.038
H	189.284	125.040	140.824
H	190.201	124.616	139.366
H	187.155	124.932	139.451
C	186.826	123.824	137.184
C	186.739	122.513	137.960
H	185.792	122.001	137.762
H	186.794	122.680	139.039
H	187.571	121.851	137.689
H	186.795	123.621	136.105
H	185.959	124.456	137.412
H	188.967	123.941	137.354
N	188.296	126.988	137.480
C	188.224	126.641	138.781
C	188.258	127.528	139.861
H	188.140	127.097	140.843
C	188.514	128.899	139.843
C	188.644	129.768	141.013
C	189.040	131.009	140.545
C	189.308	132.268	141.307
H	190.015	132.109	142.123
H	189.732	133.030	140.654
H	188.393	132.685	141.743
C	188.358	129.364	142.404
O	188.100	128.194	142.675

C	188.356	130.390	143.518
H	187.971	129.909	144.418
H	189.371	130.745	143.723
H	187.740	131.260	143.275
N	188.768	129.629	138.706
C	189.113	130.894	139.098
C	189.483	131.924	138.224
H	189.800	132.851	138.688
C	189.483	131.931	136.836
C	189.964	133.144	136.054
C	191.430	133.459	136.337
H	191.609	133.595	137.409
H	192.043	132.624	135.983
H	191.752	134.366	135.810
H	189.354	134.010	136.324
C	189.730	132.739	134.579
H	190.674	132.780	134.020
C	188.730	133.671	133.870
H	187.791	133.715	134.431
H	188.495	133.296	132.868
C	189.355	135.080	133.773
H	190.291	135.017	133.208
H	189.583	135.443	134.780
C	188.465	136.113	133.136
O	187.568	136.720	133.684
O	188.810	136.311	131.834
C	188.080	137.342	131.129
H	187.061	137.380	131.524
H	188.060	137.010	130.091
C	188.758	138.667	131.297
H	188.650	139.101	132.290
C	189.461	139.342	130.374
C	189.720	138.853	128.972
H	190.797	138.758	128.788

H	189.279	137.878	128.769
H	189.336	139.571	128.233
C	190.034	140.705	130.706
H	189.969	140.862	131.788
H	189.410	141.486	130.244
C	191.480	140.913	130.222
H	191.479	141.034	129.131
H	192.063	140.011	130.417
C	192.188	142.121	130.843
H	191.590	143.025	130.650
H	193.145	142.270	130.318
C	192.492	142.049	132.354
C	193.217	143.337	132.774
H	193.374	143.371	133.857
H	194.203	143.400	132.292
H	192.646	144.230	132.487
H	191.540	142.018	132.901
C	193.317	140.803	132.762
H	193.947	141.066	133.623
H	194.017	140.561	131.952
C	192.482	139.575	133.162
H	191.947	139.157	132.304
H	191.694	139.936	133.834
C	193.226	138.454	133.909
H	192.458	137.785	134.317
H	193.731	138.890	134.783
C	194.245	137.561	133.159
C	195.589	138.249	132.878
H	196.326	137.523	132.515
H	195.509	139.042	132.127
H	195.991	138.700	133.793
H	194.466	136.753	133.870
C	193.652	136.866	131.911
H	192.644	136.516	132.166

H	194.236	135.960	131.706
C	193.588	137.715	130.620
H	193.613	138.775	130.877
H	192.622	137.555	130.124
C	194.707	137.431	129.610
H	194.710	136.359	129.368
H	195.686	137.632	130.068
C	194.591	138.241	128.305
C	194.831	139.739	128.536
H	194.804	140.287	127.586
H	194.085	140.182	129.203
H	195.822	139.902	128.983
H	193.566	138.119	127.921
C	195.556	137.710	127.240
H	195.365	136.654	127.031
H	195.458	138.260	126.298
H	196.597	137.804	127.578

BChl a	(chain:0,resid:102)		
MG	185.050	125.771	128.669
N	185.167	127.630	127.552
C	185.617	128.824	128.044
C	185.779	129.054	129.390
C	186.164	130.344	130.086
C	186.011	130.018	131.645
C	185.635	128.628	131.723
C	185.368	127.557	132.585
C	185.282	127.538	134.072
H	184.500	128.218	134.428
H	185.045	126.542	134.452
H	186.218	127.861	134.534
O	186.236	130.844	132.516
C	185.282	131.499	129.689
O	184.125	131.417	129.332

O	185.941	132.676	129.747
C	185.118	133.790	129.383
H	185.743	134.674	129.495
H	184.246	133.857	130.033
H	184.765	133.663	128.356
H	187.206	130.637	129.924
C	185.512	128.122	130.401
N	185.175	126.830	130.382
C	185.112	126.444	131.706
C	184.795	125.130	132.079
H	184.856	124.925	133.135
C	184.375	124.101	131.260
C	183.790	122.803	131.798
C	183.440	122.016	130.518
C	182.016	121.451	130.489
H	181.900	120.669	131.244
H	181.779	121.018	129.513
H	181.283	122.234	130.704
H	184.139	121.182	130.424
C	184.712	122.030	132.745
C	184.034	120.807	133.365
H	184.714	120.269	134.031
H	183.704	120.103	132.597
H	183.151	121.092	133.945
H	185.073	122.693	133.542
H	185.592	121.722	132.164
H	182.866	123.053	132.336
N	184.323	124.144	129.894
C	183.773	123.002	129.412
C	183.535	122.735	128.073
H	183.116	121.767	127.840
C	183.683	123.595	126.979
C	183.202	123.314	125.638
C	183.357	124.489	124.908

C	182.978	124.776	123.492
H	181.925	124.556	123.300
H	183.135	125.826	123.242
H	183.572	124.179	122.796
C	182.672	122.020	125.184
O	182.827	120.981	125.827
C	181.936	121.950	123.872
H	181.616	120.921	123.718
H	181.070	122.618	123.857
H	182.590	122.241	123.050
N	184.166	124.879	127.034
C	183.981	125.441	125.792
C	184.332	126.756	125.439
H	184.138	127.045	124.412
C	184.879	127.746	126.236
C	185.149	129.159	125.725
C	183.861	129.897	125.344
H	183.290	129.342	124.594
H	183.225	130.031	126.227
H	184.108	130.882	124.935
H	185.802	129.110	124.847
C	185.851	129.830	126.934
H	185.357	130.778	127.175
C	187.354	130.100	126.754
H	187.845	129.219	126.327
H	187.805	130.269	127.737
C	187.651	131.337	125.890
H	188.717	131.580	125.977
H	187.067	132.188	126.253
C	187.336	131.175	124.420
O	186.516	131.834	123.806
O	188.117	130.224	123.871
C	187.964	129.971	122.441
H	188.991	129.900	122.077

H	187.481	130.837	121.996
C	187.216	128.705	122.195
H	187.757	127.794	122.440
C	185.963	128.588	121.726
C	185.063	129.749	121.392
H	184.574	129.604	120.422
H	184.267	129.825	122.143
H	185.577	130.711	121.389
C	185.372	127.208	121.579
H	184.467	127.141	122.196
H	186.072	126.484	122.005
C	185.006	126.729	120.158
H	185.800	127.005	119.451
H	184.095	127.232	119.812
C	184.817	125.198	120.185
H	184.442	124.933	121.177
H	185.807	124.725	120.109
C	183.863	124.572	119.154
C	182.424	125.077	119.338
H	181.736	124.515	118.701
H	182.085	124.967	120.375
H	182.322	126.134	119.067
H	184.193	124.861	118.144
C	183.913	123.025	119.224
H	184.896	122.674	118.877
H	183.177	122.630	118.513
C	183.645	122.448	120.624
H	182.824	123.004	121.086
H	184.525	122.625	121.256
C	183.305	120.952	120.674
H	183.369	120.616	121.715
H	184.072	120.384	120.127
C	181.922	120.574	120.112
C	180.757	121.353	120.732

H	179.809	120.921	120.395
H	180.753	121.290	121.819
H	180.756	122.413	120.461
H	181.946	120.806	119.037
C	181.671	119.061	120.218
H	182.552	118.534	119.839
H	180.836	118.801	119.554
C	181.368	118.473	121.603
H	180.421	118.871	121.987
H	182.144	118.758	122.327
C	181.304	116.948	121.486
H	182.254	116.601	121.053
H	180.528	116.684	120.751
C	181.040	116.138	122.761
C	179.646	116.399	123.335
H	179.465	115.807	124.237
H	179.508	117.453	123.587
H	178.878	116.118	122.604
H	181.781	116.433	123.519
C	181.207	114.652	122.433
H	182.246	114.379	122.224
H	180.848	114.013	123.244
H	180.626	114.417	121.533

BChl a (in *vacuo*)

MG	3.522	-1.125	-0.020
H	5.984	7.403	-1.906
H	7.116	6.024	-2.106
C	6.273	6.420	-1.534
O	5.116	5.588	-1.710
H	6.551	6.471	-0.478
O	4.184	3.857	-4.115
H	-4.040	4.243	3.767

O	0.043	5.022	1.624
C	5.264	4.309	-1.322
H	3.153	4.163	-1.532
H	2.550	4.495	0.717
H	-2.281	4.296	0.901
H	-2.345	4.335	2.662
O	6.266	3.870	-0.797
C	4.045	3.077	-3.195
H	-5.708	4.066	3.207
C	4.023	3.507	-1.654
C	-4.818	3.512	3.536
H	-5.095	3.005	4.469
H	2.689	4.563	2.459
C	-2.258	3.669	1.801
H	3.847	1.454	-5.921
C	0.110	3.815	1.728
C	2.637	3.870	1.611
H	4.774	3.746	1.364
O	-0.965	3.010	1.847
H	5.920	3.336	3.593
C	3.860	1.632	-3.195
H	-8.801	0.444	3.594
C	-4.408	2.504	2.492
C	1.386	3.001	1.732
C	3.947	3.055	1.553
C	-3.291	2.592	1.757
C	3.723	0.451	-5.505
C	3.900	2.195	-0.890
H	2.787	0.031	-5.895
H	1.325	2.288	0.901
H	-8.878	1.526	2.192
H	-11.099	0.482	2.711
C	3.720	0.511	-4.011

H	4.539	-0.178	-5.881
H	6.354	2.033	2.471
C	3.793	1.180	-1.853
C	-8.971	0.481	2.512
C	5.679	2.311	3.288
C	3.897	1.988	0.475
H	-6.405	1.787	2.272
H	1.397	2.390	2.642
H	-3.080	1.826	1.015
C	4.215	2.219	2.828
C	-5.394	1.360	2.348
C	-10.348	-0.091	2.149
H	3.564	2.530	3.653
H	-5.396	0.807	3.300
H	-10.662	1.180	0.431
H	-10.335	-1.652	3.672
H	-8.163	-0.087	2.036
H	5.872	1.645	4.135
H	-5.071	1.954	-0.296
C	3.567	-0.598	-3.097
N	3.621	-0.153	-1.783
H	-6.614	1.127	-0.207
N	3.785	0.735	1.023
C	-10.465	-1.556	2.588
C	-10.682	0.103	0.656
H	-11.445	-1.973	2.329
C	3.876	0.805	2.376
C	-5.529	0.963	-0.183
C	-5.180	0.377	1.192
H	-8.723	-0.324	-0.155
H	-11.717	-0.224	0.482
H	-4.147	0.011	1.214
H	-5.443	1.602	-2.868

H	3.318	-2.213	-4.465
H	-9.700	-2.180	2.111
C	-9.763	-0.621	-0.335
H	-7.736	1.082	-2.004
H	-3.193	1.063	-1.742
C	3.369	-1.956	-3.410
H	-5.809	-0.506	1.366
C	3.733	-0.255	3.260
H	-9.806	-1.705	-0.163
H	-10.018	0.746	-1.987
H	3.831	0.007	4.309
C	-5.105	0.085	-1.374
C	-5.746	0.560	-2.694
C	-3.578	0.057	-1.531
H	-3.074	-0.310	-0.631
C	-7.277	0.462	-2.782
C	-10.134	-0.329	-1.792
C	3.220	-3.000	-2.515
H	-7.591	0.902	-3.737
H	-11.202	-0.544	-1.938
H	-7.504	-1.407	-1.722
H	-5.440	-0.943	-1.176
N	3.266	-2.902	-1.149
H	-5.313	-0.024	-3.519
C	3.494	-1.612	2.989
N	3.390	-2.159	1.729
H	-3.280	-0.592	-2.363
H	1.415	-3.822	-4.361
C	-7.806	-0.974	-2.683
C	-9.334	-1.131	-2.834
H	3.663	-4.757	-3.698
C	2.931	-4.432	-2.947
H	3.372	-1.385	5.730

H	-9.665	0.270	-4.483
C	1.523	-4.565	-3.561
C	3.143	-4.125	-0.578
H	-9.554	-2.196	-2.661
H	-7.315	-1.586	-3.453
H	0.779	-4.302	-2.797
C	3.183	-3.511	1.871
C	3.347	-2.645	3.982
C	-9.809	-0.792	-4.253
C	3.394	-2.445	5.463
C	3.093	-4.397	0.783
H	-10.878	-1.009	-4.370
C	3.105	-5.227	-1.630
H	5.267	-5.444	-1.778
H	4.297	-2.895	5.889
H	-9.263	-1.374	-5.006
C	3.143	-3.838	3.290
C	1.241	-5.962	-4.119
H	1.958	-6.220	-4.907
H	0.235	-6.018	-4.548
H	2.555	-2.950	5.951
H	2.247	-5.886	-1.452
C	4.387	-6.073	-1.603
H	2.985	-5.445	1.022
H	4.355	-6.843	-2.383
H	1.312	-6.731	-3.342
H	4.516	-6.570	-0.636
C	2.910	-5.126	3.972
H	1.561	-6.075	2.540
O	3.112	-5.234	5.179
C	2.384	-6.335	3.212
H	3.183	-6.787	2.610
H	2.050	-7.073	3.944

BChl a	(in acetone)		
MG	2.396	0.248	0.784
H	-0.457	-7.889	3.582
H	0.798	-7.005	4.51
C	0.367	-7.179	3.522
O	-0.209	-5.963	3.006
H	1.144	-7.547	2.846
O	-1.449	-3.468	4.452
H	-4.505	-2.728	-3.252
O	-2.202	-3.372	-2.157
C	0.642	-4.936	2.852
H	-0.937	-4.011	1.765
H	-0.39	-4.426	-0.508
H	-3.087	-3.727	-4.353
H	-2.096	-3.577	-5.825
O	1.833	-5.001	3.092
C	-0.7	-2.936	3.647
H	-4.597	-1.187	-2.393
C	-0.089	-3.696	2.383
C	-4.647	-1.656	-3.384
H	-5.662	-1.475	-3.762
H	0.621	-5.206	-1.722
C	-2.33	-3.13	-4.858
H	-1.827	-0.527	5.587
C	-1.158	-3.262	-2.775
C	0.484	-4.28	-1.15
H	1.881	-4.946	0.346
O	-1.068	-3.239	-4.116
H	4.178	-5.5	-0.579
C	-0.186	-1.583	3.58
H	-7.526	1.588	-3.218
C	-3.637	-1.022	-4.301

C	0.195	-3.121	-2.116
C	1.735	-4.056	-0.274
C	-2.683	-1.682	-4.974
C	-0.932	0.084	5.435
C	0.8	-2.663	1.704
H	-1.231	1.136	5.418
H	0.165	-2.177	-1.558
H	-6.644	0.374	-2.274
H	-8.679	1.215	-1.074
C	-0.224	-0.318	4.181
H	-0.287	-0.059	6.312
H	4.383	-4.148	0.553
C	0.672	-1.478	2.454
C	-6.942	1.428	-2.303
C	4.263	-4.41	-0.505
C	1.594	-2.813	0.586
H	-4.623	0.856	-3.931
H	0.968	-3.029	-2.881
H	-2.008	-1.106	-5.607
C	3.013	-3.735	-1.09
C	-3.698	0.495	-4.394
C	-7.753	1.81	-1.058
H	2.908	-4.032	-2.139
H	-3.727	0.809	-5.444
H	-6.866	0.352	0.267
H	-8.773	3.499	-1.986
H	-6.031	2.031	-2.385
H	5.166	-4.097	-1.039
H	-2.119	-0.363	-2.229
C	0.616	0.511	3.349
N	1.166	-0.239	2.319
H	-3.221	0.899	-1.707
N	2.348	-1.783	0.082

C	-8.16	3.289	-1.102
C	-7.023	1.441	0.249
H	-8.741	3.568	-0.214
C	3.107	-2.22	-0.953
C	-2.287	0.723	-2.256
C	-2.486	1.163	-3.71
H	-4.988	1.88	-0.339
H	-7.686	1.669	1.096
H	-1.59	0.924	-4.293
H	-0.649	-0.208	-0.182
H	0.354	2.418	4.27
H	-7.282	3.944	-1.147
C	-5.674	2.133	0.479
H	-3.009	0.321	0.423
H	0.491	0.256	-2.397
C	0.836	1.903	3.445
H	-2.608	2.255	-3.754
C	3.895	-1.427	-1.779
H	-5.801	3.223	0.448
H	-4.841	0.664	1.829
H	4.414	-1.959	-2.569
C	-1.134	1.417	-1.512
C	-0.966	0.842	-0.094
C	0.206	1.308	-2.255
H	0.173	1.78	-3.242
C	-2.183	0.912	0.837
C	-5.041	1.745	1.818
C	1.564	2.694	2.573
H	-1.906	0.429	1.781
H	-5.772	1.923	2.62
H	-2.978	2.804	0.165
H	-1.379	2.486	-1.429
N	2.259	2.255	1.476

H	-0.142	1.374	0.398
C	4.087	-0.034	-1.744
N	3.574	0.811	-0.788
H	1.005	1.793	-1.684
H	-0.461	4.419	3.148
C	-2.642	2.35	1.104
C	-3.751	2.51	2.163
H	1.996	4.489	3.696
C	1.642	4.211	2.695
H	5.196	-0.846	-4.136
H	-3.032	1.056	3.627
C	0.271	4.876	2.471
C	2.88	3.285	0.858
H	-4.007	3.581	2.187
H	-1.771	2.936	1.428
H	-0.069	4.65	1.451
C	3.947	2.093	-1.104
C	4.842	0.728	-2.71
C	-3.257	2.126	3.563
C	5.547	0.162	-3.901
C	3.632	3.212	-0.313
H	-4.014	2.35	4.324
C	2.692	4.59	1.62
H	4.442	4.355	2.896
H	6.629	0.114	-3.729
H	-2.342	2.672	3.822
C	4.746	2.064	-2.325
C	0.295	6.389	2.697
H	0.604	6.625	3.722
H	-0.696	6.825	2.533
H	5.407	0.799	-4.777
H	2.298	5.357	0.943
C	4.013	5.099	2.215

H	4.034	4.161	-0.639
H	3.844	6.022	2.78
H	0.994	6.889	2.016
H	4.75	5.306	1.432
C	5.33	3.171	-3.102
H	3.739	4.633	-2.79
O	6.217	2.952	-3.93
C	4.822	4.592	-2.931
H	5.295	5.062	-2.06
H	5.106	5.166	-3.816

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