Supplementary Information

Cyclamenols E and F, two diastereoisomeric bicyclic macrolactams with cyclopentane moiety from an Antarctic *Streptomyces* species

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List of Supporting Information

Theory and Calculation Details. The calculations were performed by using the density functional theory (DFT) as carried out in the Gaussian 09.[S1] The preliminary conformational distributions search was performed by HyperChem Release 8.0 software. All ground-state geometries were optimized at the B3LYP/6-31G(d) level. Solvent effects of methanol solution were evaluated at the same DFT level by using the SCRF/PCM method.[S2] TDDFT[S3] at B3LYP/6-31G(d) was employed to calculate the electronic excitation energies and rotational strengths in methanol. The stable conformations obtained at the B3LYP/6-31G(d) level were further used in magnetic shielding constants at the B3LYP/6-311++G(2d,p) level. The overall calculated ECD curves were weighted by Boltzmann distribution (with a half-bandwidth of 0.35 eV) with a UV correction of −13 nm. The calculated ECD spectrum were produced by SpecDis 1.70.1 software.[S4]

Cytotoxicity Assay. By the Cell Titer Glo (CTG) assay,[S5] compounds **1** and **2** were evaluated for cytotoxicity against A431 (Epidermoid carcinoma cell line), A673 (rhabdomyoma cell line), U87 (glioblastoma cell line), U251 (glioblastoma cell line), HCC1954 (grade 3 invasive ductal carcinoma cell line), MCF-7(human breast adenocarcinoma cell line), MKN-45 (human gastric cancer cell line), Hep3B (human liver cancer cell line), H1975 (human non-small cell lung carcinoma with L858R and T790M mutation cell line), DU145 (human prostate cancer cell line), MV-4-11 (biphenotypic B myelomonocytic leukemia cell line), K562 (human erythroleukemic cell line), A549 (lung cancer cell line), N87 (gastric carcinoma cell line), H1299 (human non-small cell lung carcinoma cell line), HUCCT1 (bile duct carcinoma cell line), 143B (human bone osteosarcoma cell line), B16F10 (highly metastatic mouse melanoma cell line), SPC-A1 (human lung cancer cell line overexpressing maspin cell line), HCT116 (colon carcinoma cell line), BT474 (hormone-sensitive breast cancer cell line), H2228 (non-small cell lung cancer cell line), MDA-MB-231 (breast cancer cell line), MDA-MB-468 (basal breast cancer cell line), Karpass299 (human T cell lymphoma cell line), HL60 (human promyelocytic leukemia cell line), HEK-293F (human embryonic kidney-293F cell line) and L02 (human liver cell line). In the CTG assay, 26 cell lines above were grown in DMEM supplemented with 10% fetal bovine serum and 1% penicillin-streptomycin solution under a humidified atmosphere of 5% CO_2 and 95% air at 37 °C. 90 μL of culture solution (containing fetal bovine serum) and 100 μL of cell suspension at a density of 2×10^3 cell/mL was plated in 96-well microtiter plates, allowed to attach overnight, and then exposed to 10 μL varying concentrations (0.032−100 μM) of compounds for 72 h. The CTG solution (100 μL) was then added to each well and incubated for 10 min. Absorbance was then determined on a Spectra Max Plus plate reader at 500 nm.

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Table S1. DFT-optimized structures and thermodynamic parameters for low-energy conformers of **1**

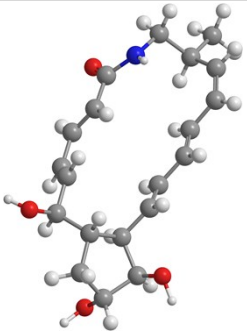
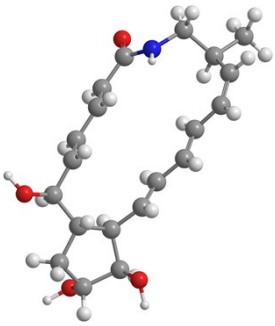
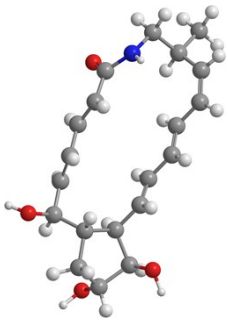
Conformers	Conf. A	Conf. B	Conf. C
DFT-optimized structures			
Population	46.2%	31.9%	21.9%
Total energy (a.u.)	-1133.93990984	-1133.93955867	-1133.93920460
Gibbs free energy (a.u.)	-1133.55013584	-1133.54129767	-1133.5490586
Sum of electronic and zero-point energies (a.u.)	-1133.495869	-1133.495785	-1133.495185
Sum of electronic and thermal energies (a.u.)	-1133.470621	-1133.470444	-1133.469978
Sum of electronic and thermal enthalpies (a.u.)	-1133.469676	-1133.469500	-1133.469034
Sum of electronic and thermal free energies (a.u.)	-1133.550136	-1133.550298	-1133.549059

Table S2. DFT-optimized structures and thermodynamic parameters for low-energy conformers of **2**

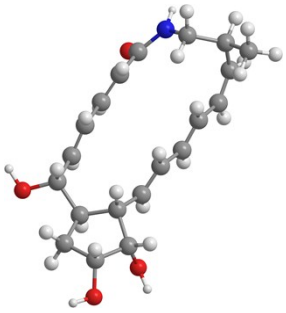
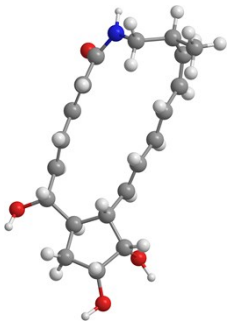
Conformers	Conf. A	Conf. B
DFT-optimized structures		
Population	99.0%	1.0%
Total energy (a.u.)	-1133.93099988	-1133.92667507
Gibbs free energy (a.u.)	-1133.54154388	-1133.53760607
Sum of electronic and zero-point energies (a.u.)	-1133.486937	-1133.482970
Sum of electronic and thermal energies (a.u.)	-1133.461616	-1133.457516
Sum of electronic and thermal enthalpies (a.u.)	-1133.460672	-1133.456572
Sum of electronic and thermal free energies (a.u.)	-1133.541544	-1133.537606

Table S3. DFT-optimized structures and thermodynamic parameters for low-energy conformers of 18-*epi*-**2**

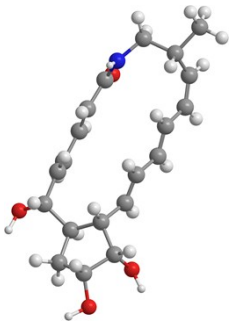
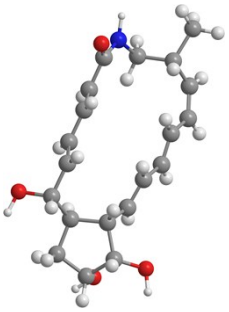
Conformers	Conf. A	Conf. B
DFT-optimized structures		
Population	91.8%	8.2%
Total energy (a.u.)	-1133.93257627	-1133.93030495
Gibbs free energy (a.u.)	-1133.54337027	-1133.54114795
Sum of electronic and zero-point energies (a.u.)	-1133.489049	-1133.486448
Sum of electronic and thermal energies (a.u.)	-1133.463621	-1133.461089
Sum of electronic and thermal enthalpies (a.u.)	-1133.462677	-1133.460145
Sum of electronic and thermal free energies (a.u.)	-1133.543370	-1133.541148

Table S4. Optimized Z-matrixes of **1** in the gas phase (Å) at B3LYP/6-31G(d) level

Conf. A				Conf. B				Conf. C			
C	-2.1449	-2.2045	-1.5098	C	-1.9898	-2.2963	-1.7481	C	-1.9688	-0.774	-4.5809
C	-1.2106	-2.8379	-2.5192	C	-1.4055	-2.5371	-3.1237	C	-0.8082	-1.7377	-4.4621
C	0.2224	-2.2346	-2.4127	C	0.0871	-2.0928	-3.1802	C	-0.2072	-1.7851	-3.0224
C	-3.2573	-1.5562	-1.9032	C	-3.0178	-1.4491	-1.5623	C	-3.1153	-0.9277	-3.8945
C	1.1728	-2.7987	-3.5118	C	0.7023	-2.2731	-4.6009	C	1.1357	-2.5735	-2.9957
C	-4.1917	-0.8708	-0.9949	C	-3.5137	-1.1353	-0.2148	C	-4.1762	0.0825	-3.9939
C	-3.9076	-0.5416	0.2796	C	-4.5033	-0.2397	-0.0475	C	-5.1583	0.1524	-3.0778
C	-4.8474	0.2263	1.1136	C	-5.0144	0.1861	1.2661	C	-6.1758	1.2149	-3.1104
O	-5.968	0.5095	0.6858	O	-6.0445	0.8629	1.269	O	-6.2889	1.9329	-4.1058
N	-4.3992	0.7721	2.3441	N	-4.2579	0.0584	2.4625	N	-6.8917	1.5252	-1.926
C	-4.968	1.9973	2.894	C	-4.4008	1.0003	3.5676	C	-7.4166	2.863	-1.6779
C	-4.2289	3.2521	2.3443	C	-3.3213	2.1188	3.4874	C	-6.3052	3.8091	-1.1371
C	-2.8029	3.3015	2.8594	C	-1.96	1.5813	3.8859	C	-5.7758	3.2992	0.1894
C	-1.7142	2.8749	2.1903	C	-0.9962	1.1736	3.0379	C	-4.6048	2.6585	0.3721
C	-4.9726	4.5497	2.7604	C	-3.6938	3.3042	4.4185	C	-6.8522	5.2503	-0.958
C	-1.7307	2.2848	0.8423	C	-1.1116	1.1559	1.571	C	-3.6274	2.3569	-0.6869
C	-0.683	1.5644	0.4038	C	-0.1726	0.5473	0.8247	C	-2.6637	1.442	-0.4788
C	-0.6979	0.9191	-0.9161	C	-0.3102	0.4411	-0.6337	C	-1.6844	1.1046	-1.5217
C	0.2626	0.0425	-1.2597	C	0.4971	-0.3709	-1.3398	C	-0.8742	0.0407	-1.3759
C	0.252	-0.6822	-2.5878	C	0.3092	-0.5899	-2.8246	C	0.1229	-0.3718	-2.438
C	1.5176	-0.3846	-3.4369	C	1.5538	-0.173	-3.6512	C	1.5746	-0.4573	-1.8861
C	1.5881	-1.5972	-4.3989	C	1.3441	-0.9157	-4.9958	C	2.2494	-1.5165	-2.7937
O	0.6664	-1.4061	-5.4849	O	0.4619	-0.1483	-5.8317	O	2.6371	-0.9142	-4.0393
O	2.6963	-0.318	-2.616	O	2.7693	-0.603	-3.0148	O	1.5954	-0.8855	-0.5134
O	-1.1446	-4.253	-2.2727	O	-1.4914	-3.9386	-3.4321	O	-1.2267	-3.0603	-4.8424
H	-1.9001	-2.2729	-0.4899	H	-1.5508	-2.7737	-0.9189	H	-1.8522	0.067	-5.2039
H	-1.5871	-2.6754	-3.533	H	-1.9699	-1.9768	-3.8742	H	-0.028	-1.4085	-5.1553
H	0.6418	-2.4992	-1.4372	H	0.664	-2.7124	-2.486	H	-0.9143	-2.2999	-2.3655
H	-3.4816	-1.5231	-2.9317	H	-3.4427	-0.9614	-2.3924	H	-3.2346	-1.7476	-3.2466
H	2.0619	-3.2177	-3.0346	H	1.474	-3.0451	-4.5636	H	1.1324	-3.2578	-2.1438
H	0.6948	-3.5752	-4.1091	H	-0.0525	-2.5639	-5.3325	H	1.2974	-3.1474	-3.9081
H	-5.1185	-0.5766	-1.3993	H	-3.0649	-1.5949	0.6167	H	-4.1323	0.7951	-4.7671
H	-2.9722	-0.7897	0.6893	H	-4.9377	0.1953	-0.9033	H	-5.1709	-0.5359	-2.2817
H	-3.5354	0.4444	2.7231	H	-3.4941	-0.581	2.492	H	-6.8135	0.9028	-1.1487
H	-6.0265	2.0592	2.6315	H	-5.3929	1.4555	3.5366	H	-7.8213	3.2744	-2.6054
H	-4.891	1.9666	3.9834	H	-4.3089	0.4591	4.5122	H	-8.2316	2.7933	-0.9535
H	-4.2394	3.2123	1.2538	H	-3.2951	2.5091	2.4683	H	-5.5048	3.858	-1.8765
H	-2.6515	3.6581	3.8401	H	-1.757	1.4898	4.9167	H	-6.3942	3.4155	1.0357
H	-0.7884	2.9366	2.6899	H	-0.1063	0.8055	3.4663	H	-4.3881	2.3273	1.3489
H	-4.4432	5.4205	2.3692	H	-2.9255	4.0773	4.3582	H	-6.0597	5.9023	-0.586
H	-5.9849	4.5439	2.3524	H	-4.6473	3.7348	4.1073	H	-7.2012	5.6361	-1.9174
H	-5.028	4.6248	3.8478	H	-3.7777	2.9643	5.4523	H	-7.6818	5.2575	-0.2489
H	-2.5713	2.3981	0.2228	H	-1.9471	1.5814	1.0978	H	-3.6803	2.8448	-1.6154
H	0.1518	1.4302	1.031	H	0.6528	0.0955	1.2964	H	-2.62	0.9393	0.4451
H	-1.484	1.1239	-1.5846	H	-1.0837	0.9625	-1.1202	H	-1.6344	1.6871	-2.3962
H	1.0345	-0.1671	-0.5747	H	1.2529	-0.9066	-0.8393	H	-0.9555	-0.5465	-0.5054
H	-0.6187	-0.3707	-3.1722	H	-0.545	-0.0074	-3.1821	H	0.124	0.3631	-3.248
H	1.3984	0.5503	-3.9875	H	1.5745	0.9088	-3.7953	H	2.0727	0.5102	-1.9742
H	2.5974	-1.7291	-4.792	H	2.2945	-1.0672	-5.5101	H	3.123	-1.9534	-2.3078
H	0.7821	-2.1763	-6.0817	H	0.4064	-0.6283	-6.6857	H	3.0855	-1.6175	-4.5559
H	3.436	-0.083	-3.2162	H	3.5042	-0.2644	-3.5696	H	2.5348	-0.8605	-0.2313
H	-2.0445	-4.6056	-2.4435	H	-2.4481	-4.1533	-3.4783	H	-1.4924	-3.0062	-5.7857

Table S5. Optimized Z-matrixes of **2** in the gas phase (Å) at B3LYP/6-31G(d) level

Conf. A				Conf. B			
C	-1.9927	-2.6121	-0.1016	C	-0.9883	-3.2748	-0.1151
C	-2.1993	-2.9951	1.3482	C	-0.9391	-3.6256	1.3555
C	-0.8289	-3.1705	2.0683	C	0.3649	-3.0709	2.0093
C	-2.3682	-1.4123	-0.5794	C	-1.9227	-2.449	-0.6193
C	-0.9813	-3.6843	3.5306	C	0.5021	-3.4445	3.515
C	-2.0605	-1.0237	-1.9627	C	-1.8901	-2.0518	-2.0336
C	-2.2261	0.2465	-2.3737	C	-2.671	-1.0549	-2.4874
C	-1.8514	0.6846	-3.7288	C	-2.6053	-0.5844	-3.8811
O	-1.7718	-0.1454	-4.6364	O	-2.1713	-1.3345	-4.7573
N	-1.6342	2.0486	-4.0563	N	-3.0895	0.6895	-4.2772
C	-1.2422	3.064	-3.0853	C	-3.1764	1.8366	-3.3805
C	0.1815	3.621	-3.3798	C	-2.2035	2.9742	-3.8088
C	1.2414	2.5592	-3.6182	C	-0.7805	2.5199	-4.0851
C	1.6013	1.5483	-2.8025	C	0.0544	1.8594	-3.2583
C	0.637	4.6475	-2.3082	C	-2.2366	4.1705	-2.8203
C	1.0245	1.2572	-1.4822	C	-0.2506	1.4324	-1.8854
C	1.2465	0.0739	-0.8829	C	0.5264	0.531	-1.2588
C	0.6083	-0.2516	0.3994	C	0.182	0.046	0.0842
C	0.7306	-1.4754	0.9442	C	0.8821	-0.9448	0.6653
C	-0.0095	-1.8526	2.2076	C	0.4741	-1.5165	2.0044
C	0.9436	-2.1367	3.3981	C	1.5152	-1.2192	3.1158
C	0.0238	-2.8814	4.4023	C	1.124	-2.2174	4.2383
O	0.7676	-3.7205	5.2972	O	2.2459	-2.5753	5.0579
O	2.051	-2.9536	2.9803	O	2.851	-1.4517	2.6362
O	-2.9245	-4.2356	1.4009	O	-0.9936	-5.0611	1.4301
H	-1.4994	-3.2917	-0.7369	H	-0.2431	-3.6621	-0.7504
H	-2.7795	-2.2265	1.8654	H	-1.8116	-3.2093	1.8655
H	-0.2314	-3.9047	1.5181	H	1.2283	-3.4882	1.4808
H	-2.8355	-0.7199	0.0605	H	-2.6534	-2.0383	0.0167
H	-0.7561	-4.7517	3.568	H	1.1415	-4.3225	3.6201
H	-1.9935	-3.518	3.9033	H	-0.474	-3.6552	3.9555
H	-1.6557	-1.7383	-2.6206	H	-1.2094	-2.5209	-2.6846
H	-2.6078	0.9551	-1.6966	H	-3.328	-0.5771	-1.8191
H	-1.6392	2.3049	-5.0222	H	-3.2651	0.8429	-5.2489
H	-1.2855	2.674	-2.0712	H	-4.2003	2.218	-3.4224
H	-1.9598	3.8863	-3.1523	H	-2.9775	1.5454	-2.3518
H	0.0998	4.178	-4.3214	H	-2.5858	3.356	-4.7635
H	1.7637	2.6246	-4.5327	H	-0.3976	2.7537	-5.0402
H	2.3564	0.9023	-3.1549	H	1.0065	1.6178	-3.6412
H	-0.0824	5.4666	-2.2543	H	-1.8996	3.8677	-1.8294
H	0.7114	4.18	-1.3268	H	-1.5884	4.9689	-3.1863
H	1.6117	5.0566	-2.5807	H	-3.2549	4.5557	-2.7431
H	0.4176	1.9645	-1.0015	H	-1.0896	1.8147	-1.3857
H	1.8451	-0.6485	-1.3598	H	1.3651	0.1314	-1.7531
H	0.0026	0.4688	0.8701	H	-0.6578	0.4464	0.5761
H	1.3253	-2.1994	0.4644	H	1.7145	-1.3532	0.1667
H	-0.6858	-1.0426	2.4972	H	-0.4869	-1.0929	2.3117
H	1.3107	-1.2014	3.8246	H	1.4191	-0.1879	3.4606
H	-0.5274	-2.1366	4.9842	H	0.3583	-1.75	4.8647
H	0.1134	-4.1006	5.922	H	1.8922	-3.1534	5.7675
H	2.6575	-3.0119	3.7489	H	3.4565	-1.1456	3.3445
H	-3.8108	-4.0541	1.0203	H	-1.14	-5.2939	2.3706

Table S6. Optimized Z-matrixes of 18-*epi*-**2** in the gas phase (Å) at B3LYP/6-31G(d) level

Conf. A				Conf. B			
C	-0.9026	-2.4751	-0.2372	C	-2.2418	-0.2958	1.4718
C	-0.8743	-3.2883	1.0389	C	-2.2208	-1.4443	2.4577
C	0.0449	-2.6285	2.1159	C	-0.8984	-2.2702	2.3888
C	0.0755	-2.5418	-1.1616	C	-2.2559	-0.4798	0.1389
C	-0.1132	-3.2838	3.5224	C	-0.8083	-3.3303	3.5242
C	0.1469	-1.6828	-2.3587	C	-2.2929	0.6708	-0.7749
C	-0.8074	-0.8024	-2.7161	C	-2.1585	0.5133	-2.1041
C	-0.6627	0.1078	-3.8645	C	-2.211	1.6576	-3.0299
O	0.3434	0.0679	-4.5744	O	-2.8309	2.6729	-2.7079
N	-1.6142	1.148	-4.0199	N	-1.6763	1.5904	-4.343
C	-1.3608	2.361	-4.7861	C	-0.4364	0.8814	-4.6357
C	-0.9733	3.5395	-3.8446	C	0.8025	1.7846	-4.3655
C	0.4893	3.4537	-3.4502	C	2.0462	0.9227	-4.2669
C	0.9726	2.8839	-2.3296	C	2.4656	0.3226	-3.1358
C	-1.2308	4.9026	-4.543	C	0.985	2.8598	-5.47
C	0.1607	2.2141	-1.3014	C	1.782	0.4387	-1.8375
C	0.7534	1.4493	-0.3669	C	1.9652	-0.4851	-0.8784
C	-0.0338	0.6822	0.608	C	1.2513	-0.3917	0.4017
C	0.5617	-0.2283	1.3994	C	1.183	-1.45	1.2281
C	-0.2249	-1.1076	2.3472	C	0.398	-1.4033	2.5231
C	0.161	-0.8625	3.8304	C	1.2027	-2.0005	3.7137
C	-0.3768	-2.1353	4.5316	C	0.6992	-3.4593	3.8483
O	0.2492	-2.3627	5.8019	O	1.3691	-4.3166	2.9102
O	1.5861	-0.7379	3.9781	O	2.6237	-1.9124	3.5311
O	-0.438	-4.6246	0.7299	O	-3.3677	-2.2722	2.1931
H	-1.6884	-1.7869	-0.3512	H	-2.2489	0.6854	1.8542
H	-1.8995	-3.3374	1.4181	H	-2.3243	-1.0169	3.4597
H	1.087	-2.7558	1.8051	H	-0.8752	-2.8052	1.4342
H	0.8742	-3.2092	-1.0018	H	-2.241	-1.4553	-0.2548
H	0.8093	-3.8076	3.7814	H	-1.2307	-4.2843	3.2081
H	-0.9449	-3.9887	3.5507	H	-1.333	-2.9794	4.4155
H	1.0205	-1.7478	-2.9429	H	-2.4239	1.6363	-0.3769
H	-1.6812	-0.7175	-2.1392	H	-2.0113	-0.4521	-2.4951
H	-2.4398	1.1215	-3.4577	H	-1.9881	2.2698	-5.0061
H	-0.5743	2.1997	-5.5256	H	-0.3716	-0.0131	-4.0139
H	-2.2815	2.6088	-5.3206	H	-0.4448	0.5607	-5.6799
H	-1.6084	3.51	-2.9571	H	0.6537	2.3137	-3.422
H	1.1977	3.8449	-4.1266	H	2.5854	0.7251	-5.1506
H	2.0195	2.8823	-2.2076	H	3.3153	-0.297	-3.1981
H	-0.6521	4.9727	-5.4657	H	1.1075	2.3864	-6.4457
H	-0.9428	5.7191	-3.8781	H	1.8687	3.4633	-5.254
H	-2.2914	5.0036	-4.7799	H	0.1142	3.5164	-5.4998
H	-0.8871	2.2858	-1.3205	H	1.1227	1.2367	-1.6572
H	1.8017	1.3534	-0.3664	H	2.6014	-1.3041	-1.0575
H	-1.0772	0.8099	0.6485	H	0.761	0.5035	0.6568
H	1.6044	-0.3606	1.3344	H	1.6469	-2.3525	0.9468
H	-1.2958	-0.9128	2.2385	H	0.1472	-0.3684	2.7657
H	-0.3336	0.033	4.2109	H	0.9298	-1.4514	4.6206
H	-1.4556	-2.025	4.6753	H	0.8516	-3.8268	4.8644
H	-0.1837	-3.1577	6.1805	H	1.0276	-5.2216	3.0741
H	1.7474	-0.4967	4.915	H	3.027	-2.2705	4.3508
H	-0.5805	-5.1661	1.5341	H	-3.4459	-2.8988	2.9429

Table S7. The calculated ^{13}C NMR data for **2** and 18-*epi*-**2**

no.	δ_{exp}	δ_{cal}		δ_{scal}		corrected error		t distribution		probability	
		2	18-*epi*-**2**	**2**	18-*epi*-**2**	**2**	18-*epi*-**2**	**2**	18-*epi*-**2**	**2**	18-*epi*-**2**
1	165.7	172.21	168.60	163.52	163.54	-2.18	-2.16	0.82	0.82	0.18	0.18
2	124.6	128.55	125.57	120.47	119.84	-4.13	-4.76	0.95	0.97	0.05	0.03
3	138.5	150.25	146.80	141.87	141.40	3.37	2.90	0.91	0.88	0.09	0.12
4	126.5	137.74	129.35	129.53	123.68	3.03	-2.82	0.89	0.88	0.11	0.12
5	143.9	151.83	144.24	143.43	138.80	-0.47	-5.10	0.58	0.98	0.42	0.02
6	76	85.80	83.10	78.31	76.71	2.31	0.71	0.83	0.62	0.17	0.38
7	49	51.60	61.42	44.58	54.69	-4.42	5.69	0.96	0.98	0.04	0.02
8	35.1	40.57	40.91	33.70	33.87	-1.40	-1.23	0.72	0.70	0.28	0.30
9	72.9	79.59	80.37	72.19	73.94	-0.71	1.04	0.62	0.67	0.38	0.33
10	76.3	83.64	83.53	76.18	77.15	-0.12	0.85	0.52	0.64	0.48	0.36
11	48.1	59.06	56.42	51.94	49.61	3.84	1.51	0.94	0.74	0.06	0.26
12	135.7	144.21	143.16	135.91	137.70	0.21	2.00	0.54	0.80	0.46	0.20
13	132.7	142.48	139.40	134.21	133.88	1.51	1.18	0.74	0.69	0.26	0.31
14	132.8	141.13	139.59	132.87	134.08	0.07	1.28	0.51	0.70	0.49	0.30
15	127.2	135.56	133.42	127.38	127.81	0.18	0.61	0.53	0.60	0.47	0.40
16	130	140.62	137.68	132.38	132.14	2.38	2.14	0.84	0.81	0.16	0.19
17	134.2	137.62	142.61	129.42	137.15	-4.78	2.95	0.97	0.89	0.03	0.11
18	32.3	43.35	41.88	36.45	34.85	4.15	2.55	0.95	0.85	0.05	0.15
19	45	53.90	47.31	46.86	40.36	1.86	-4.64	0.78	0.97	0.22	0.03
20	18.7	20.58	21.33	14.00	13.98	-4.70	-4.72	0.97	0.97	0.03	0.03
Product of probabilties										3.99E-17	3.03E-18
Bayes's theorem probability (%)										93	7

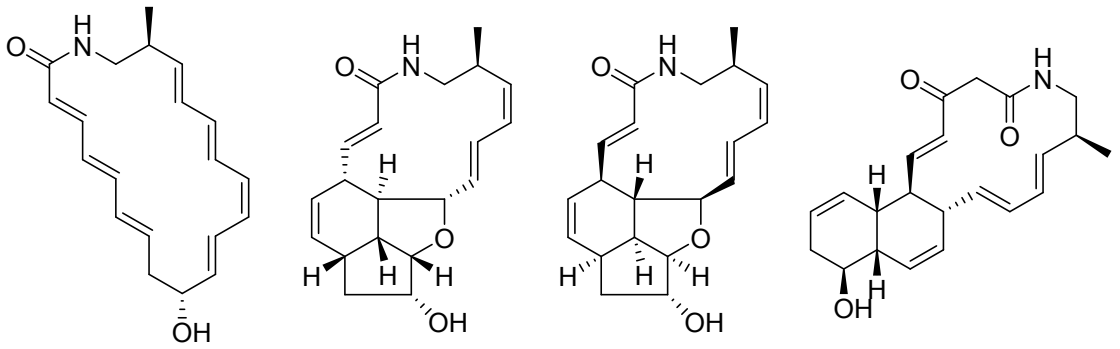


Figure S1. Structures of cyclamenols A−D

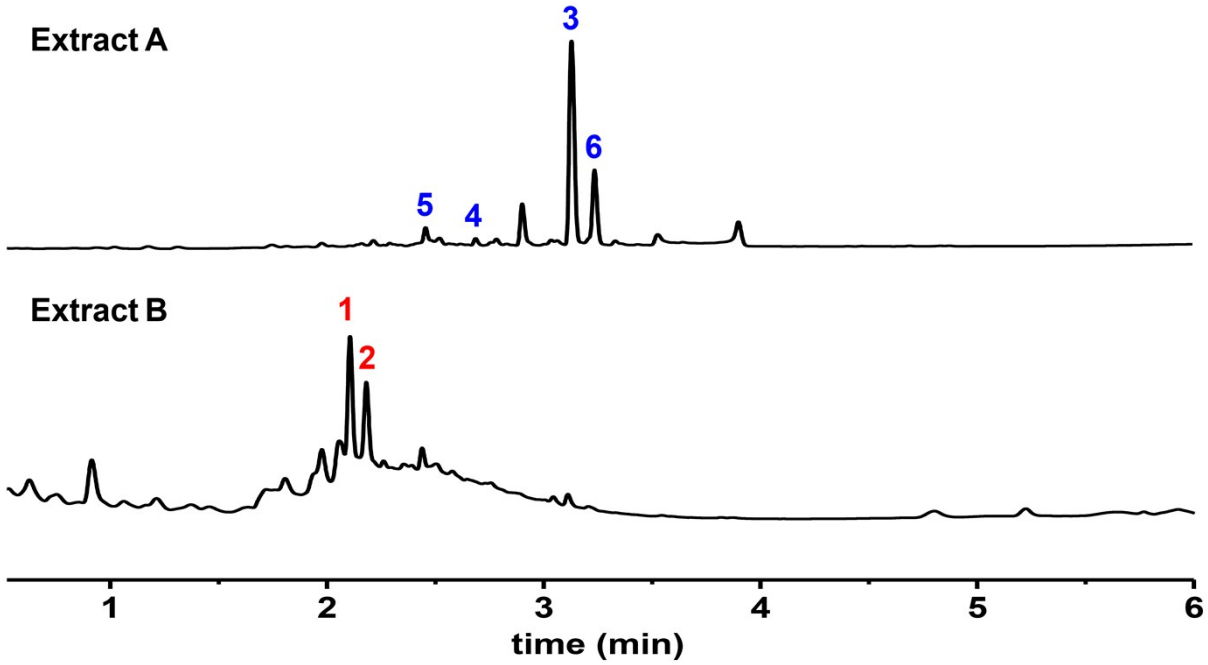
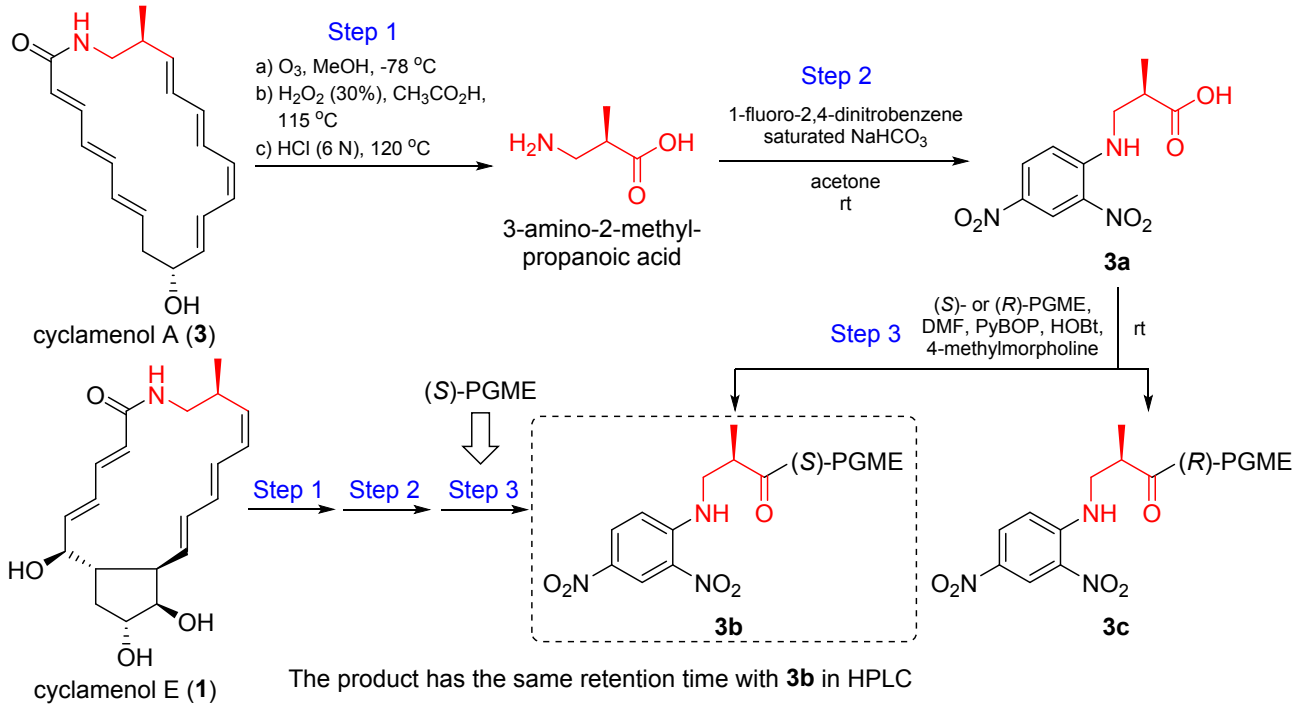


Figure S2. HPLC profiles of crude extracts of *Streptomyces* sp. OUCMDZ-4348. **Extract A (previous work)**: After 7 days of cultivation, the whole broth was extracted three times with EtOAc to give the crude extract A. **Extract B (this work)**: After 7 days of cultivation, XAD-16N resin (20 g/L) was added to the culture to adsorb the organic products. The resin was filtered through gauze, eluted with acetone/H_2O (80%). The acetone was removed under reduced pressure. The remaining part was extracted three times with EtOAc, and then the water layer was dried *in vacuo* to yield extract B.



Scheme S1. Chemical reactions for the identification of the absolute configuration at C-18 of **1**

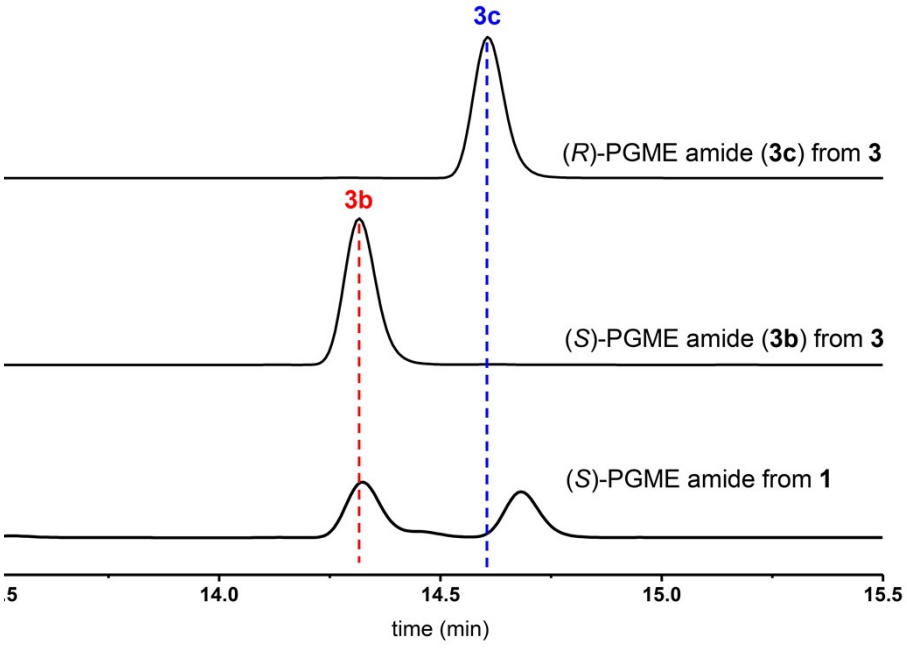


Figure S3. HPLC profiles of PGME amide products derived from compounds **1** and **3**

Figure S4. HRESIMS spectrum of cyclamenol E (**1**)

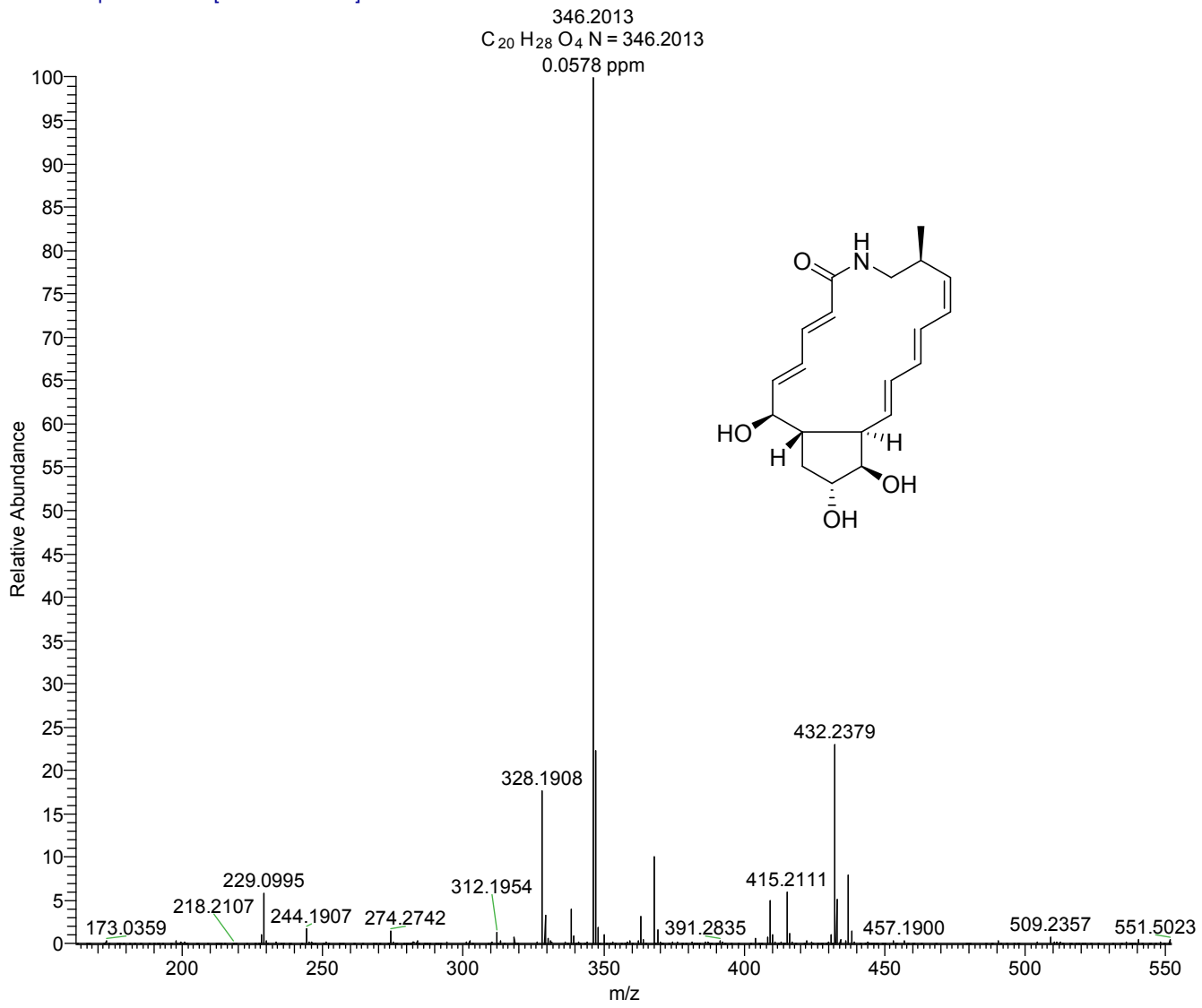


Figure S5. ^{1}H-NMR spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 MHz)

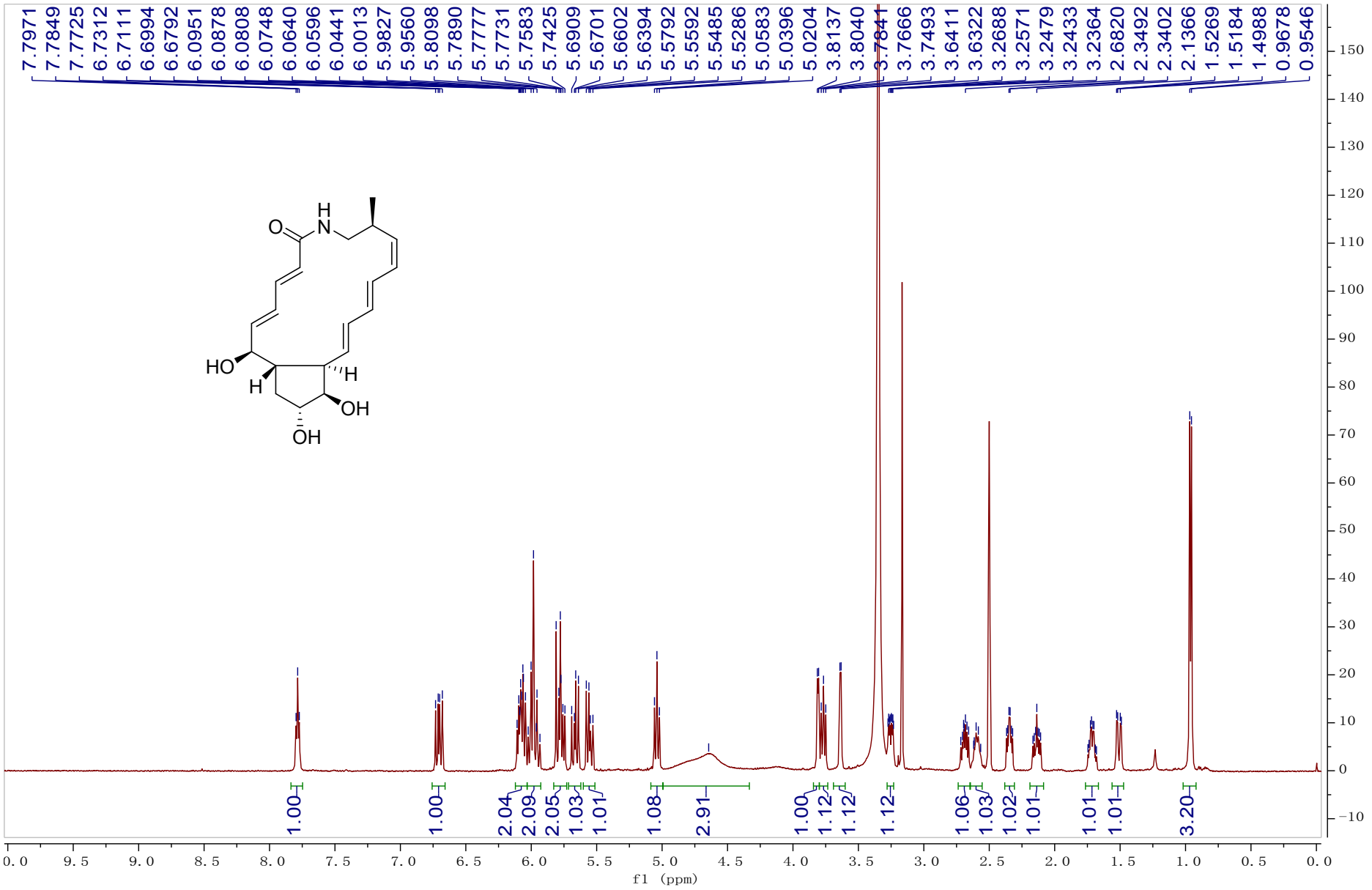


Figure S6. Expanded ^{1}H-NMR spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 MHz)

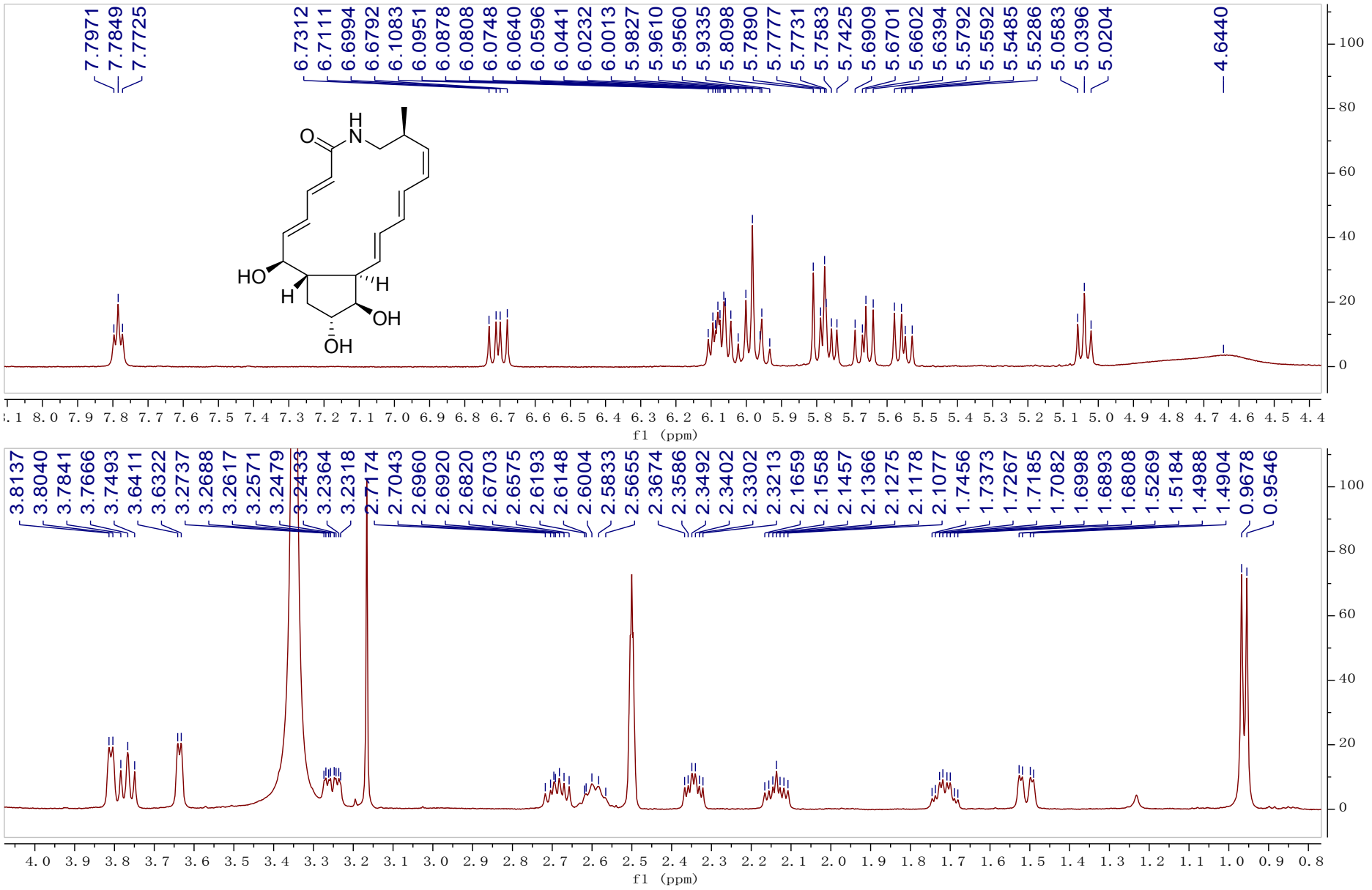


Figure S7. ^{13}C-NMR spectrum of cyclamenol E (**1**) in DMSO-d_6 (125 MHz)

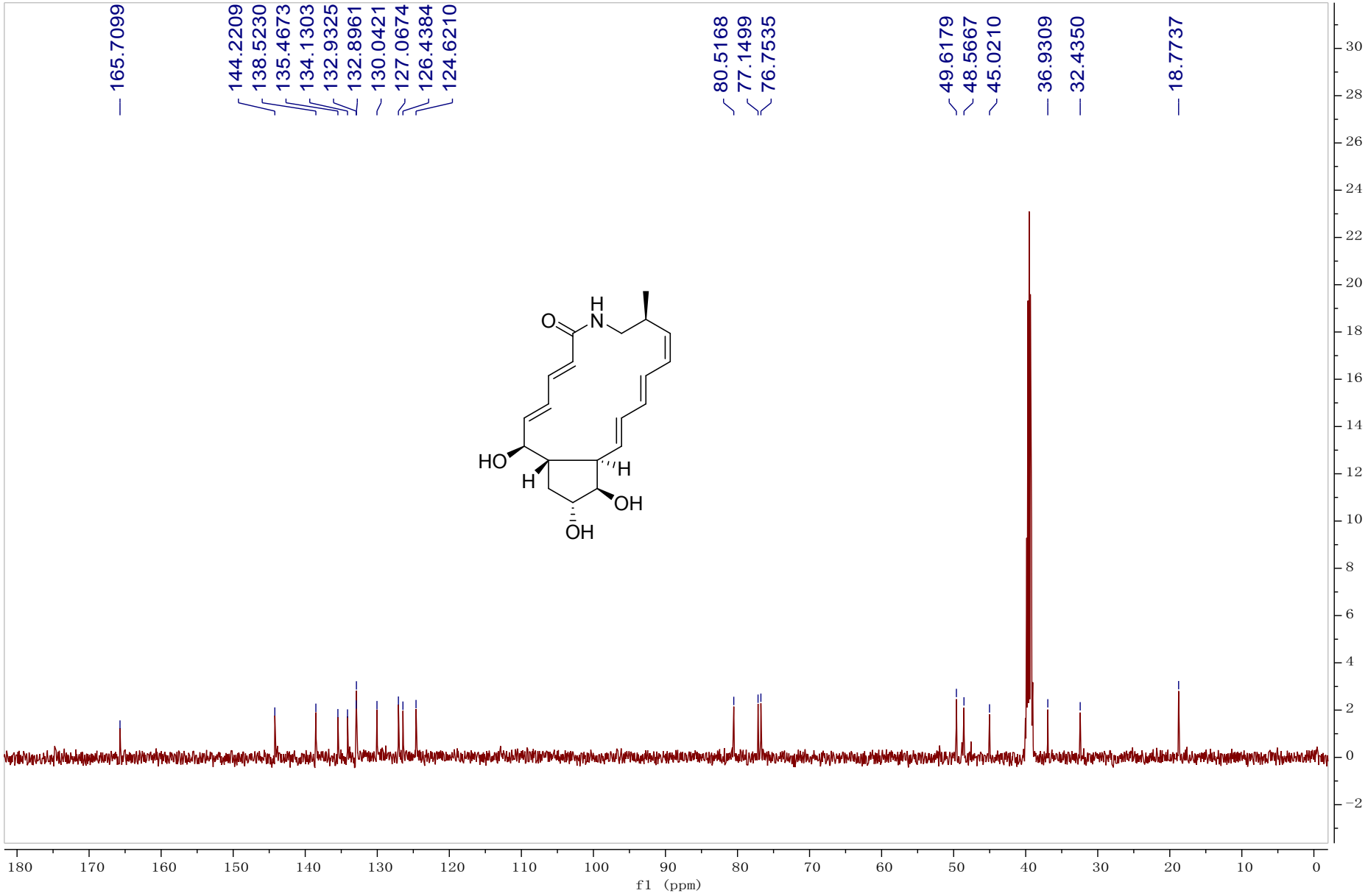


Figure S8. Expanded ^{13}C-NMR spectrum of cyclamenol E (**1**) in DMSO-d_6 (125 MHz)

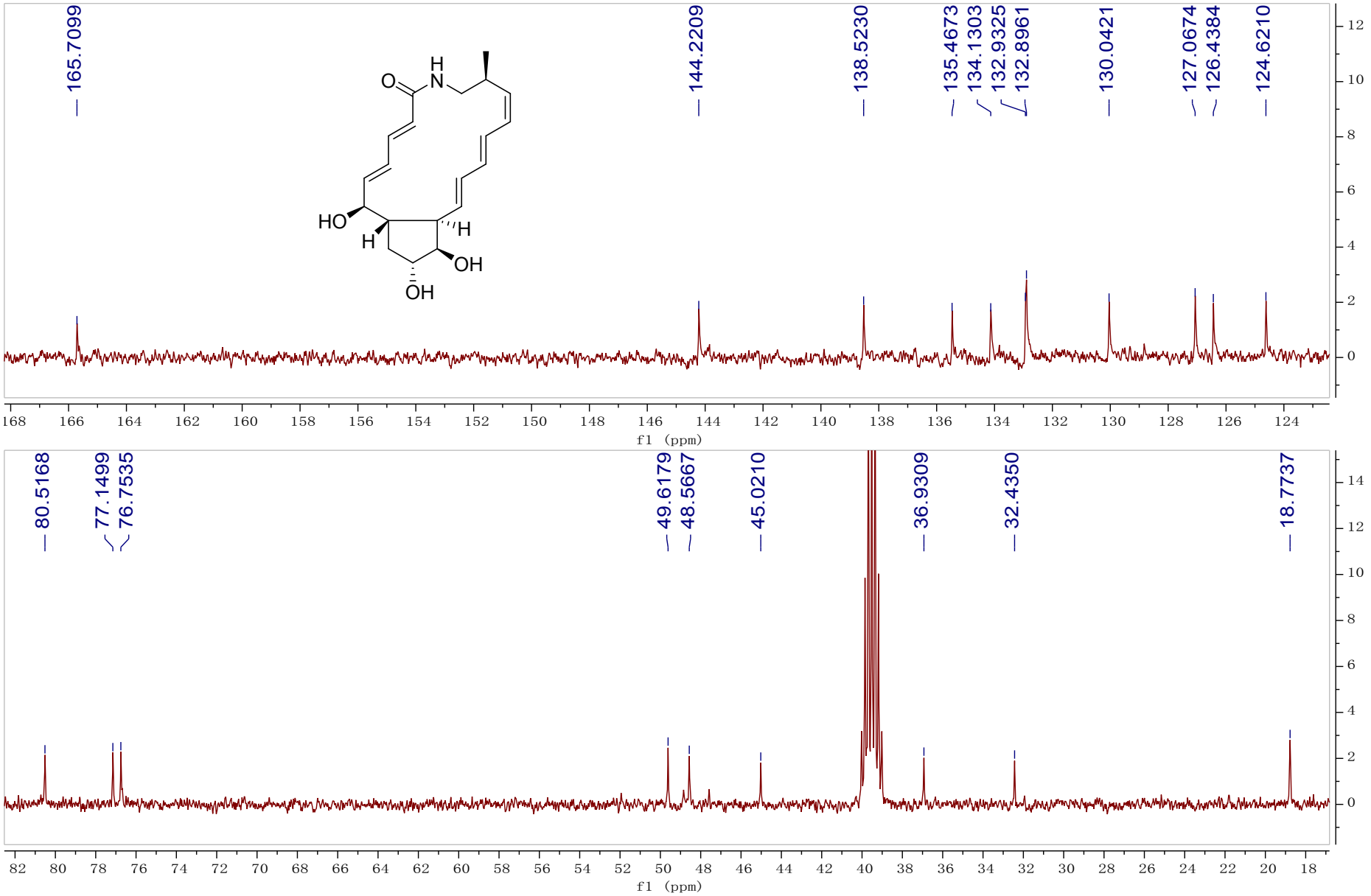


Figure S9. HSQC spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 × 125 MHz)

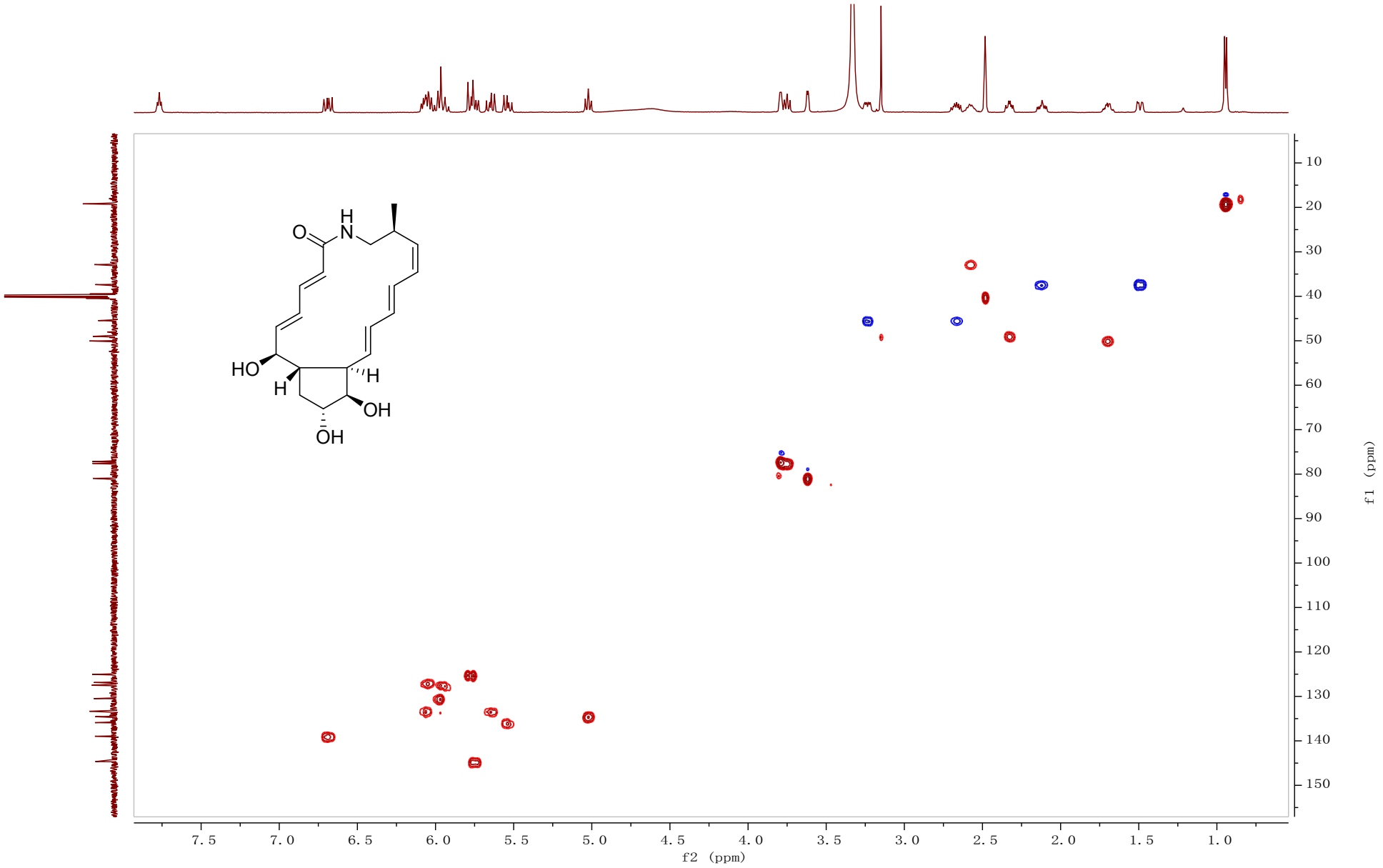


Figure S10. ^{1}H-^{1}H COSY spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 MHz)

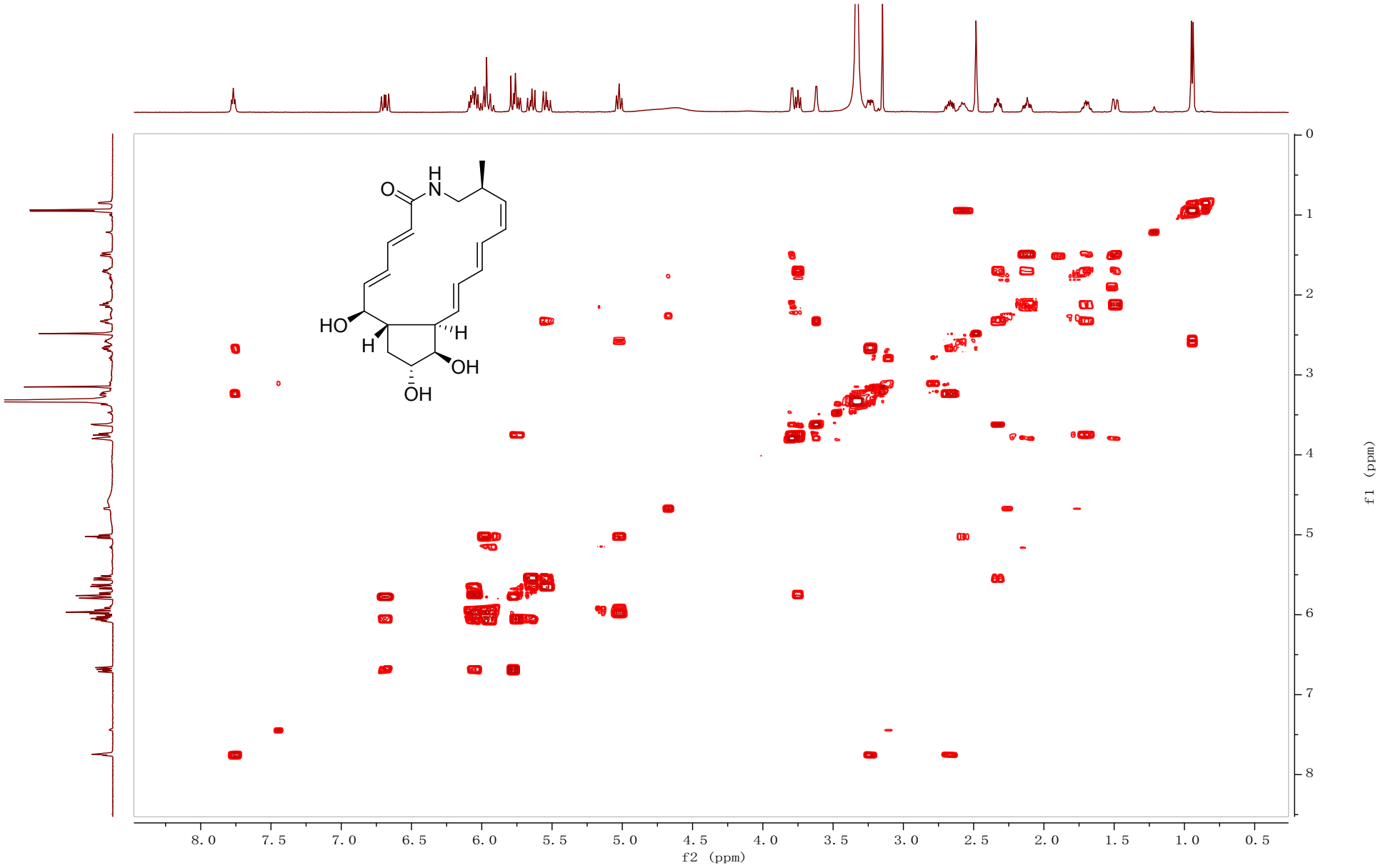


Figure S11. HMBC spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 × 125 MHz)

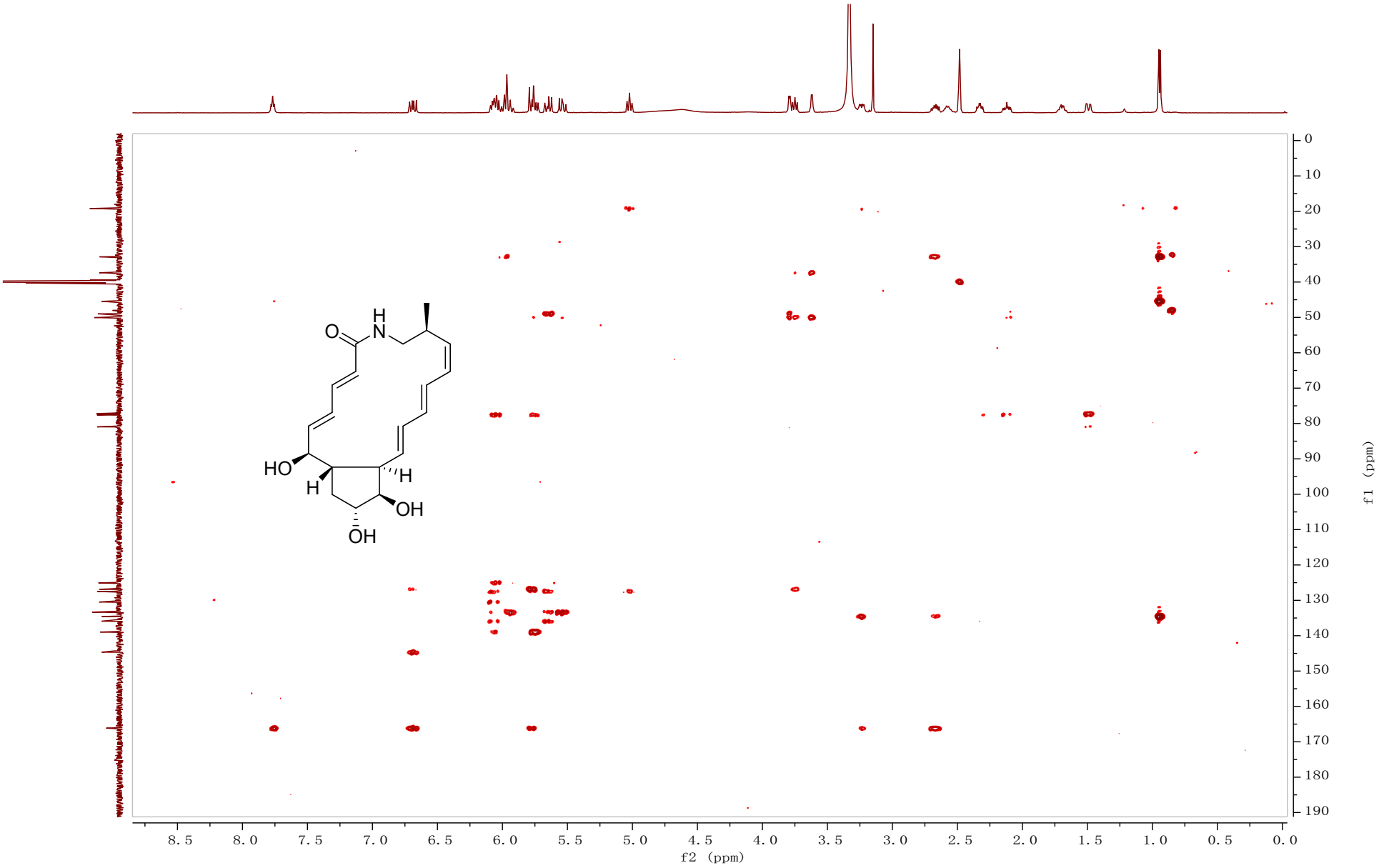


Figure S12. NOESY spectrum of cyclamenol E (**1**) in DMSO-d_6 (500 MHz)

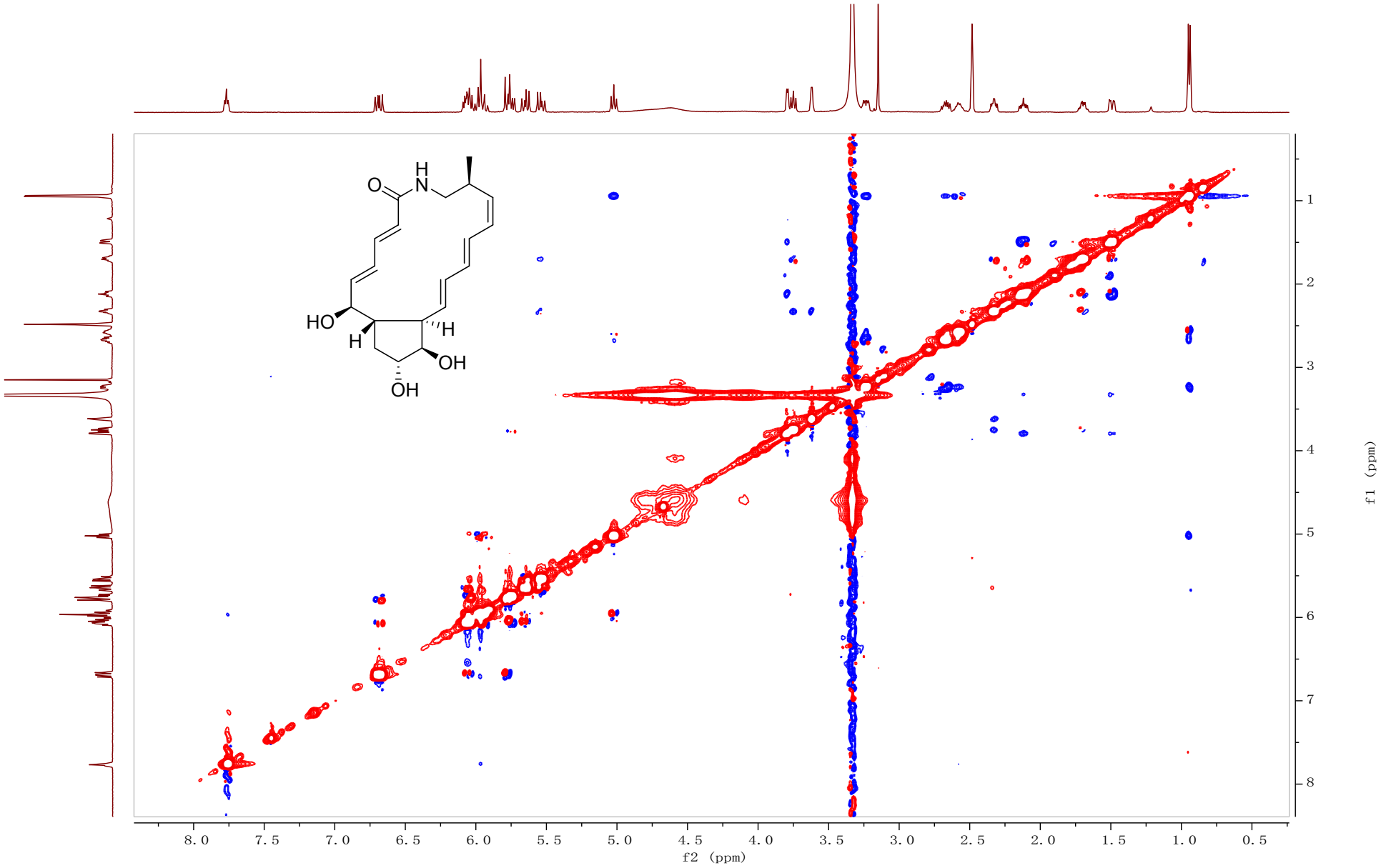


Figure S13. ^{1}H-NMR spectrum of cyclamenol E (**1**) in methanol-d_4 (500 MHz)

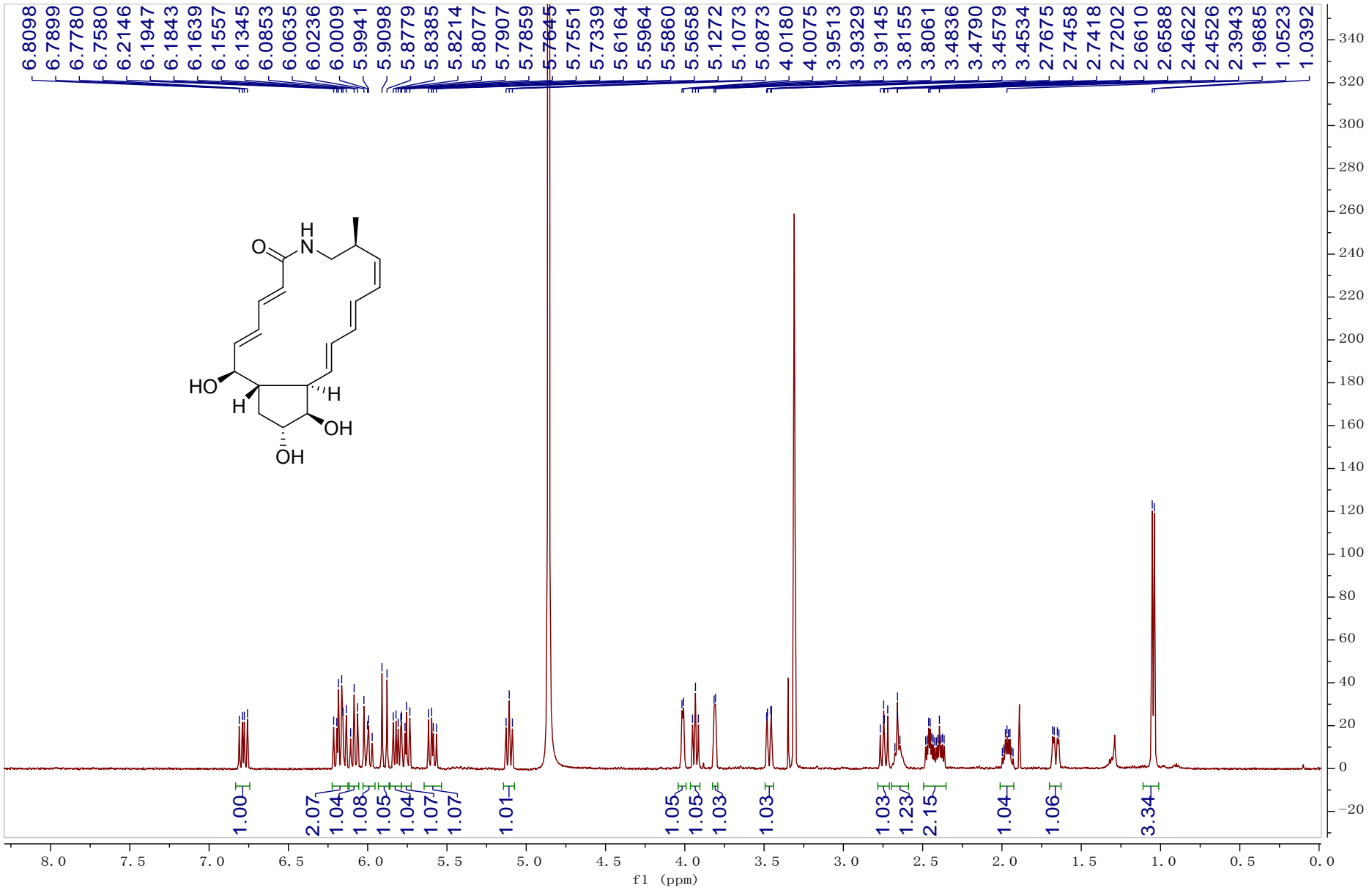


Figure S14. Expanded ^{1}H-NMR spectrum of cyclamenol E (**1**) in methanol-d_4 (500 MHz)

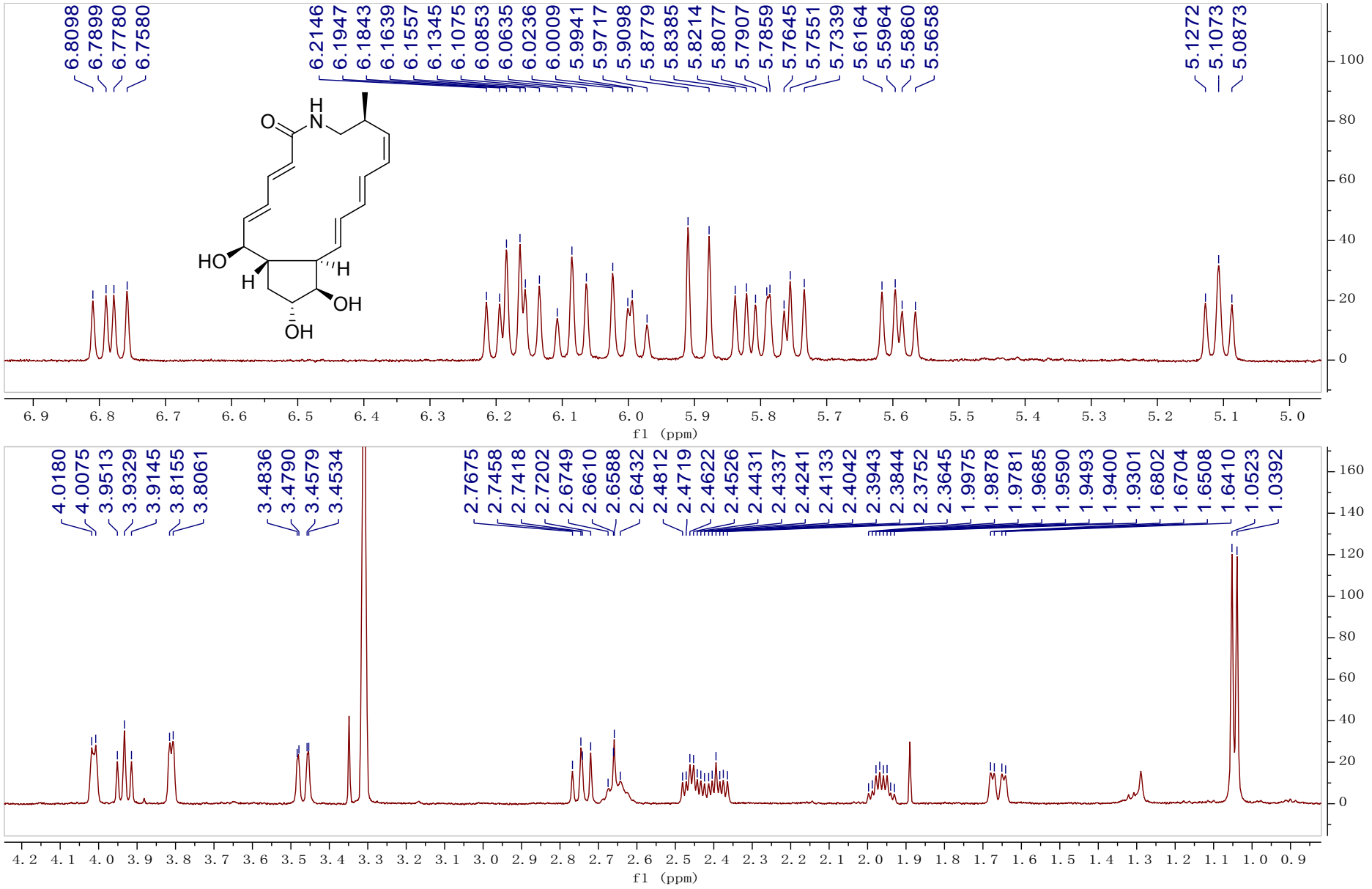


Figure S15. ^{1}H-^{1}H COSY spectrum of cyclamenol E (**1**) in methanol-d_4 (500 MHz)

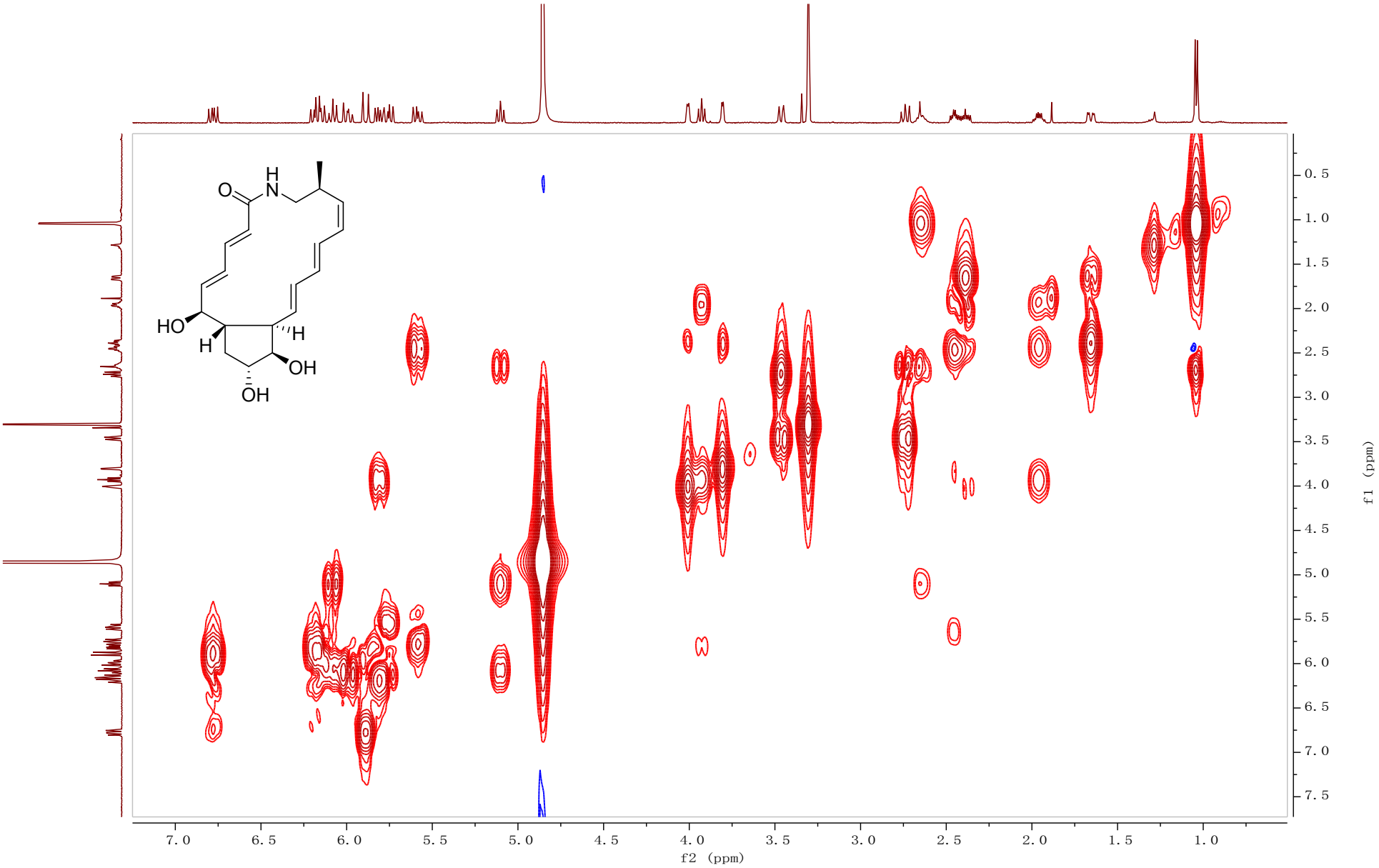


Figure S16. NOESY spectrum of cyclamenol E (**1**) in methanol-d_4 (500 MHz)

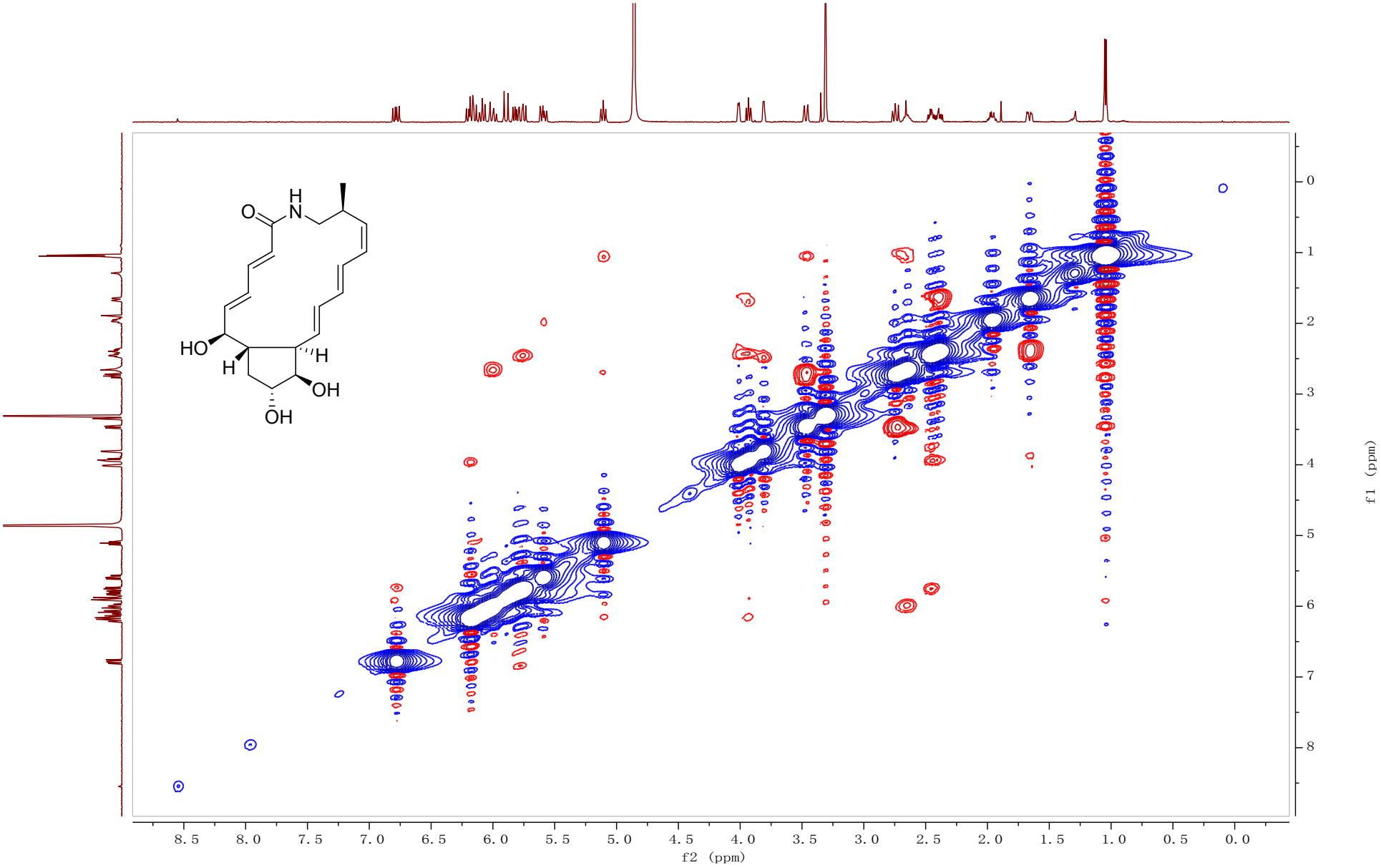


Figure S17. HRESIMS spectrum of cyclamenol F (**2**)

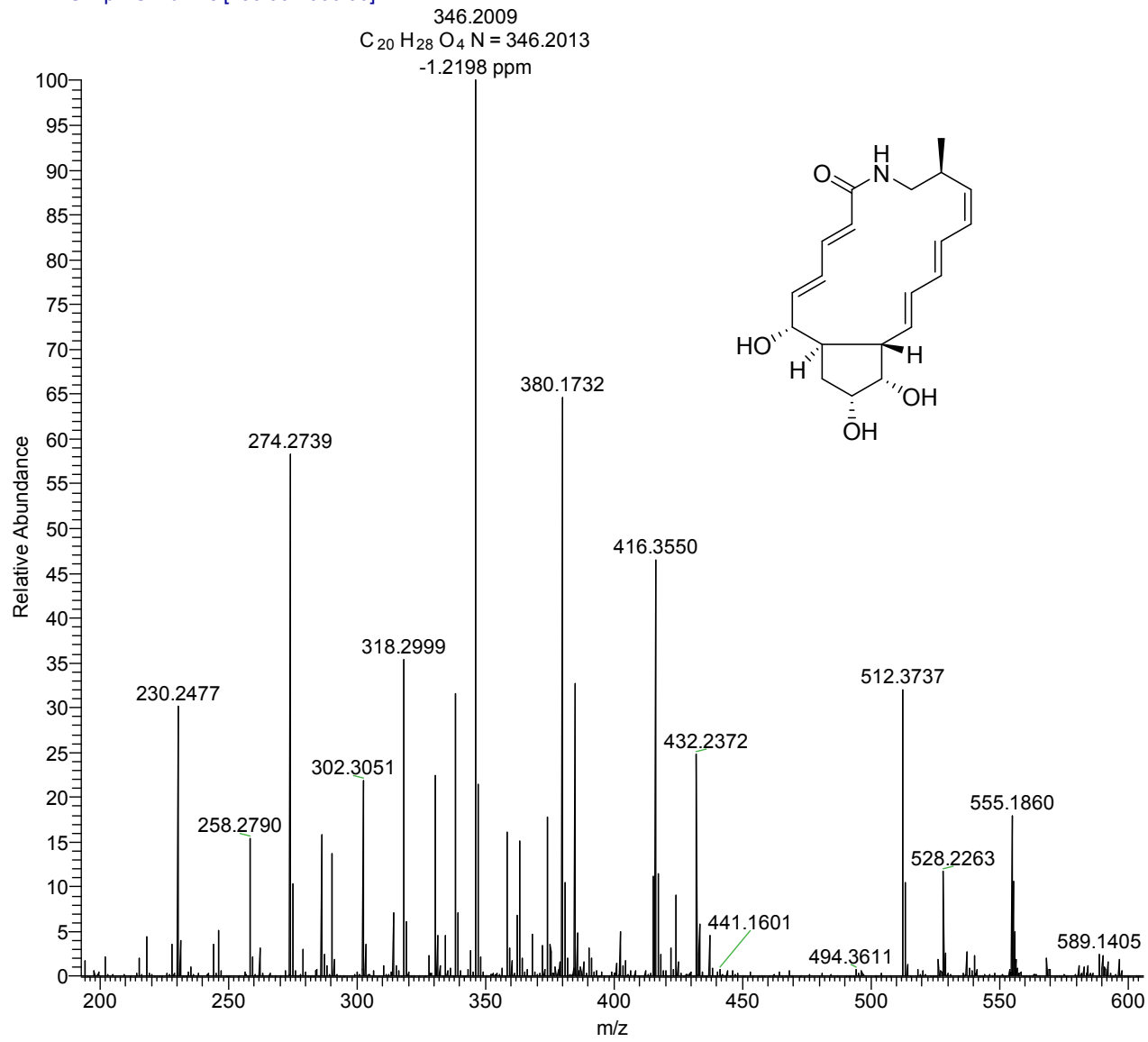


Figure S18. ^{1}H-NMR spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 MHz)

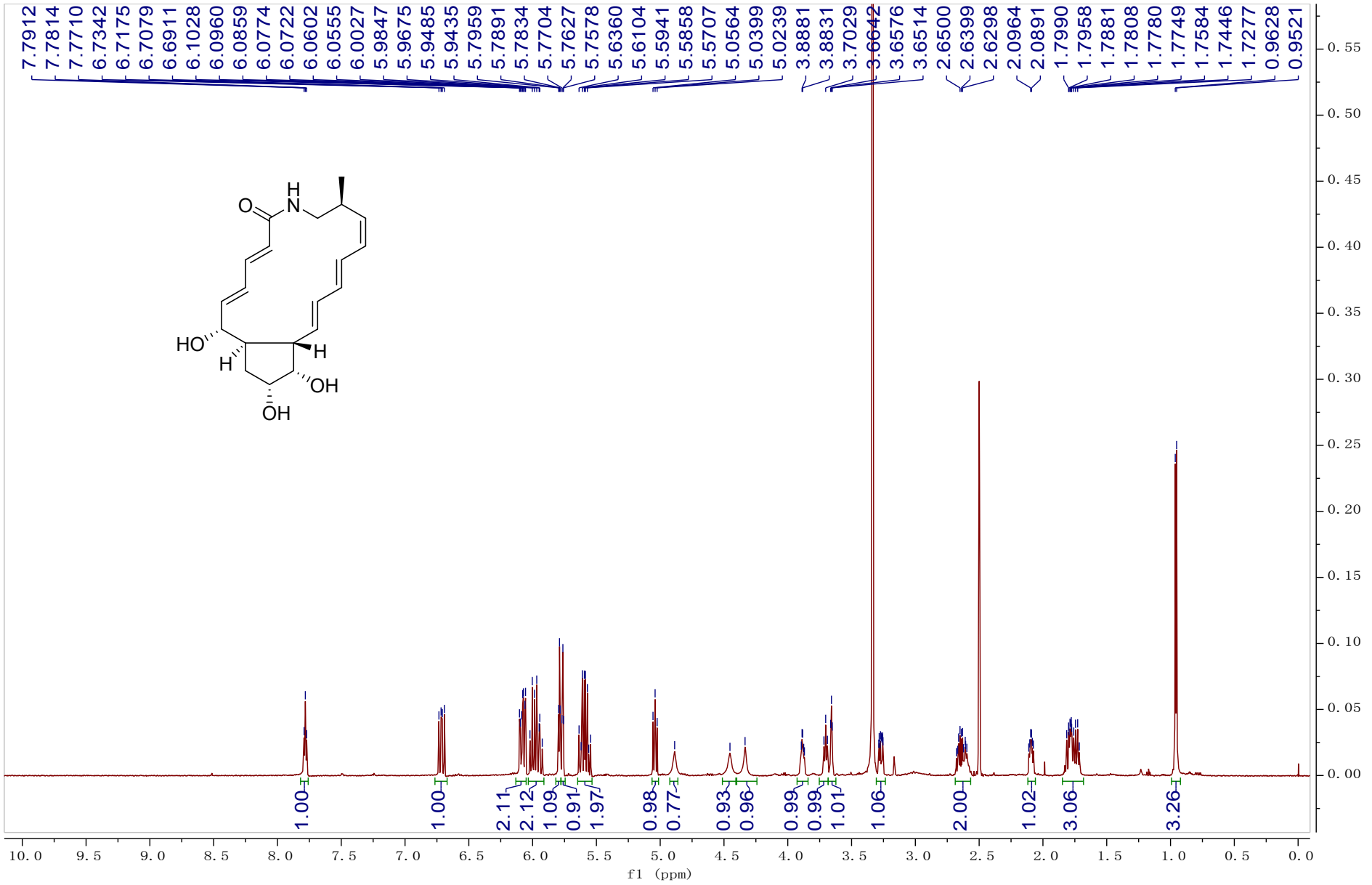


Figure S19. Expanded ^{1}H-NMR spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 MHz)

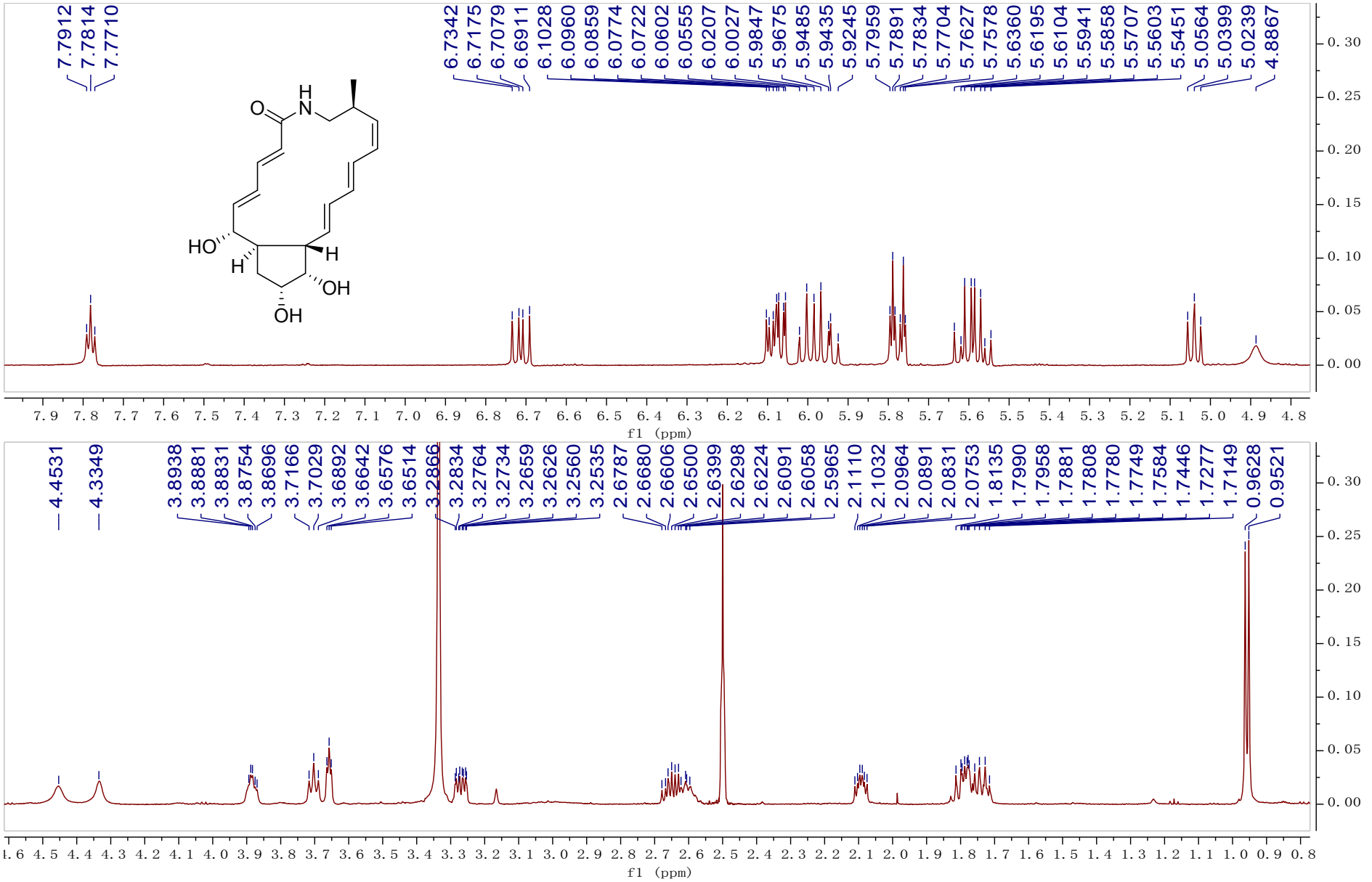


Figure S20. ^{13}C-NMR spectrum of cyclamenol F (**2**) in DMSO-d_6 (150 MHz)

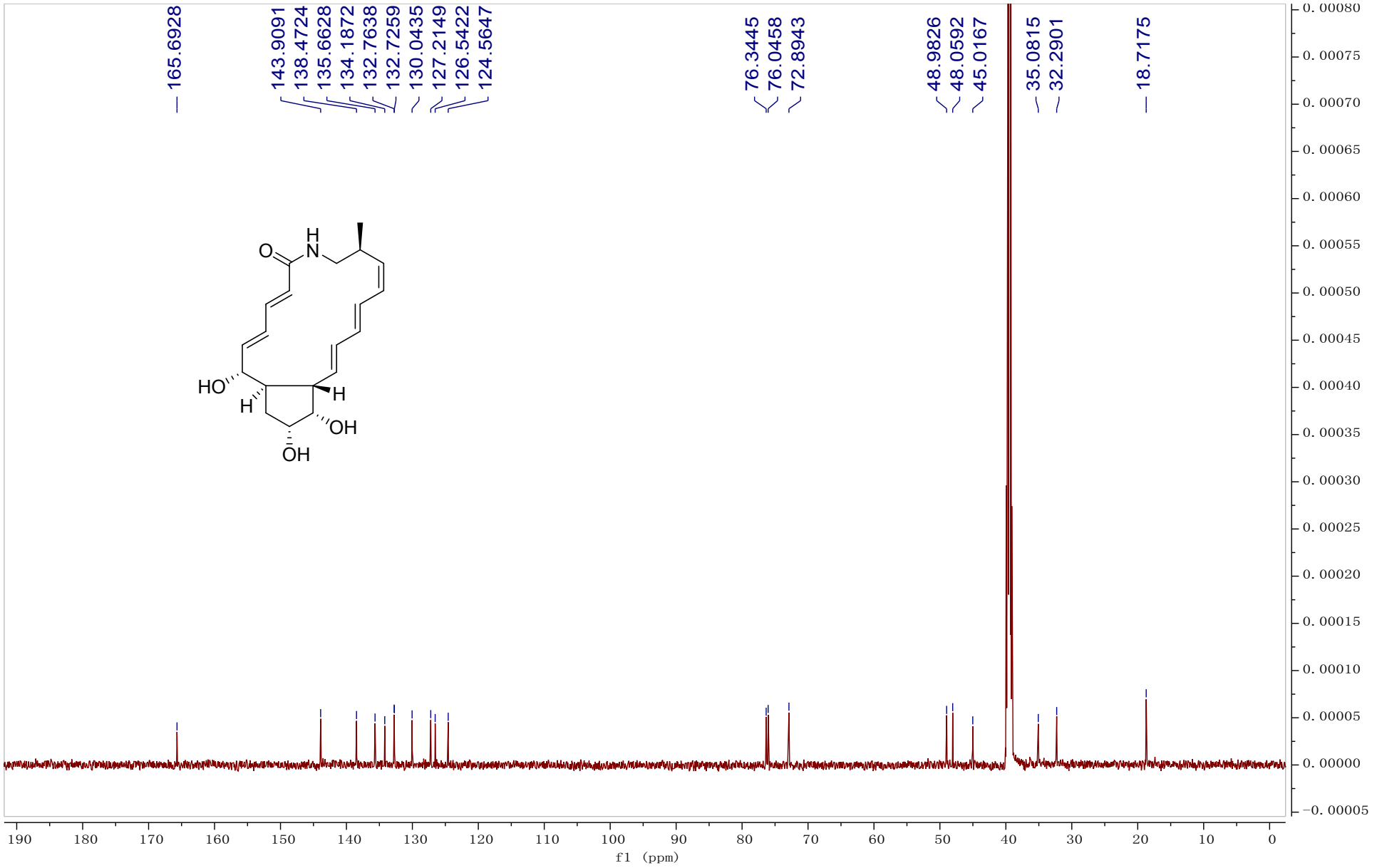


Figure S21. Expanded ^{13}C-NMR spectrum of cyclamenol F (**2**) in DMSO-d_6 (150 MHz)

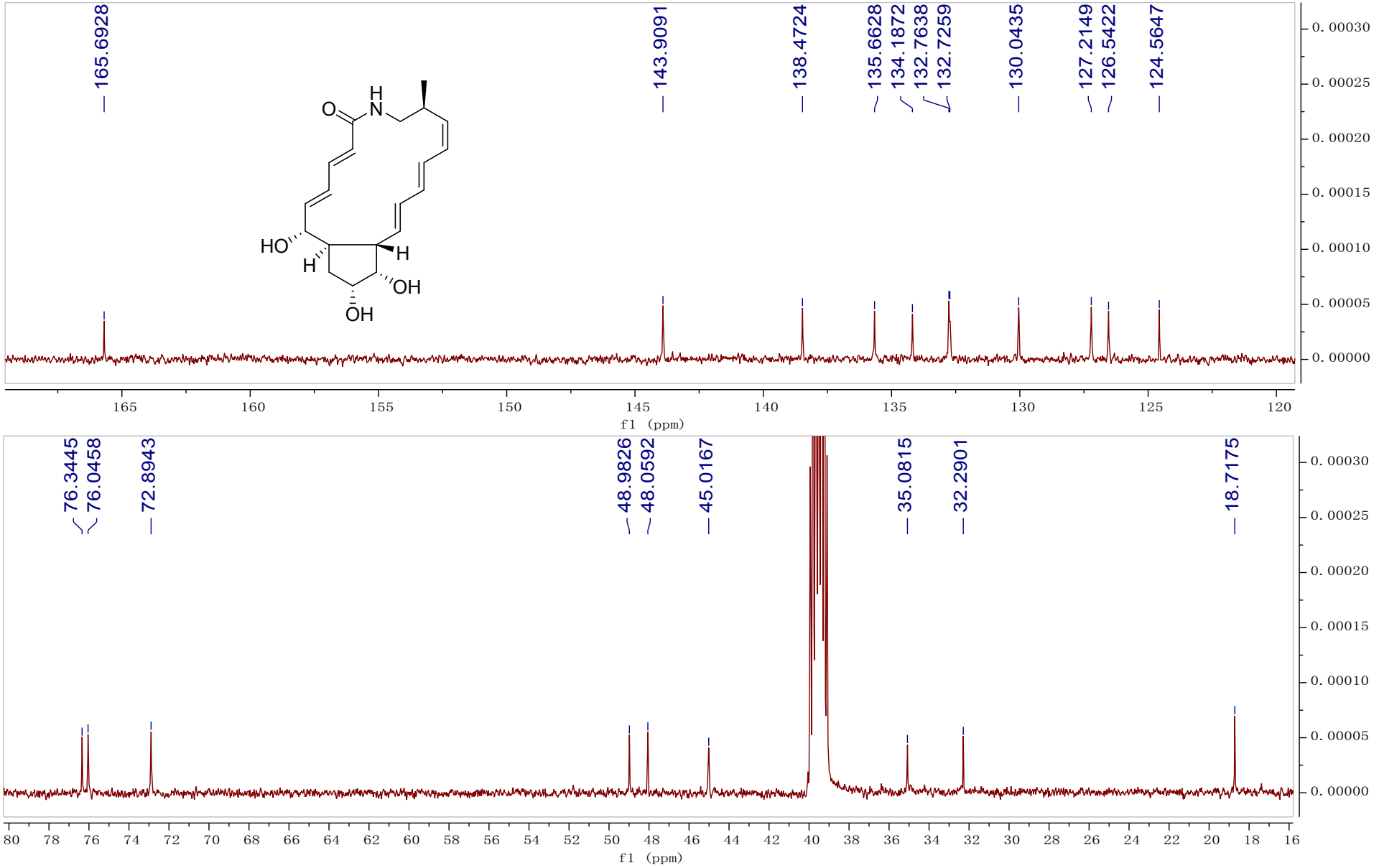


Figure S22. HSQC spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 × 150 MHz)

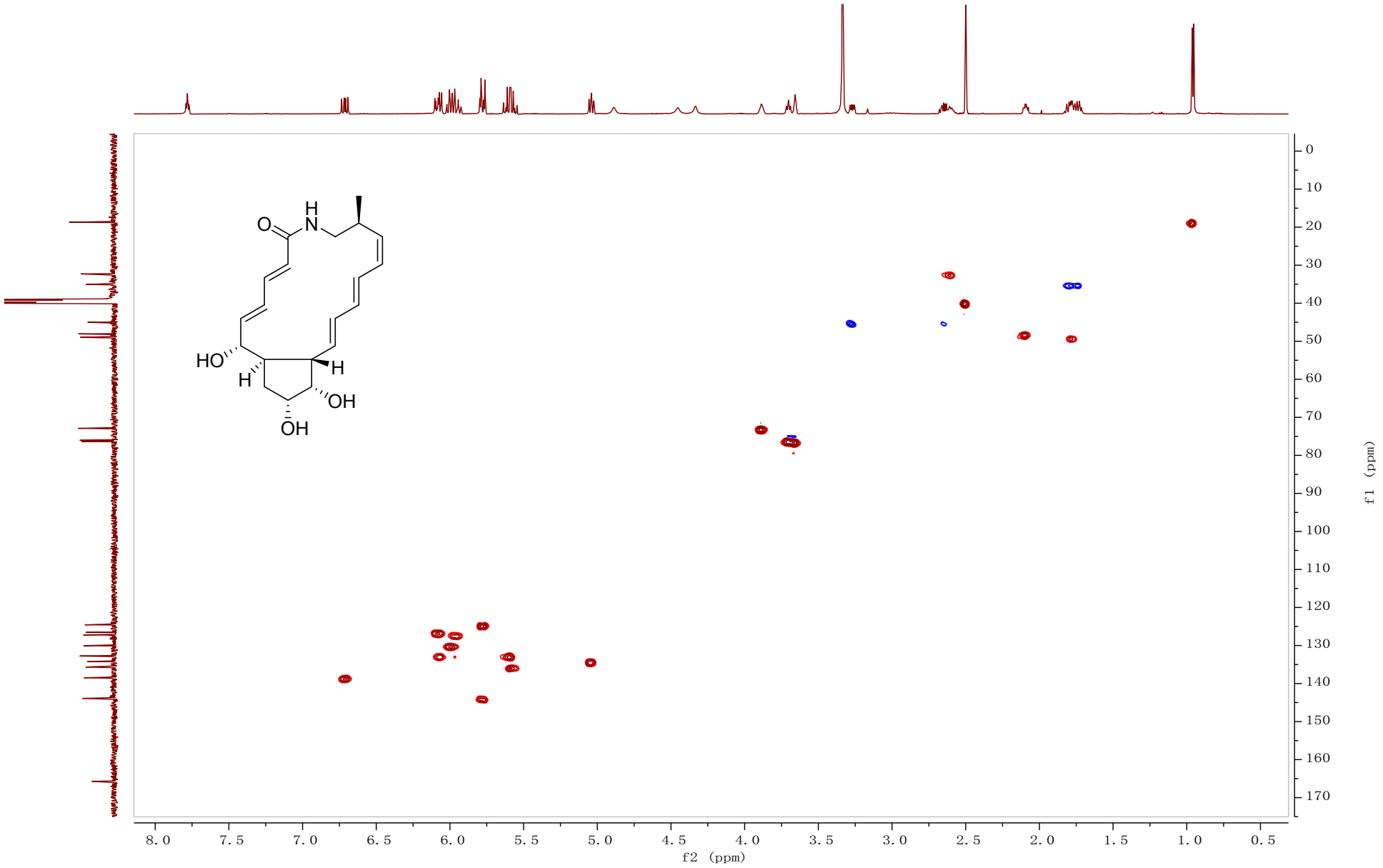


Figure S23. ^{1}H-^{1}H COSY spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 MHz)

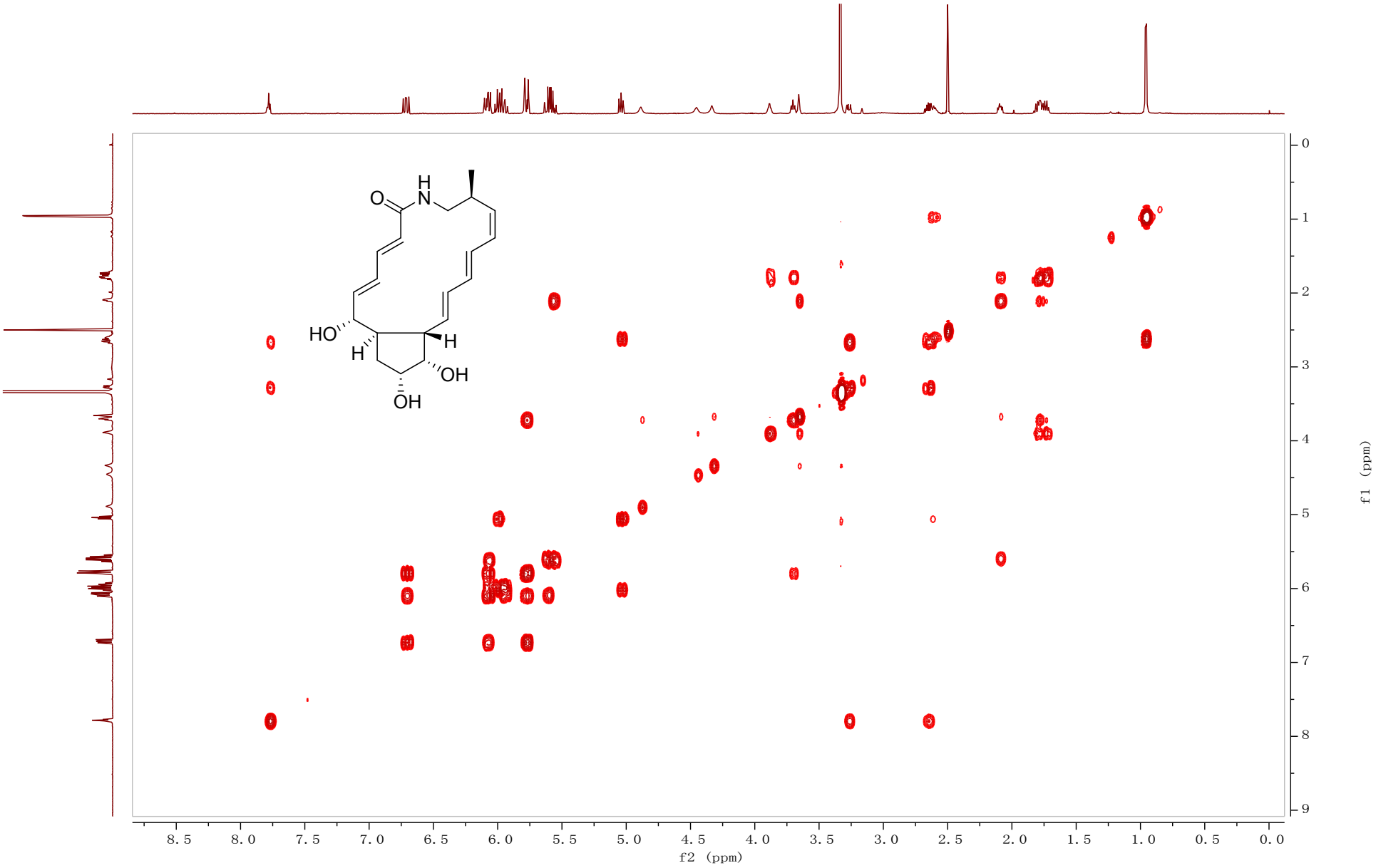


Figure S24. HMBC spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 × 150 MHz)

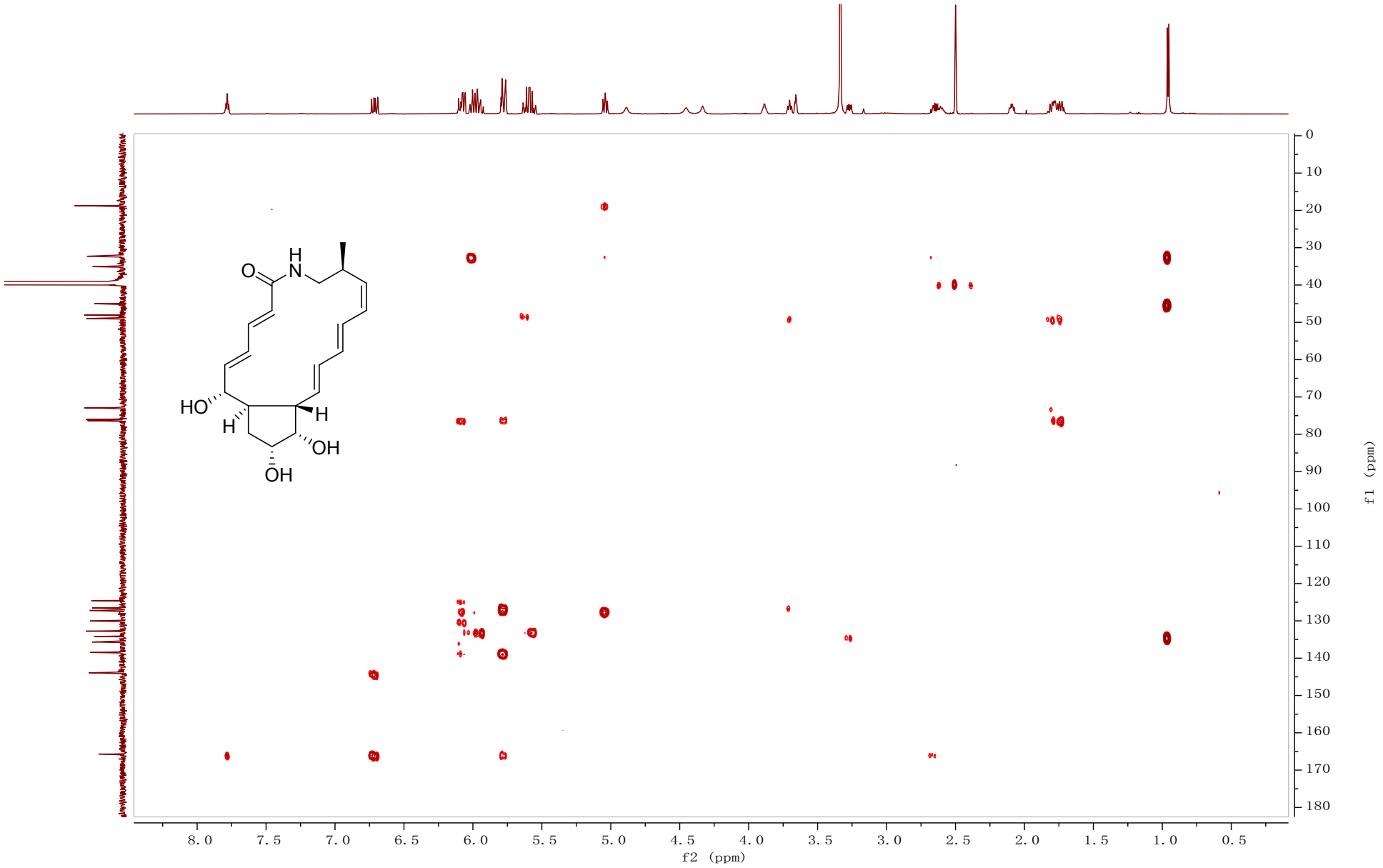


Figure S25. NOESY spectrum of cyclamenol F (**2**) in DMSO-d_6 (600 MHz)

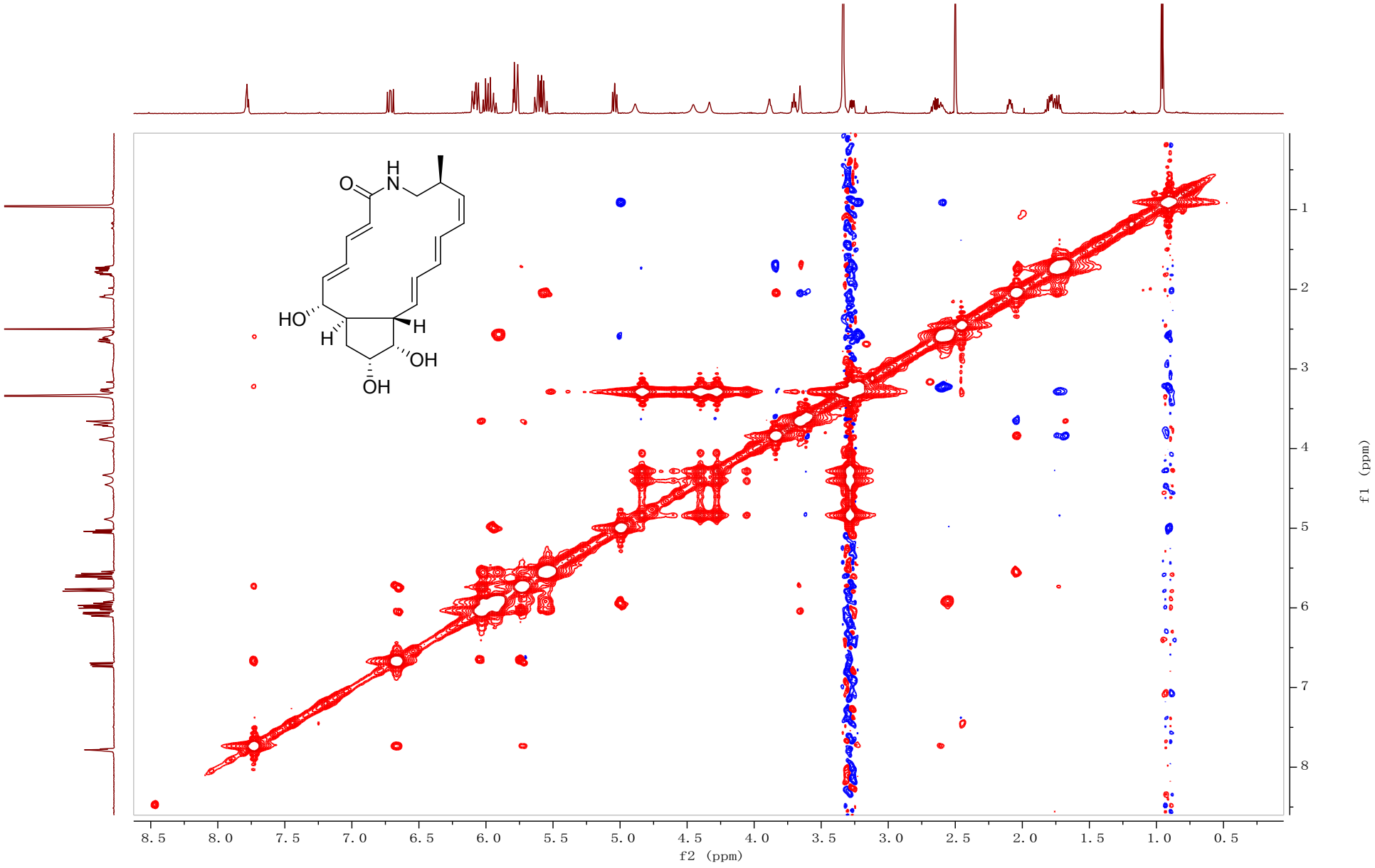


Figure S26. HRESIMS spectrum of compound **1a**

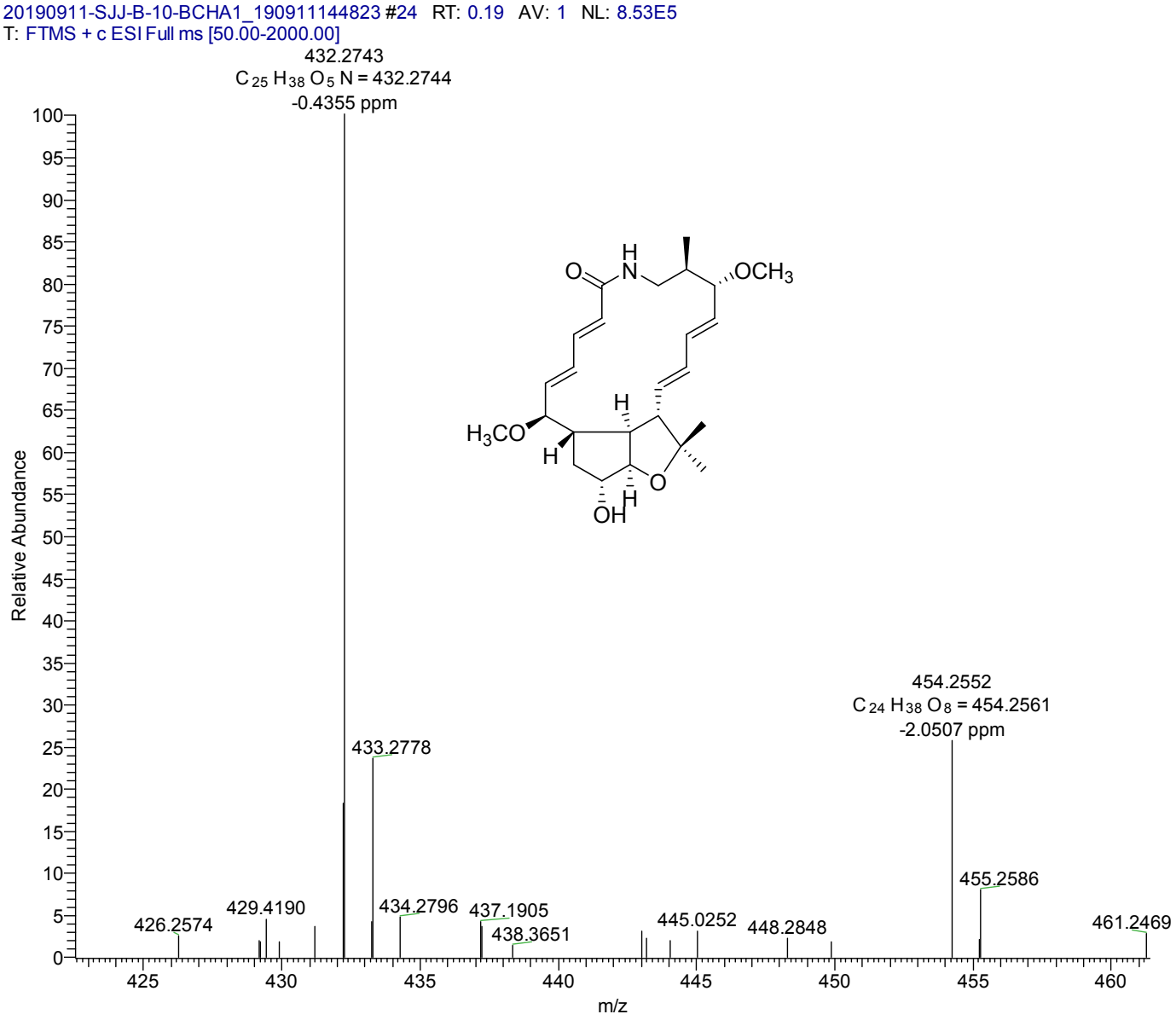


Figure S27. ^{1}H-NMR spectrum of compound **1a** in $CDCl_3$ (500 MHz)

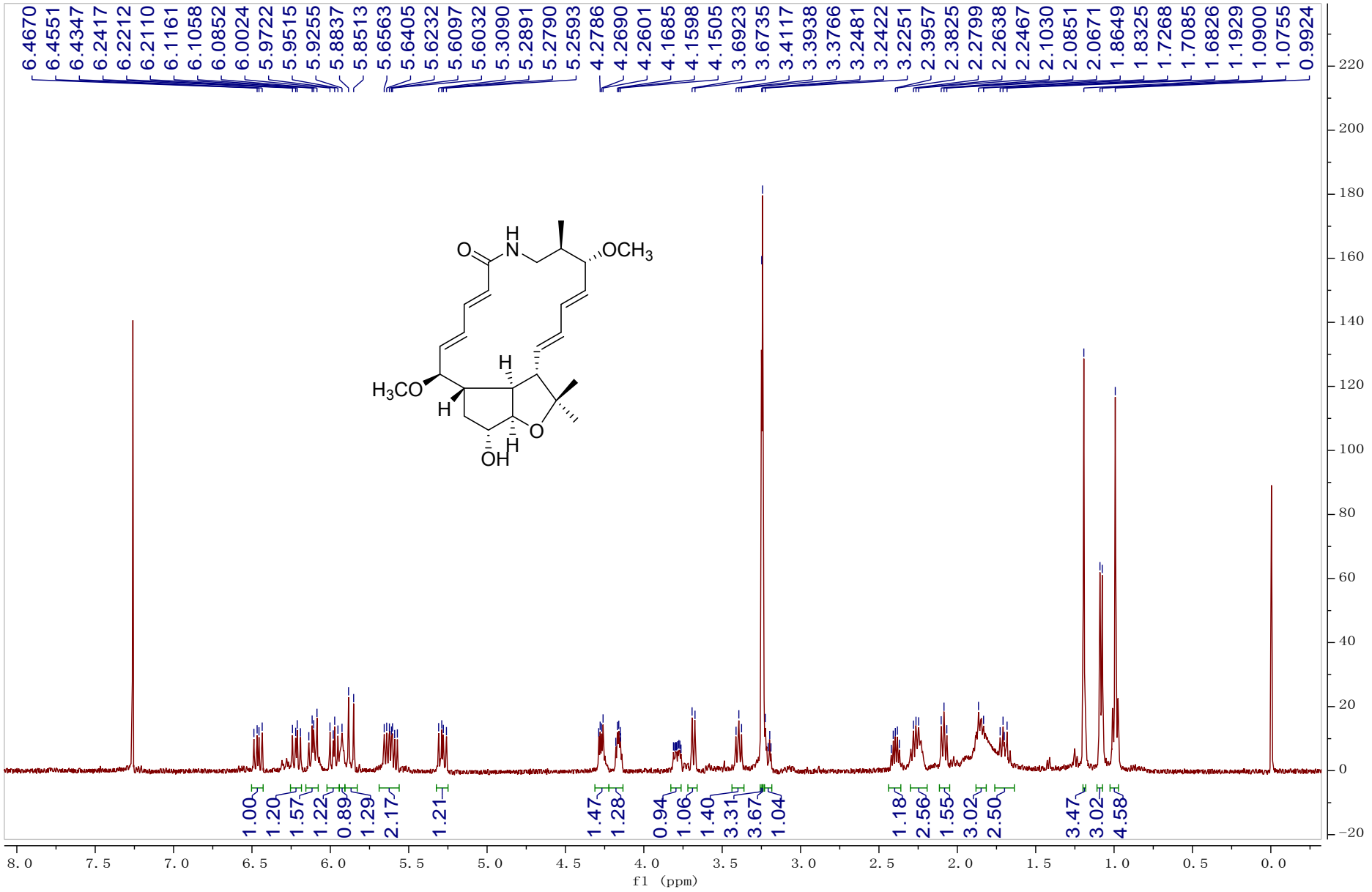


Figure S28. Expanded ^{1}H-NMR spectrum of compound **1a** in $CDCl_3$ (500 MHz)

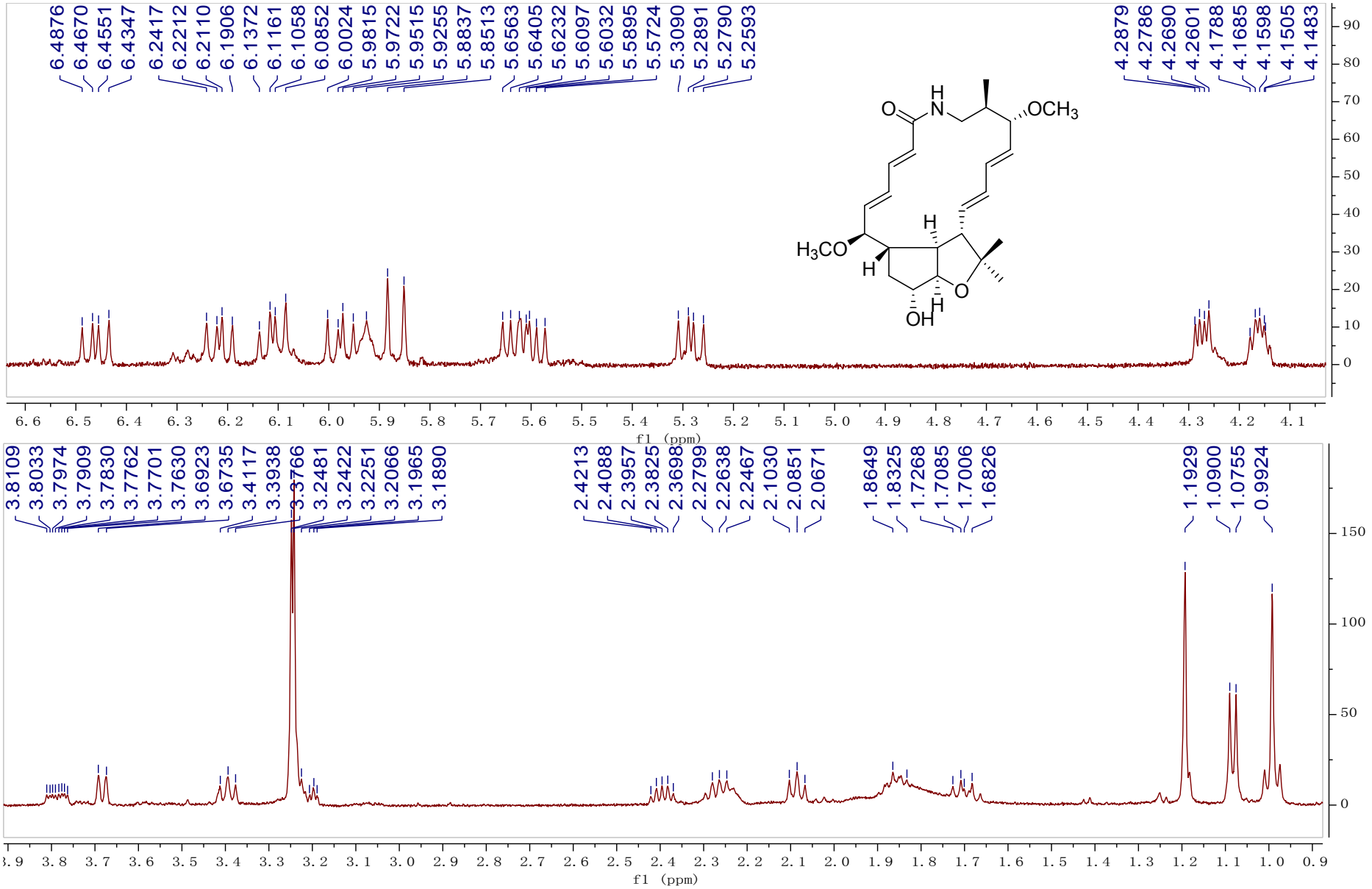


Figure S29. HSQC spectrum of compound **1a** in $CDCl_3$ (500 × 125 MHz)

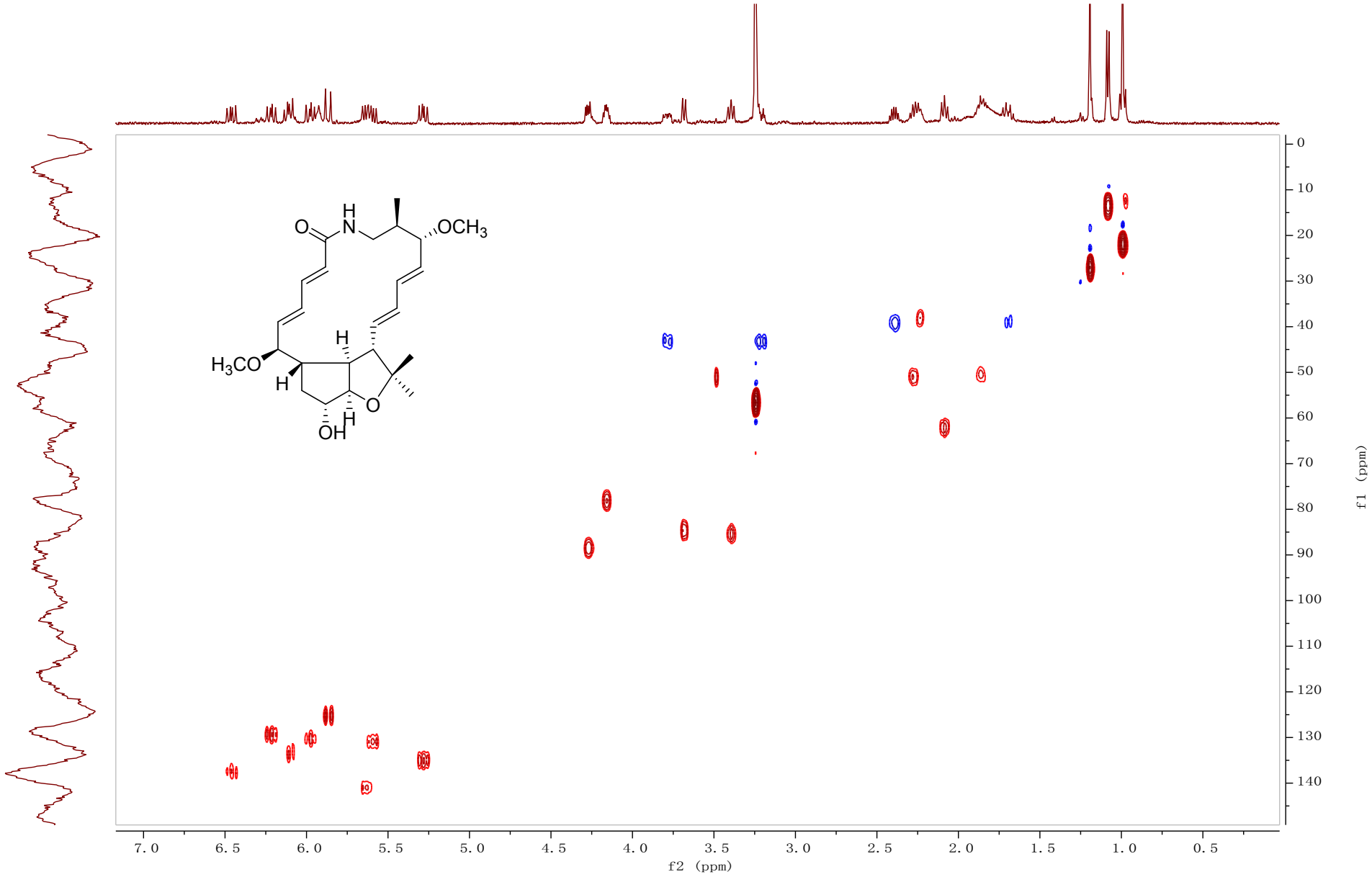


Figure S30. ^{1}H-^{1}H COSY spectrum of compound **1a** in $CDCl_3$ (500 MHz)

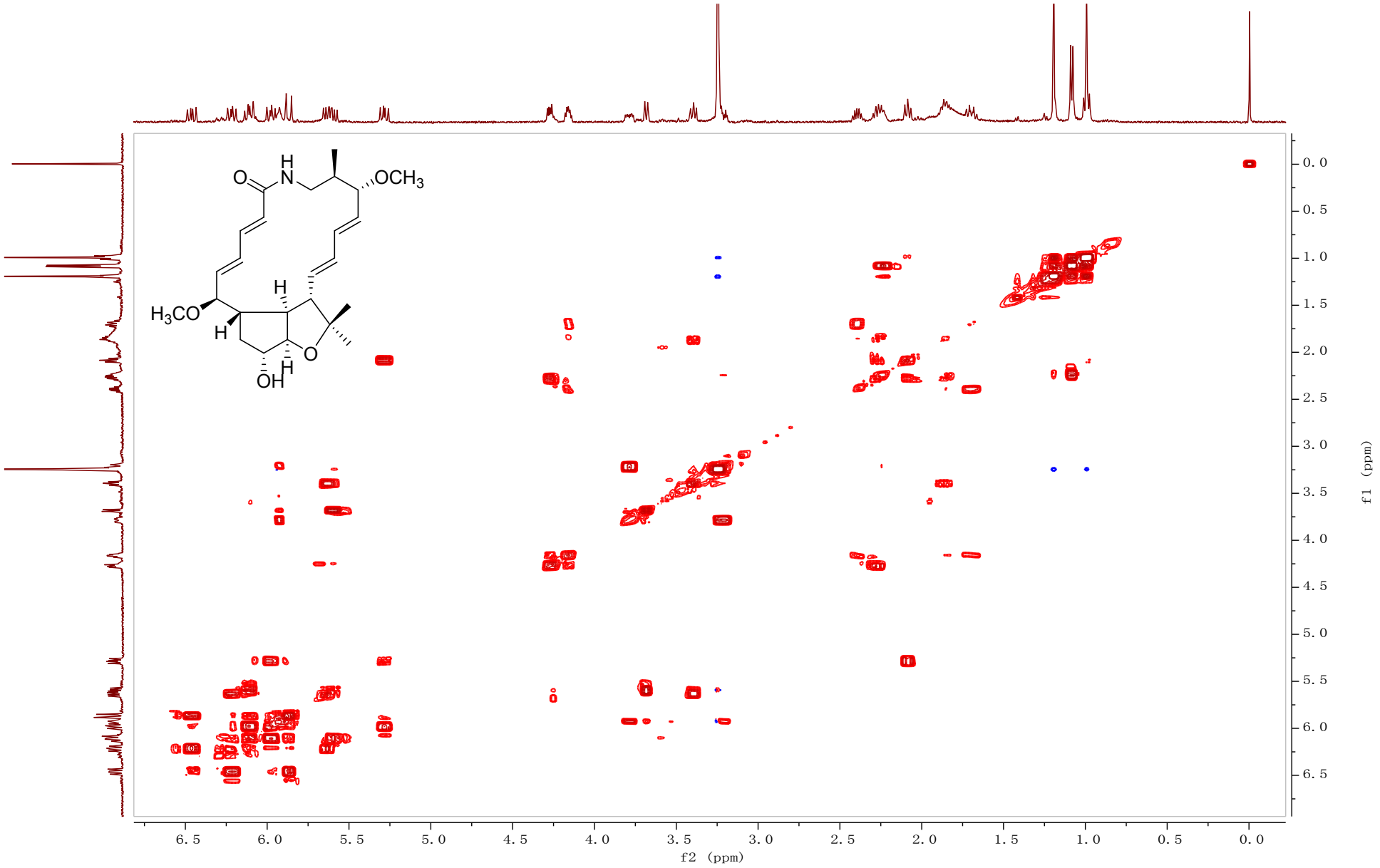


Figure S31. HMBC spectrum of compound **1a** in $CDCl_3$ (500 × 125 MHz)

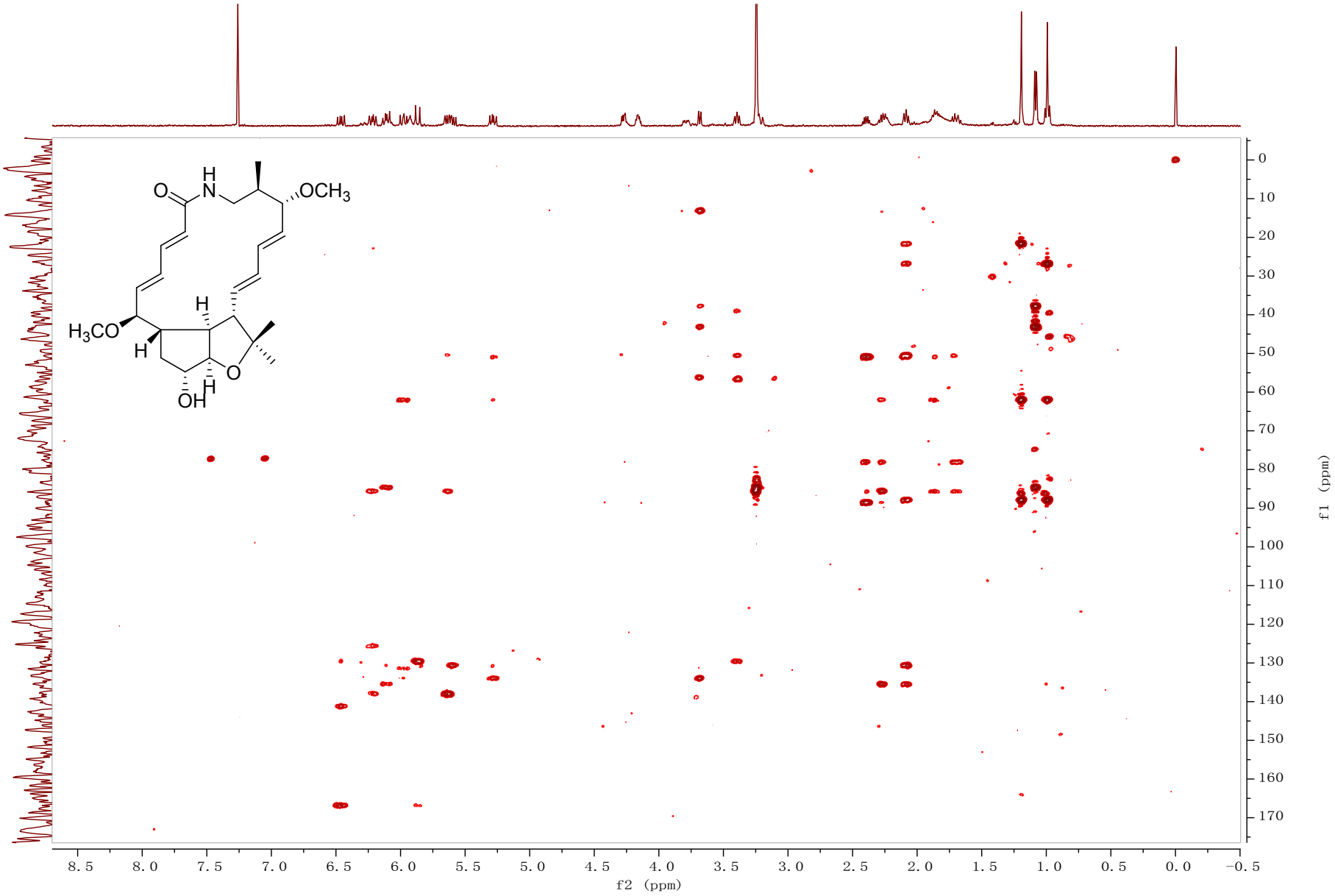


Figure S32. NOESY spectrum of compound **1a** in $CDCl_3$ (500 MHz)

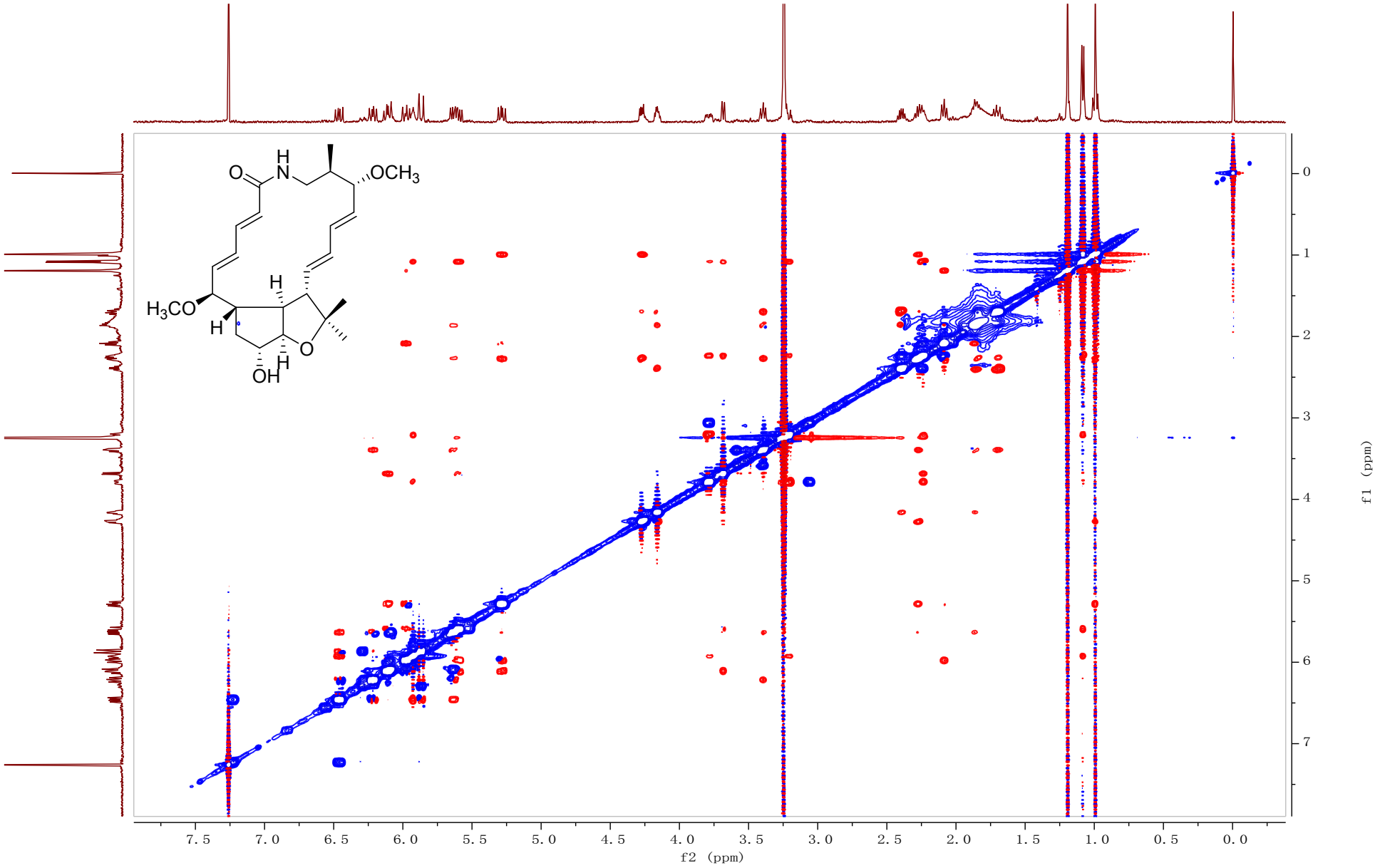


Figure S33. ^{1}H-NMR spectrum of (*S*)-MTPA ester (**1aa**) in $CDCl_3$ (500 MHz)

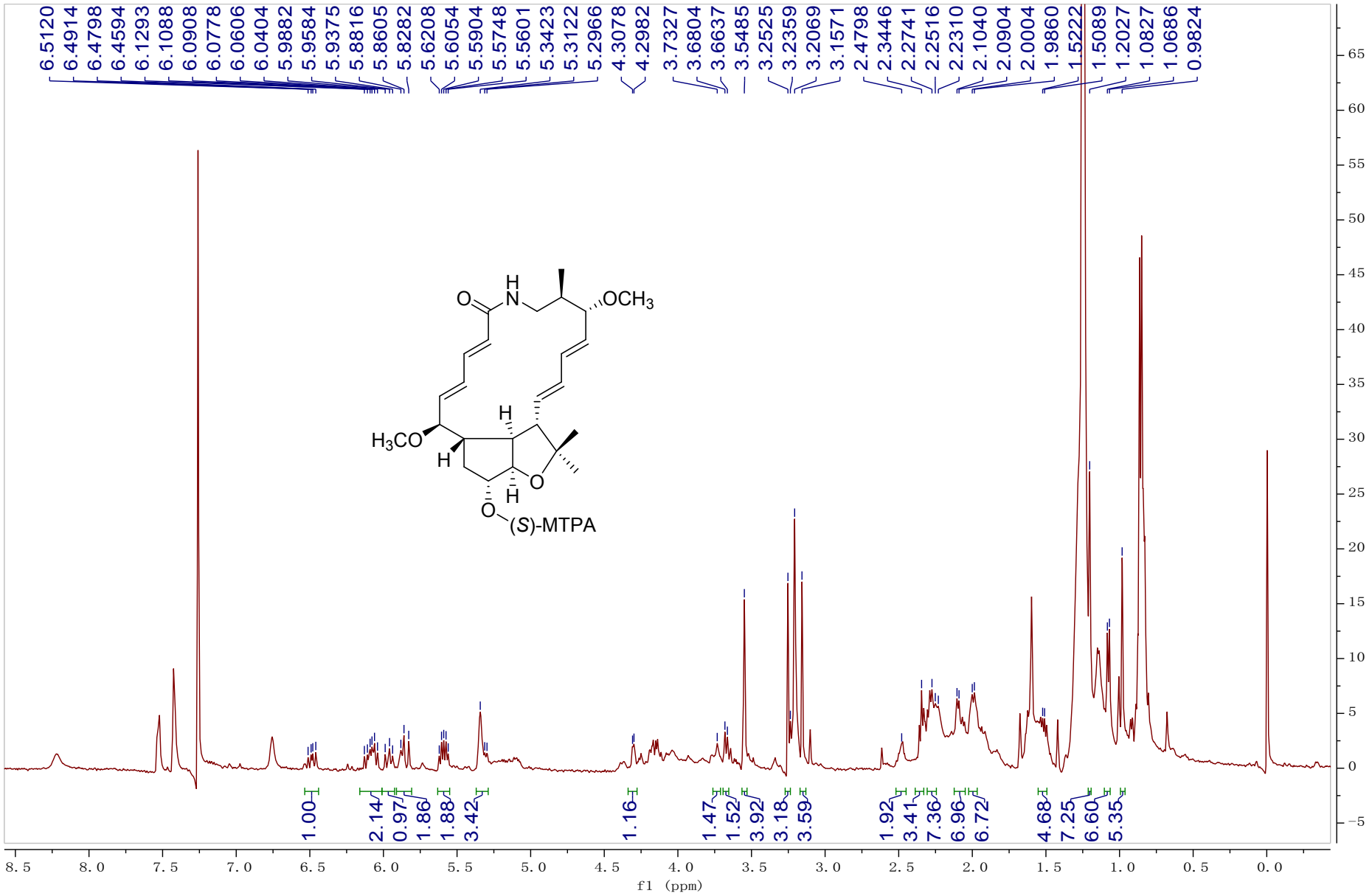


Figure S34. ^{1}H-^{1}H COSY spectrum of (*S*)-MTPA ester (**1aa**) in $CDCl_3$ (500 MHz)

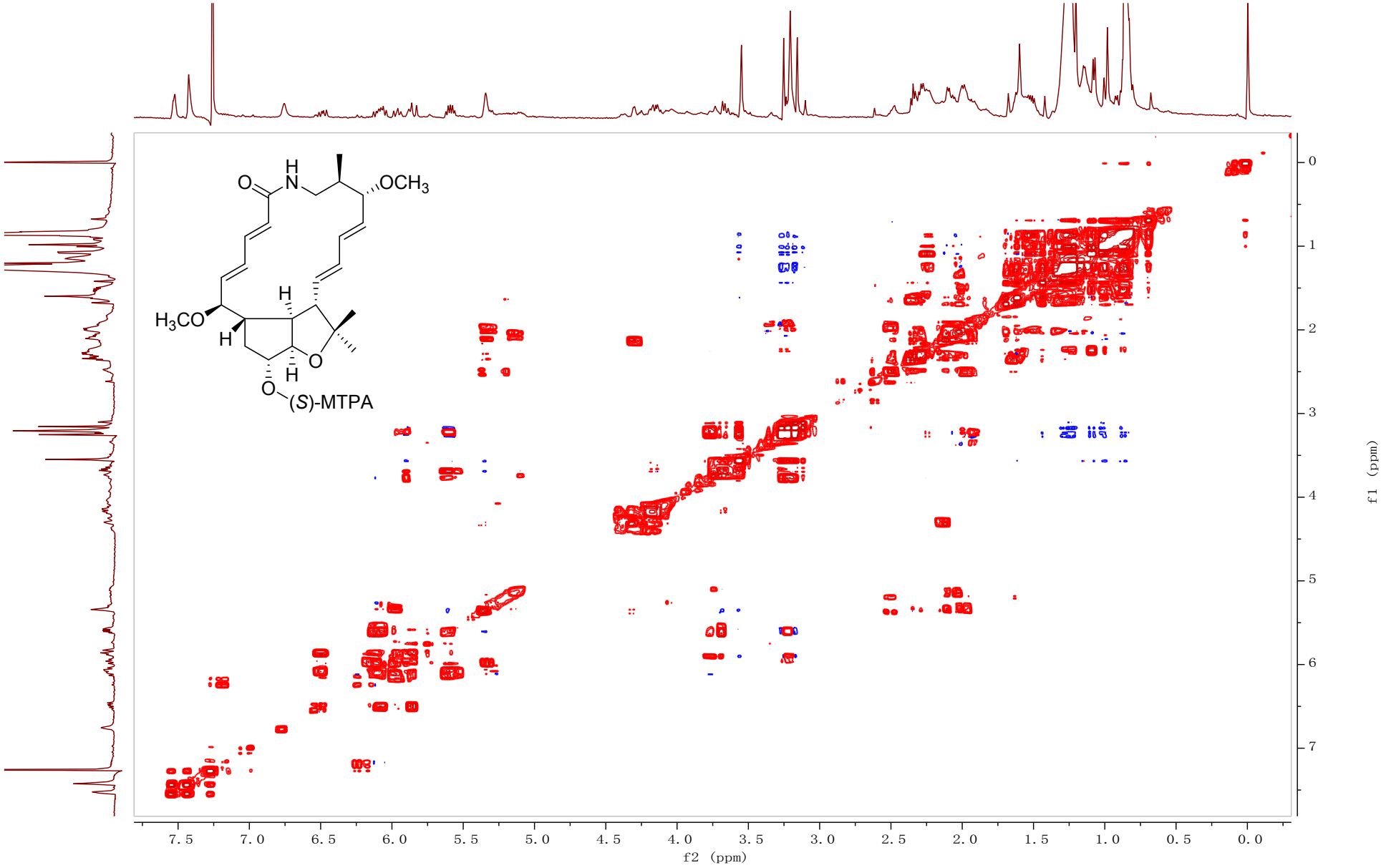


Figure S35. ^{1}H-NMR spectrum of (*R*)-MTPA ester (**1ab**) in $CDCl_3$ (500 MHz)

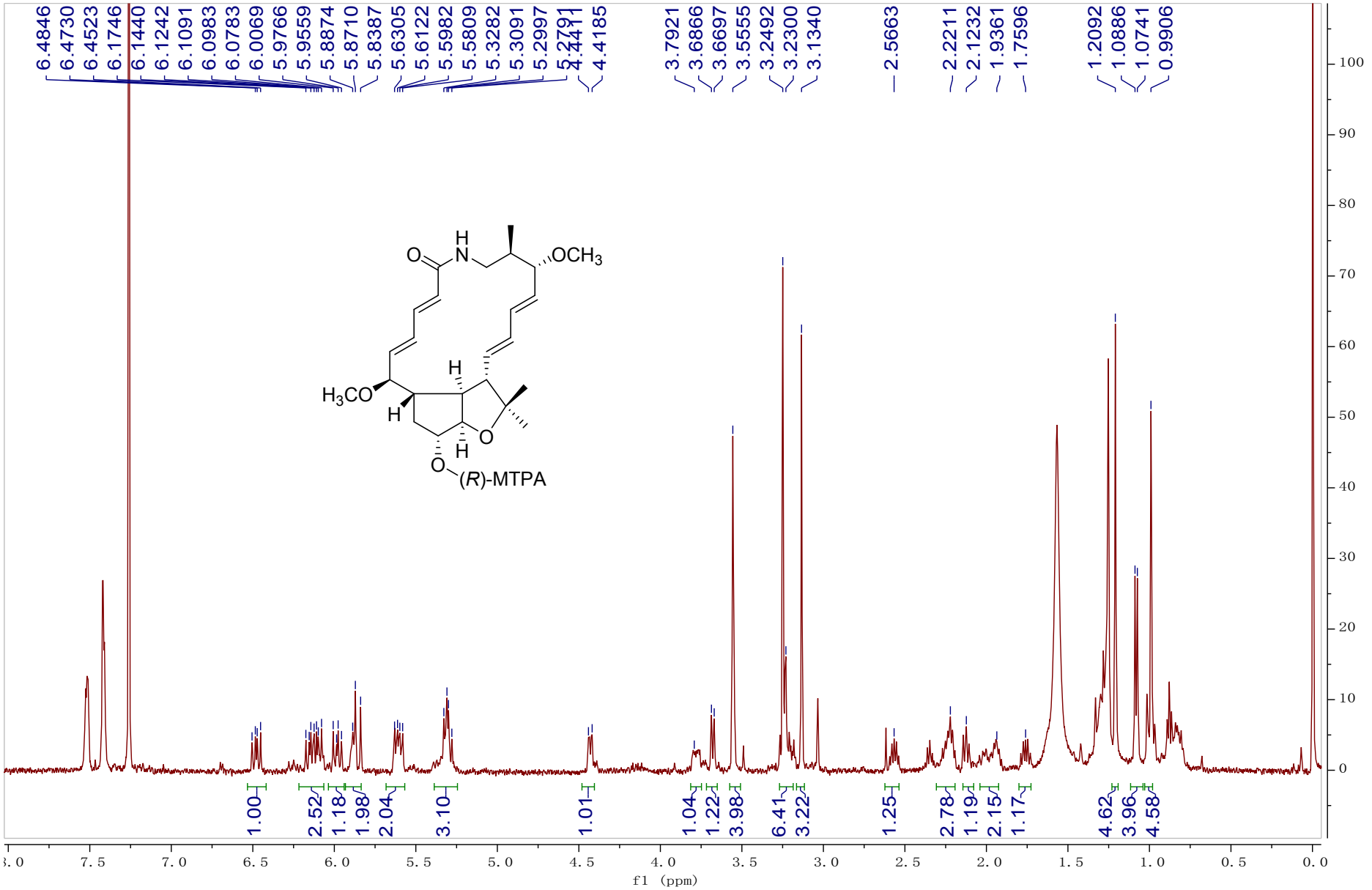


Figure S36. ^{1}H-^{1}H COSY spectrum of (*R*)-MTPA ester (**1ab**) in $CDCl_3$ (500 MHz)

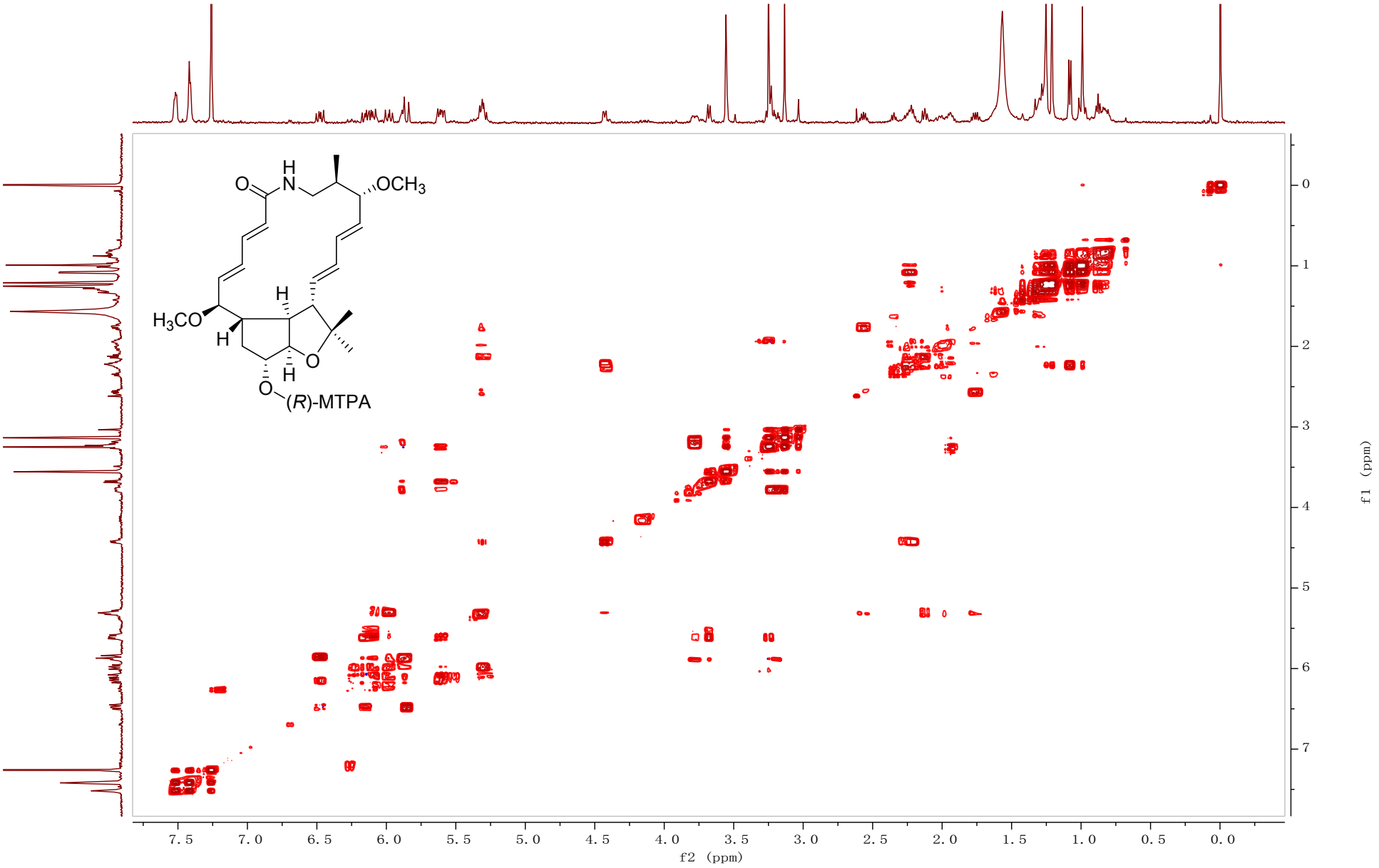


Figure S37. HRESIMS spectrum of compound **2a**

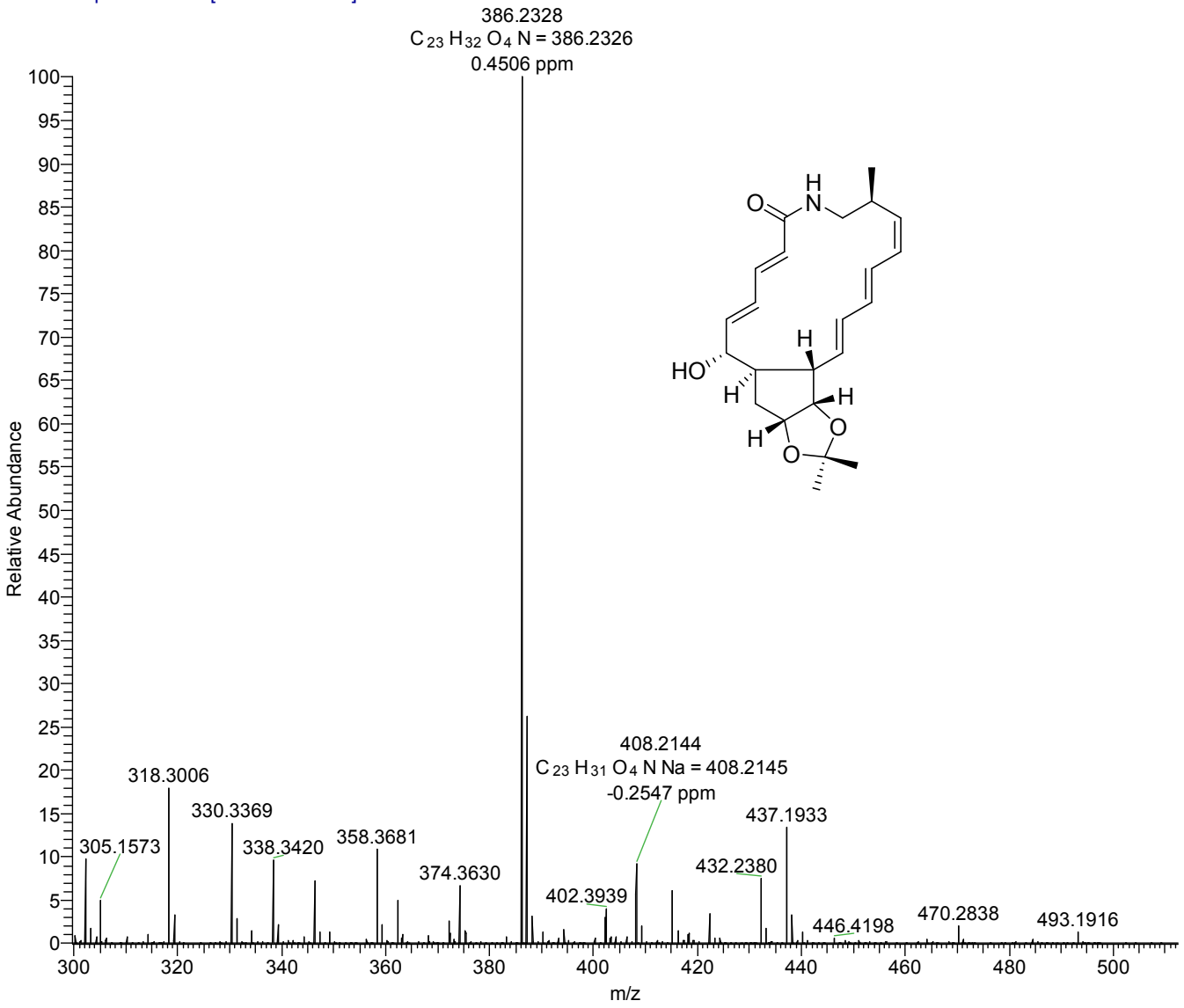


Figure S38. ^{1}H-NMR spectrum of compound **2a** in $CDCl_3$ (500 MHz)

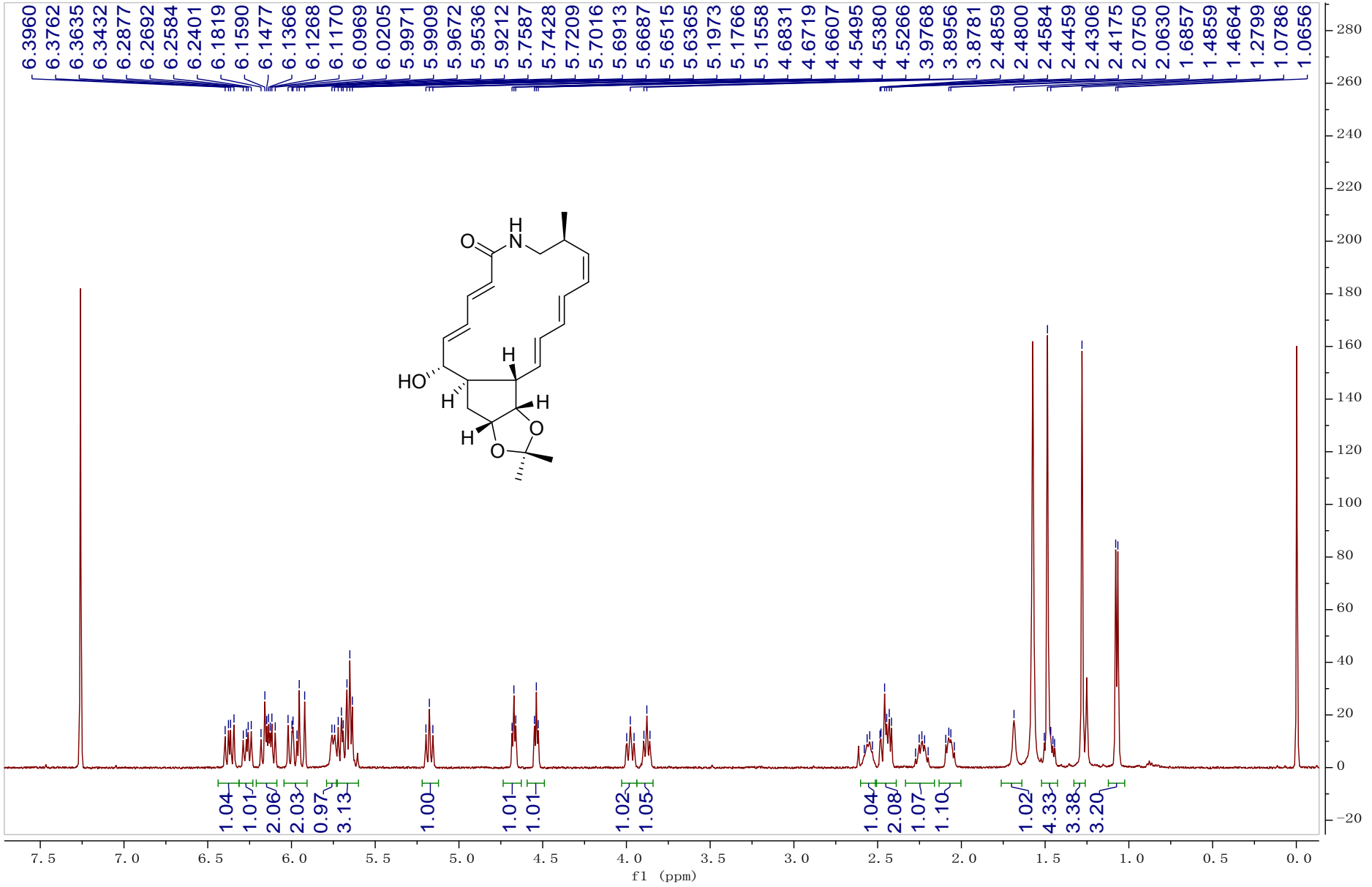


Figure S39. Expanded ^{1}H-NMR spectrum of compound **2a** in $CDCl_3$ (500 MHz)

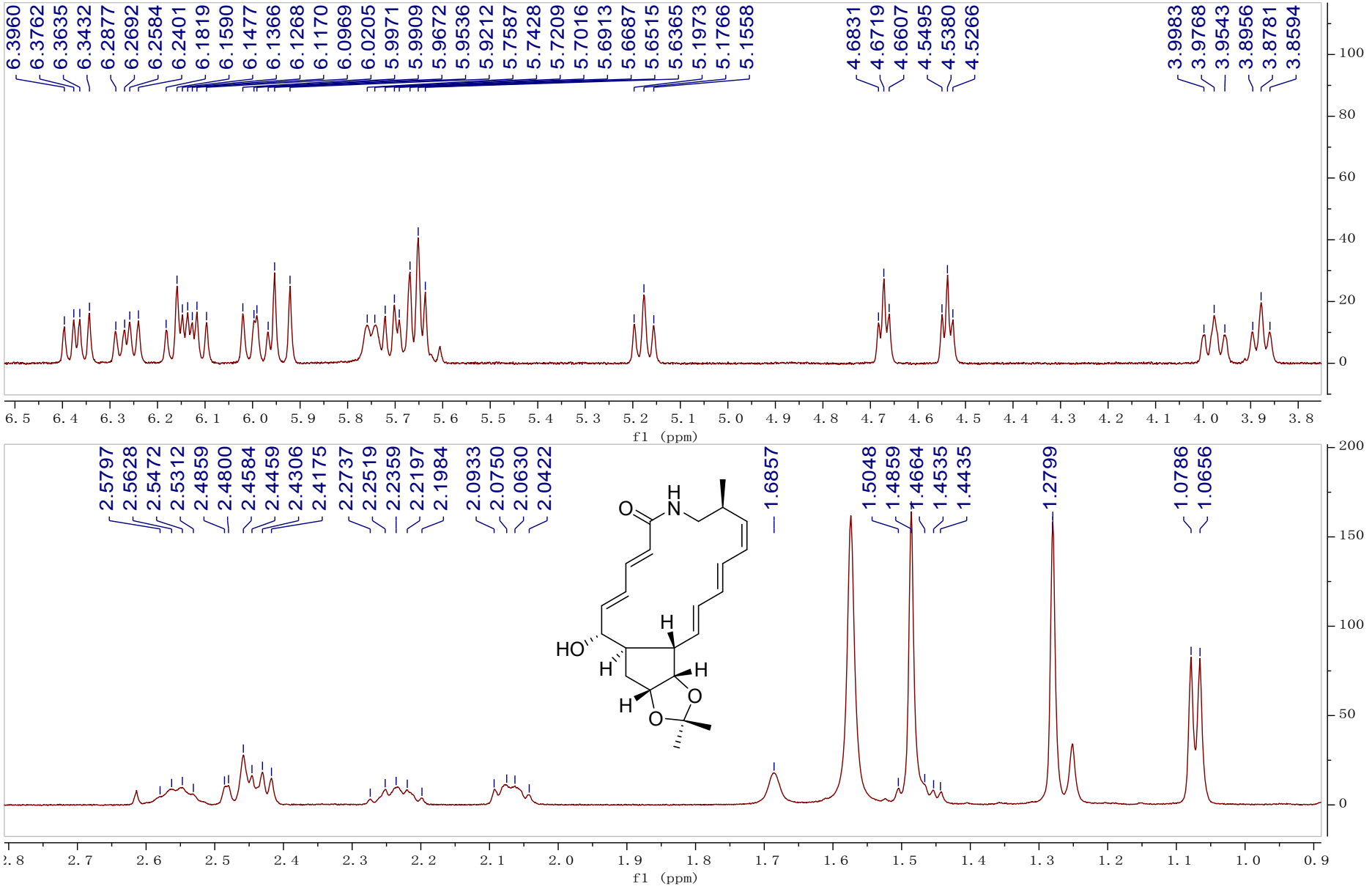


Figure S40. ^{1}H-^{1}H COSY spectrum of compound **2a** in $CDCl_3$ (500 MHz)

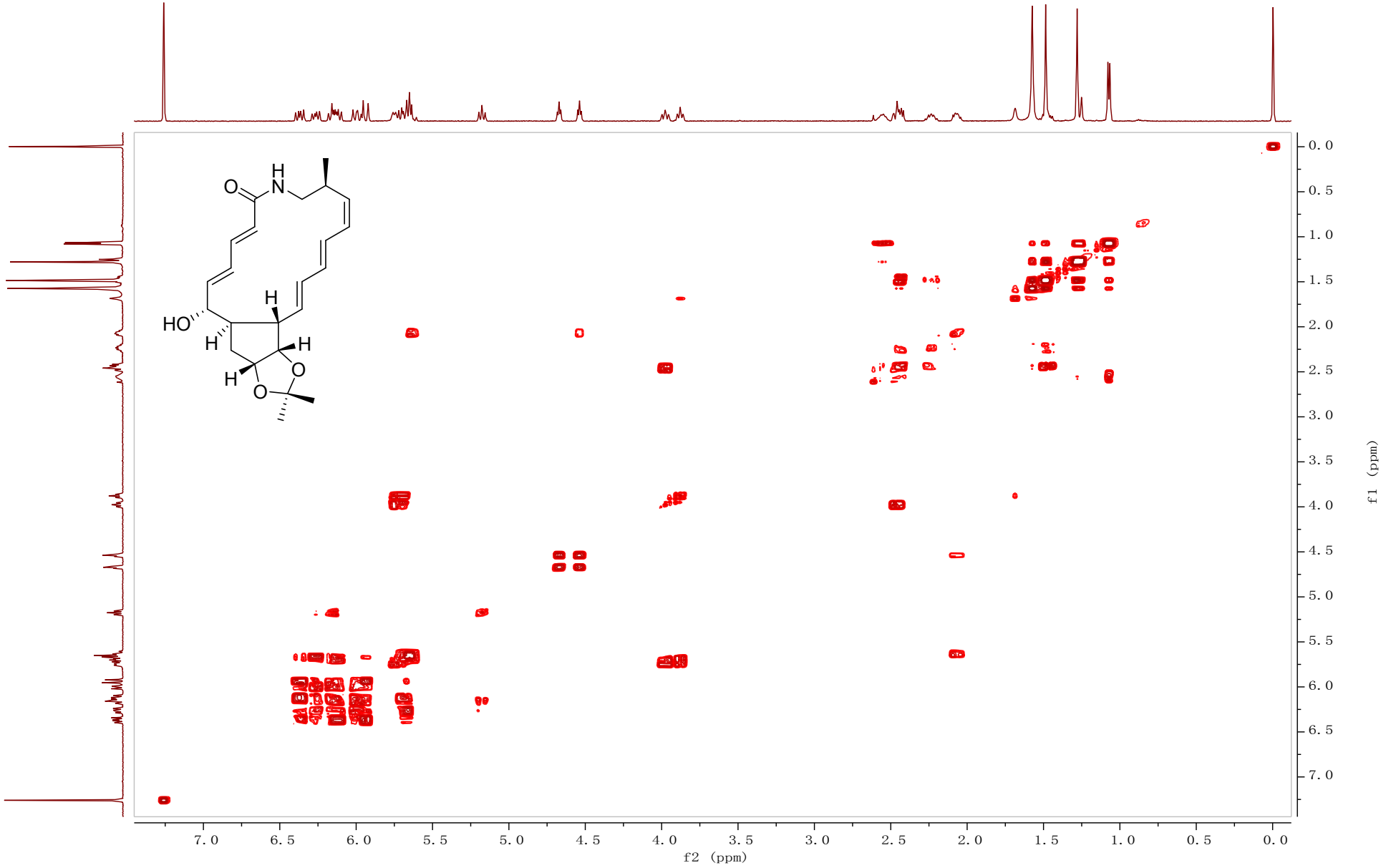


Figure S41. NOESY spectrum of compound **2a** in $CDCl_3$ (500 MHz)

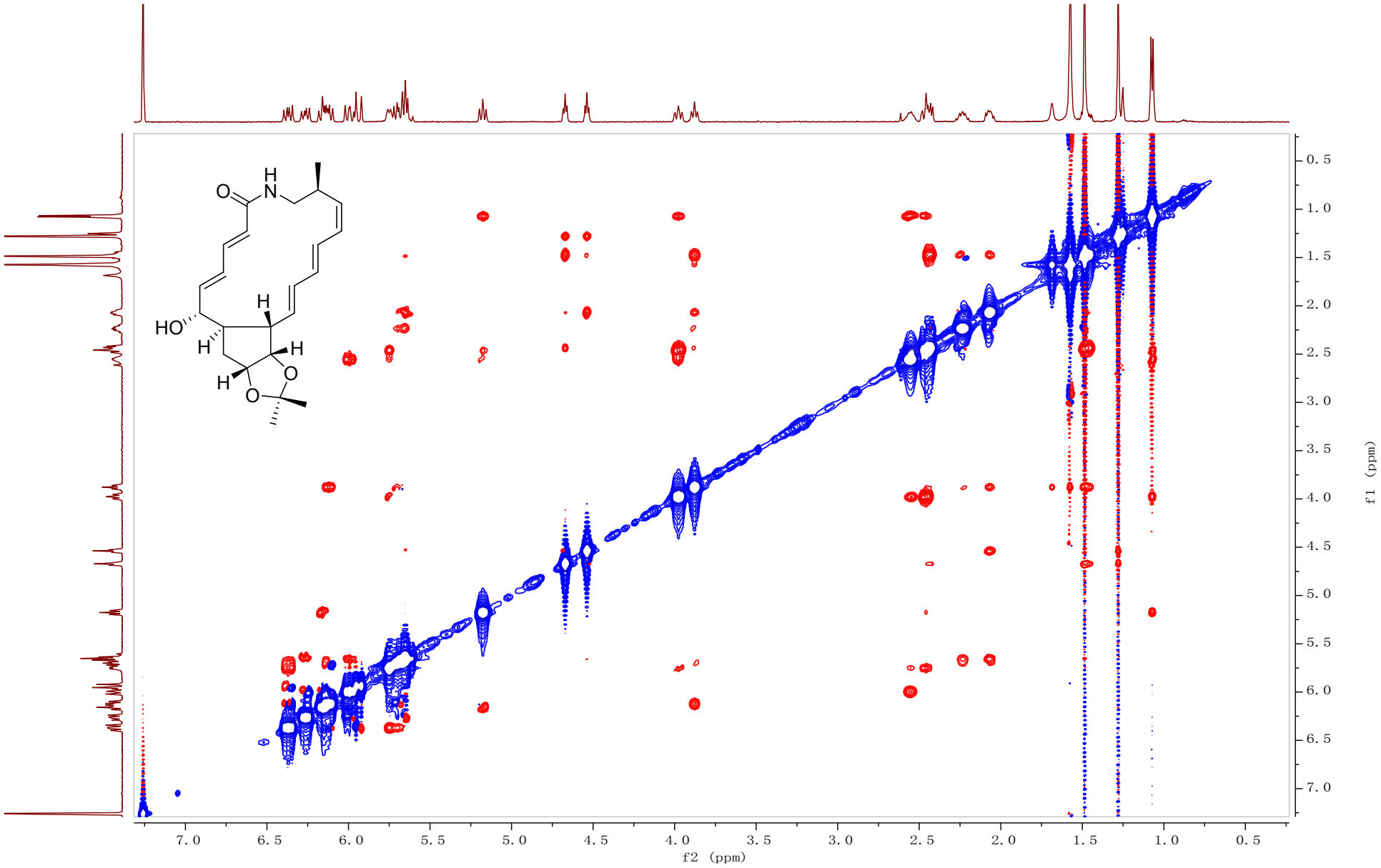


Figure S42. ^{1}H-NMR spectrum of (*S*)-MTPA ester (**2aa**) in $CDCl_3$ (500 MHz)

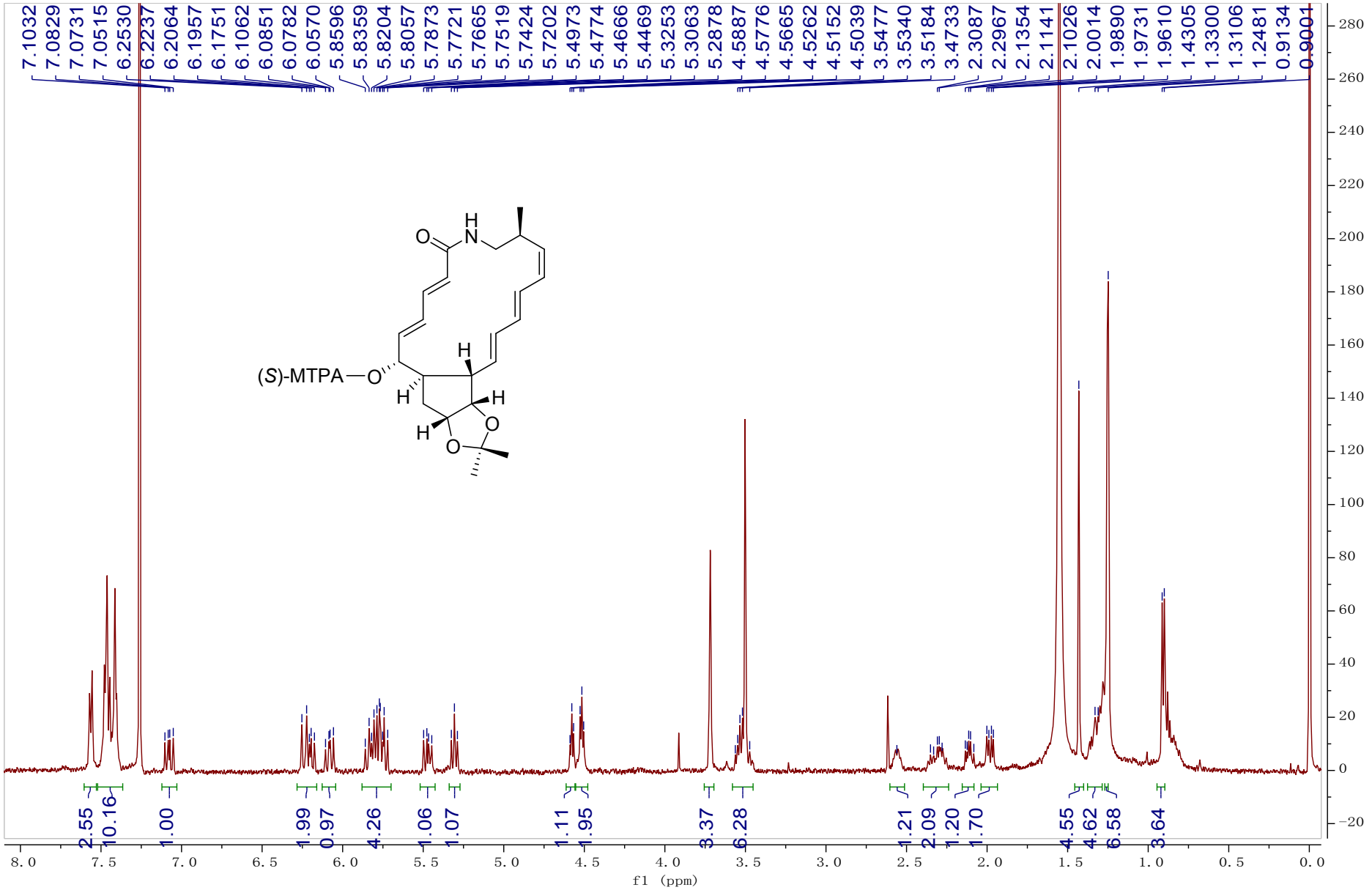


Figure S43. ^{1}H-^{1}H COSY spectrum of (*S*)-MTPA ester (**2aa**) in $CDCl_3$ (500 MHz)

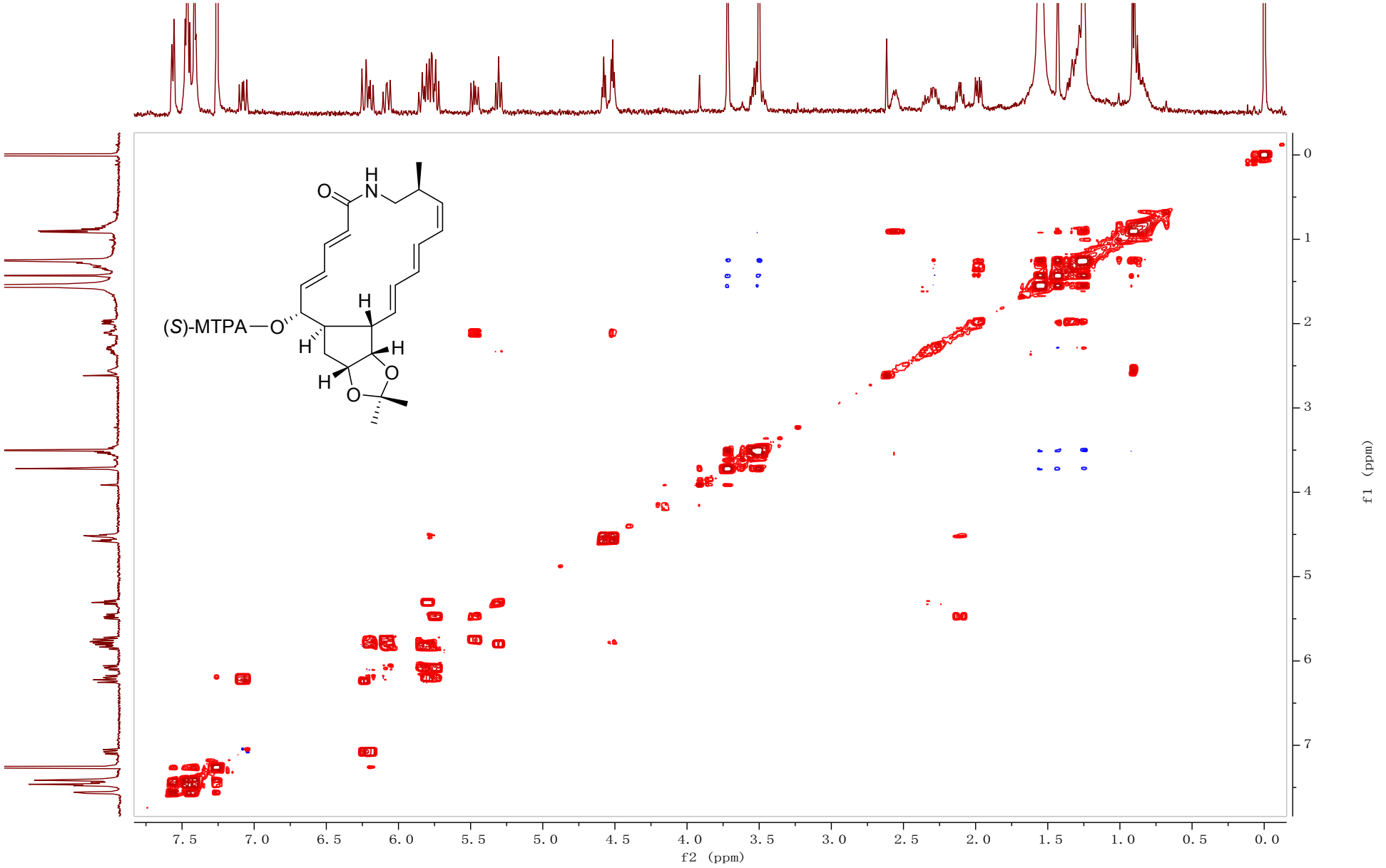


Figure S44. ^{1}H-NMR spectrum of (*R*)-MTPA ester (**2ab**) in $CDCl_3$ (500 MHz)

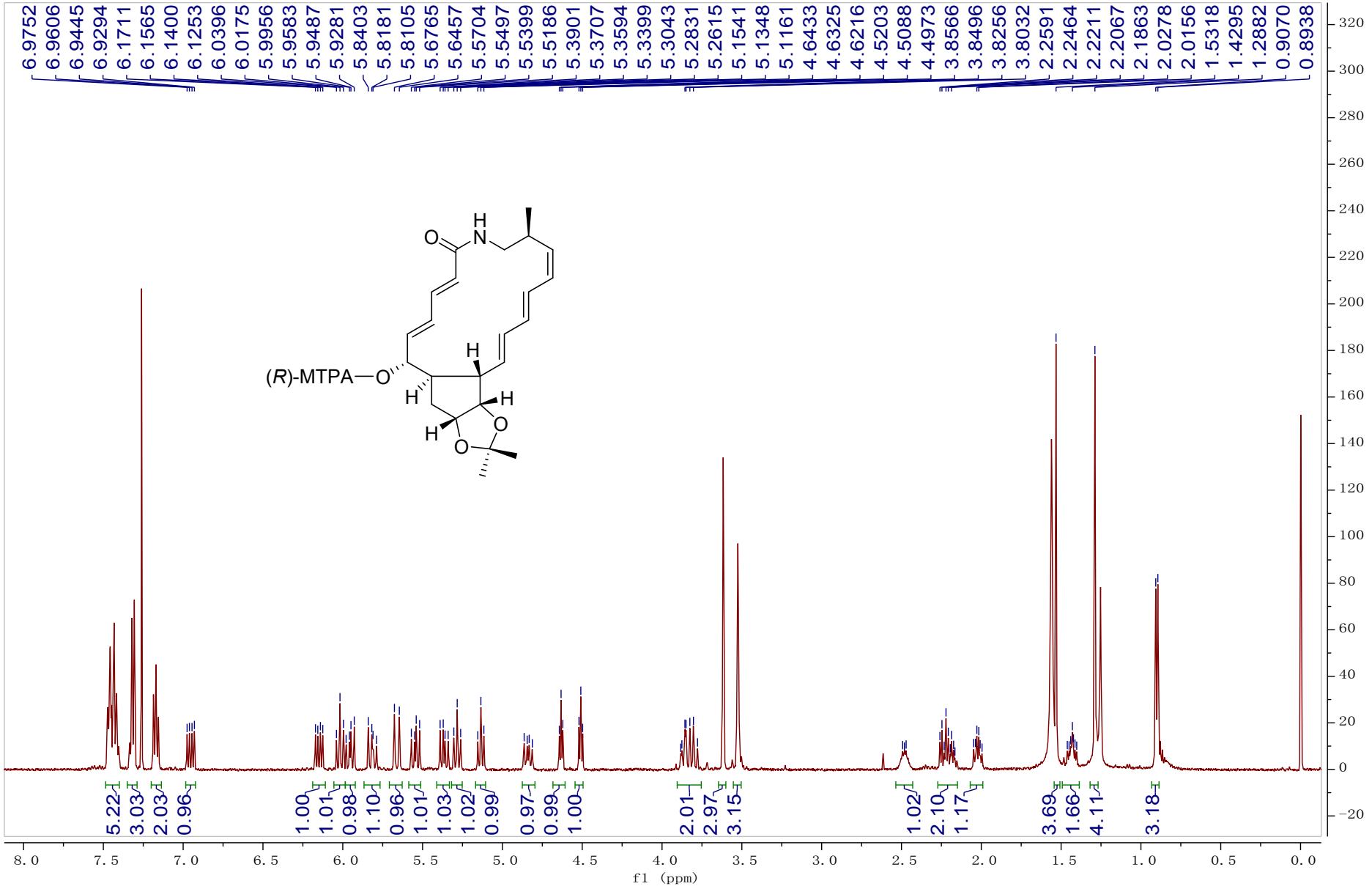


Figure S45. ^{1}H-^{1}H COSY spectrum of (*R*)-MTPA ester (**2ab**) in $CDCl_3$ (500 MHz)

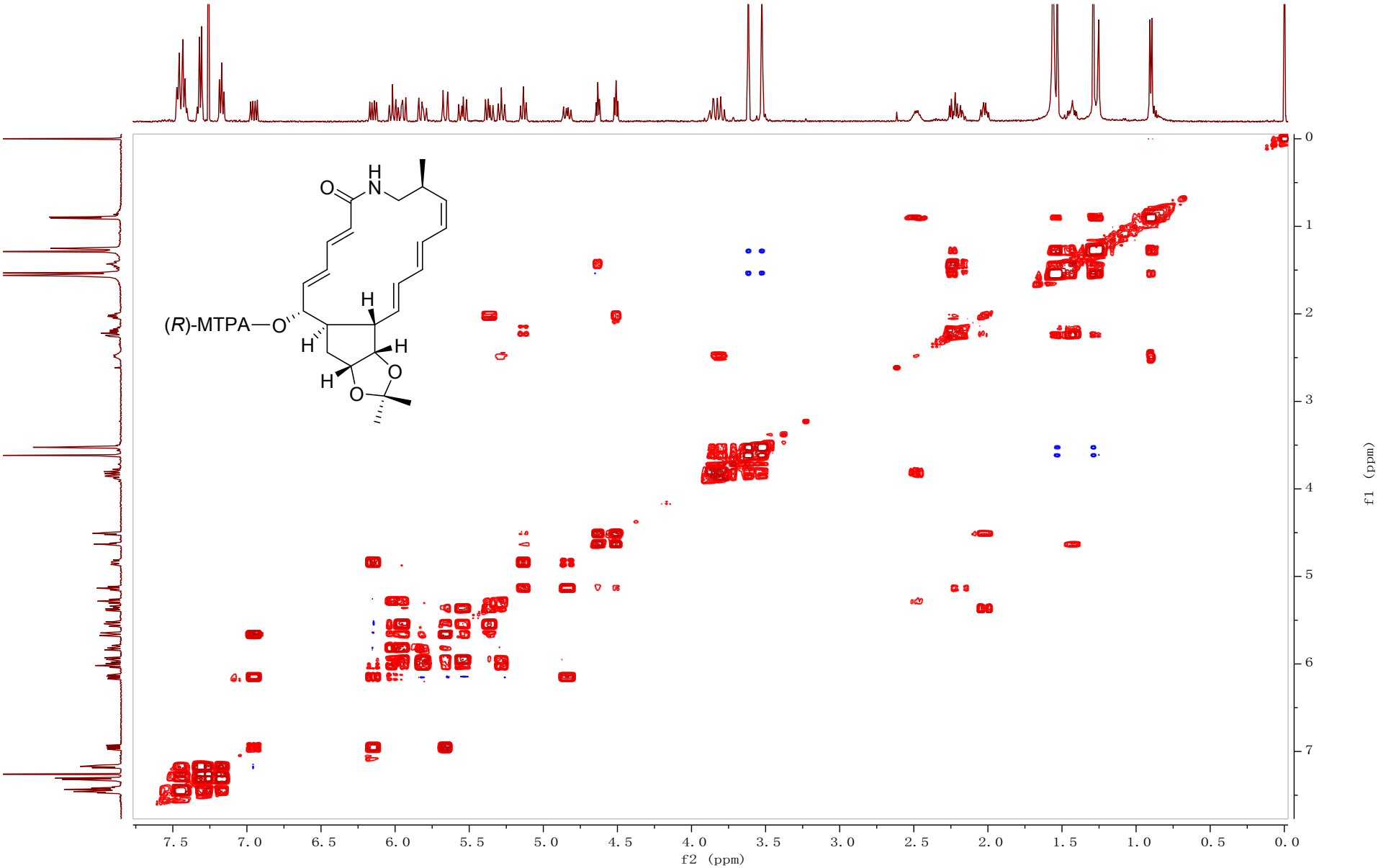
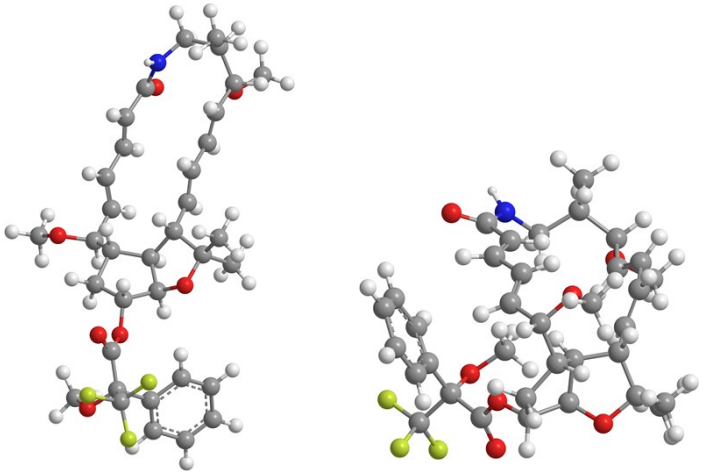
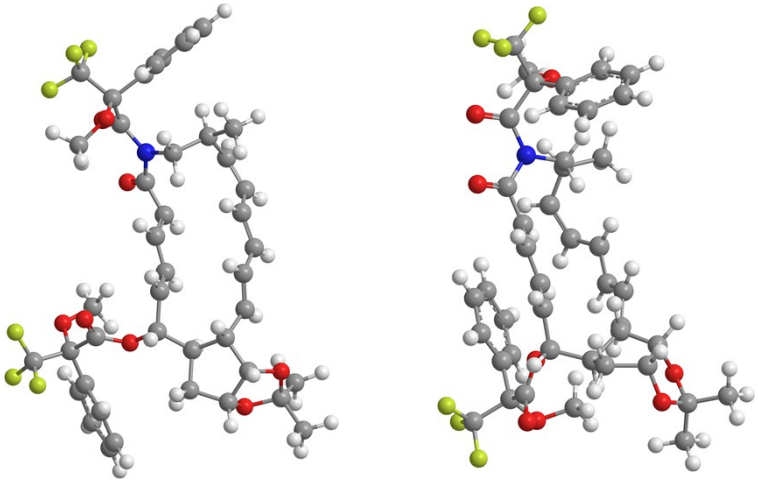


Figure S46. DFT-optimized structures of the lowest energy conformations for two MTPA esters of **1a**



(*S*)-MTPA ester (**1aa**) (*R*)-MTPA ester (**1ab**)

Figure S47. DFT-optimized structures of the lowest energy conformations for two MTPA esters of **2a**



(*S*)-MTPA ester (**2aa**) (*R*)-MTPA ester (**2ab**)