

Supporting Information

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A New 2,3-Dioxygenated Flavanone and Other Constituents from *Dysosma difformis*

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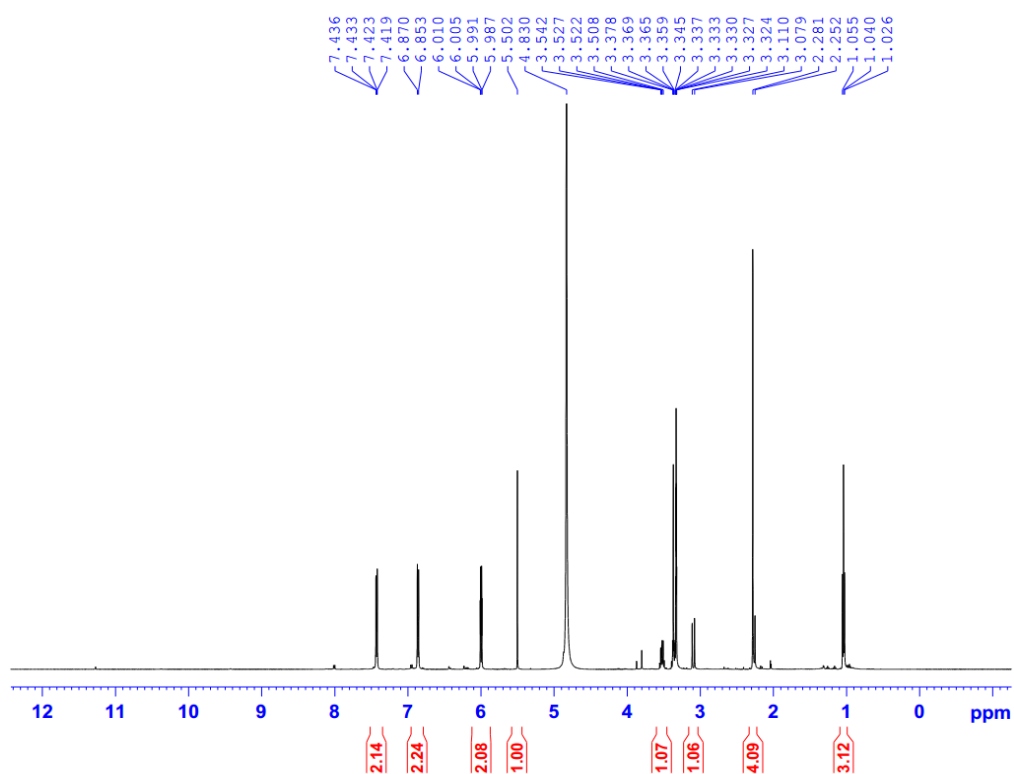


Figure S1: The ^1H -NMR spectrum of the compound (**2**) in CD_3OD

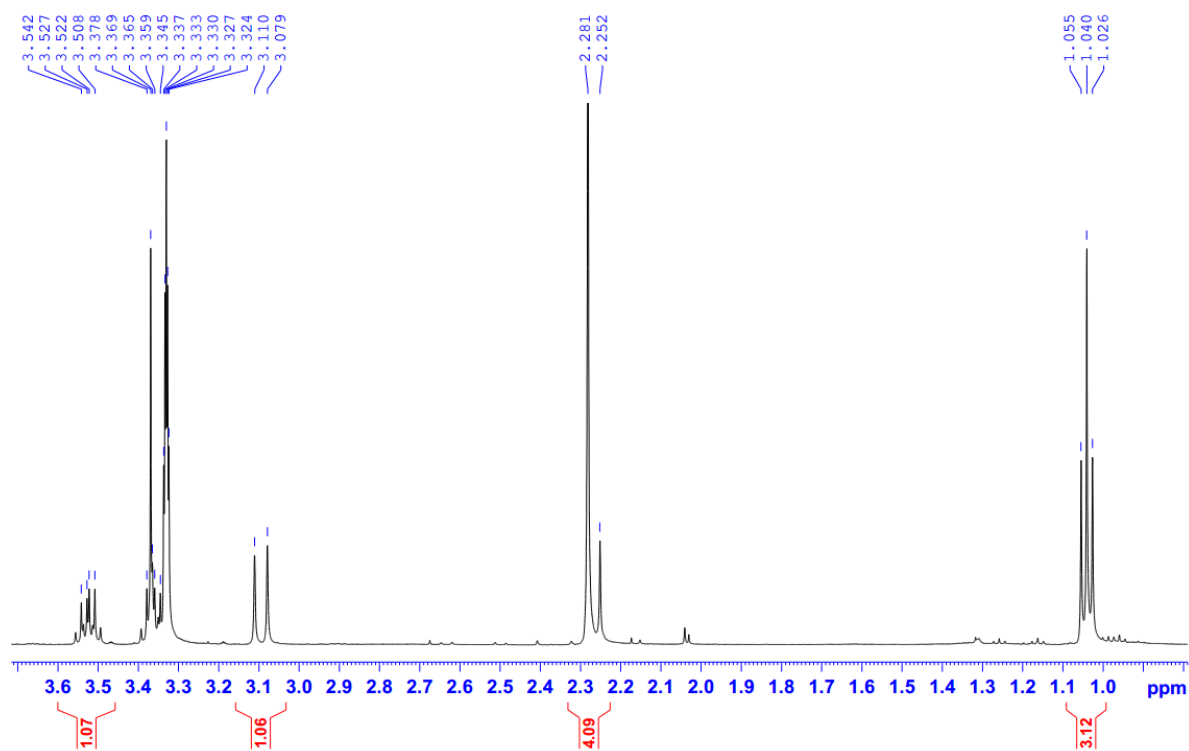


Figure S2: The extended ^1H -NMR spectrum of the compound (**2**) in CD_3OD

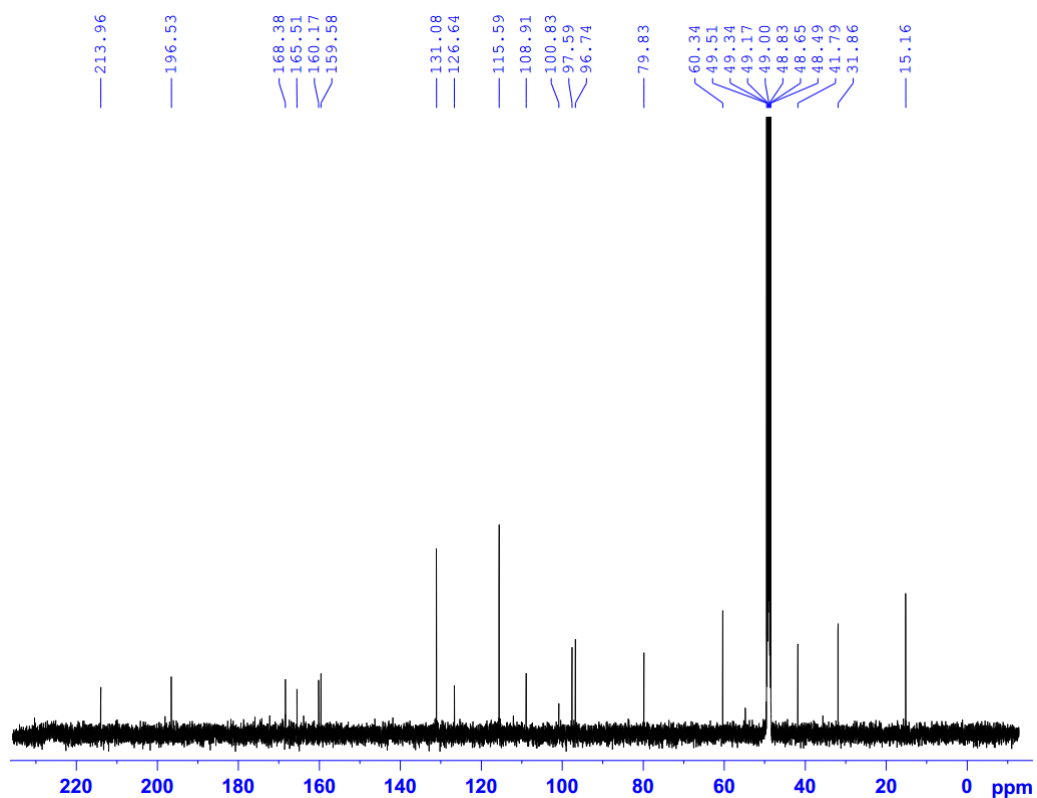


Figure S3: The ^{13}C -NMR spectrum of the compound (**2**) in CD_3OD

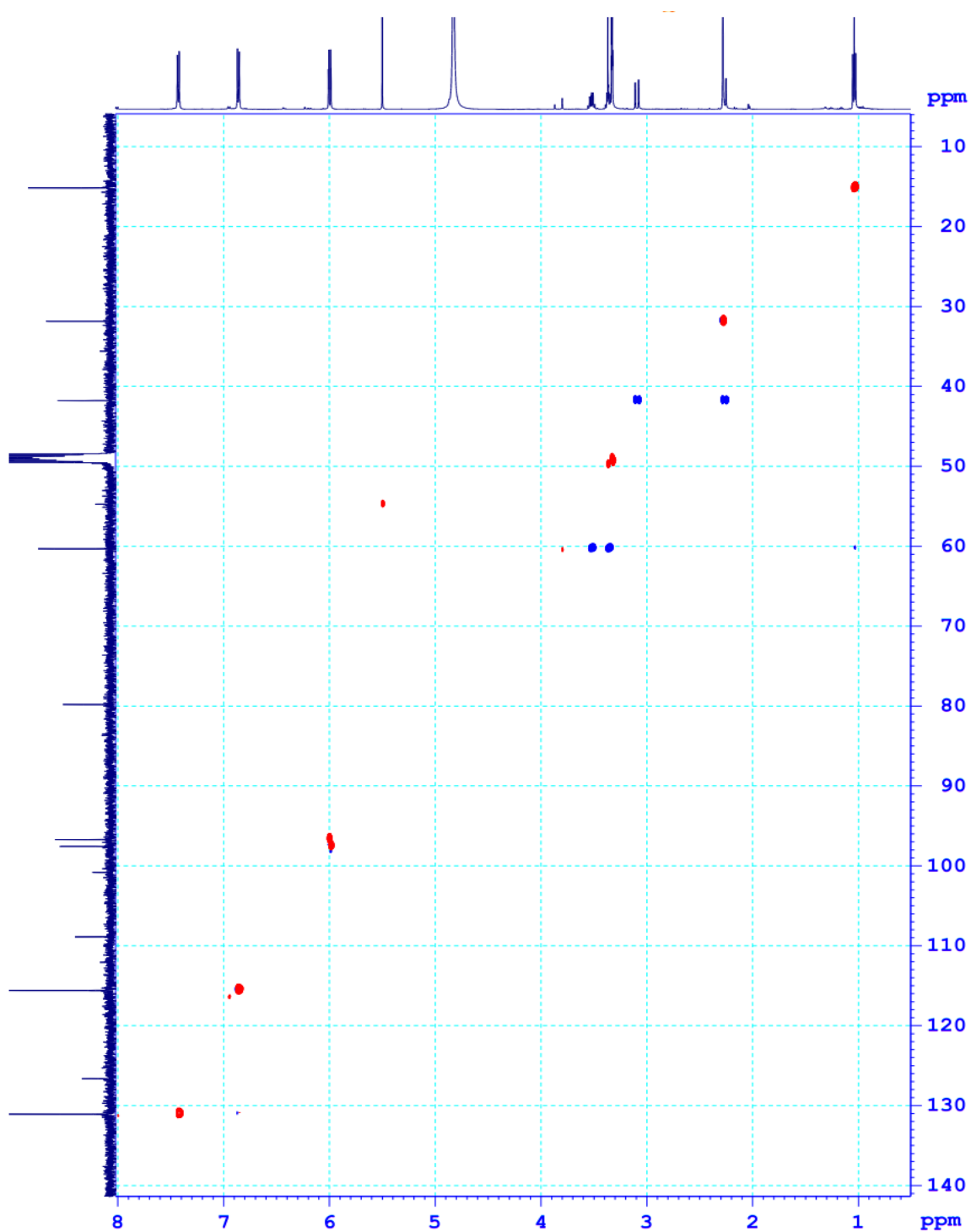


Figure S4: HSQC spectrum of the compound (**2**) in CD_3OD

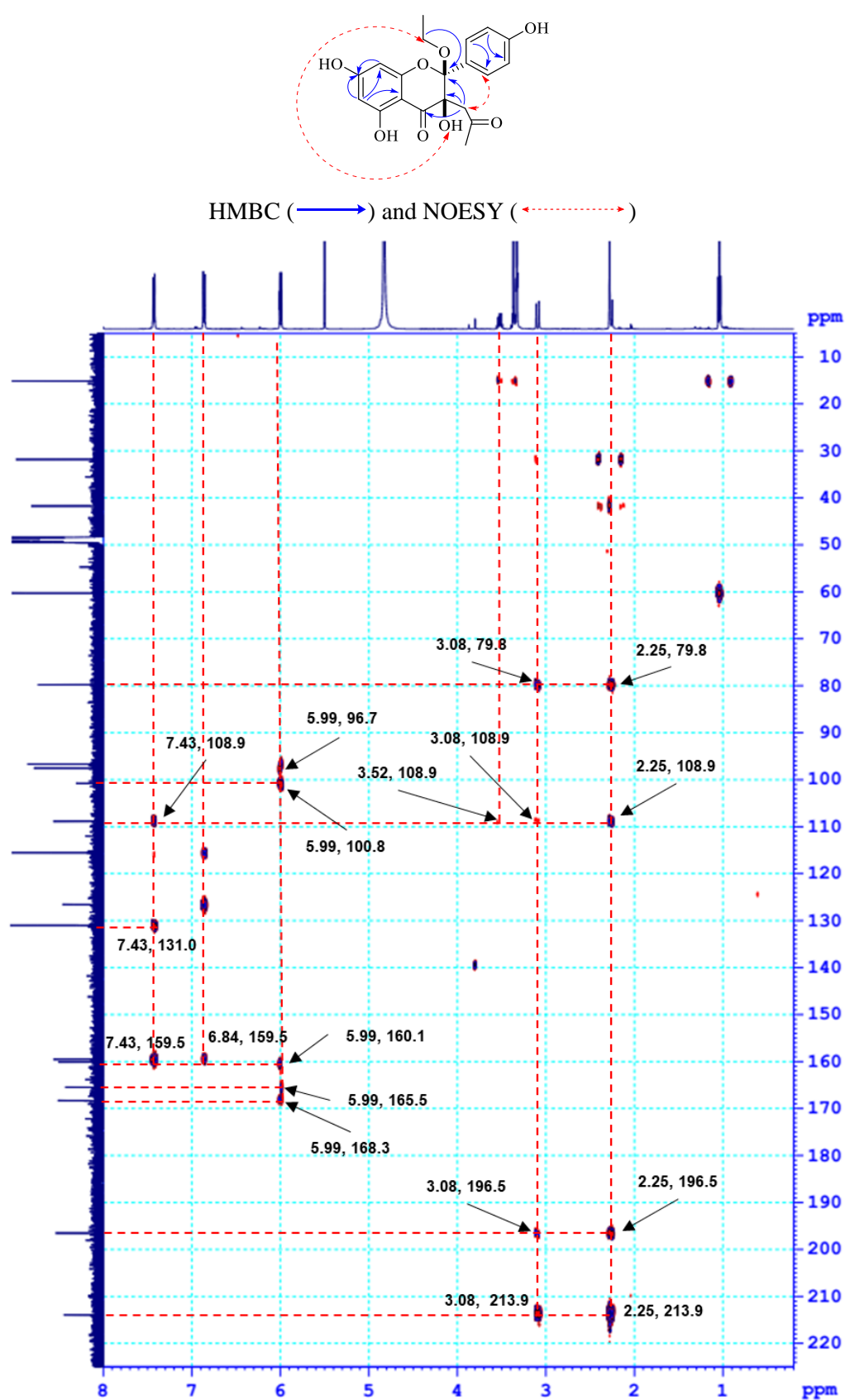


Figure S5: HMBC spectrum of the compound (**2**) in CD₃OD

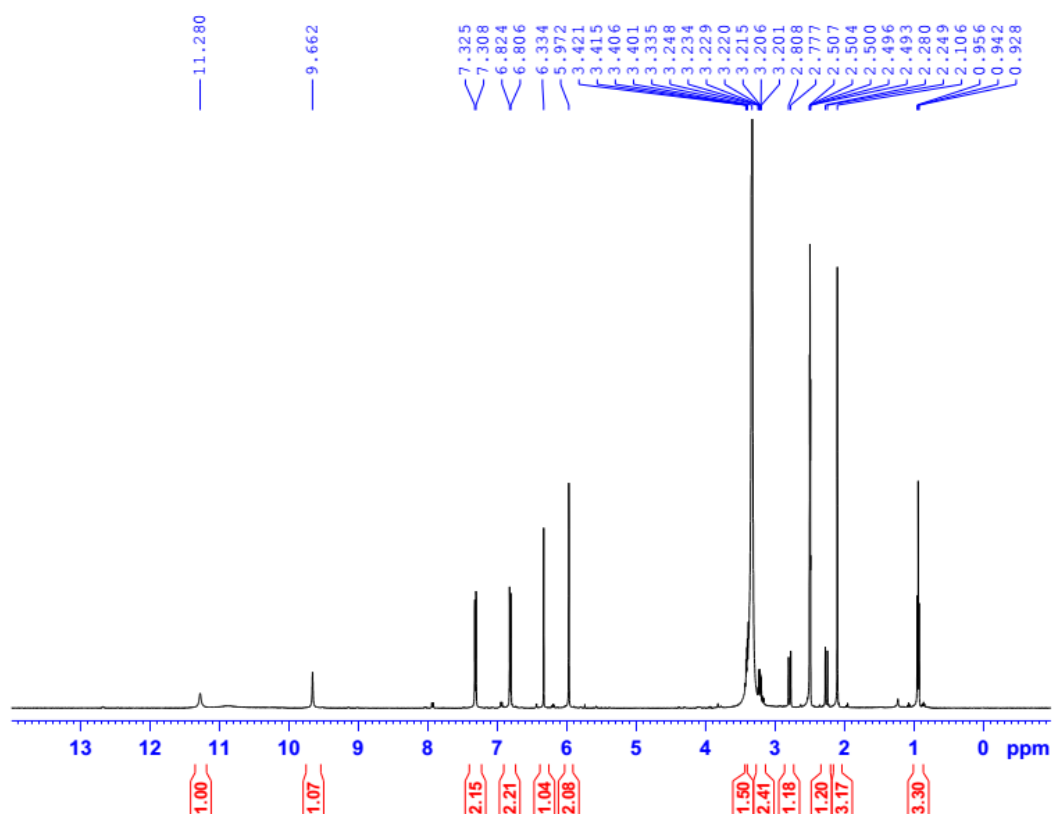


Figure S6: The ^1H -NMR spectrum of the compound (2) in $\text{DMSO-}d_6$

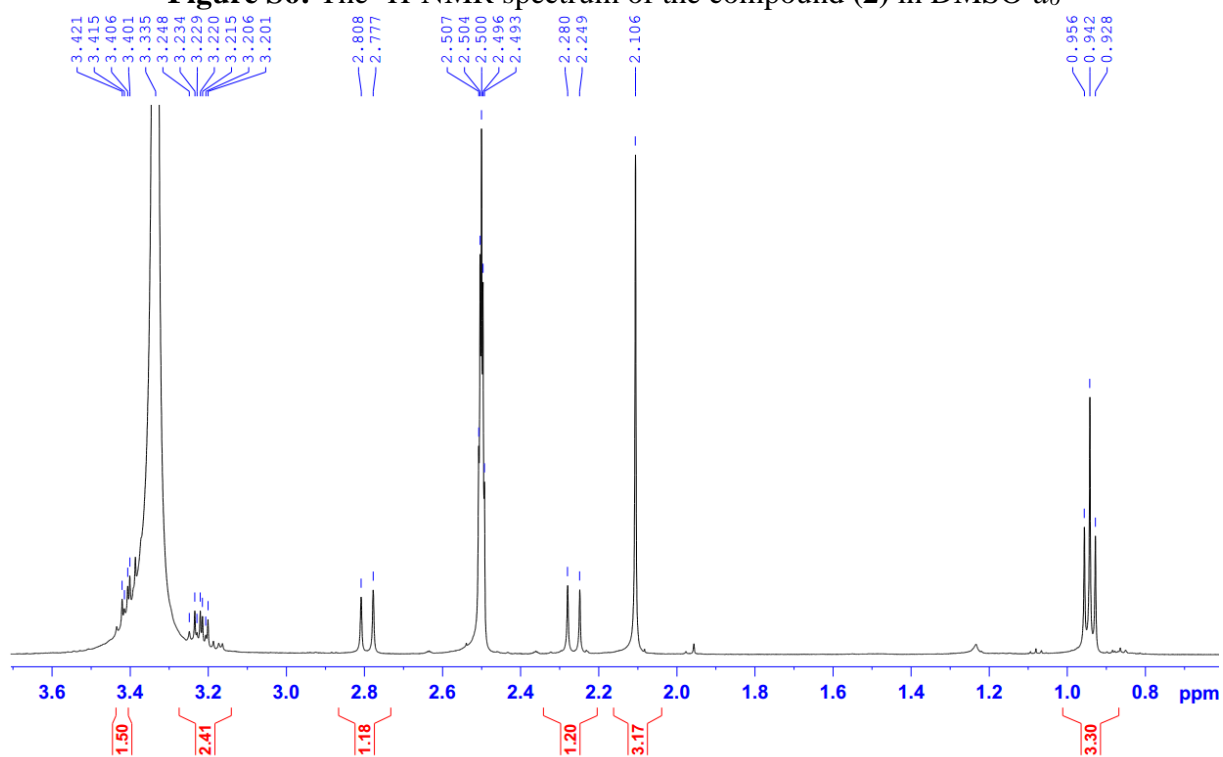


Figure S7: The extended ^1H -NMR spectrum of the compound (2) in $\text{DMSO-}d_6$

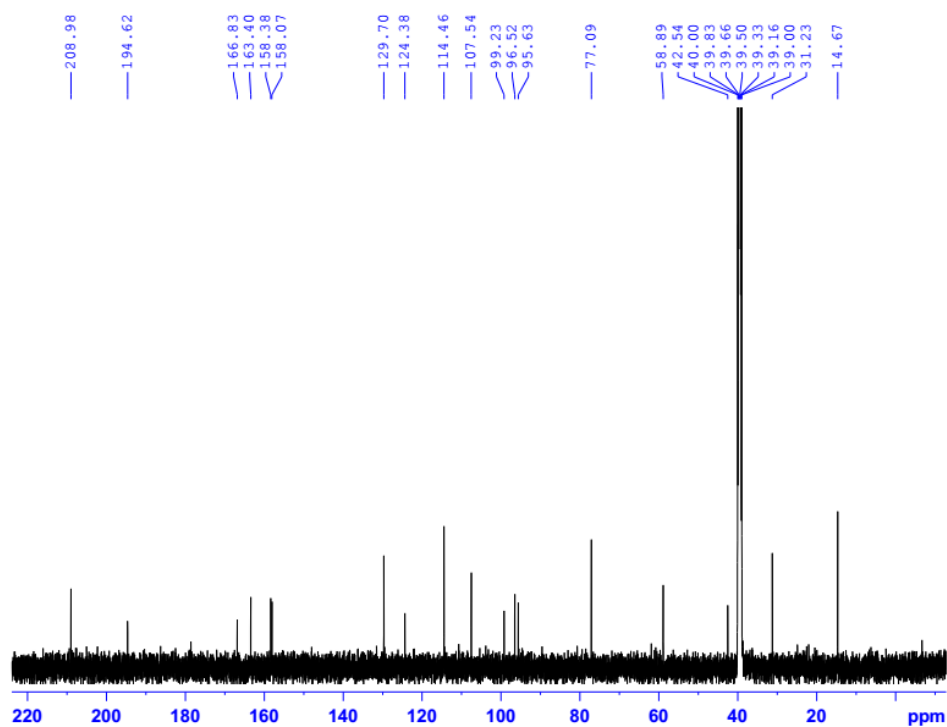


Figure S8: The ^{13}C -NMR spectrum of the compound (**2**) in $\text{DMSO}-d_6$

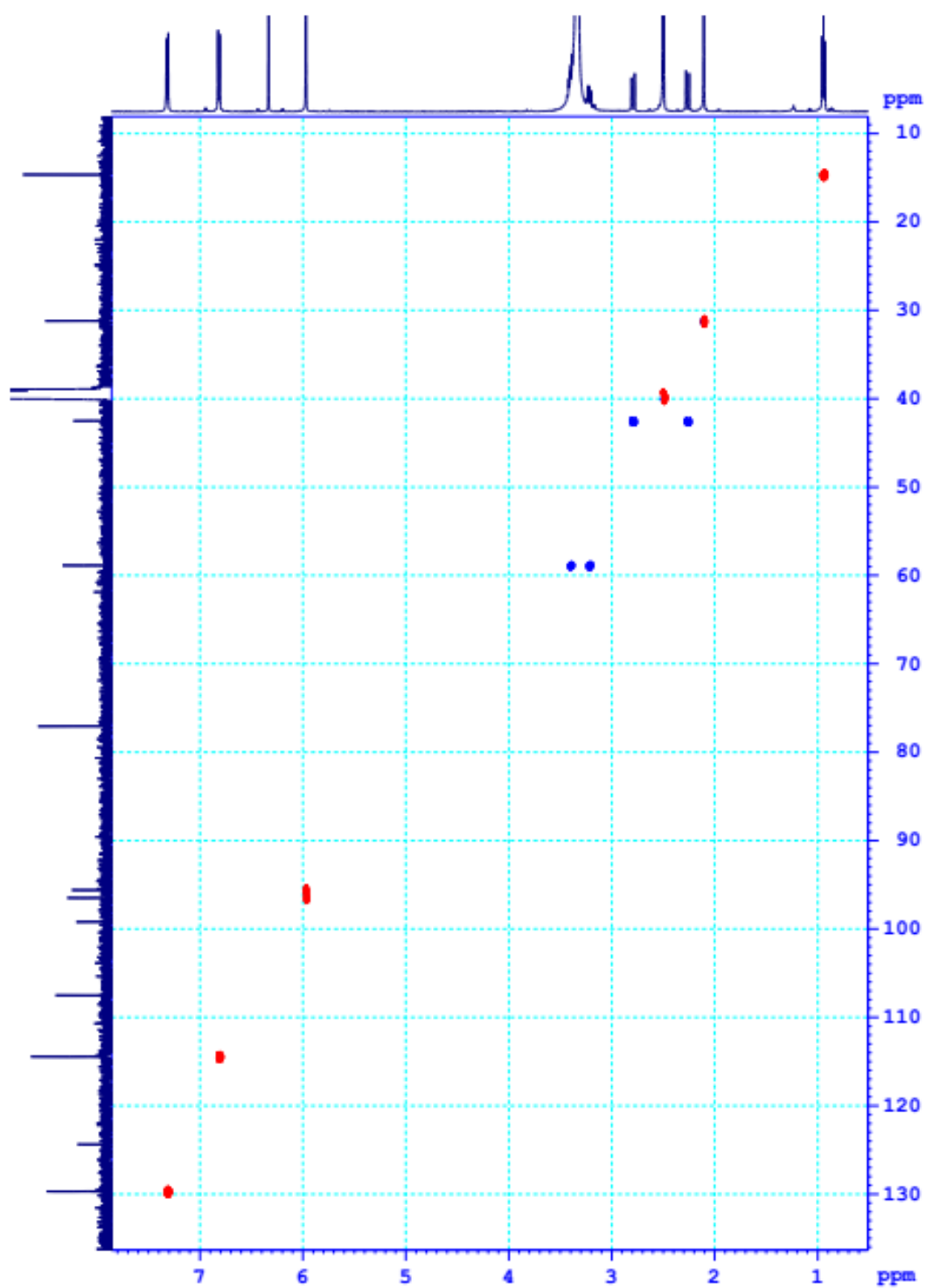


Figure S9: HSQC spectrum of the compound (**2**) in $\text{DMSO}-d_6$

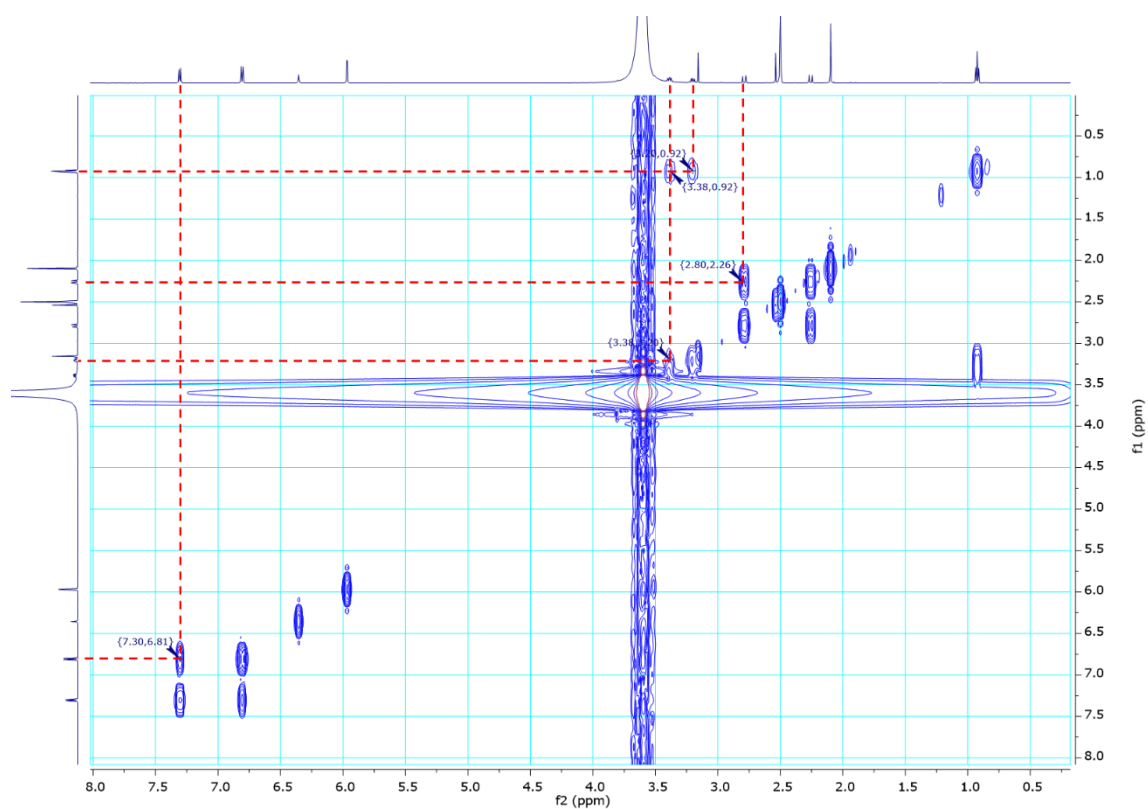


Figure S10: COSY spectrum of the compound (2) in DMSO-*d*₆

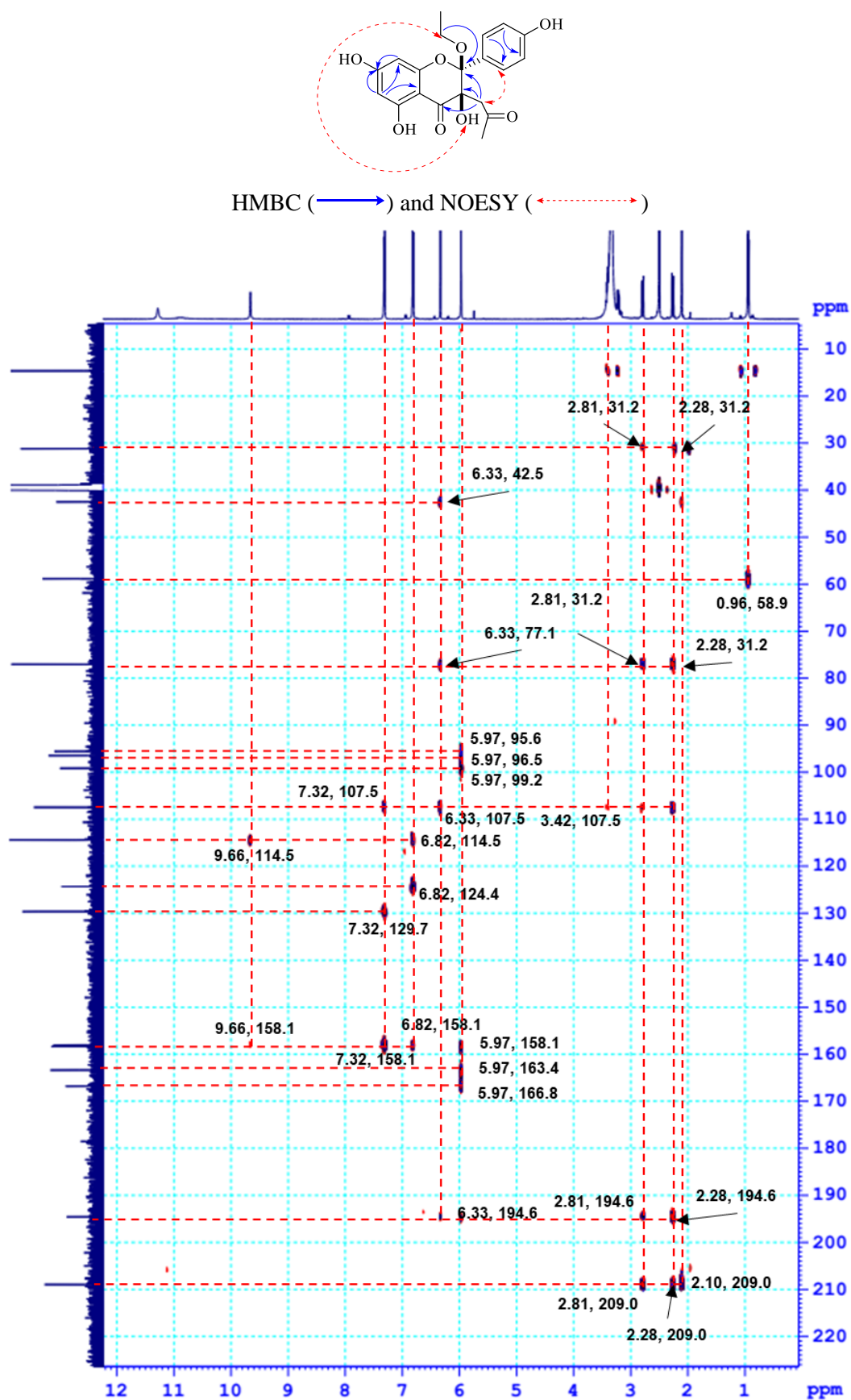


Figure S11: HMBC spectrum of the compound (2) in DMSO-*d*₆

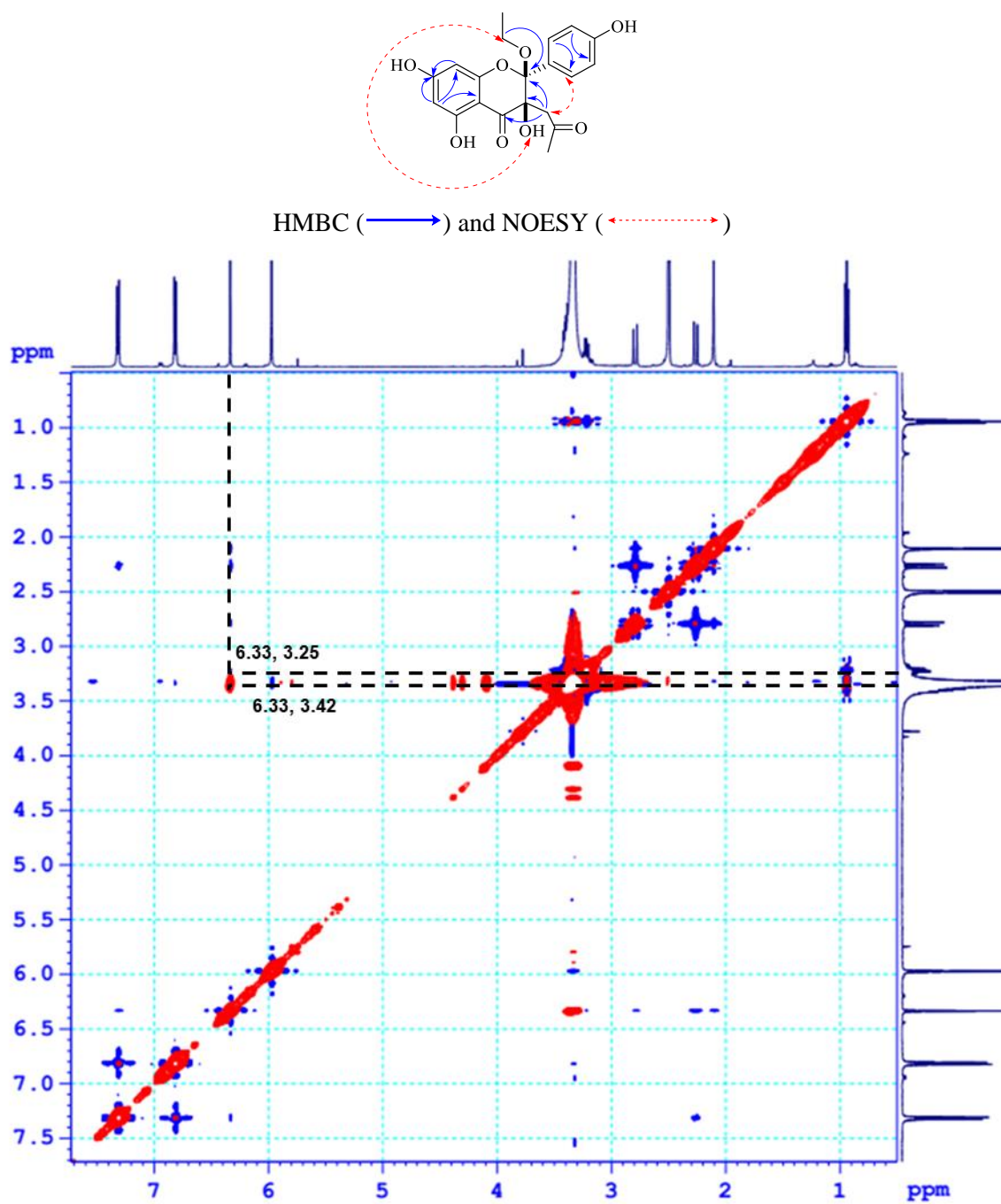


Figure S12: NOESY spectrum of the compound (**2**) in DMSO- d_6

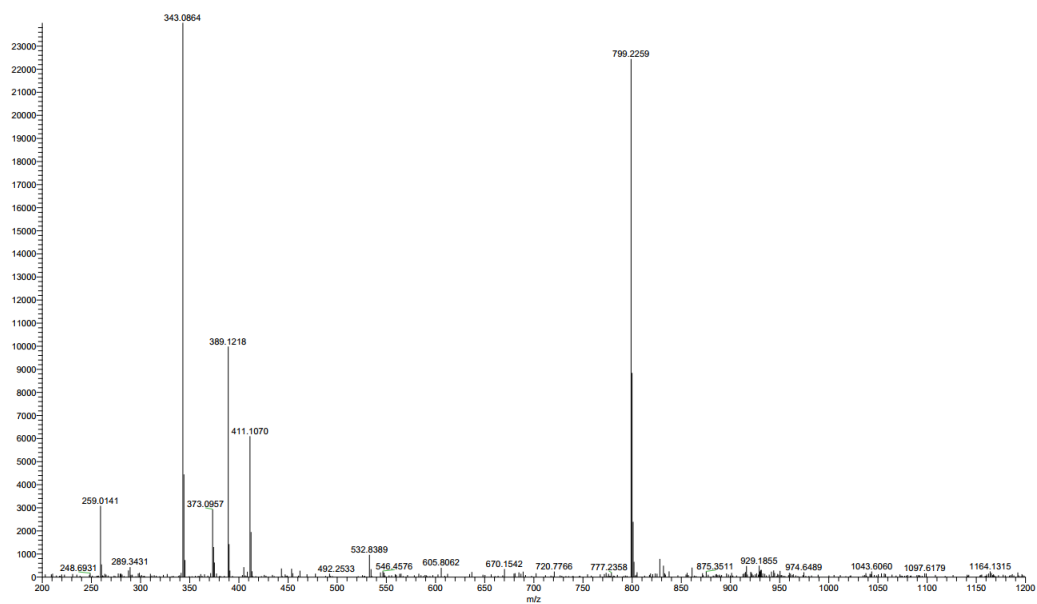


Figure S13: HRESIMS spectrum of the compound (2)

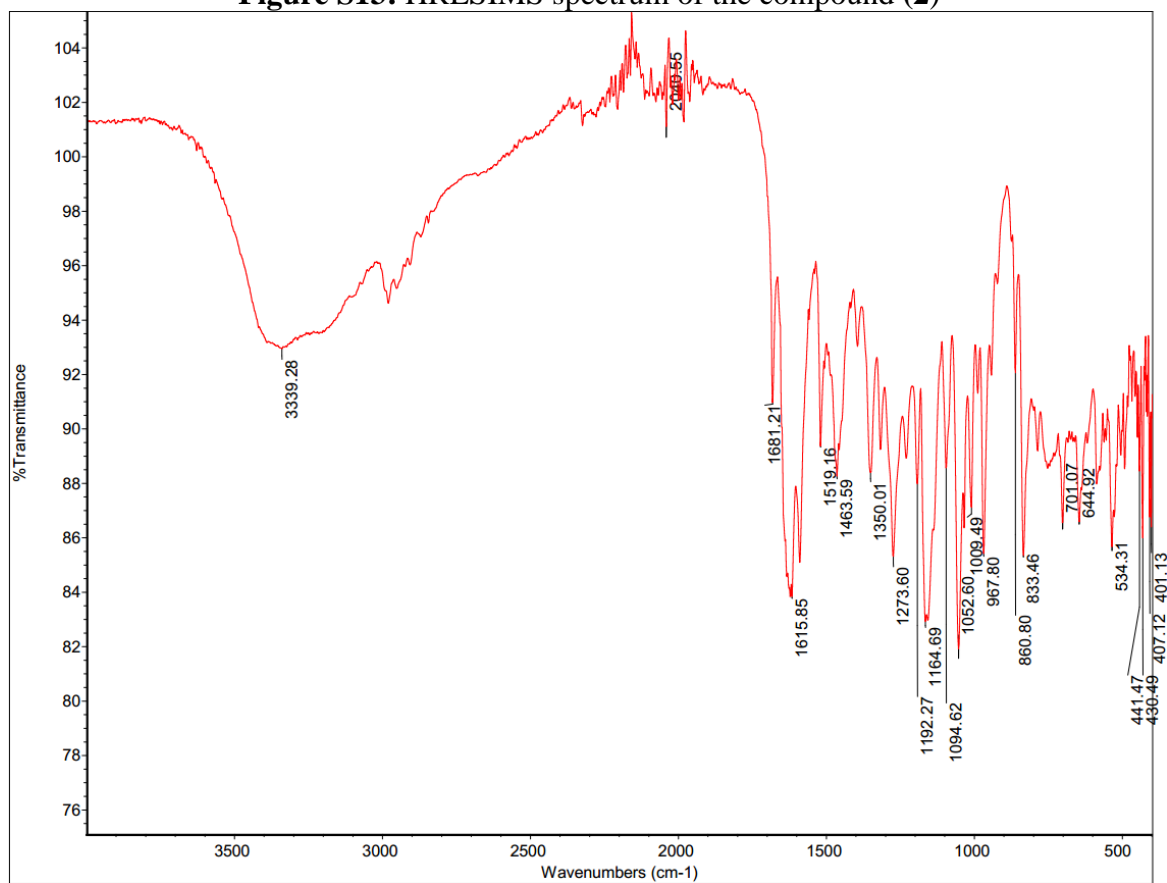


Figure S14: IR spectrum of the compound (2)

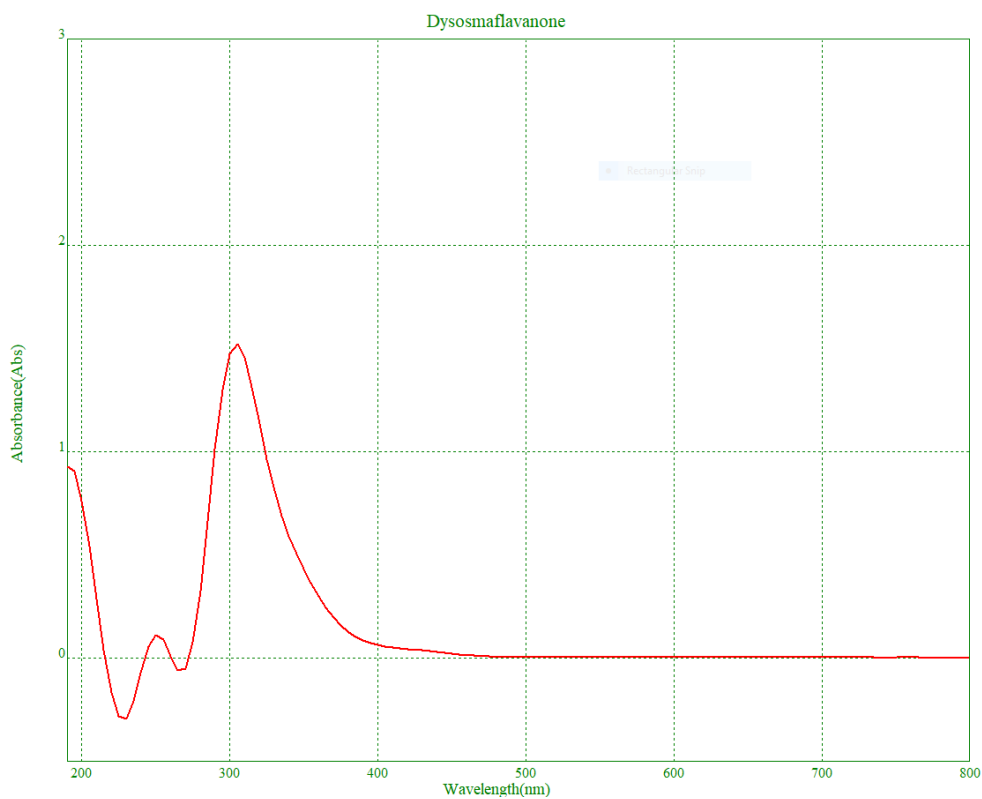


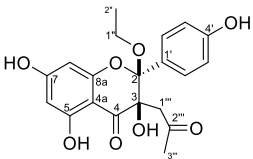
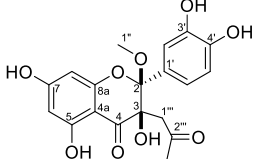
Figure S15: UV-Vis spectrum of the compound (2)

The screenshot shows the SciFinder search results for compound 2. The search results are displayed under the 'Substances' tab, showing 5 results. The first result is highlighted, showing the chemical structure of 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2-ethoxy-2,3-dihydro-3,5,7-trihydroxy-3-(2-oxopropyl)-. The chemical structure is shown as a ball-and-stick model. The molecular formula is C₂₀H₂₀O₉. The key physical properties are listed in a table.

Key Physical Properties	Value	Condition
Molecular Weight	404.37	-
Boiling Point (Predicted)	716.3±60.0 °C	Press: 760 Torr
Density (Predicted)	1.59±0.1 g/cm ³	Temp: 20 °C; Press: 760 Torr
pKa (Predicted)	7.17±0.60	Most Acidic Temp: 25 °C

Figure S16: The Scifinder search for the new compound (2)

Table S1: NMR data in CD₃OD for the compound (**2**) and the reference Cepaflava B

 Dysosmaflavanone			 Cepaflava B		
Position	δ_C	δ_H	δ_C	δ_H	
2	108.9		109.4		
3	79.8		80.0		
4	196.5		199.0		
4a	100.8		101.9		
5	165.5		164.4		
6	97.5	5.99 (1H, d, $J = 2.5$ Hz)	97.8	5.95 (1H, brs)	
7	168.3		168.3		
8	96.7	6.01 (1H, d, $J = 2.5$ Hz)	97.1	6.00 (1H, brs)	
8a	160.1		158.8		
1'	126.6		126.3		
2'	131.0	7.43 (1H, d, $J = 8.5$ Hz)	117.1	7.11 (1H, s)	
3'	115.5	6.84 (1H, d, $J = 8.5$ Hz)	145.8		
4'	159.5		147.5		
5'	115.5	6.84 (1H, d, $J = 8.5$ Hz)	115.6	6.80 (1H, d, $J = 7.8$ Hz)	
6'	131.0	7.43 (1H, d, $J = 8.5$ Hz)	121.6	7.02 (1H, d, $J = 7.8$ Hz)	
1''	60.3	3.37 (1H, dq, overlap) 3.52 (1H, dq, $J = 7.5, 2.5$ Hz)	51.4	3.88 (3H, s)	
2''	15.1	1.04 (3H, t, $J = 7.5$ Hz)	-	-	
1'''	41.7	2.25 (1H, d, $J = 15.5$ Hz) 3.08 (1H, d, $J = 15.5$ Hz)	41.3	2.56 (1H, d, $J = 13.5$ Hz) 2.42 (1H, d, $J = 13.5$ Hz)	
2'''	213.9		209.3		
3'''	31.8	2.28 (3H, s)	32.3	1.98 (3H, s)	