Supporting information

New dammarane-type triterpenoid glycosides from *Gynostemma burmanicum*

Than Thi Kieu My[a], Pham Thanh Ky[a], Pham Thanh Binh[b], Nguyen Phuong Thao[b] and Nguyen Tien Dat[c,*]

[a]Department of Pharmacognosy, Hanoi University of Pharmacy, 13-15 Le Thanh Tong, Hanoi, Vietnam; [b]Institute of Marine Biochemistry, Vietnam Academy of Science and Technology (VAST), 18-Hoang Quoc Viet, Caugiay, Hanoi, Vietnam; [c]Center for Research and Technology Transfer, VAST, 18-Hoang Quoc Viet, Cau Giay, Hanoi, Vietnam

Corresponding author: Nguyen Tien Dat: ngtiend@imbc.vast.vn

ABSTRACT

The chemical composition of *Gynostemma burmanicum* King ex Chakrav. was investigated for the first time in this study. Nine dammarane glycosides (**1**–**9**) were isolated from the EtOH extract of the aerial parts of *G. burmanicum*. Their structures were elucidated by 1D and 2D NMR spectroscopic interpretation as well as by chemical studies. The new compounds were 3β,20*S*-dihydroxydammar-24-ene-3-O-β-D-glucopyranosyl-20-O-[β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside] (**1**), 3β,12β,20*S*-trihydroxydammar-24-ene-3-O-β-D-xylopyranosyl-20-O-[β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside] (**2**), and 12-oxo-3β,20*S*-dihydroxydammar-24-ene-3-O-[β-D-glucopyranosyl(1→2)-β-D-glucopyranosyl]-20-O-[β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside] (**3**).

KEYWORDS: *Gynostemma burmanicum*, Cucurbitaceae, dammarane saponin

Cotents

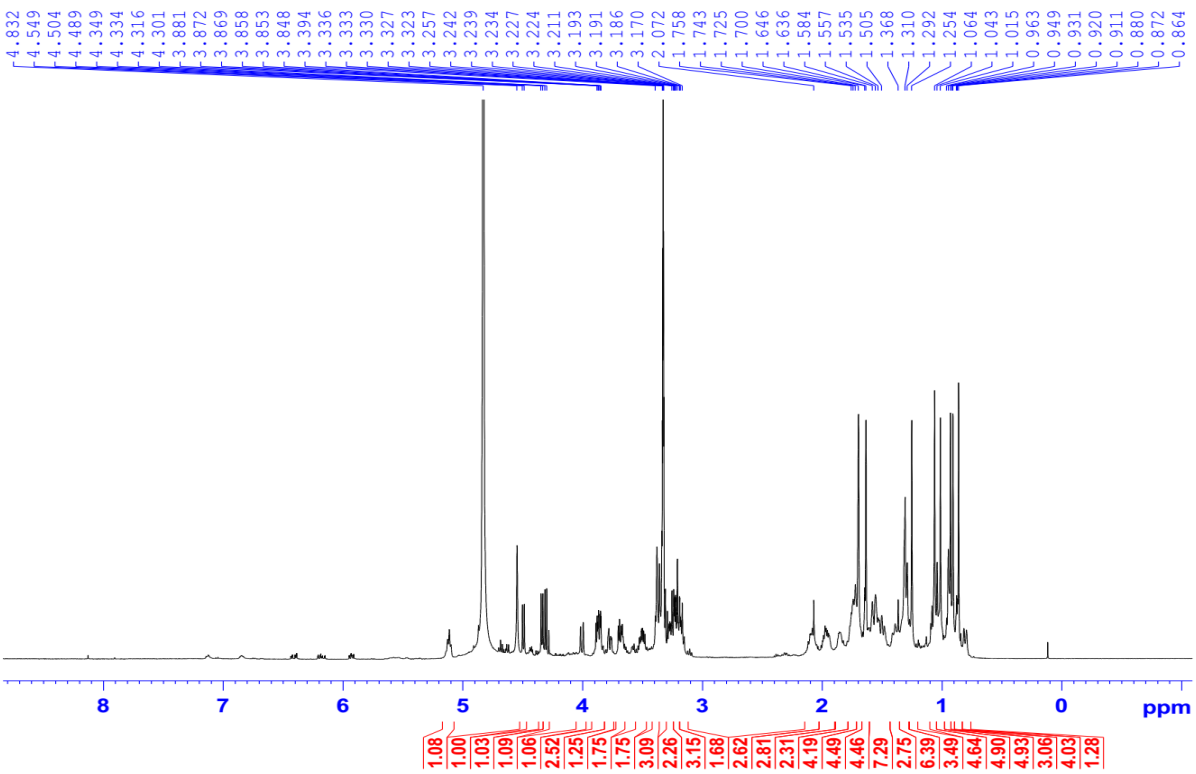

Figure S1. ^{1}H NMR spectrum (CD_3OD, 500 MHz) of **1**.

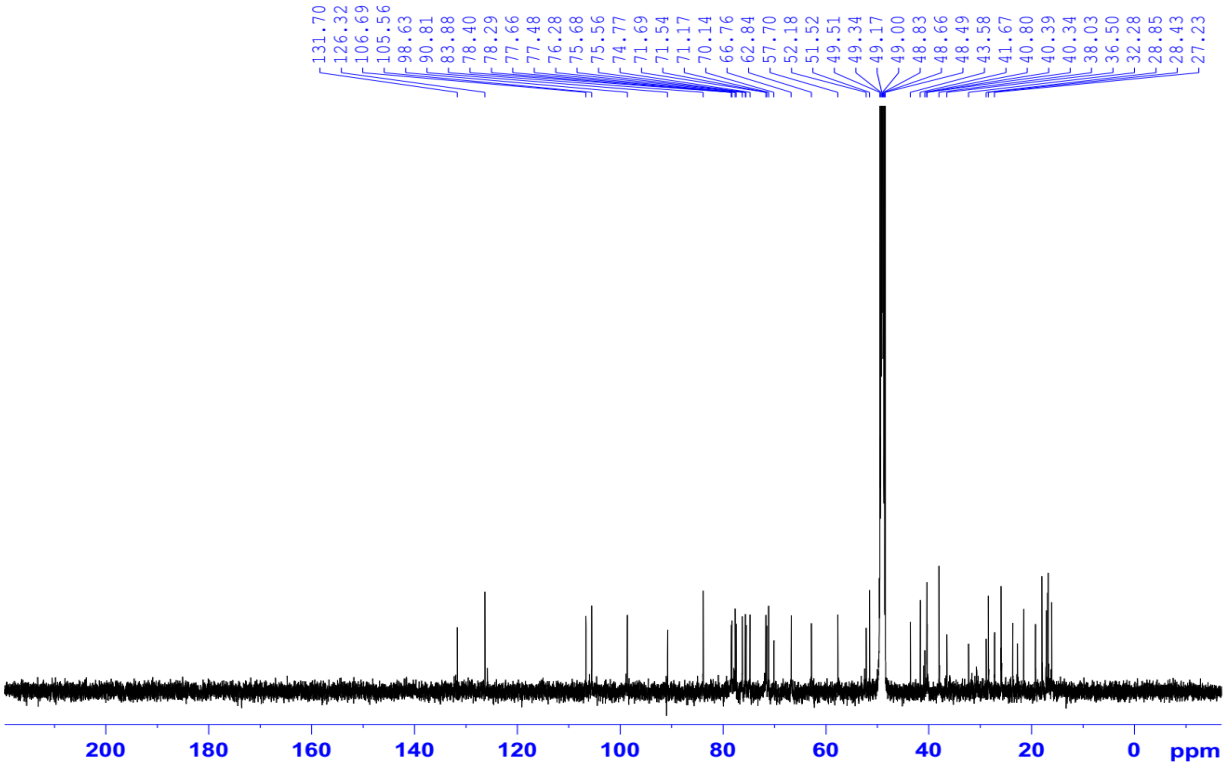

Figure S2. ^{13}C NMR spectrum (CD_3OD, 125 MHz) of **1**.

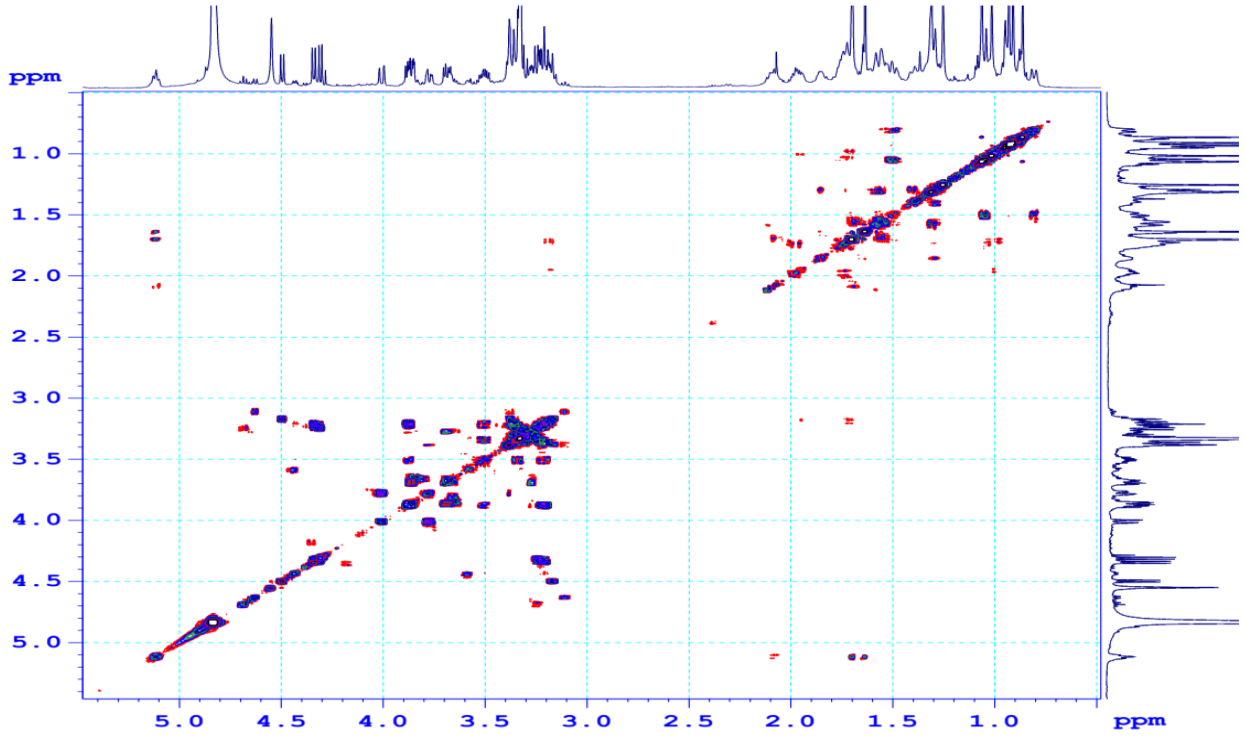

Figure S3. COSY spectrum (CD_3OD, 500 MHz) of **1**.

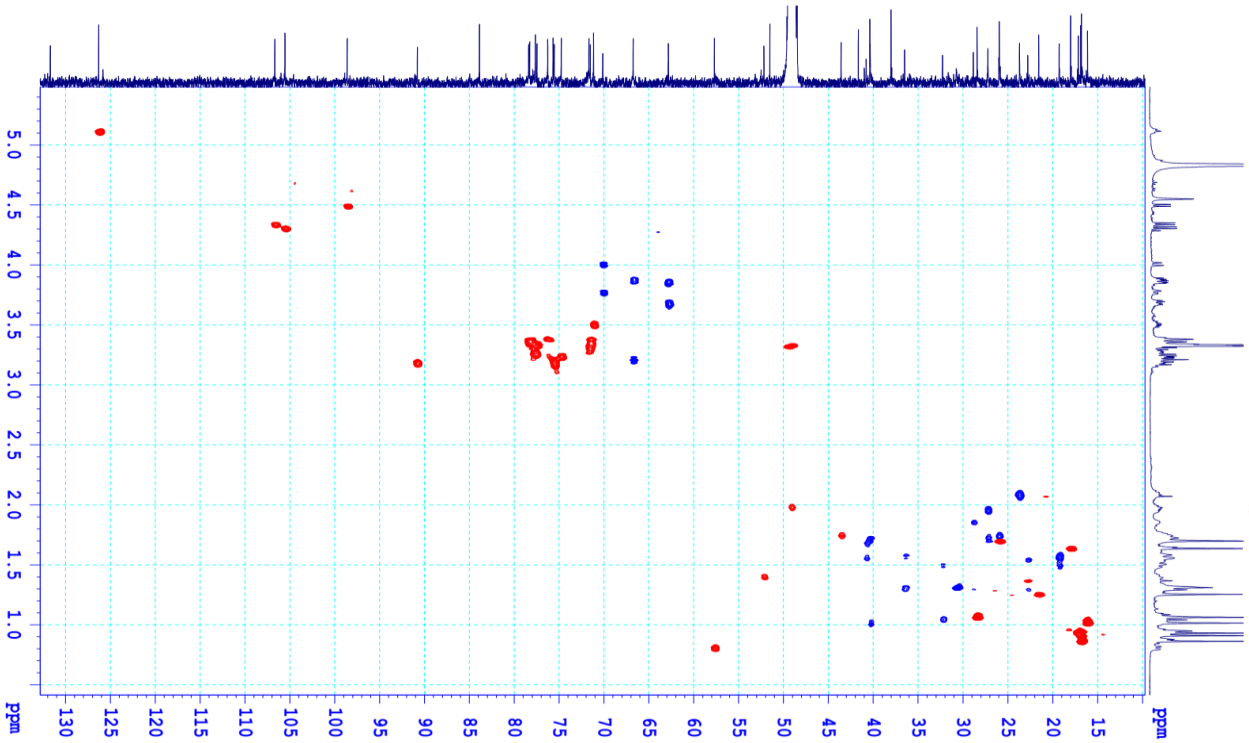

Figure S4. HMQC spectrum (CD_3OD, 500 MHz) of **1**.

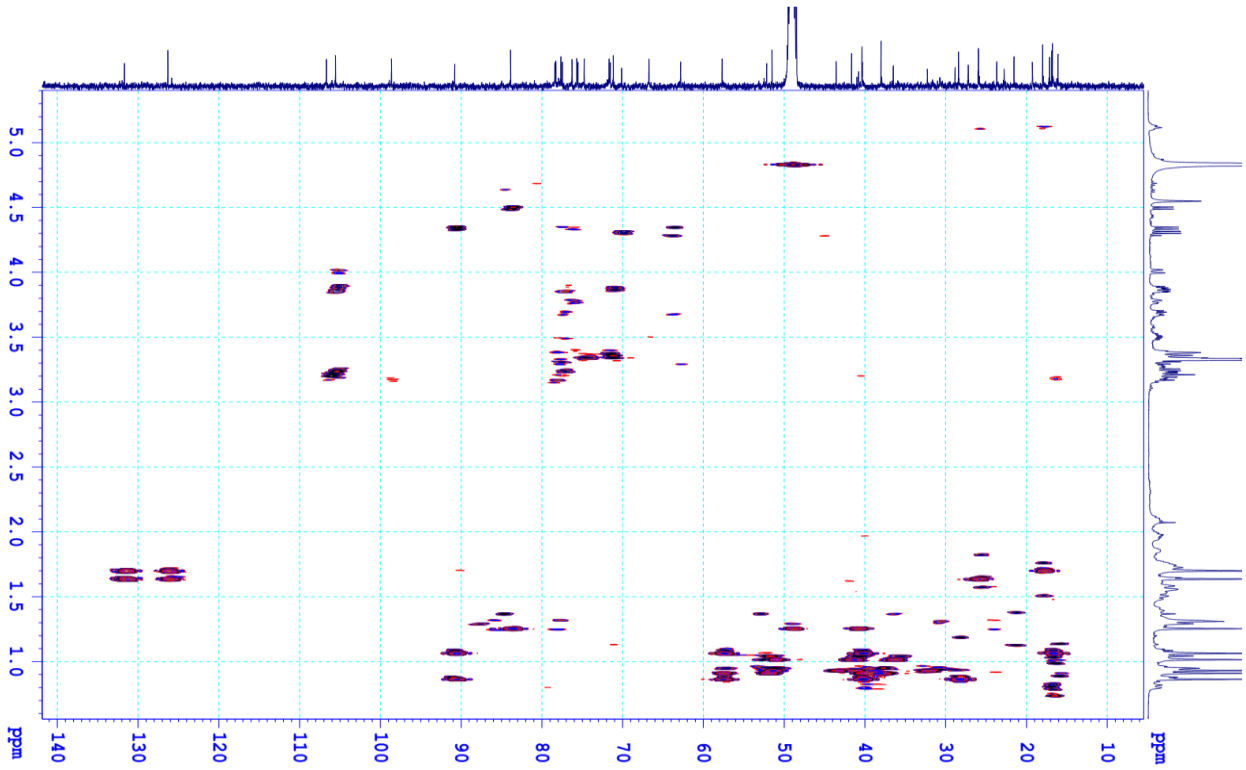

Figure S5. HMBC spectrum (CD_3OD, 500 MHz) of **1**.

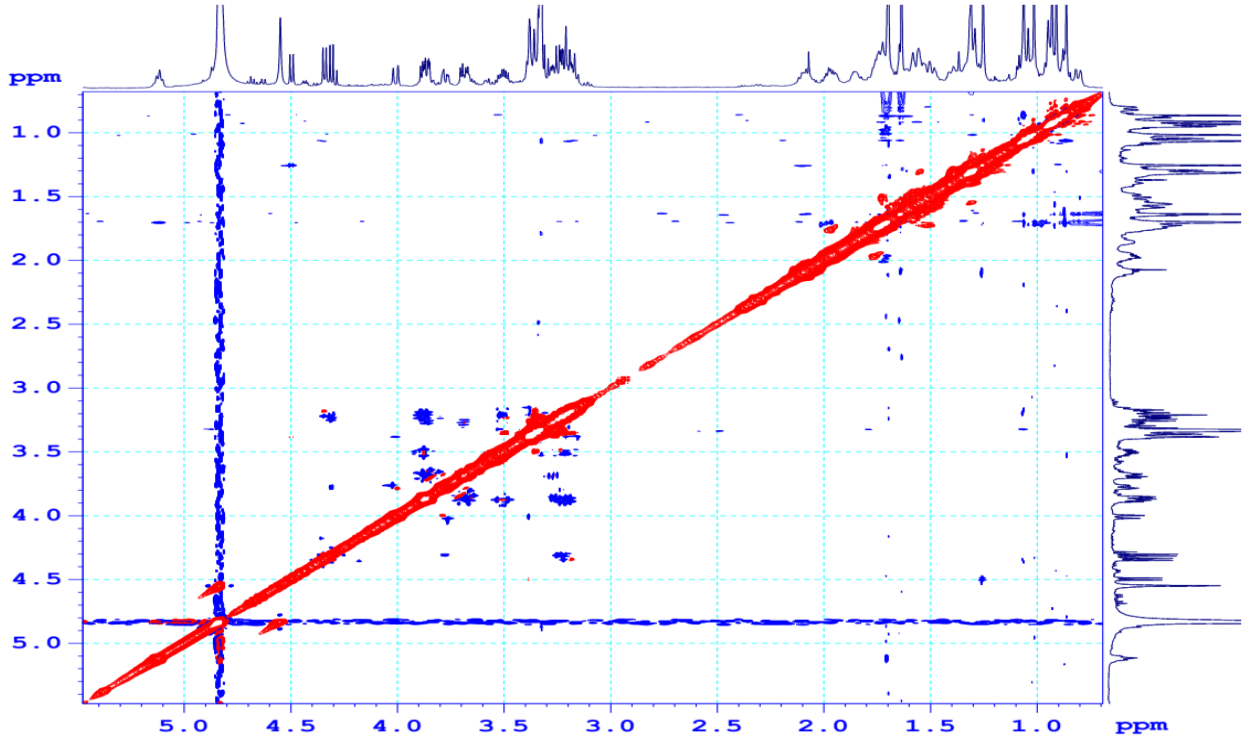

Figure S6. NOESY spectrum (CD_3OD, 500 MHz) of **1**.

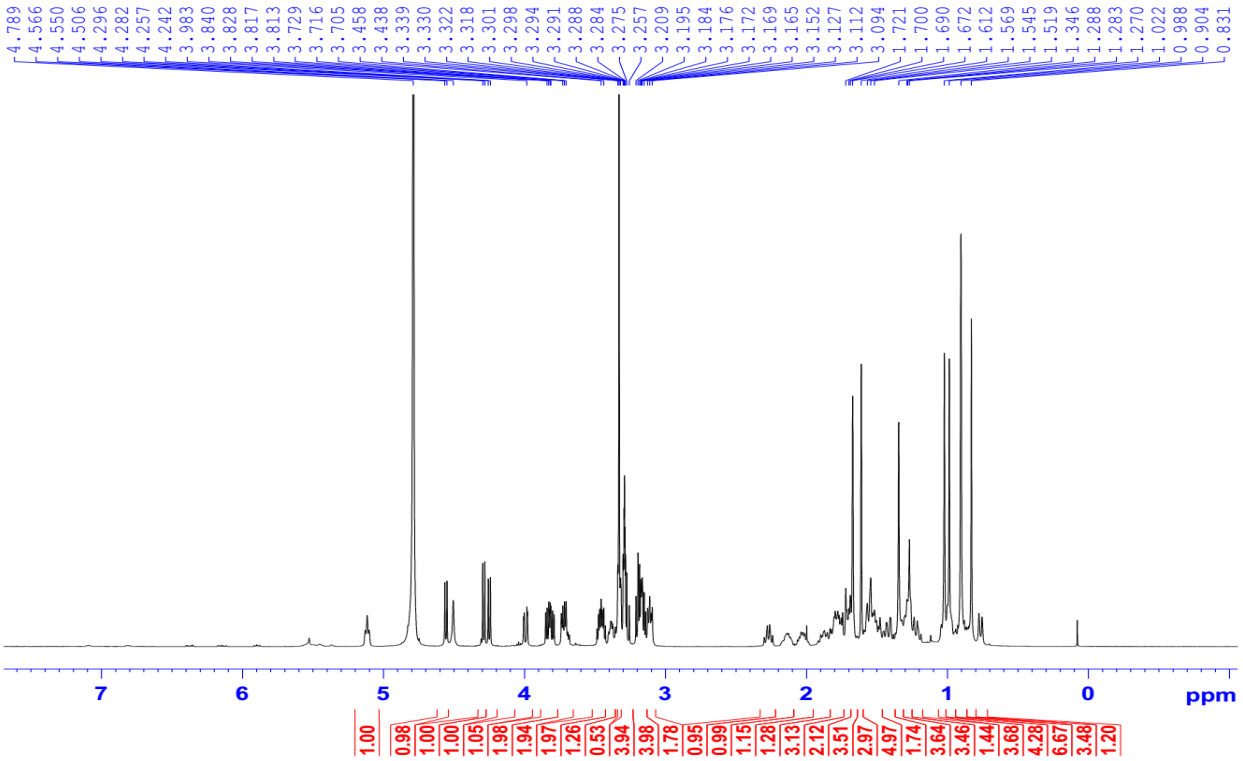

Figure S7. ^{1}H NMR spectrum (CD_3OD, 500 MHz) of **2**.

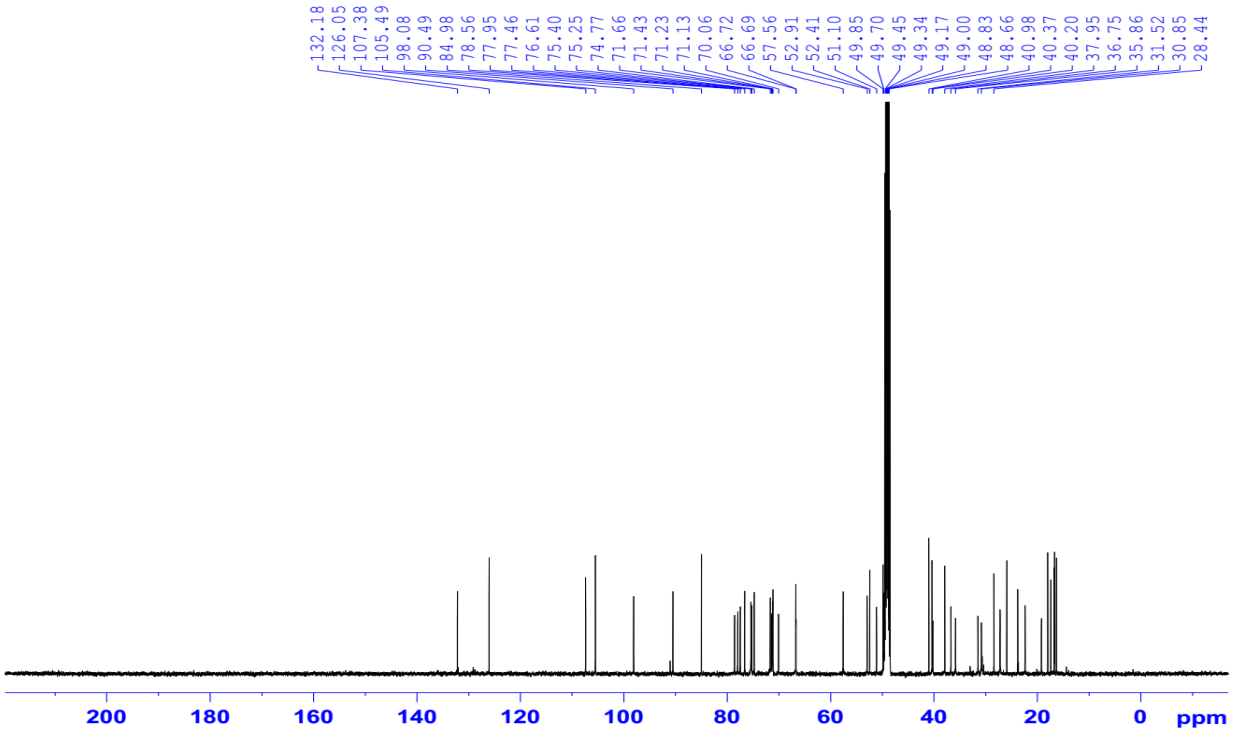

Figure S8. ^{13}C NMR spectrum (CD_3OD, 125 MHz) of **1**.

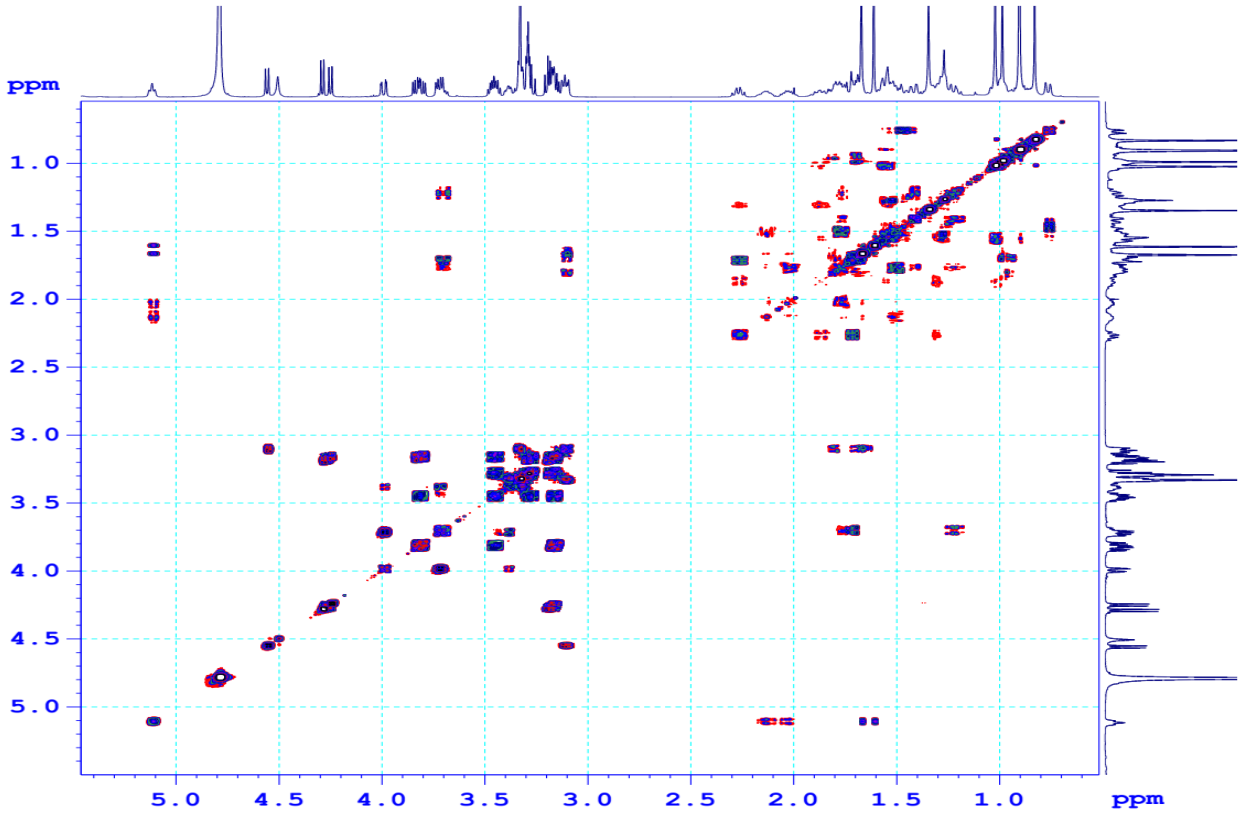

Figure S9. COSY spectrum (CD_3OD, 500 MHz) of **2**.

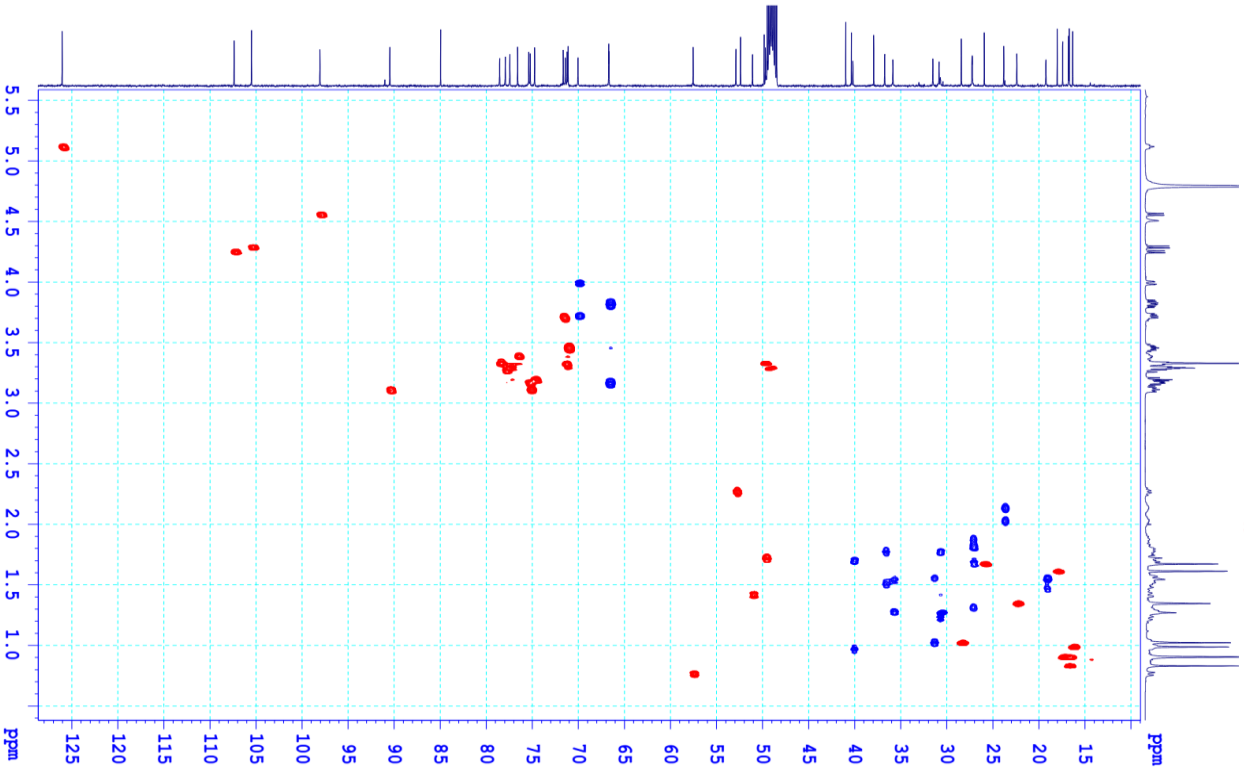

Figure S10. HMQC spectrum (CD_3OD, 500 MHz) of **2**.

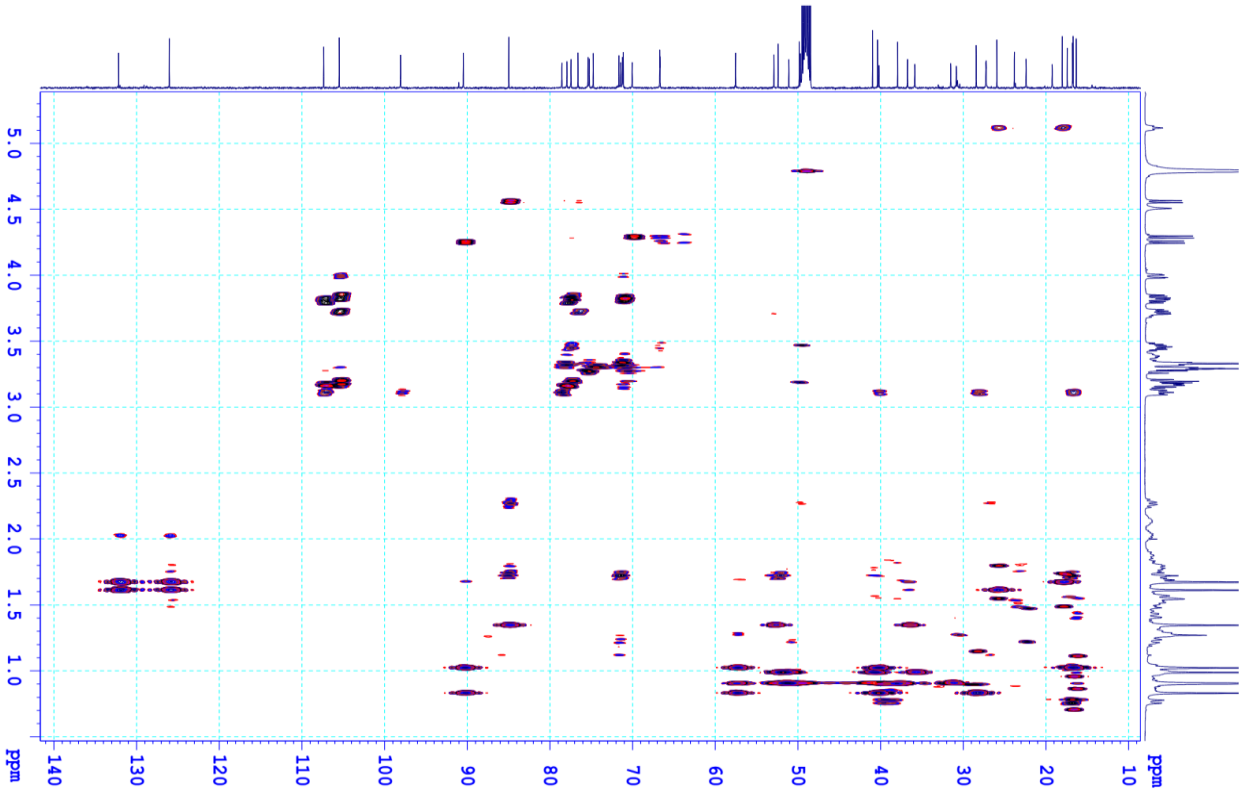

Figure S11. HMBC spectrum (CD_3OD, 500 MHz) of **2**.

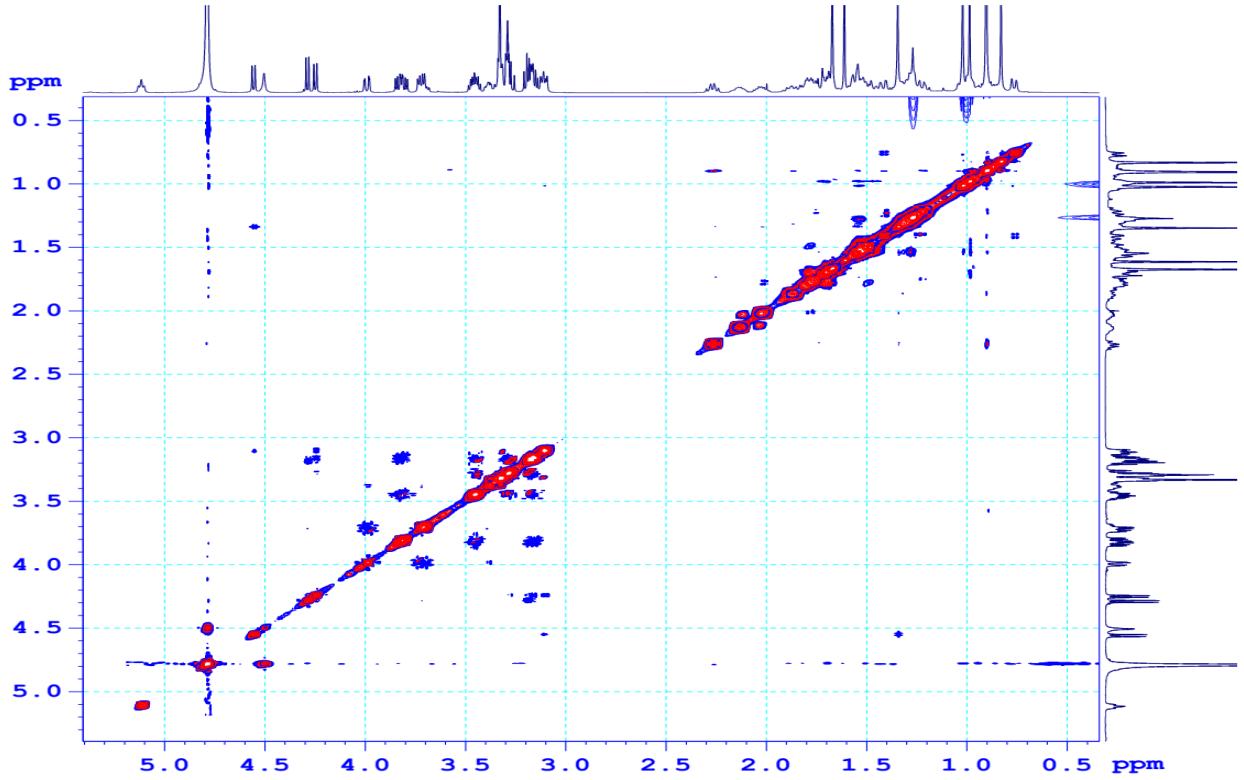

Figure S12. NOESY spectrum (CD_3OD, 500 MHz) of **2**.

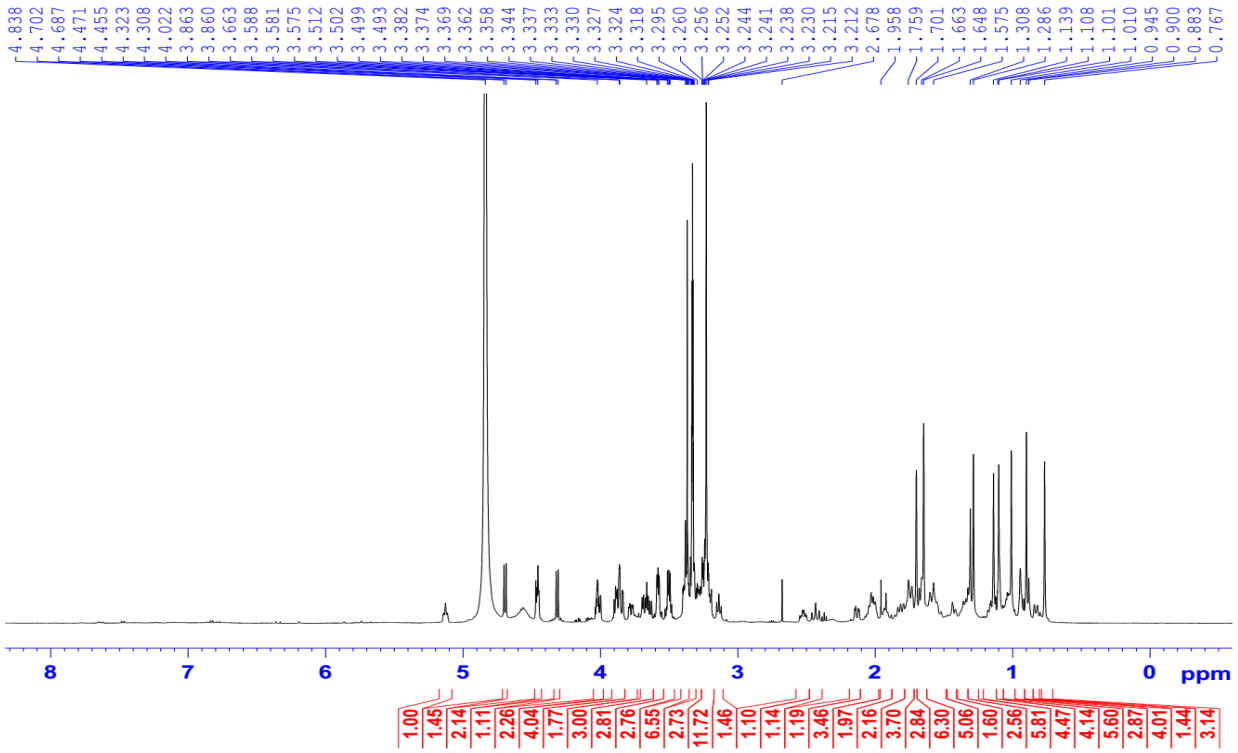

Figure S13. ^{1}H NMR spectrum (CD_3OD, 500 MHz) of **3**.

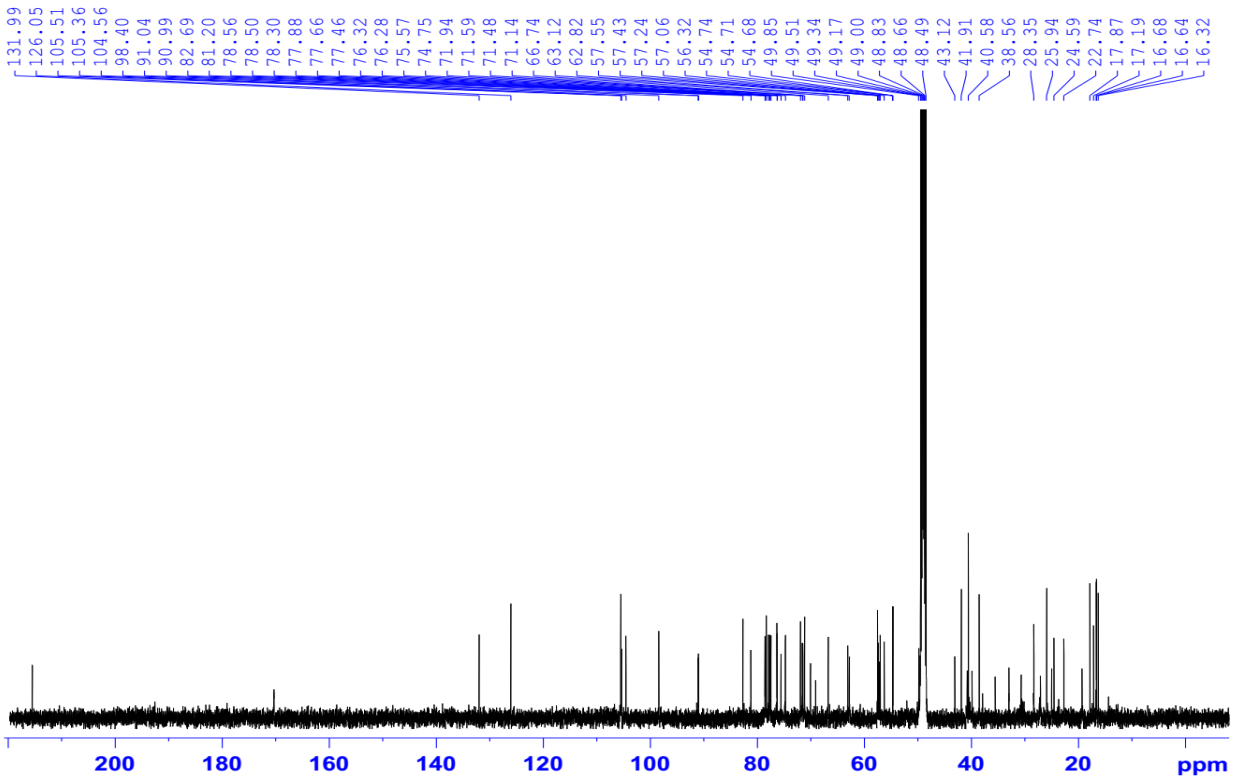

Figure S14. ^{13}C NMR spectrum (CD_3OD, 125 MHz) of **3**.

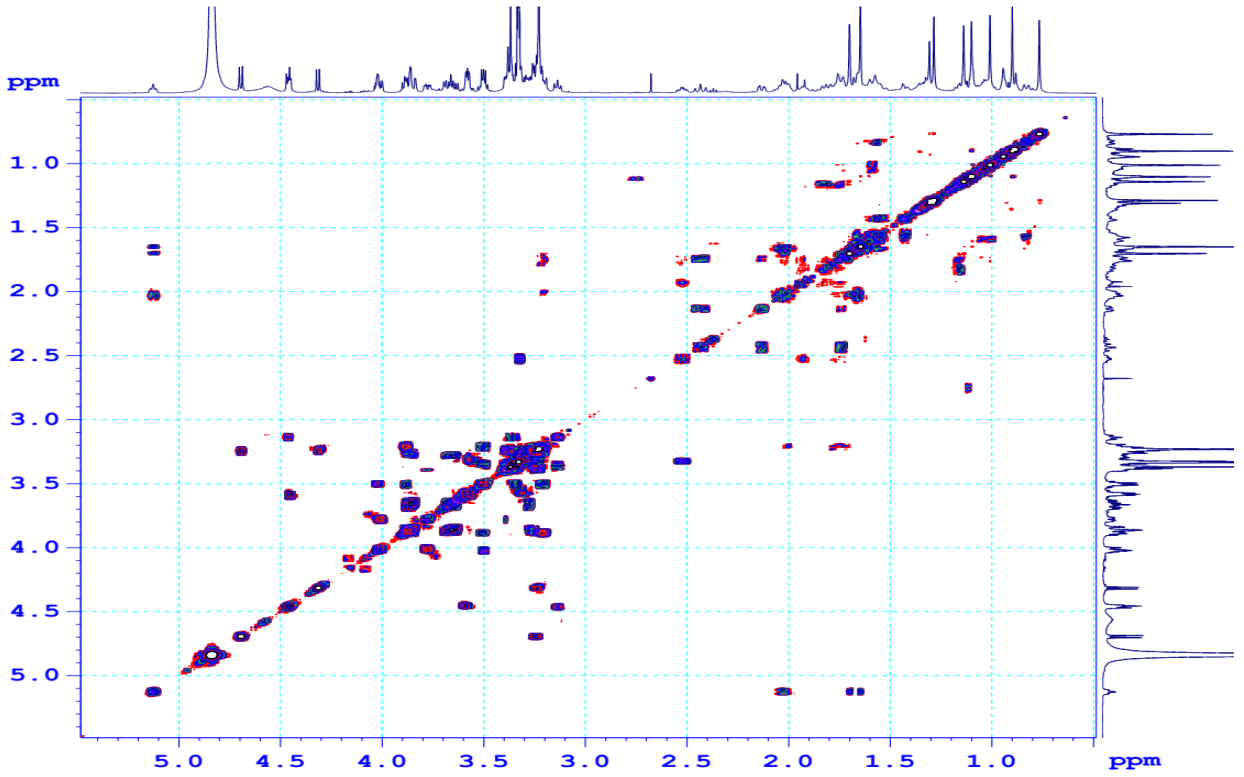

Figure S15. COSY spectrum (CD_3OD, 500 MHz) of **3**.

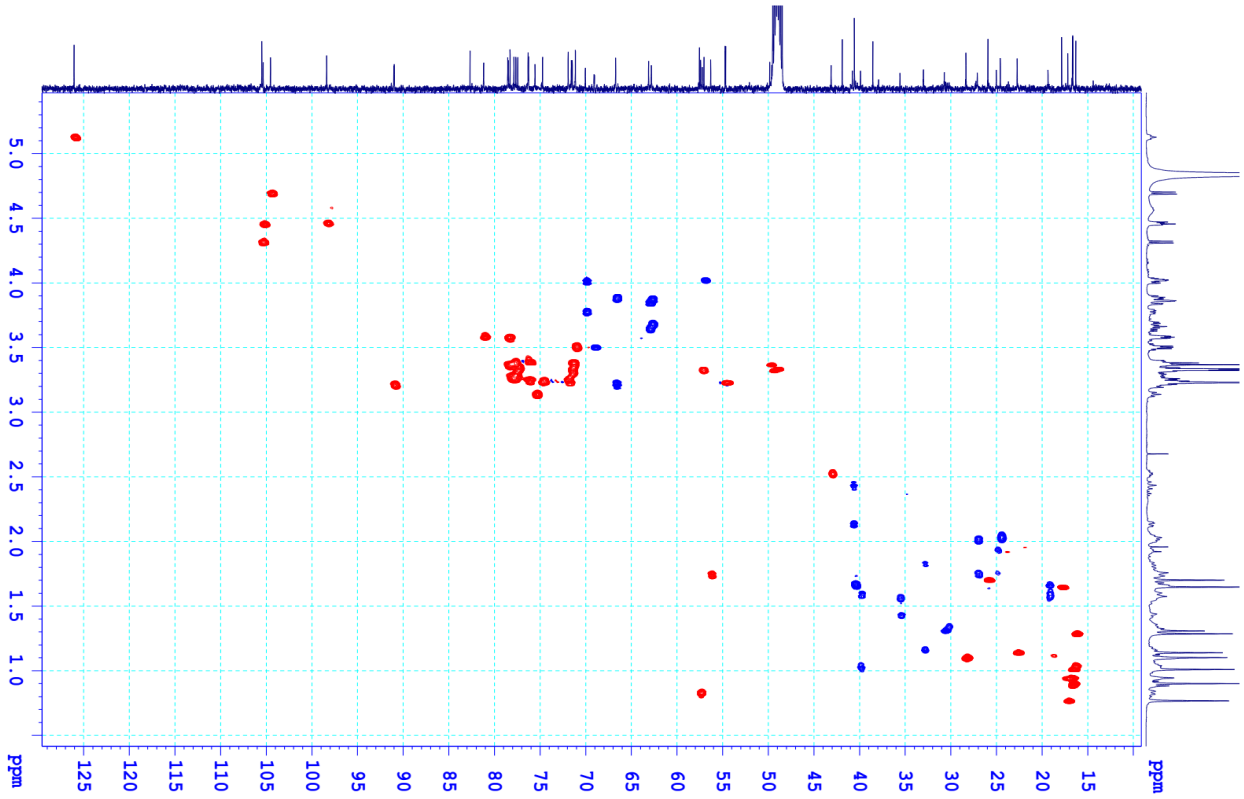

Figure S16. HMQC spectrum (CD_3OD, 500 MHz) of **3**.

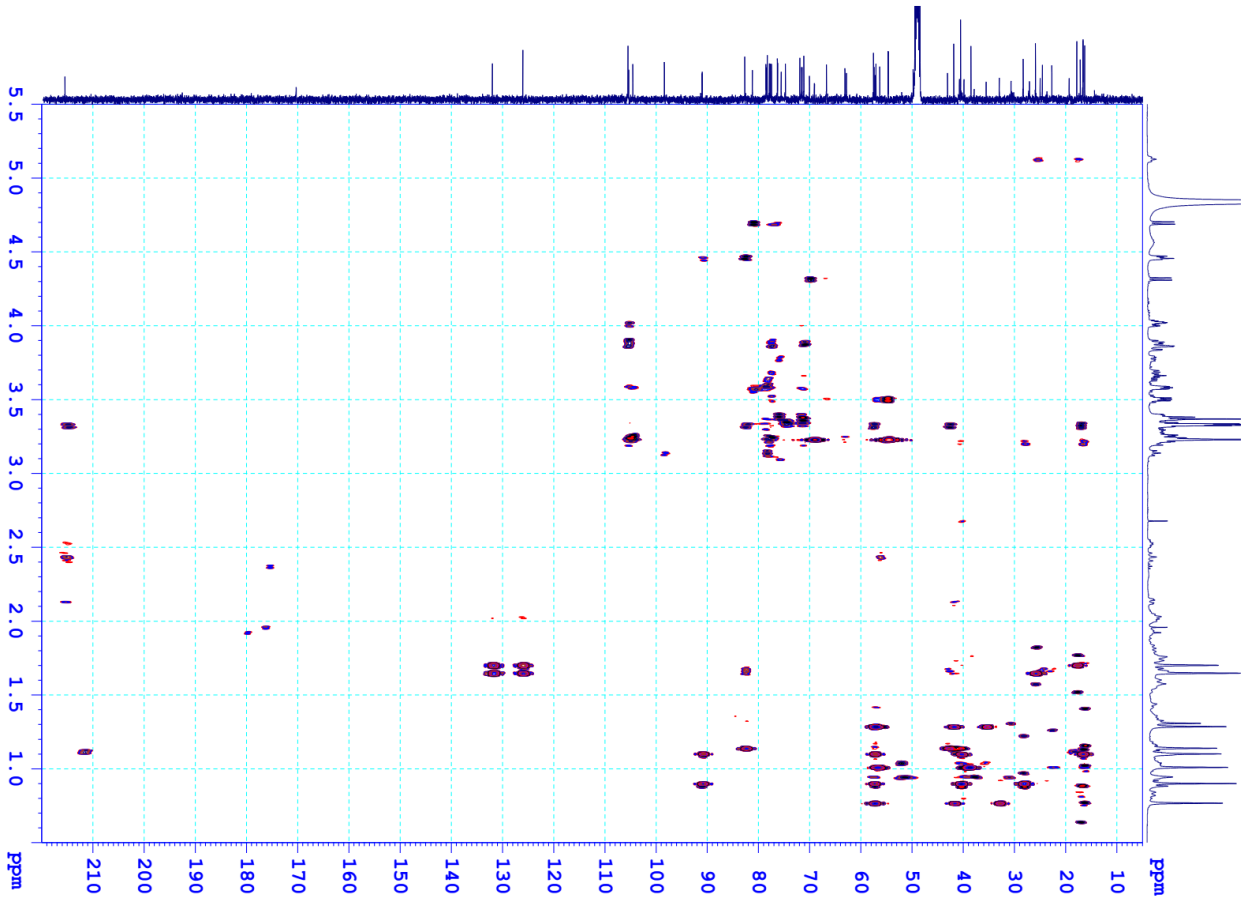

Figure S17. HMBC spectrum (CD_3OD, 500 MHz) of **3**.

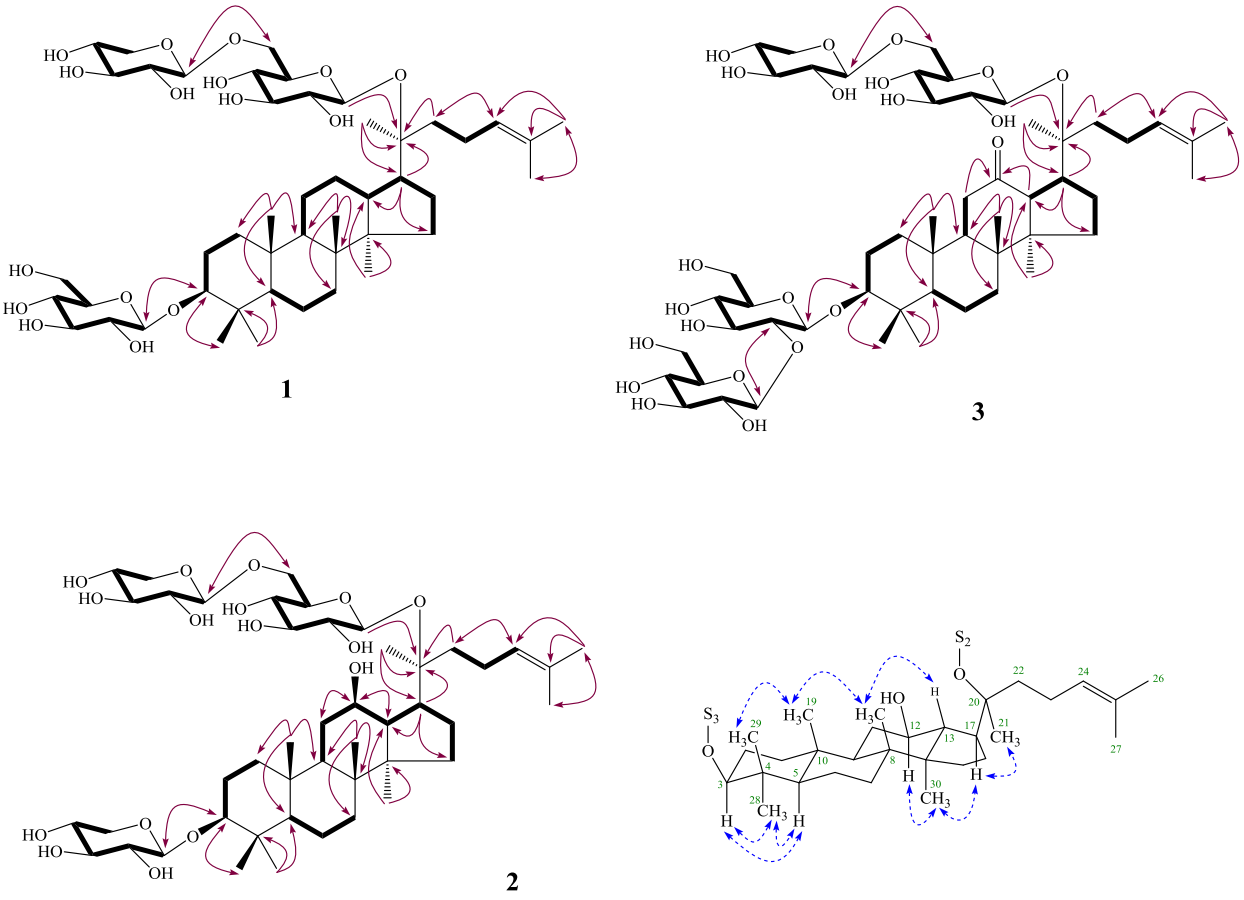

Figure S18. Key HMBC (→) and COSY (▬) of **1-3** and NOESY (<⋯>) correlations of **2**