New Naphthalene Derivatives from the Bulbs of *Eleutherine americana* with their protective effect on the injury of HUVECs

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Abstract: Five new naphthalene derivatives, named Eleutherols A-C (**1**-**3**) and eleuthinones B-C (**4**-**5**),, together with three known compounds were isolated from the bulbs of *Eleutherine americana*. Their structures were elucidated on the basis of spectroscopic analysis including HR-ESI-MS, 1D and 2D NMR techniques. These compounds exhibited a potent effect against the injury of human umbilical vein endothelial cell (HUVECs) induced by high concentrations of glucose in vitro.

Keywords: *Eleutherine americana*; Naphthalene derivatives; HUVECs

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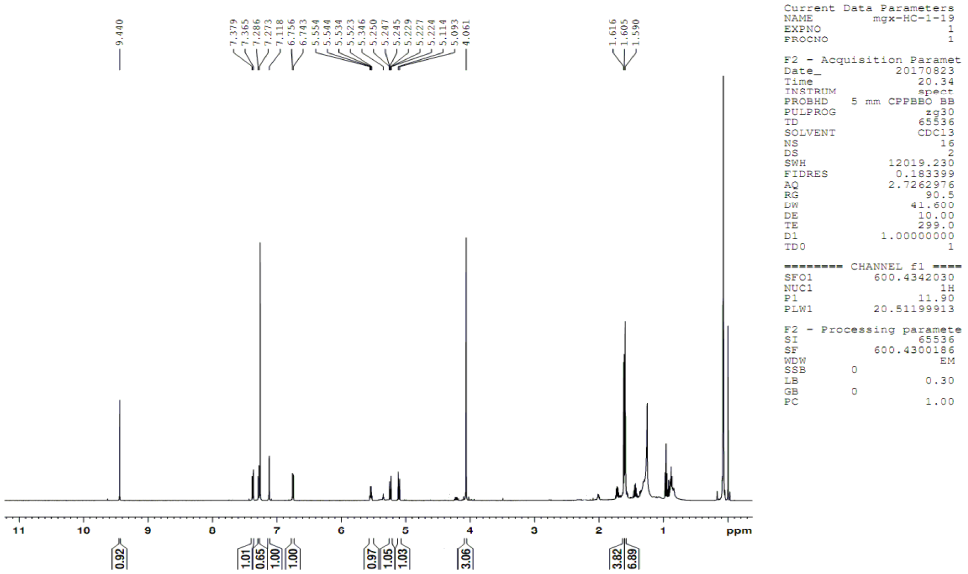

Figure S1. ^{1}H-NMR (600 MHz, $CDCl_3$) spectrum of the new compound **1**

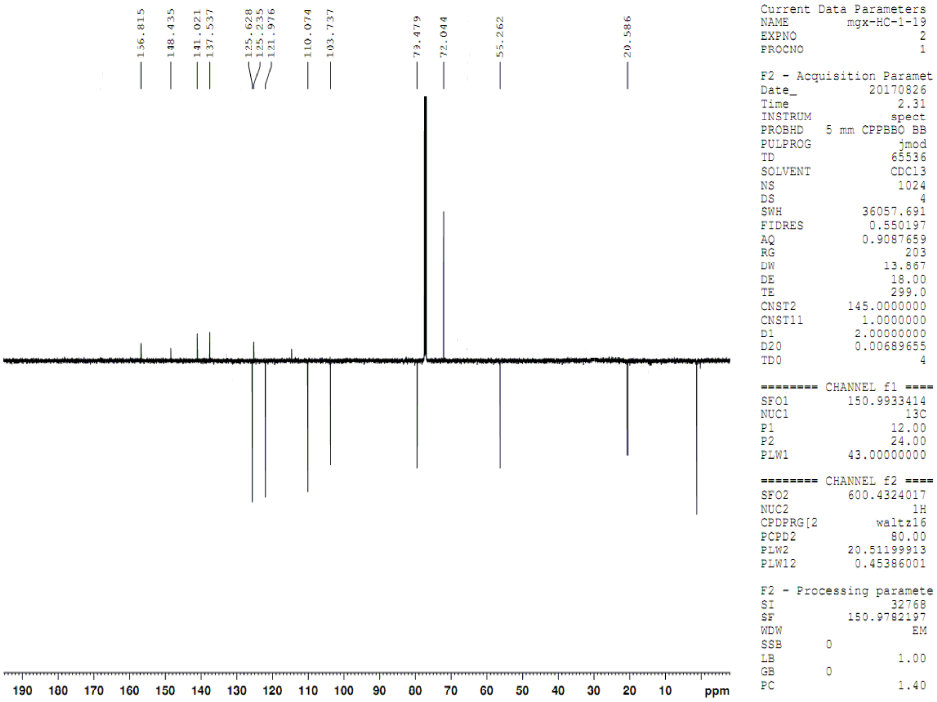

Figure S2. ^{13}C-APT (150 MHz, $CDCl_3$) spectrum of the new compound **1**

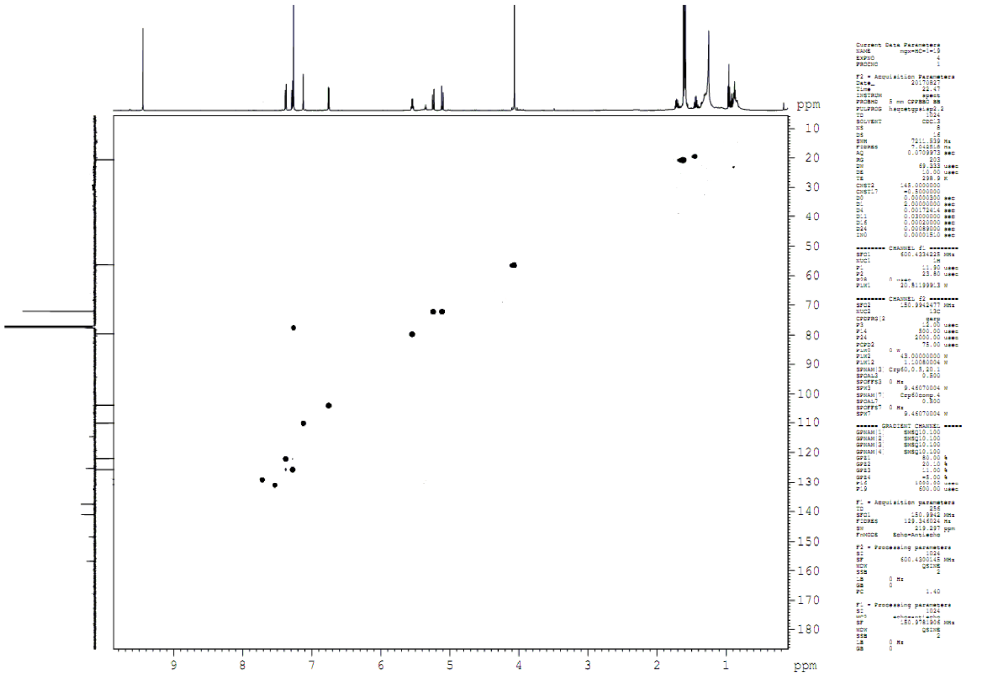

Figure S3. HSQC spectrum of the new compound **1**

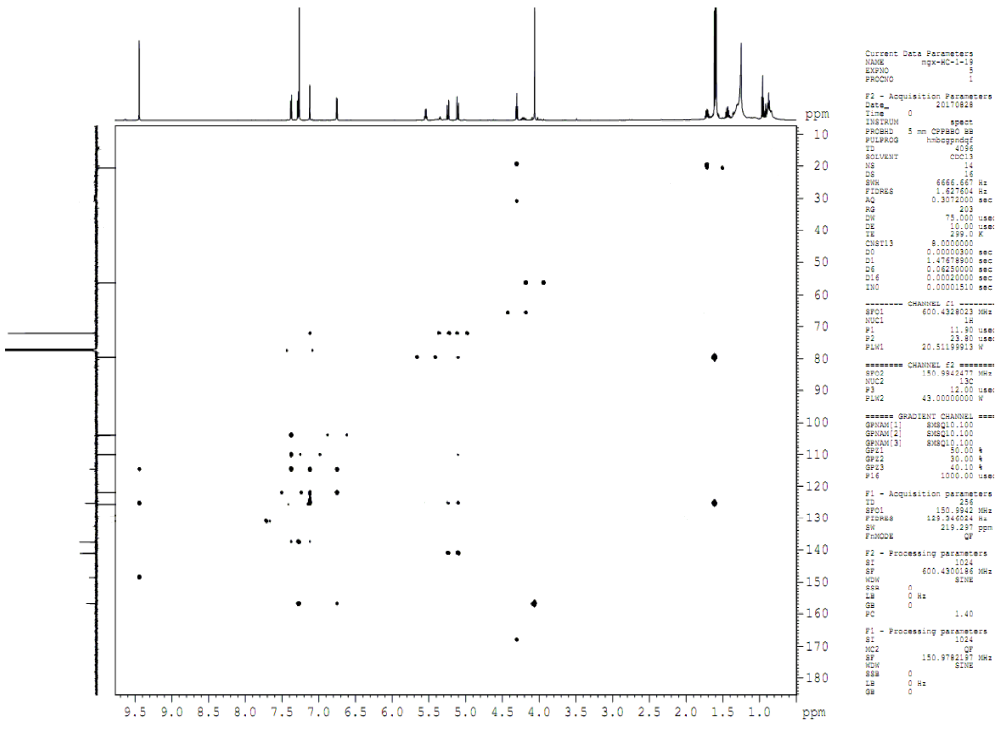

Figure S4. HMBC spectrum of the new compound **1**

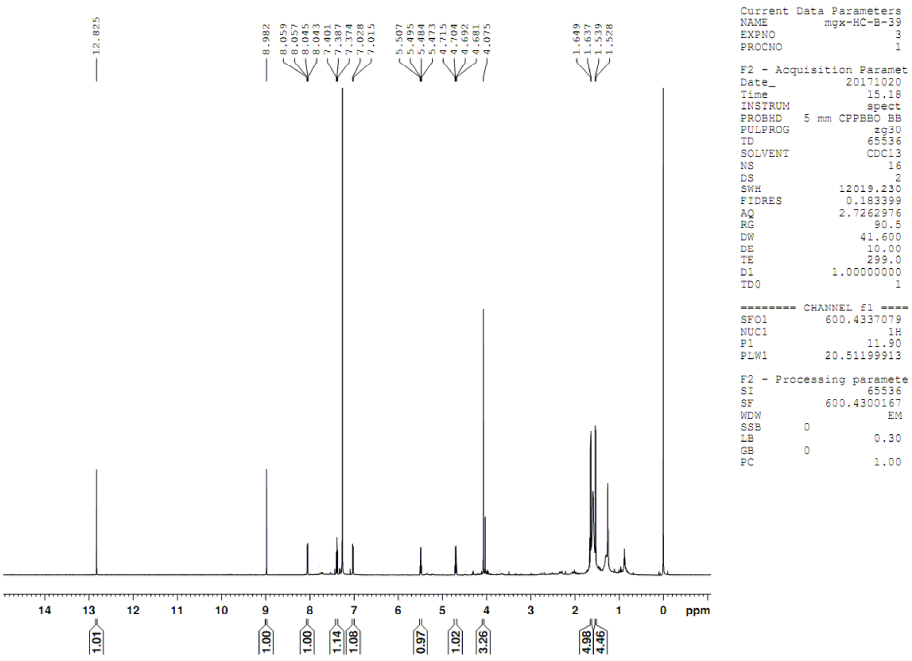

Figure S5. ^{1}H-NMR (600 MHz, $CDCl_3$) spectrum of the new compound **2**

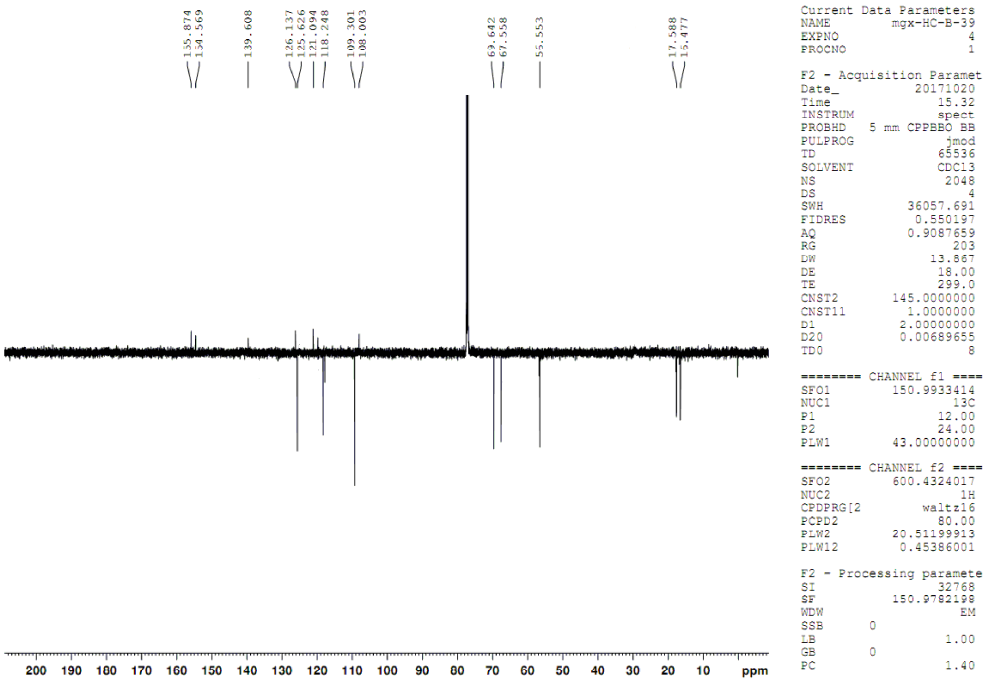

Figure S6. ^{13}C-APT (150 MHz, $CDCl_3$) spectrum of the new compound **2**

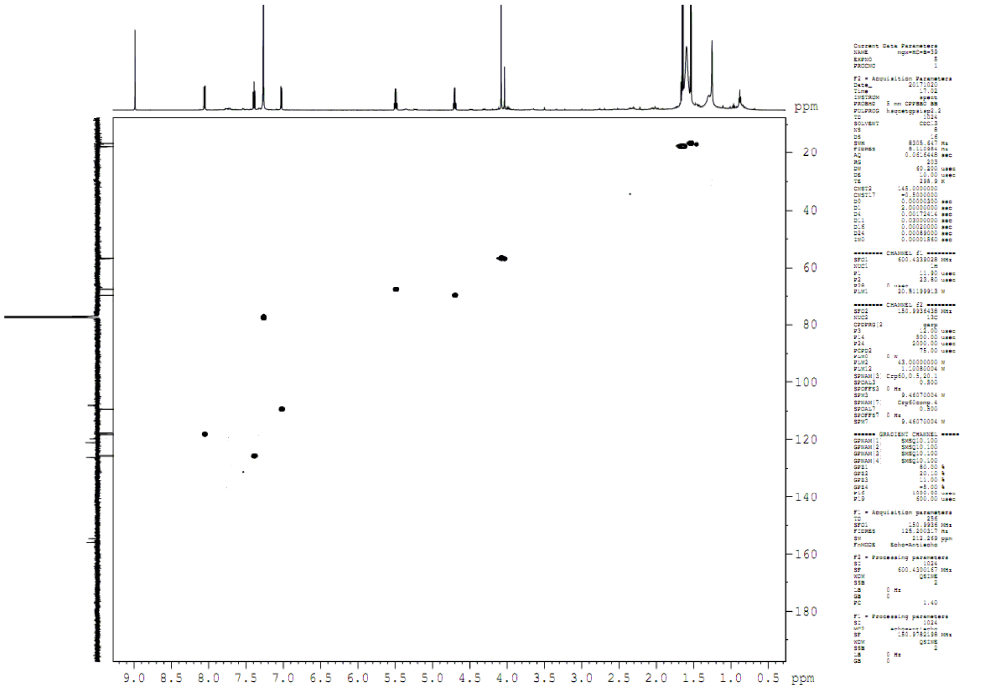

Figure S7. HSQC spectrum of the new compound **2**

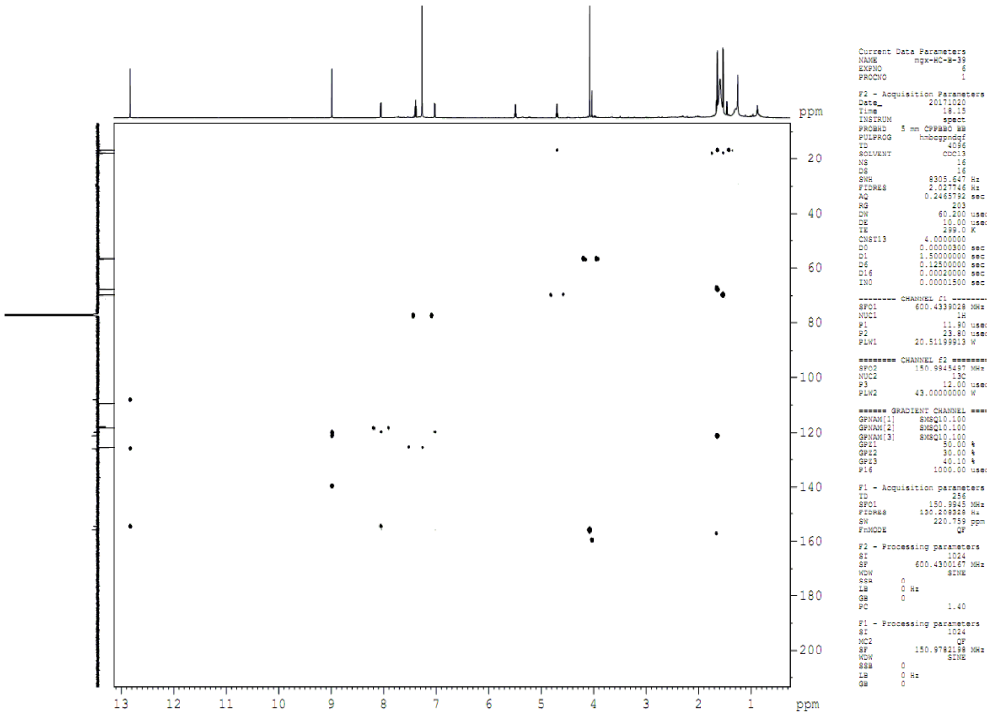

Figure S8. HMBC spectrum of the new compound **2**

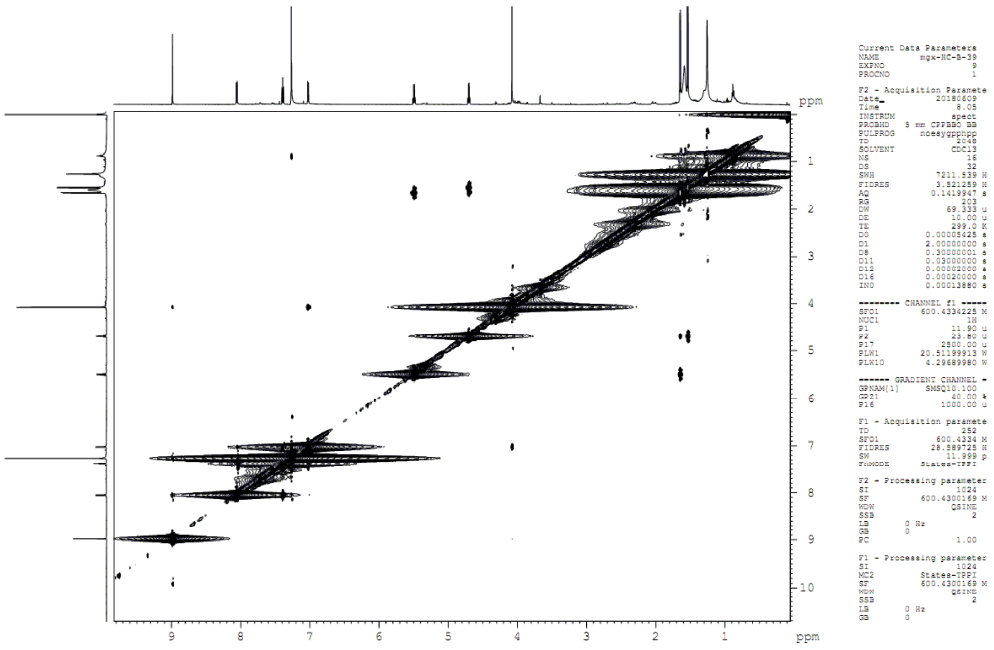

Figure S9. NOESY spectrum of the new compound **2**

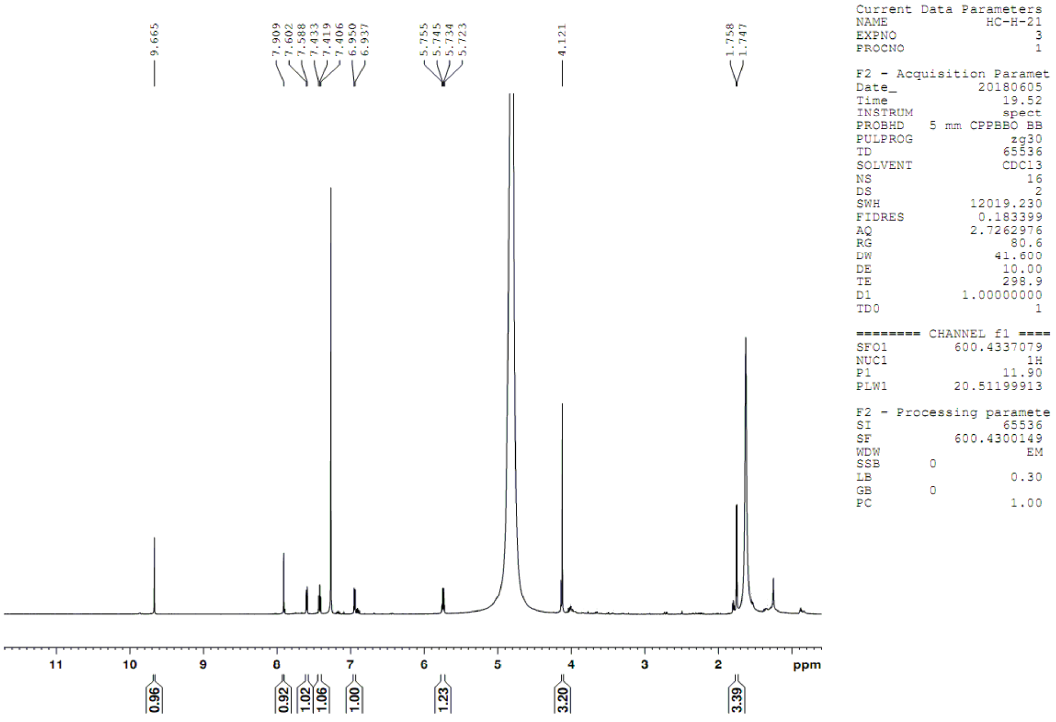

Figure S10. ^{1}H-NMR (600 MHz, $CDCl_3$) spectrum of the new compound **3**

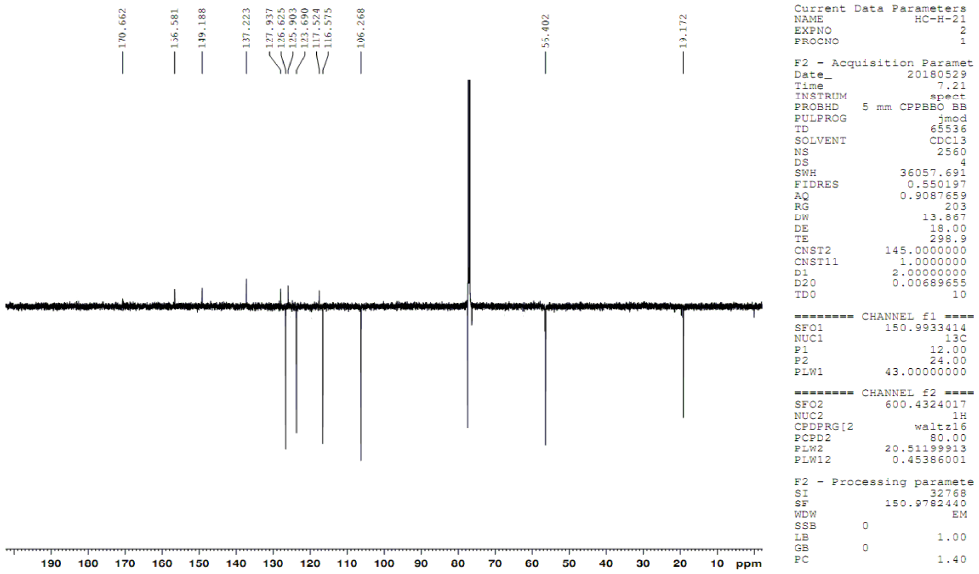

Figure S11. ^{13}C-APT (150 MHz, $CDCl_3$) spectrum of the new compound **3**

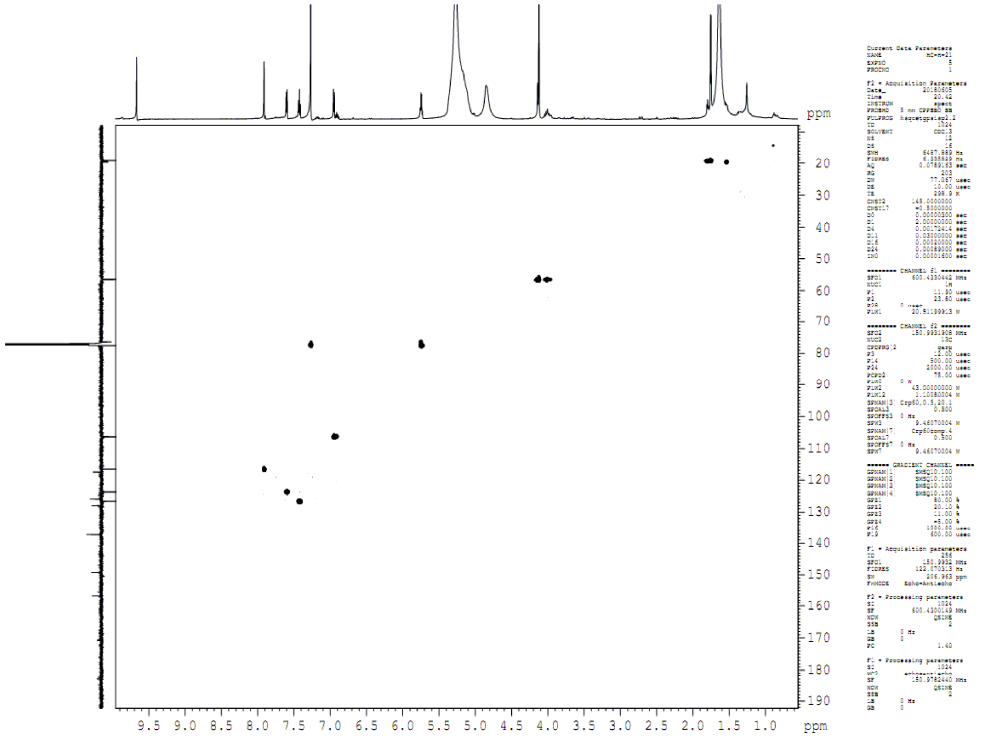

Figure S12. HSQC spectrum of the new compound **3**

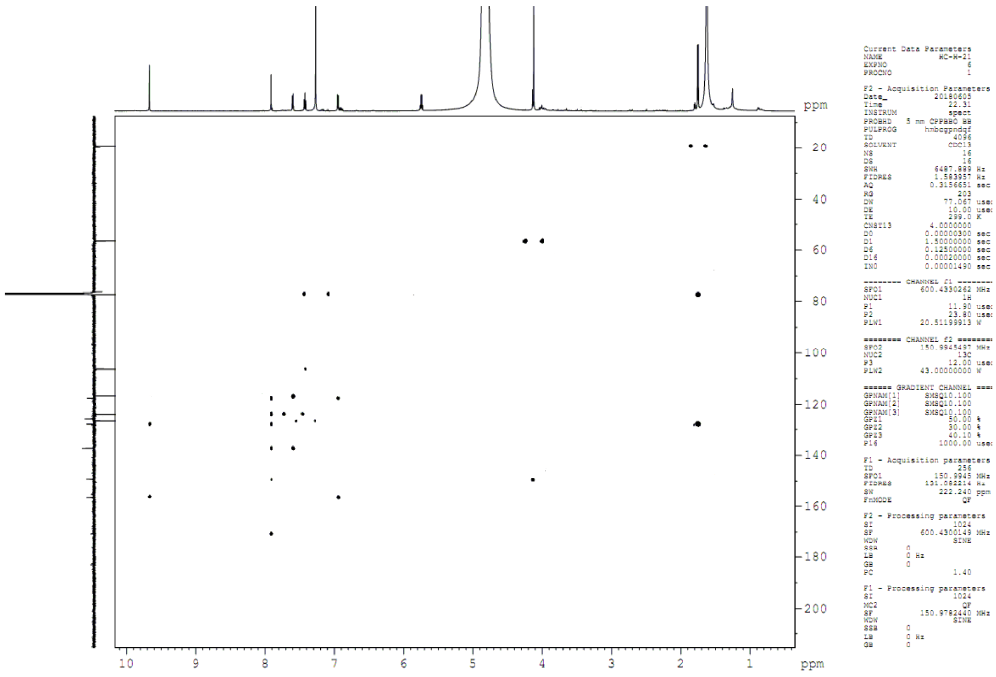

Figure S13. HMBC spectrum of the new compound **3**

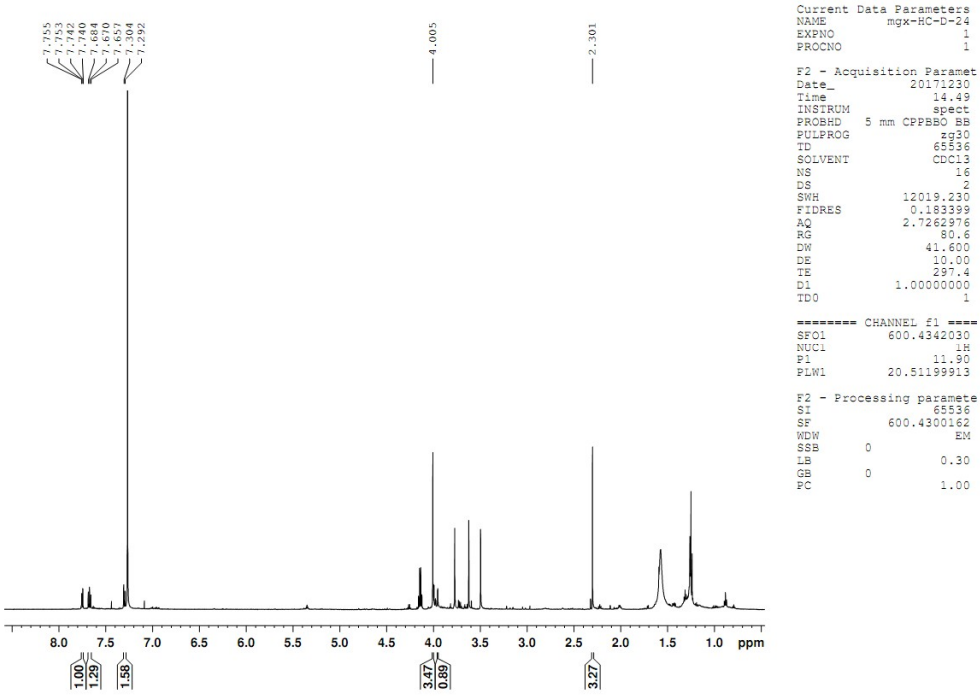

Figure S14. ^{1}H-NMR (600 MHz, $CDCl_3$) spectrum of the new compound **4**

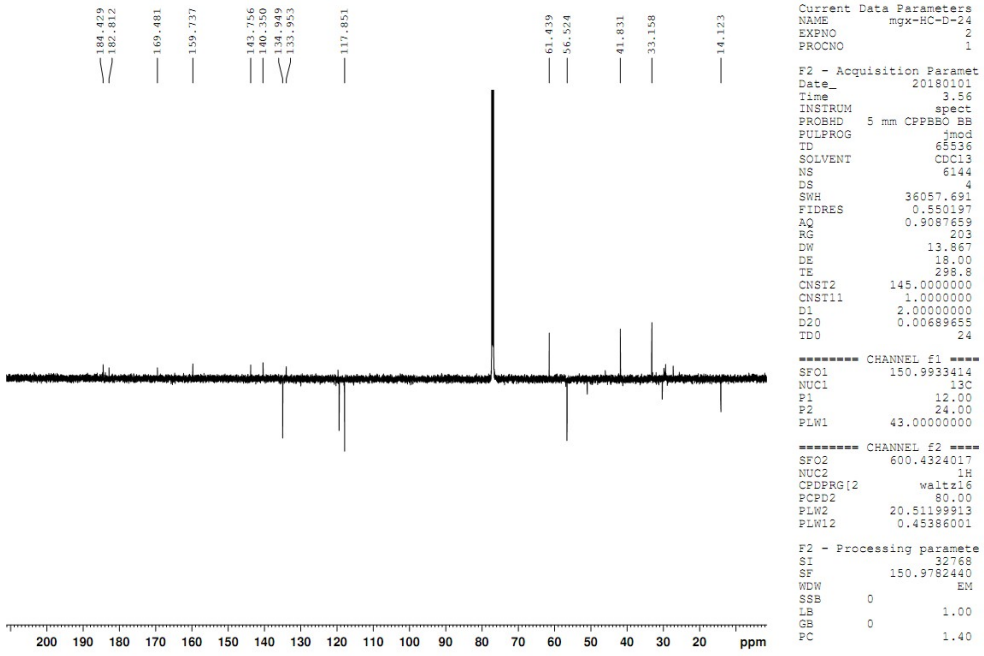

Figure S15. ^{13}C-APT (150 MHz, $CDCl_3$) spectrum of the new compound **4**

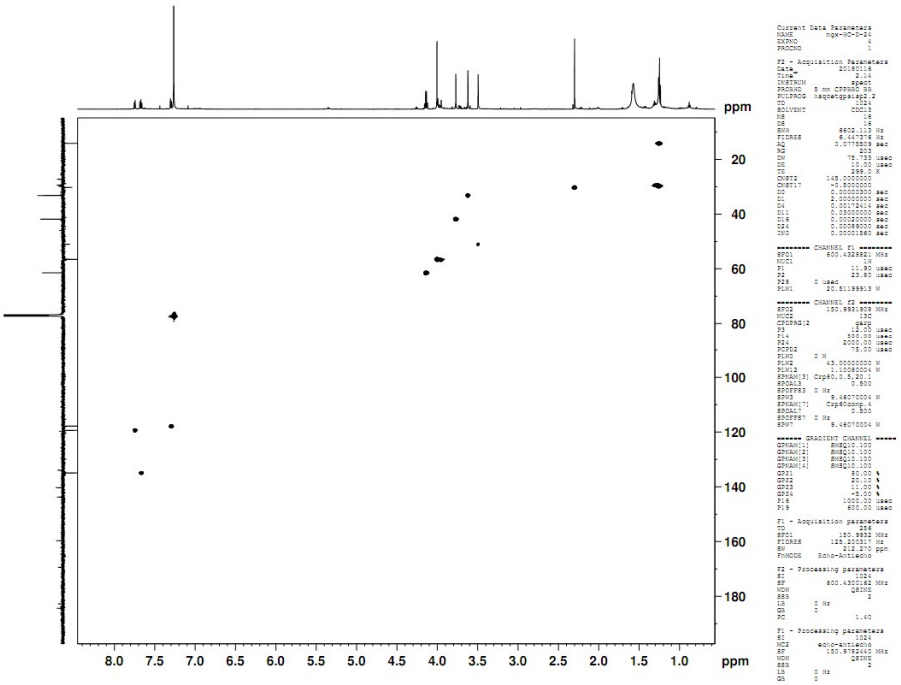

Figure S16. HSQC spectrum of the new compound **4**

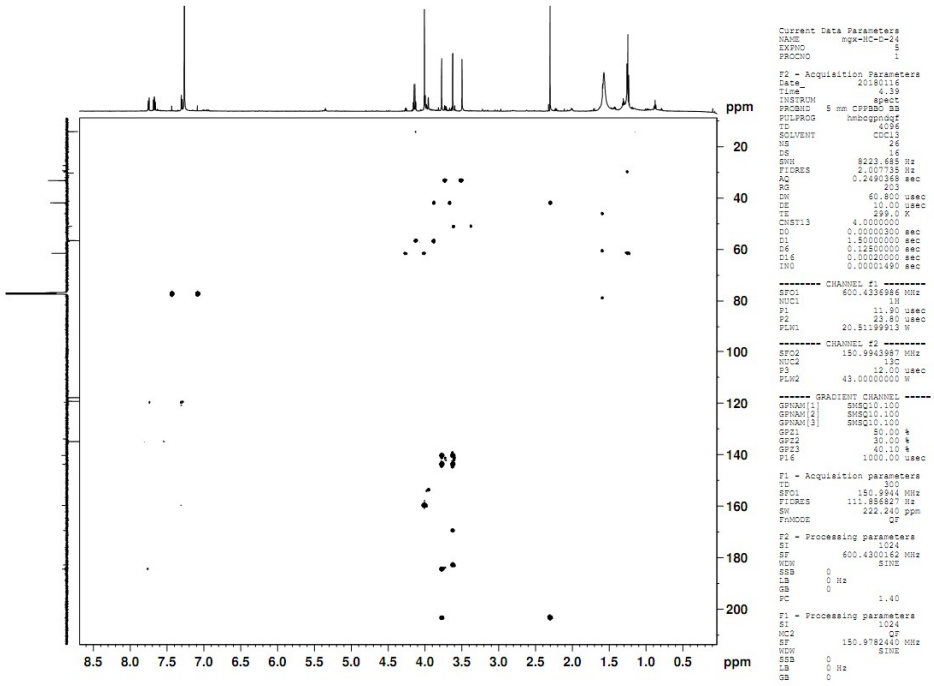

Figure S17. HMBC spectrum of the new compound **4**

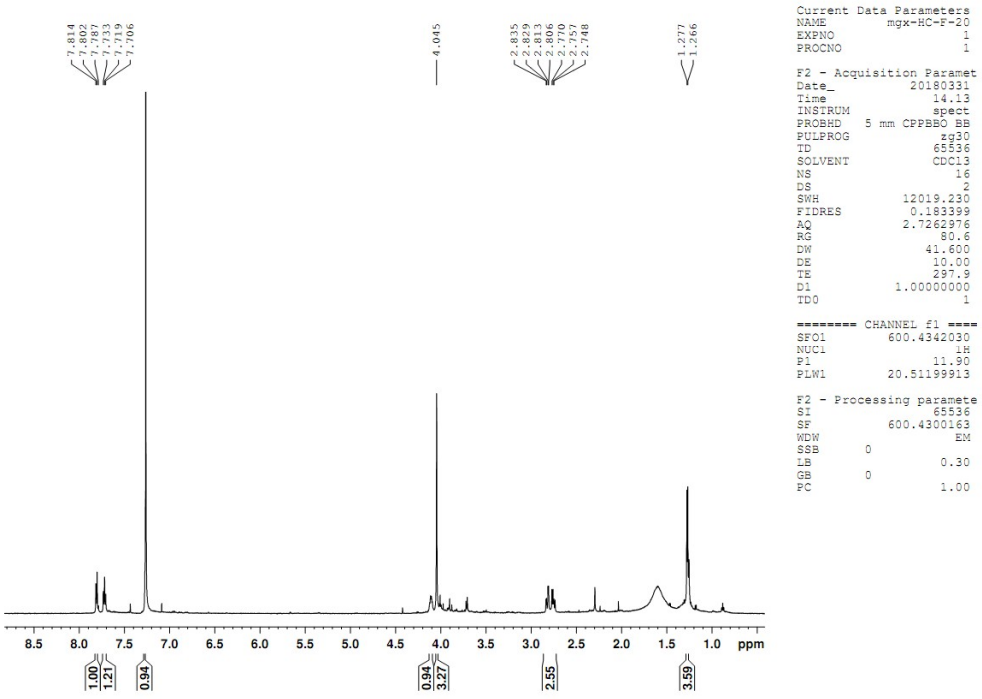

Figure S18. ^{1}H-NMR (600 MHz, $CDCl_3$) spectrum of the new compound **5**

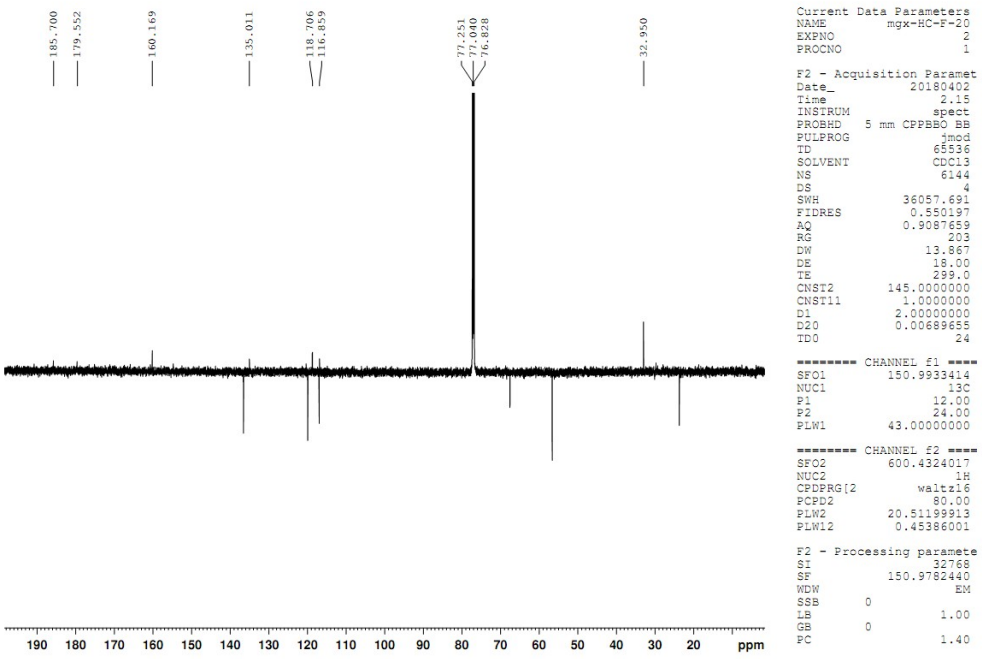

Figure S19. ^{13}C-APT (150 MHz, $CDCl_3$) spectrum of the new compound **5**

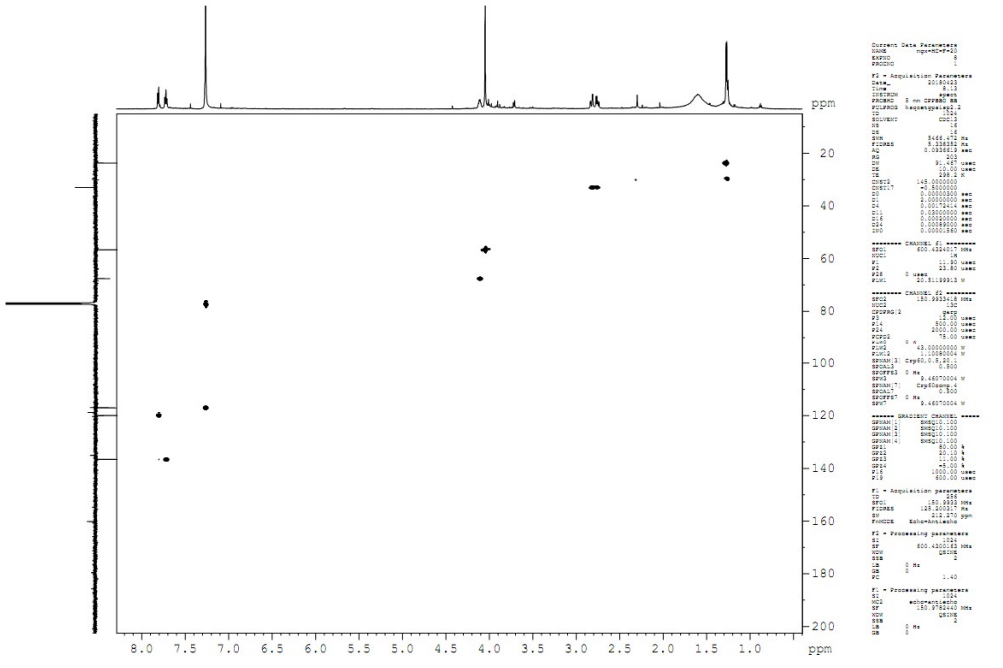

Figure S20. HSQC spectrum of the new compound **5**

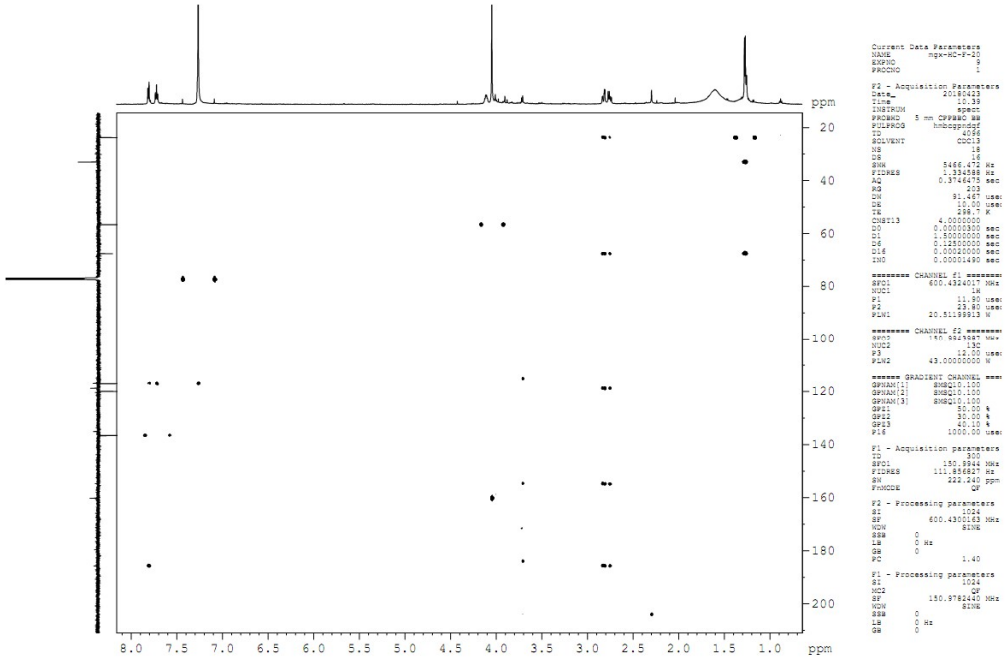

Figure S21. HMBC spectrum of the new compound **5**

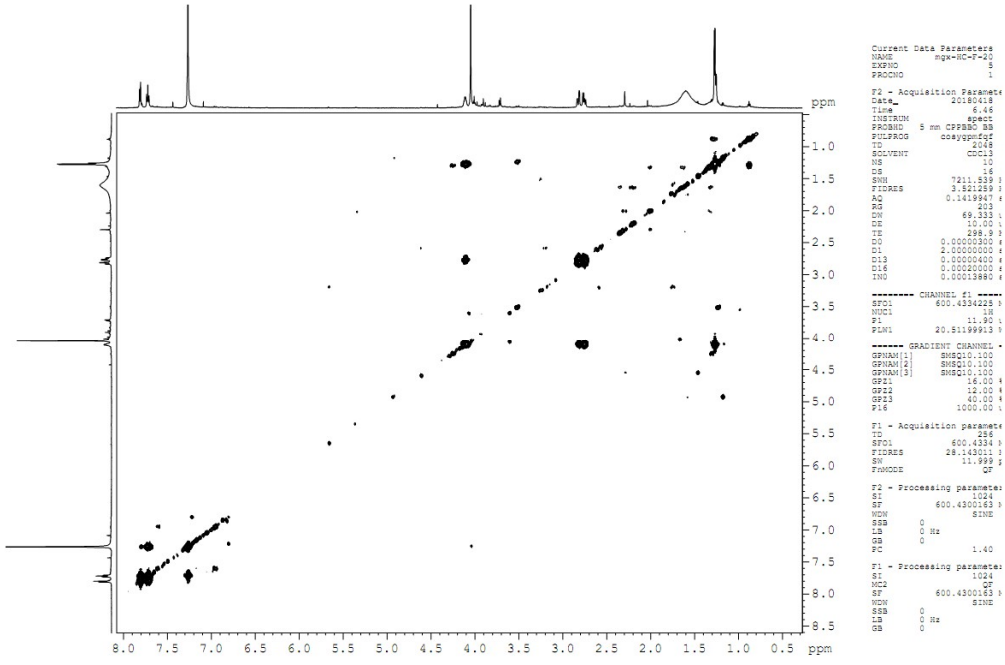

Figure S22. ^{1}H-^{1}H COSY spectrum of the new compound **5**

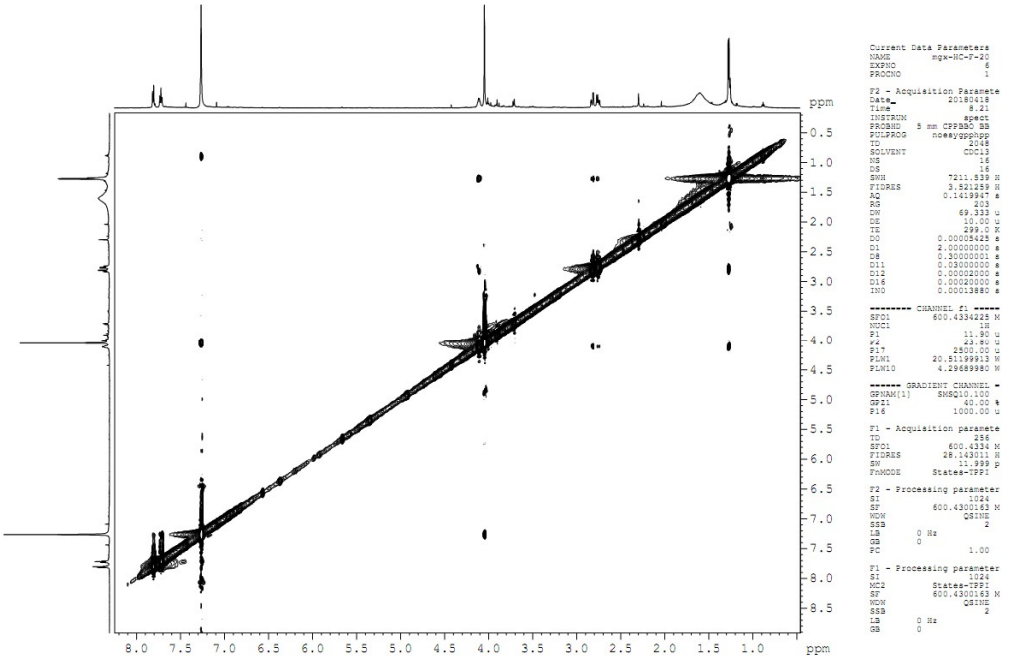

Figure S23. NOESY spectrum of the new compound **5**

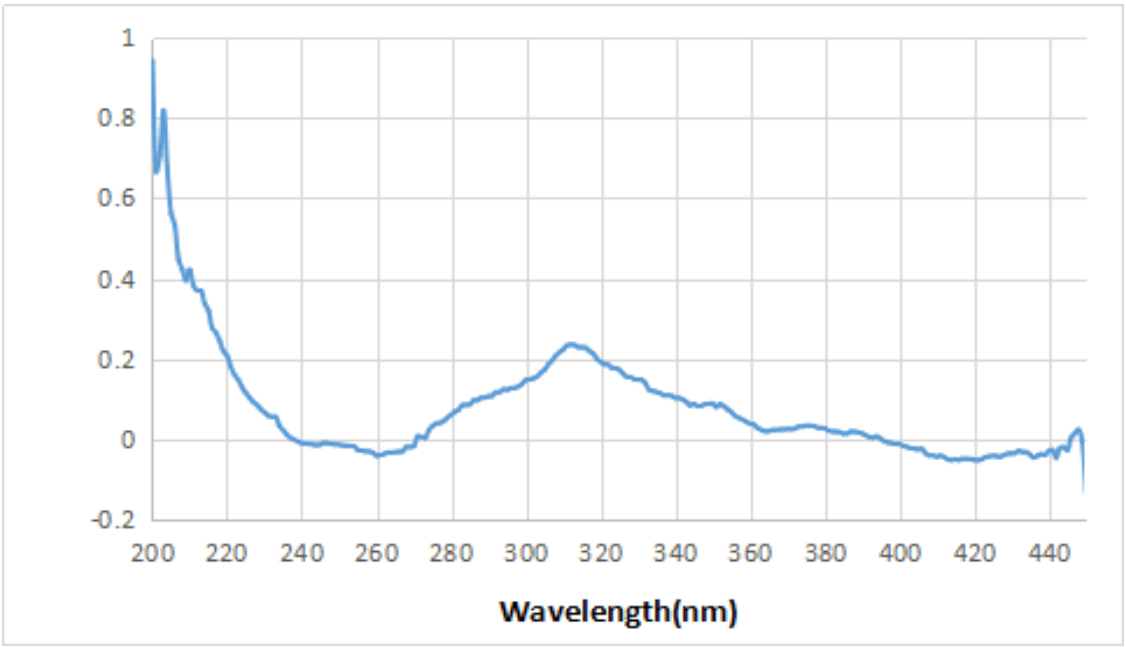

Figure S24. ECD spectrum of the new compound **1** in MeOH

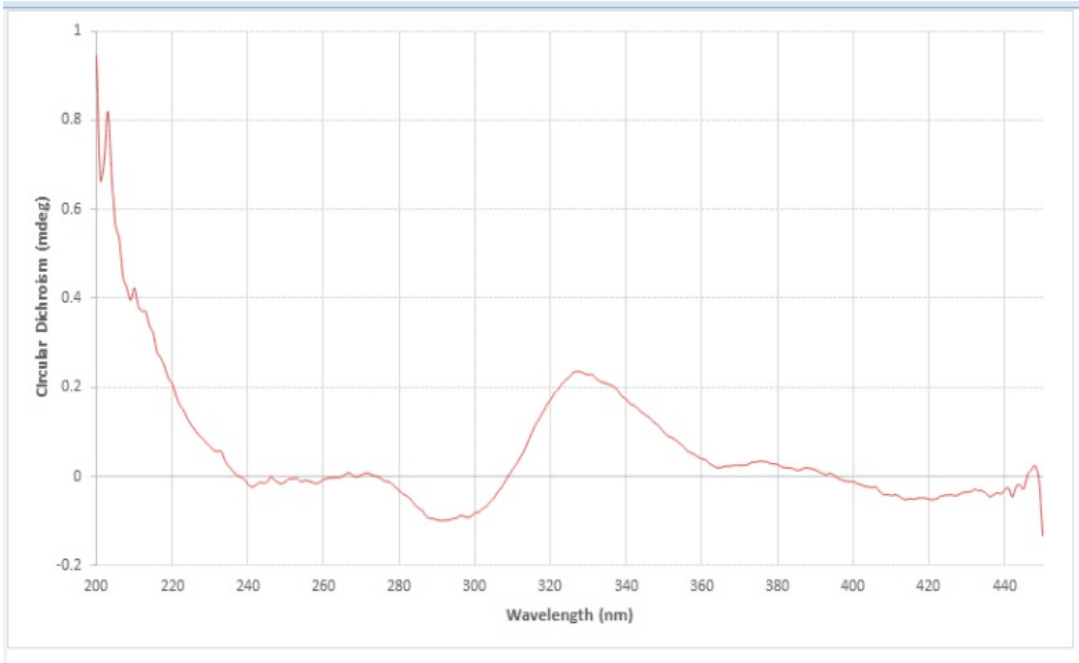

Figure S25. ECD spectrum of the new compound **2** in MeOH

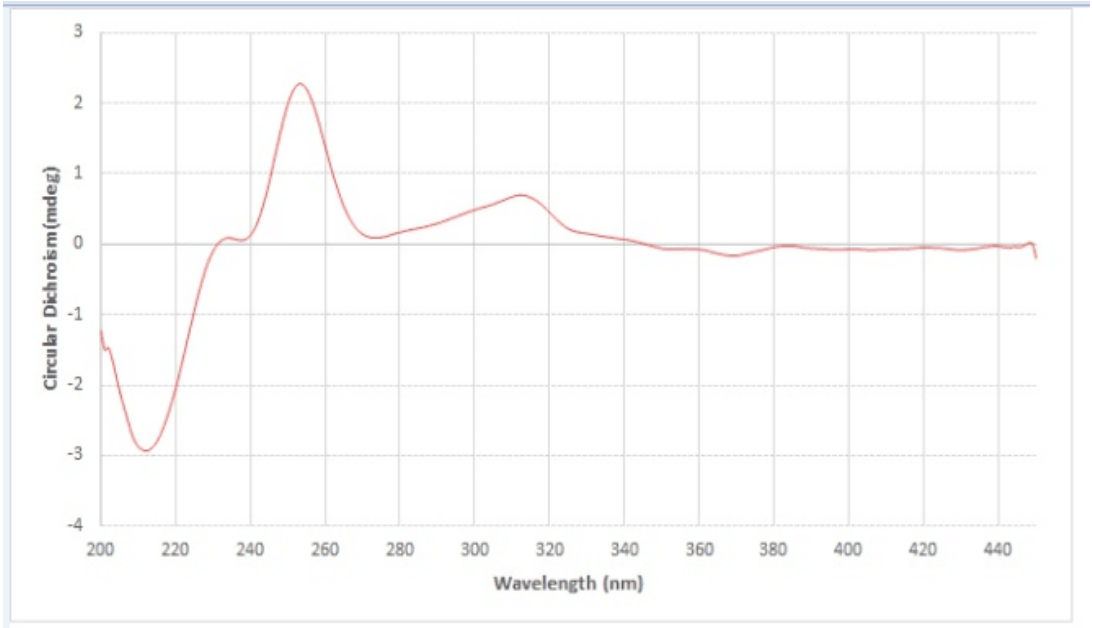

Figure S26. ECD spectrum of the new compound **3** in MeOH