Supporting Information

for

Bioactive selaginellins from *Selaginella tamariscina* (Beauv.) Spring

Chao Yang *[1,2], Yutian Shao [1], Kang Li [1] and Wujiong Xia [1]

Address: [1] State Key Lab of Urban Water Resource and Environment & the Academy of Fundamental and Interdisciplinary Sciences, Harbin Institute of Technology, Harbin 150080, PR China and [2] State Key Lab of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000, PR China

Email: Chao Yang* - xyyang@hit.edu.cn

* Corresponding author

Spectroscopic data and other relevant information for compounds 1–4.

Table of Contents

Figure S1: ^{1}H NMR (400 MHz, CD_3COCD_3) of compound **1**

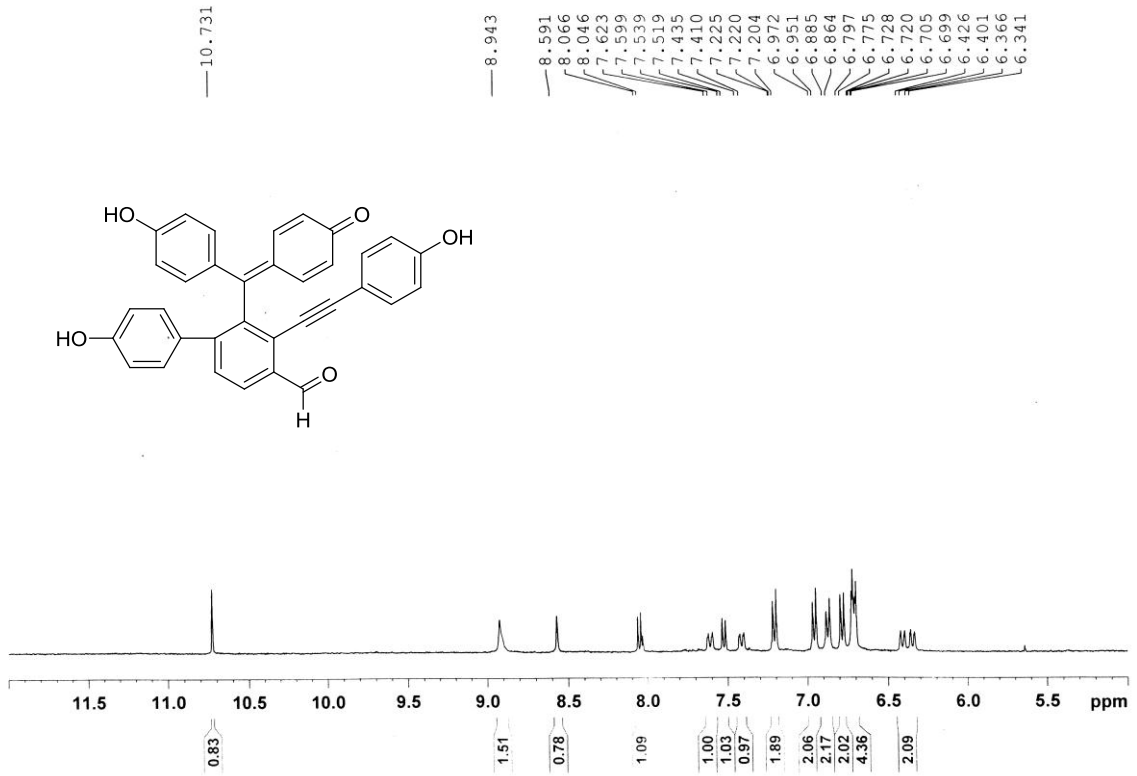


Figure S2: ^{13}C NMR (100 MHz, CD_3COCD_3) of compound **1**

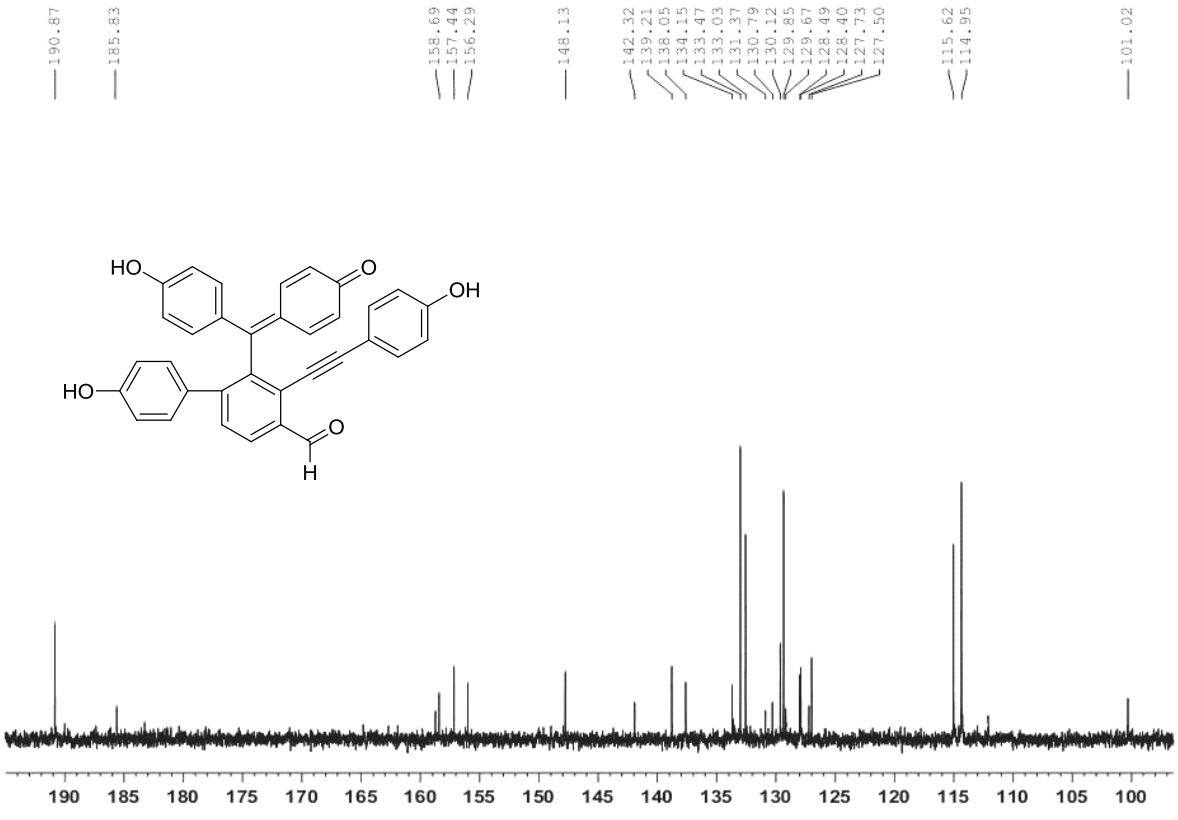
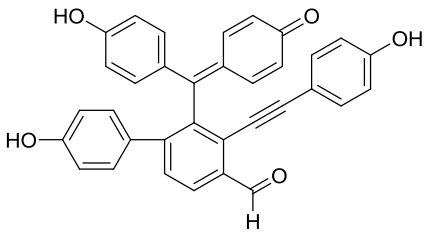


Figure S3: ^{1}H-^{1}H COSY of compound **1**



Selaginellin O

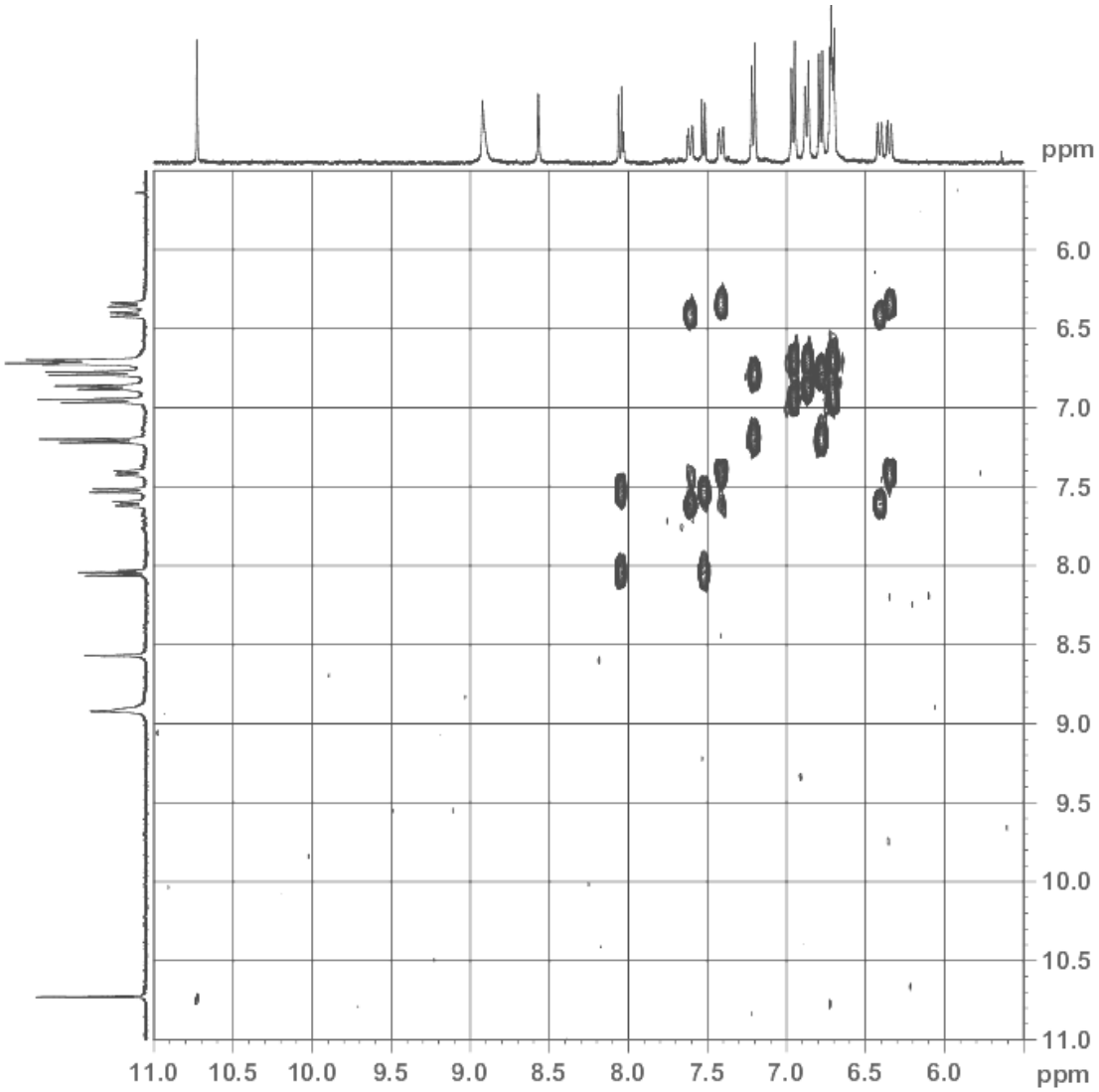
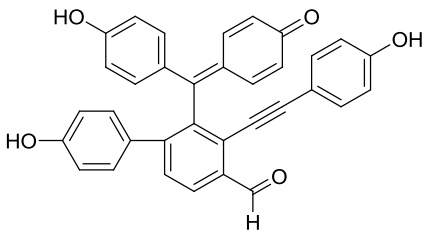


Figure S4: HMQC of compound **1**



Selaginellin O

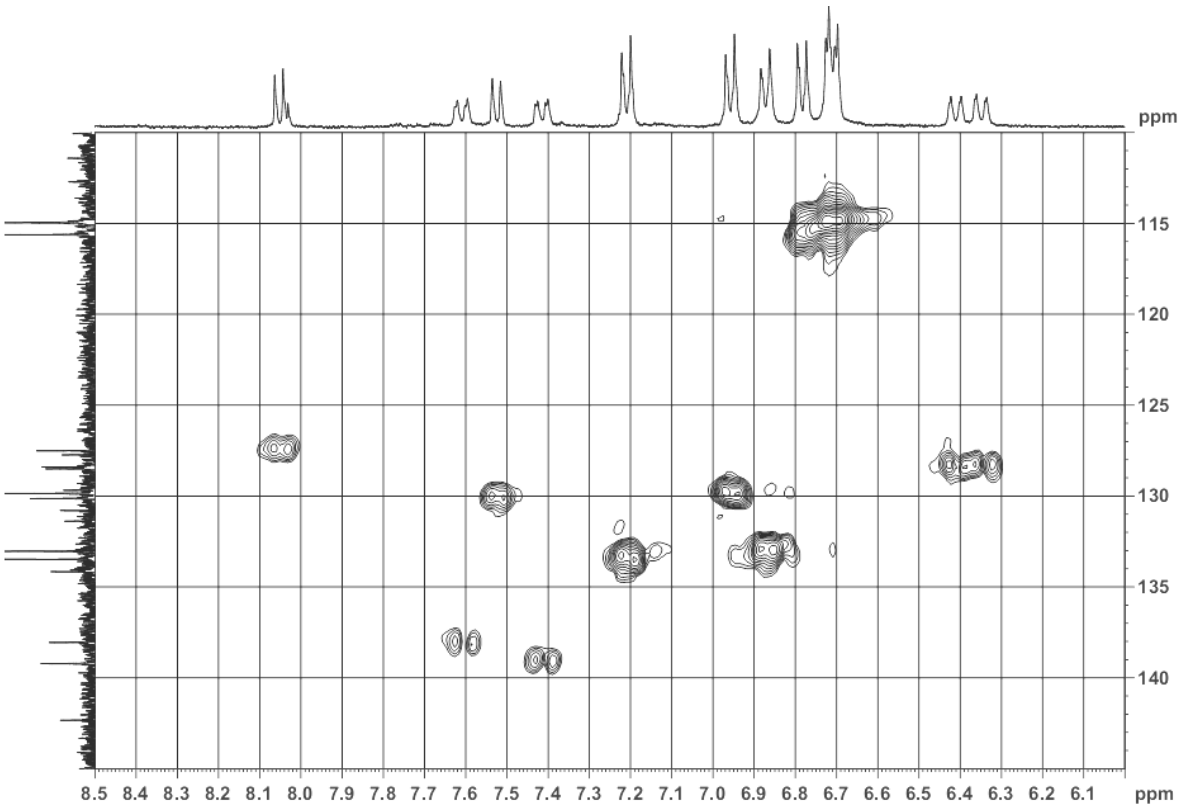
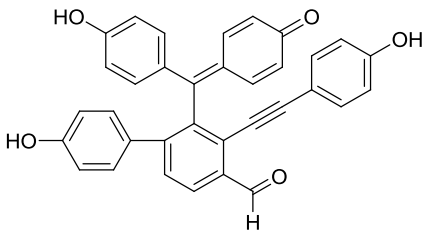


Figure S5: HMBC of compound **1**



Selaginellin O

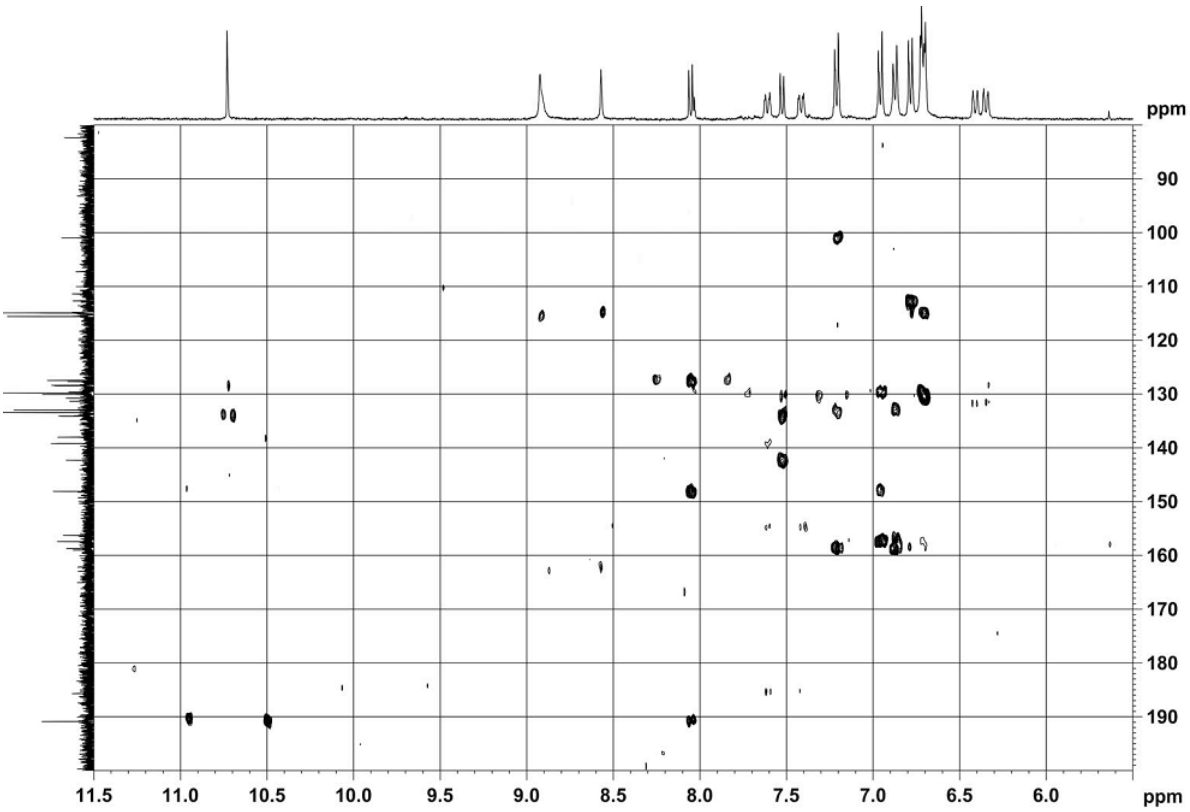


Figure S6: ^{1}H NMR (400 MHz, CD_3COCD_3) of compound **2**

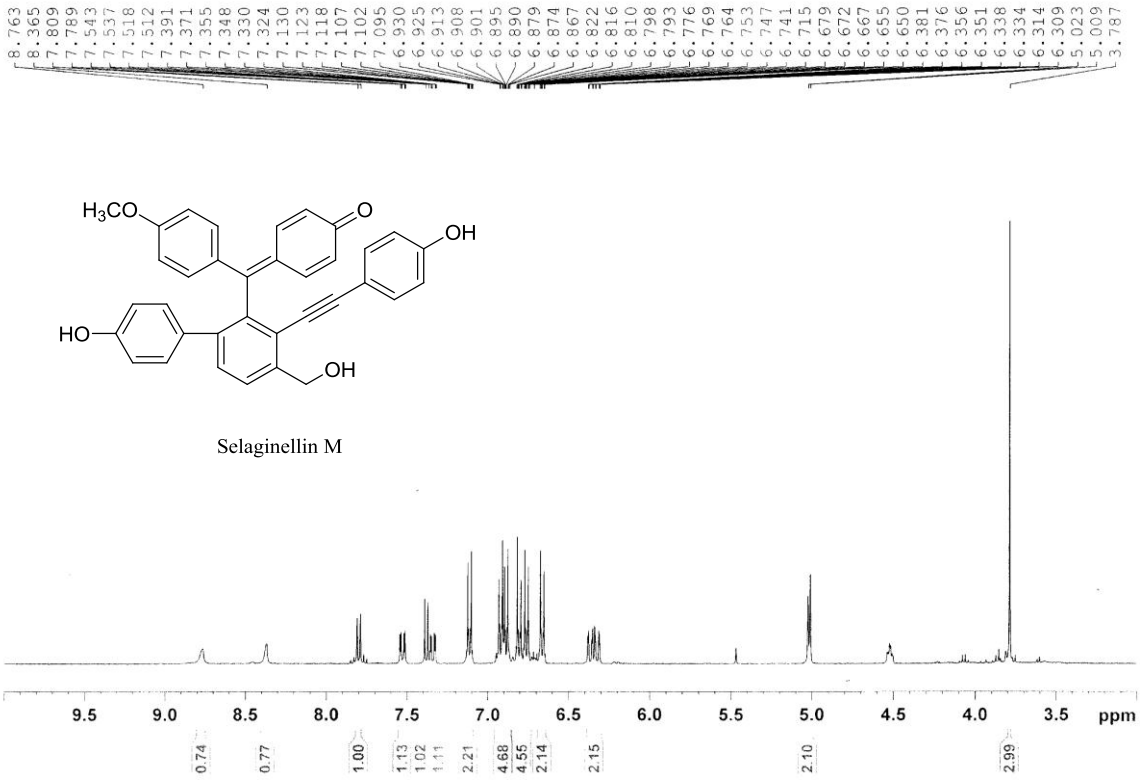


Figure S7: ^{13}C NMR (100 MHz, CD_3COCD_3) of compound **2**

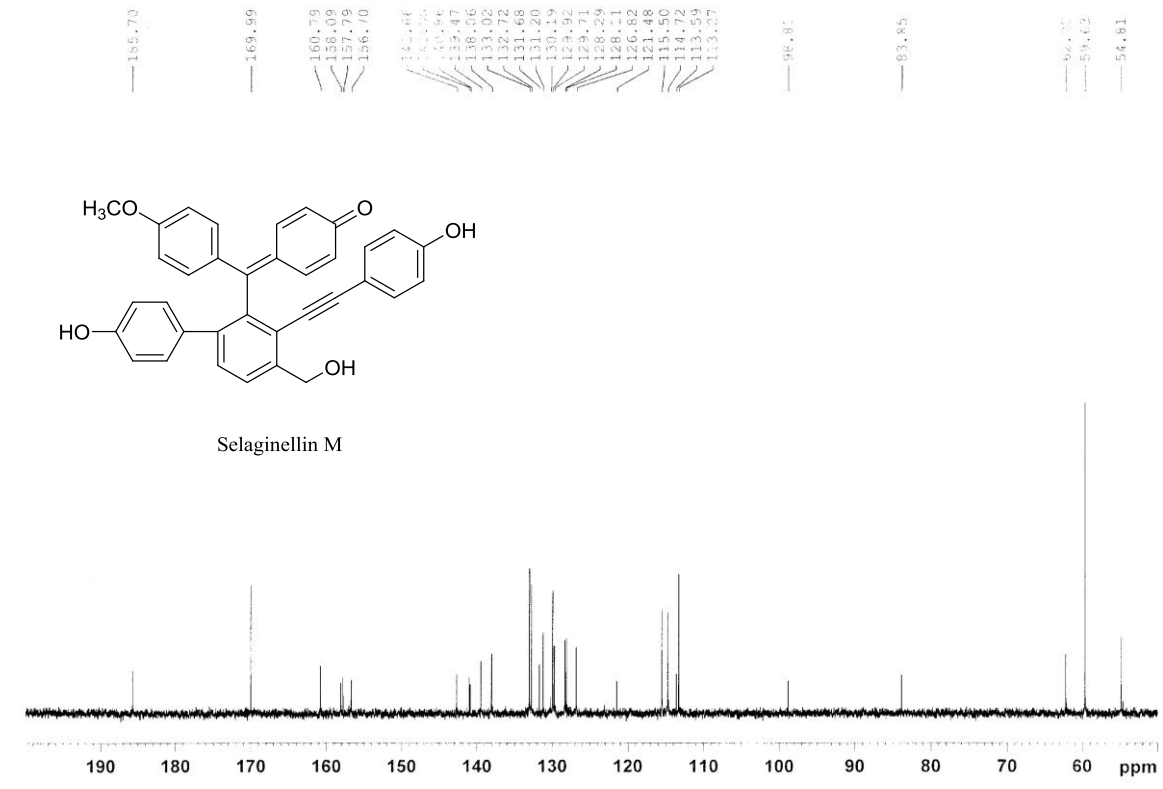
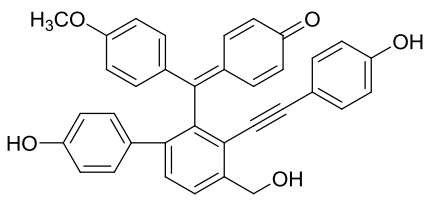


Figure S8: ^{1}H-^{1}H COSY of compound **2**



Selaginellin M

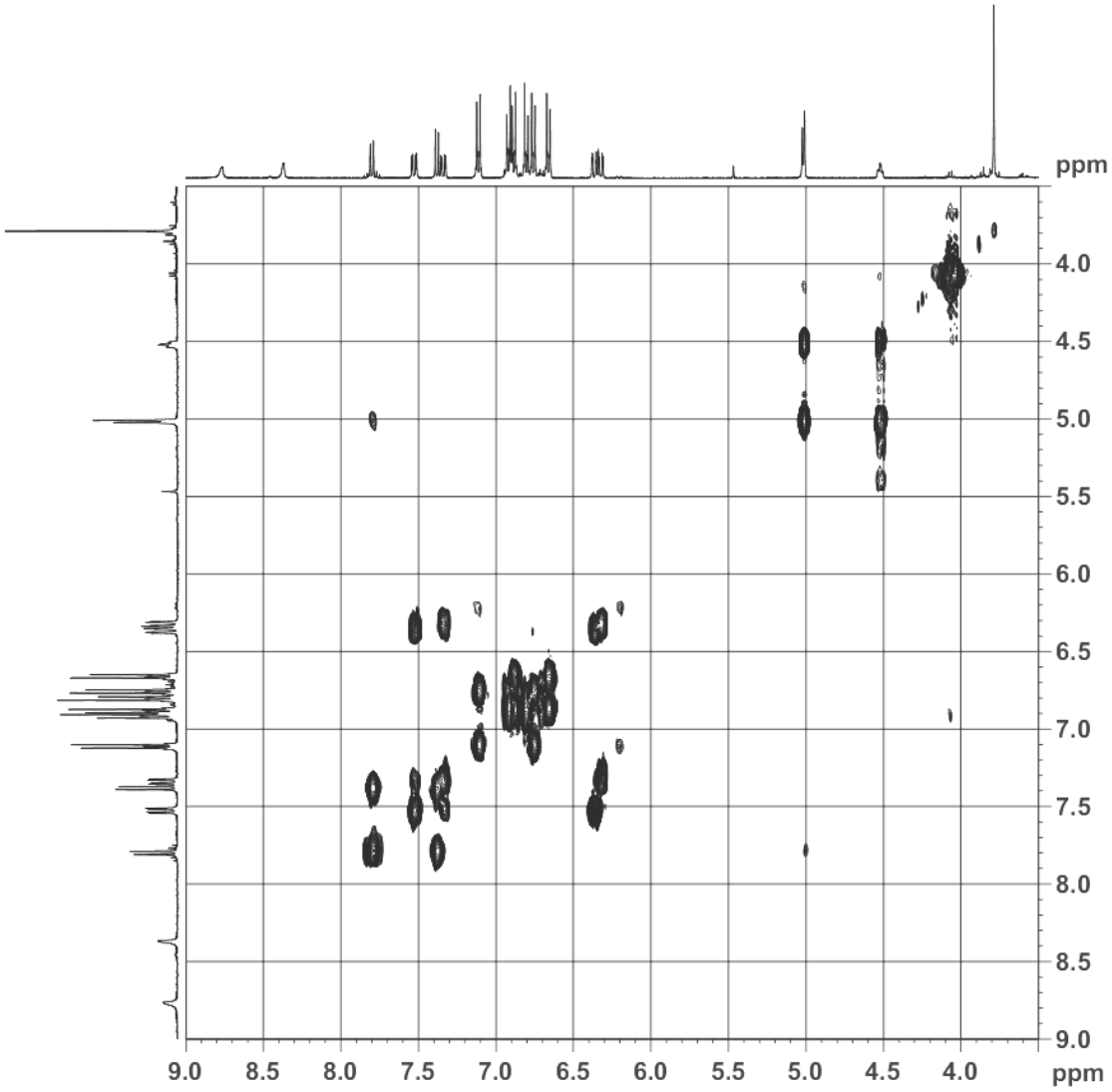


Figure S9: HMQC of compound **2**

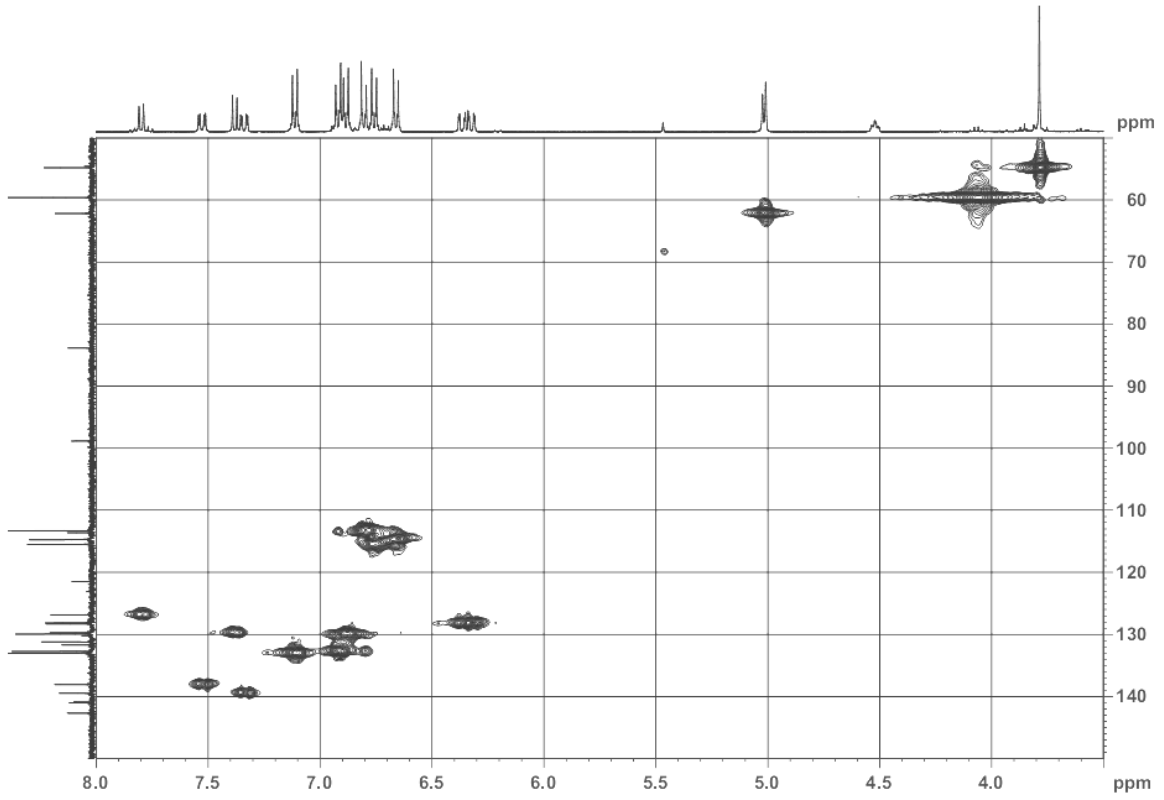


Figure S10: HMBC of compound **2**

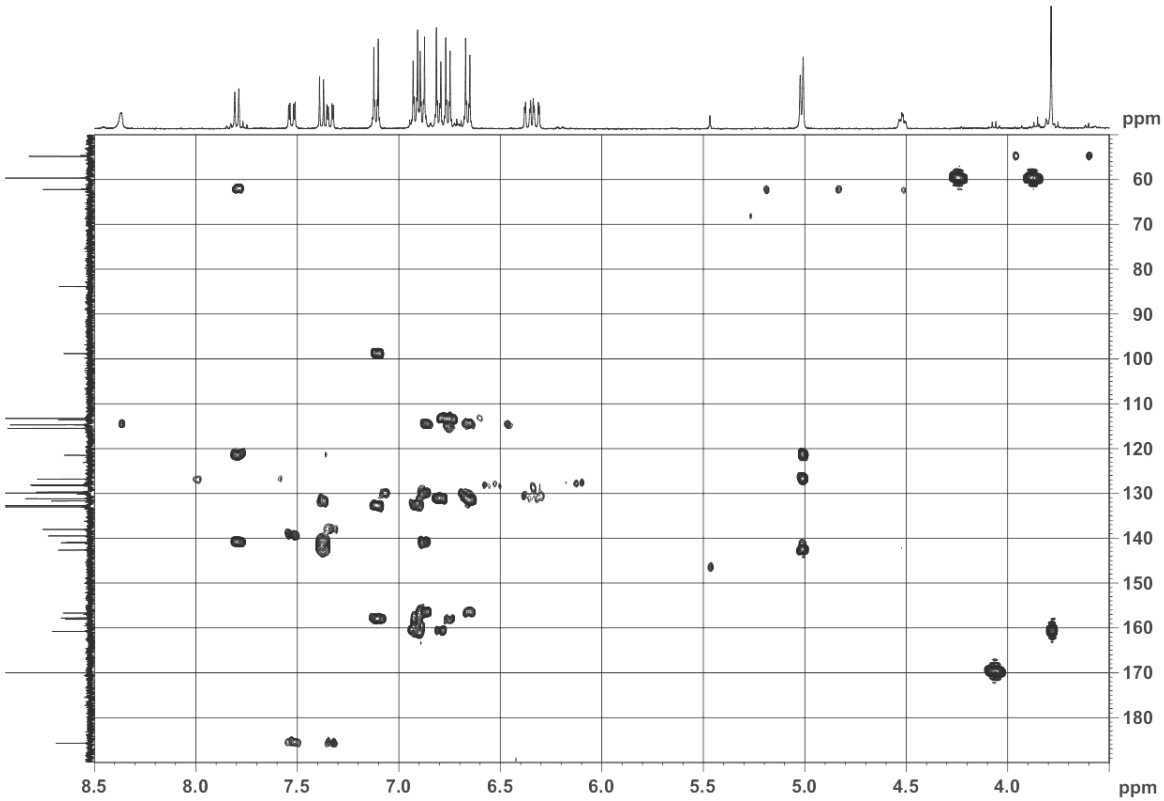
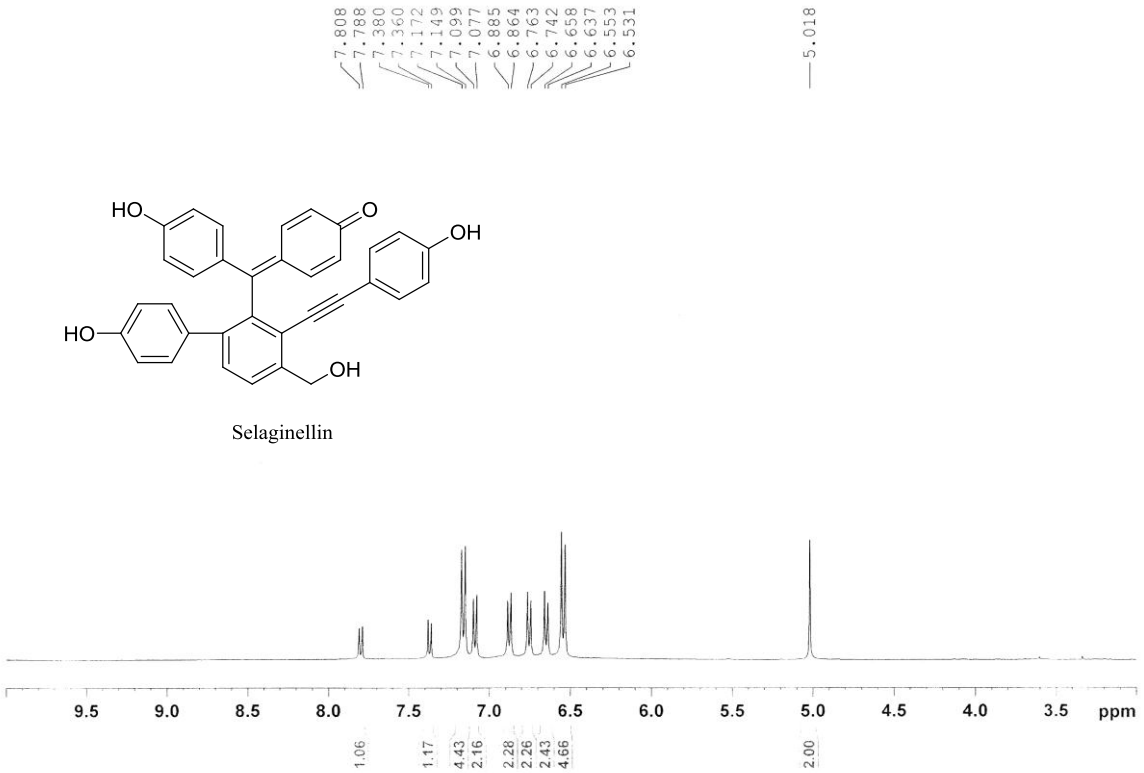
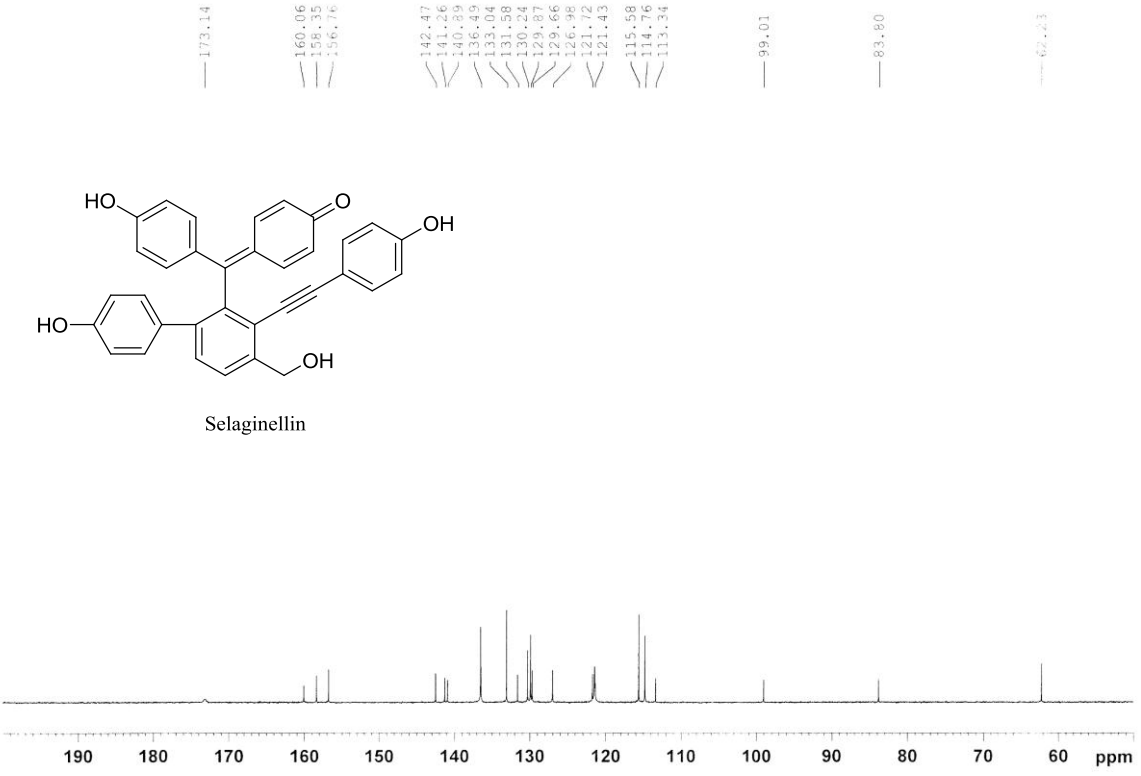


Figure S11: ^{1}H NMR (400 MHz, CD_3COCD_3) of compound **3**



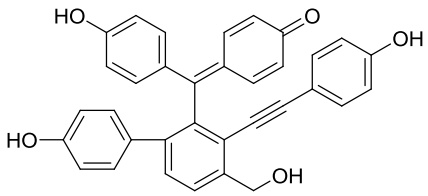
Selaginellin

Figure S12: ^{13}C NMR (100 MHz, CD_3COCD_3) of compound **3**



Selaginellin

Figure S13: ^{1}H-^{1}H COSY of compound **3**



Selaginellin

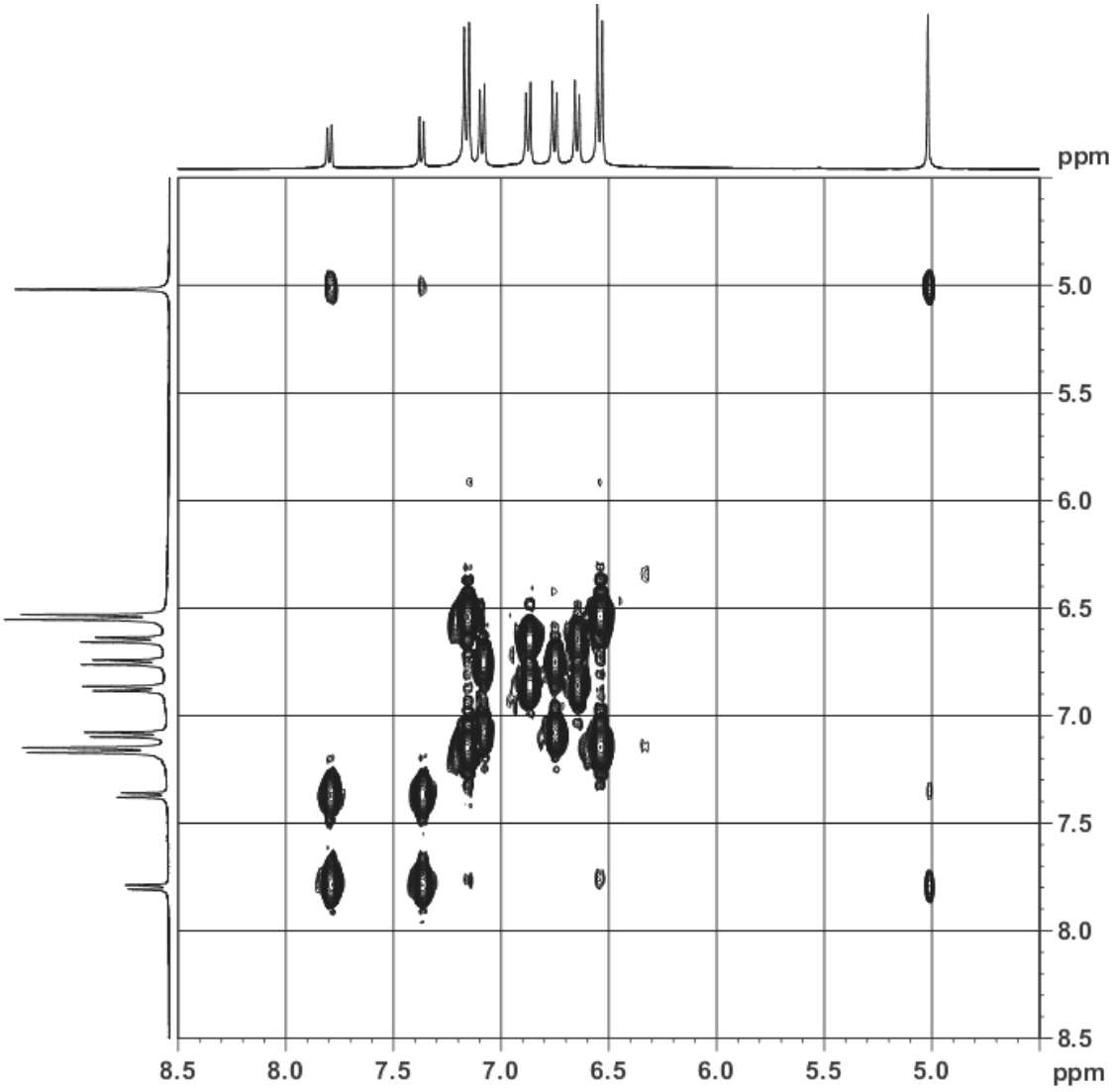


Figure S14: HMQC of compound **3**

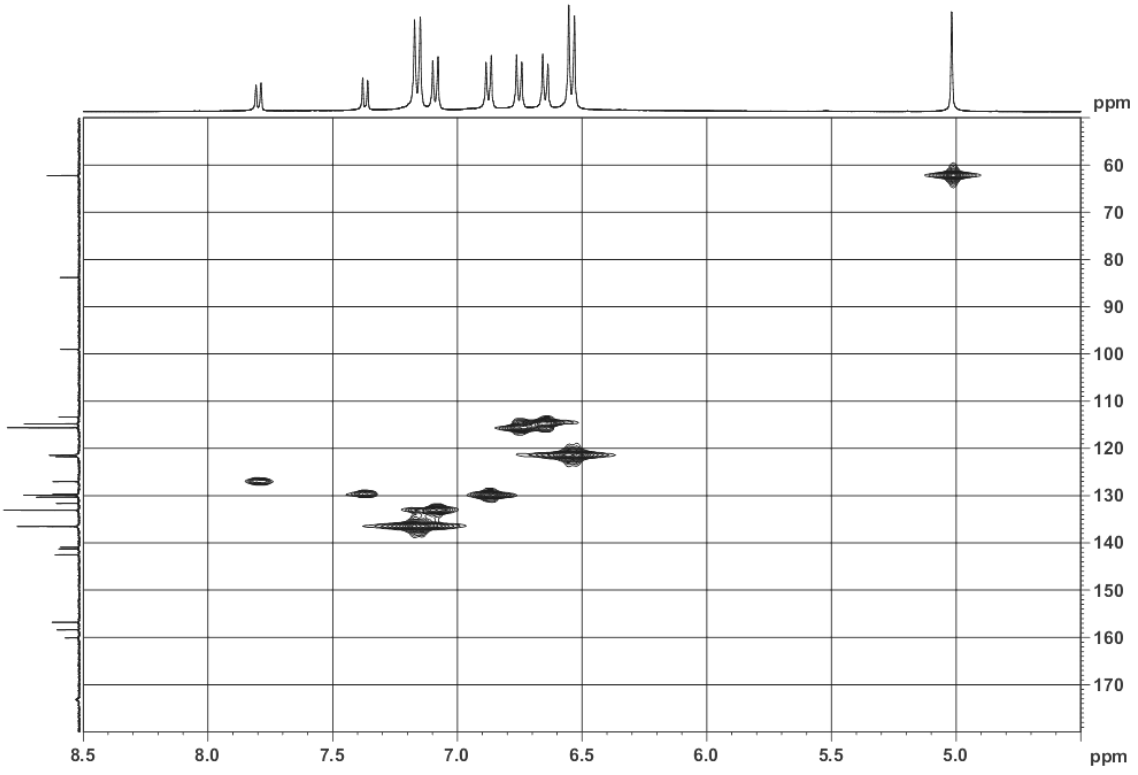


Figure S15: HMBC of compound **3**

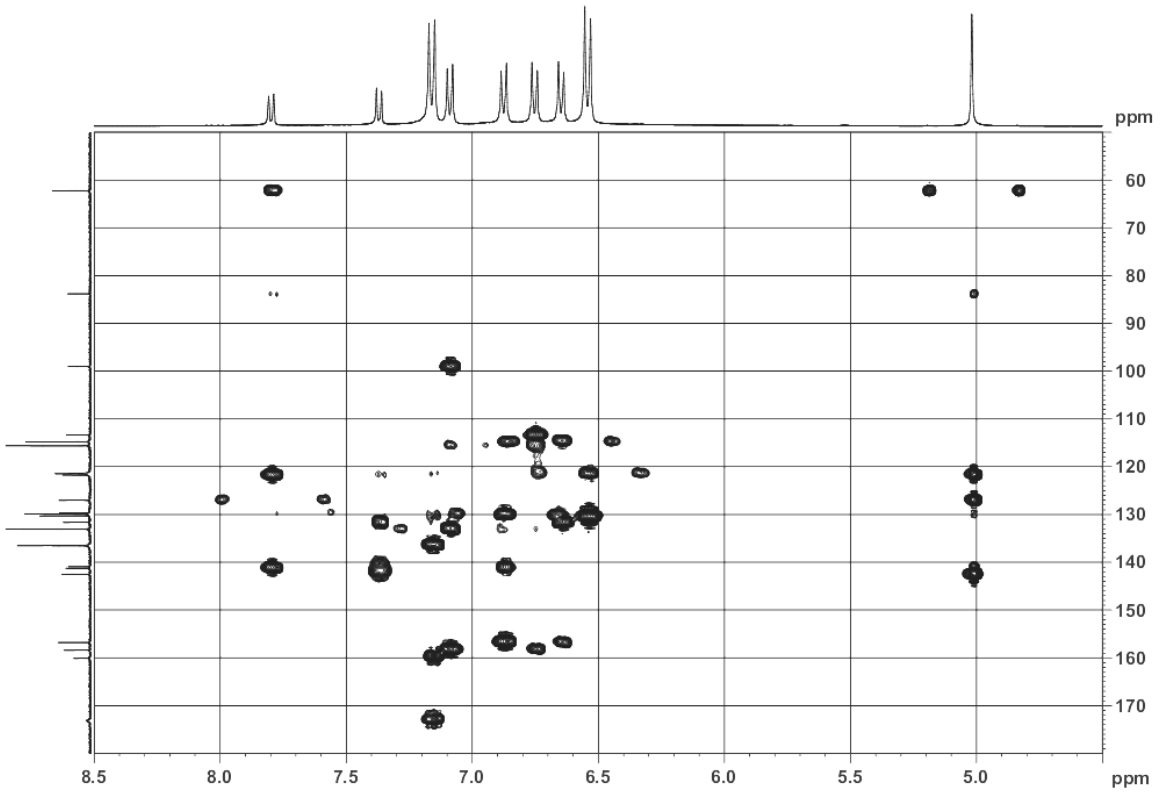


Figure S16: ^{1}H NMR (400 MHz, CD_3COCD_3) of compound **4**

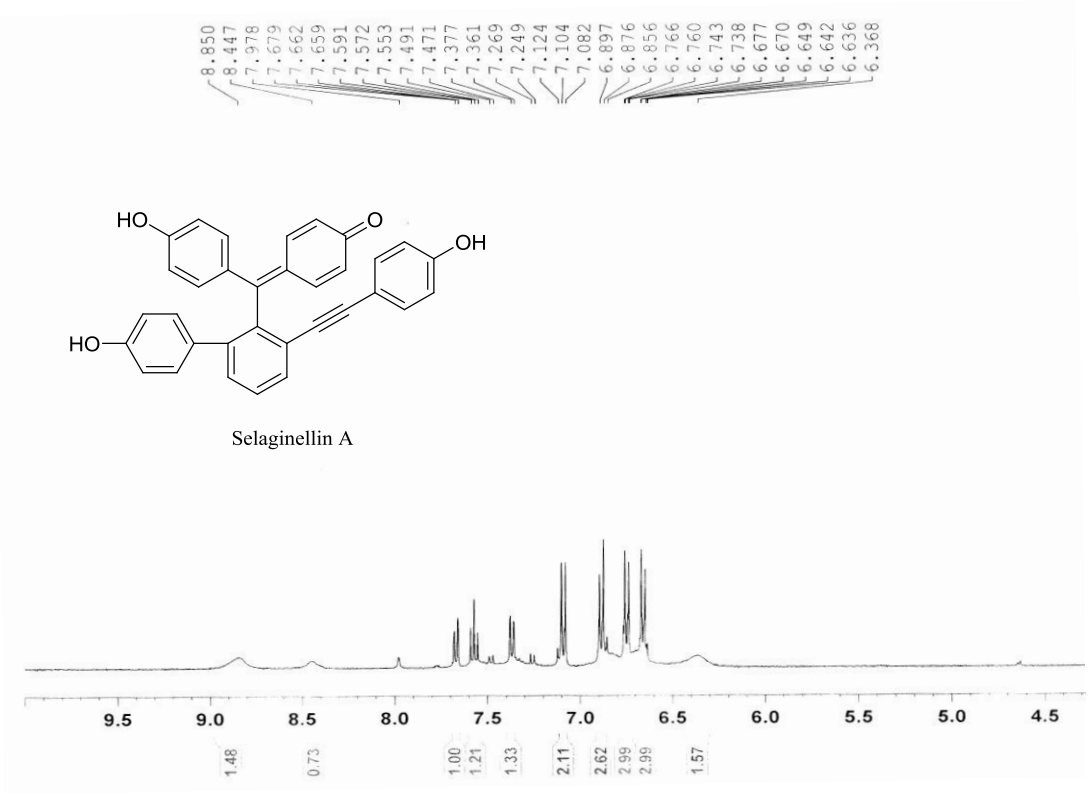


Figure S17: ^{13}C NMR (100 MHz, CD_3COCD_3) of compound **4**

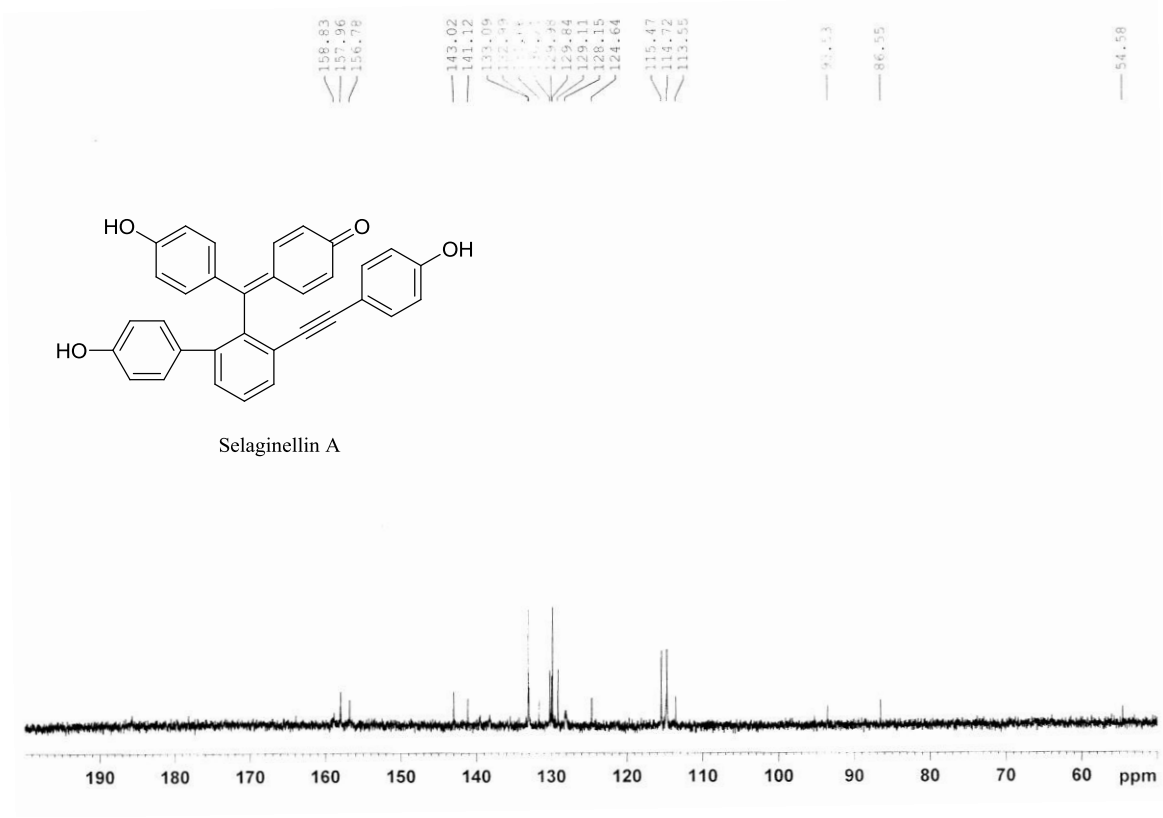
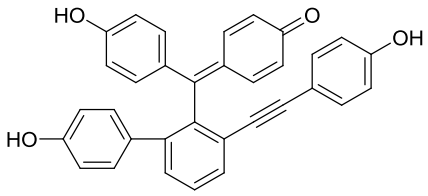


Figure S18: $^{1}H–^{1}H$ COSY of compound **4**



Selaginellin A

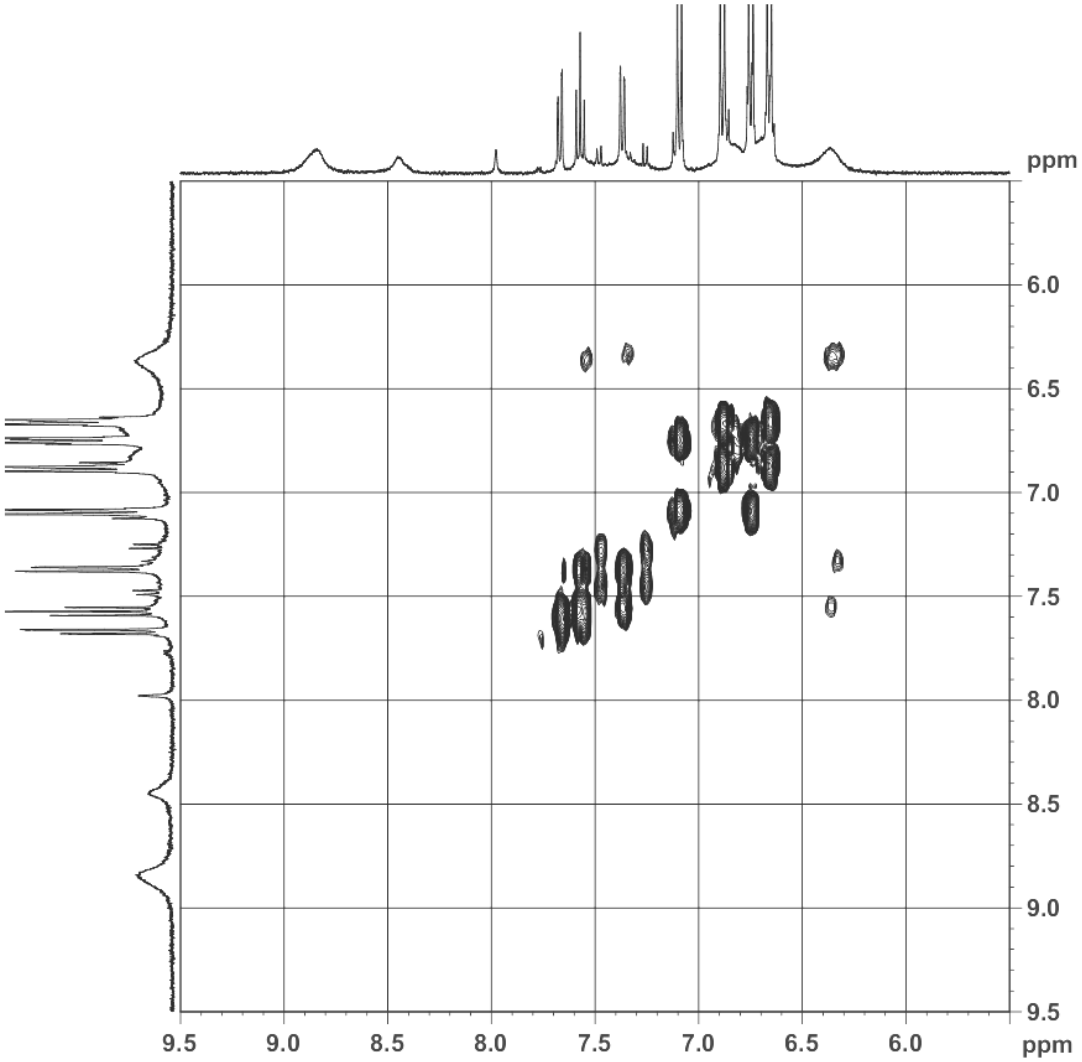


Figure S19: HMQC of compound **4**

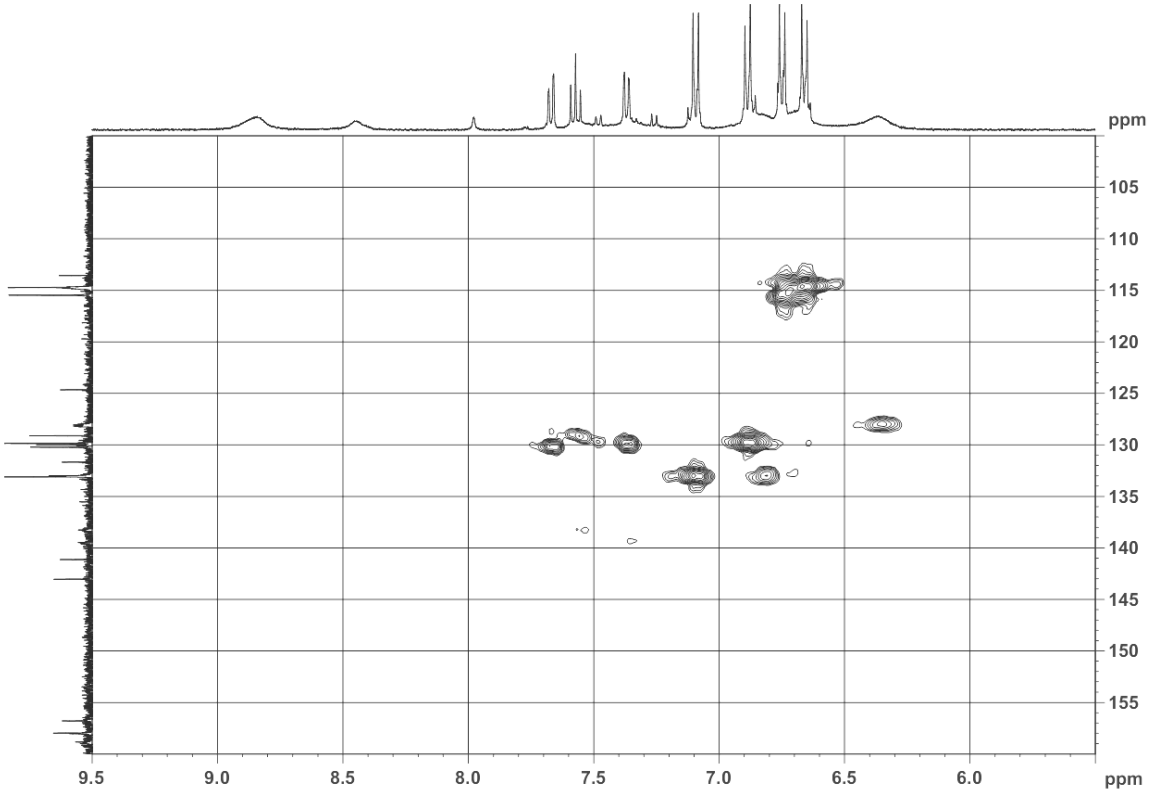


Figure S20: HMBC of compound **4**

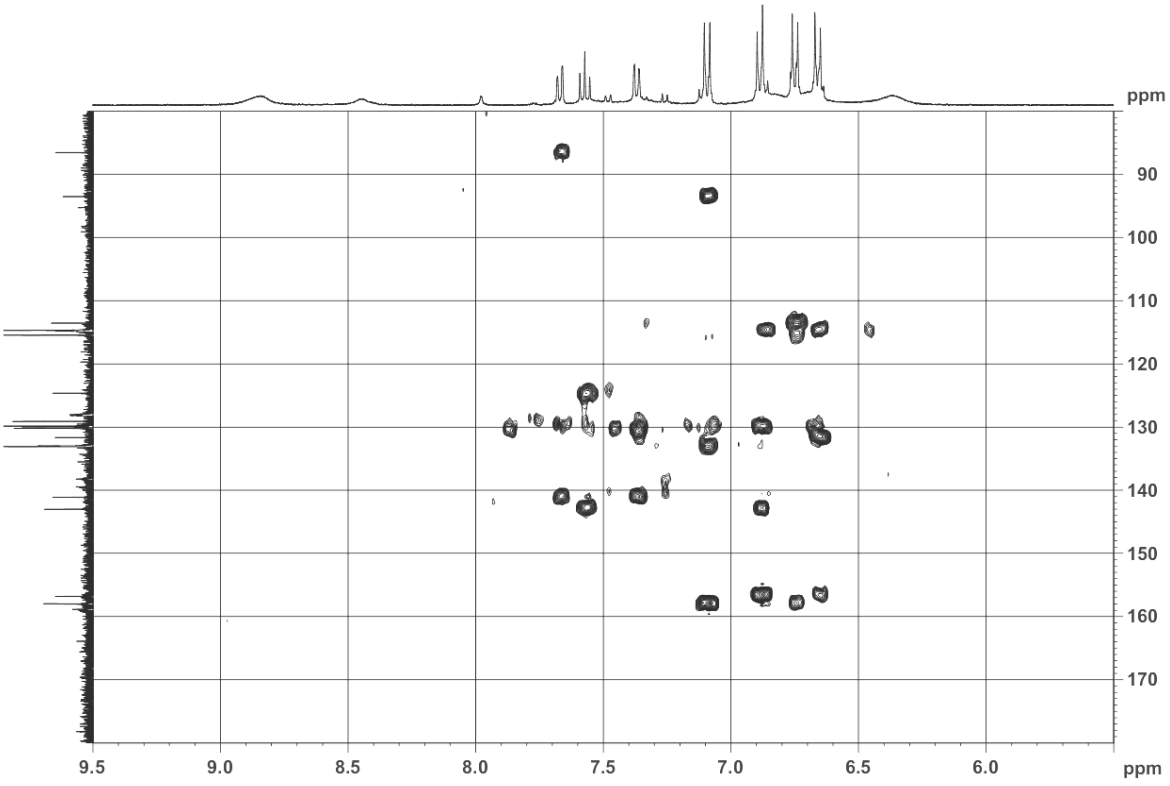


Table S1: Cytotoxic activity of compounds **1**–**3** evaluated with MTT assay.

Compounds	IC_{50} (μM ± SD)[a]
1	26.4 ± 0.80
2	28.5 ± 0.64
3	33.1 ± 1.21
Cisplatin[b]	15.4 ± 1.10

[a]The values represent means ± SD of three independent experiments

[b]Positive control

Table S2: Antioxidant activity of compounds **1**–**3** evaluated with ABTS and FRAP assays[a]

Compounds	ABTS assay	FRAP assay
	IC_{50} (μM ± SD)	Fe^{II} (μmol/μmol ± SD)
1	2.94 ± 0.014	1.10 ± 0.058
2	3.02 ± 0.029	1.05 ± 0.056
3	3.07 ± 0.012	0.94 ± 0.050
Trolox[b]	5.23 ± 0.019	0.87 ± 0.043

[a]Values are mean ± SD of three separated experiments.

[b]Reference compound.