

Supporting Information

Quantitative Analysis of Bioactive Phenanthrenes in *Dioscorea batatas* Decne Peel, a Discarded Biomass from Postharvest Processing

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Contents

- 1) **Figure S1.** ^1H and ^{13}C NMR spectra of compound **1** (^1H -500MHz, ^{13}C -125MHz, Acetone- d_6)
- 2) **Figure S2.** ^1H and ^{13}C NMR spectra of compound **2** (^1H -500MHz, ^{13}C -125MHz, Acetone- d_6)
- 3) **Figure S3.** ^1H and ^{13}C NMR spectra of compound **3** (^1H -500MHz, ^{13}C -125MHz, Acetone- d_6)
- 4) **Table S1.** DPPH radical scavenging activity of compounds **1-3**, DBP and DBF extracts.
- 5) **Table S2.** ABTS+ radical scavenging activity of compounds **1-3**, DBP and DBF extracts.

Figure S1. ^1H and ^{13}C NMR spectra of compound 1 (^1H -500MHz, ^{13}C -125MHz, Acetone- d_6)

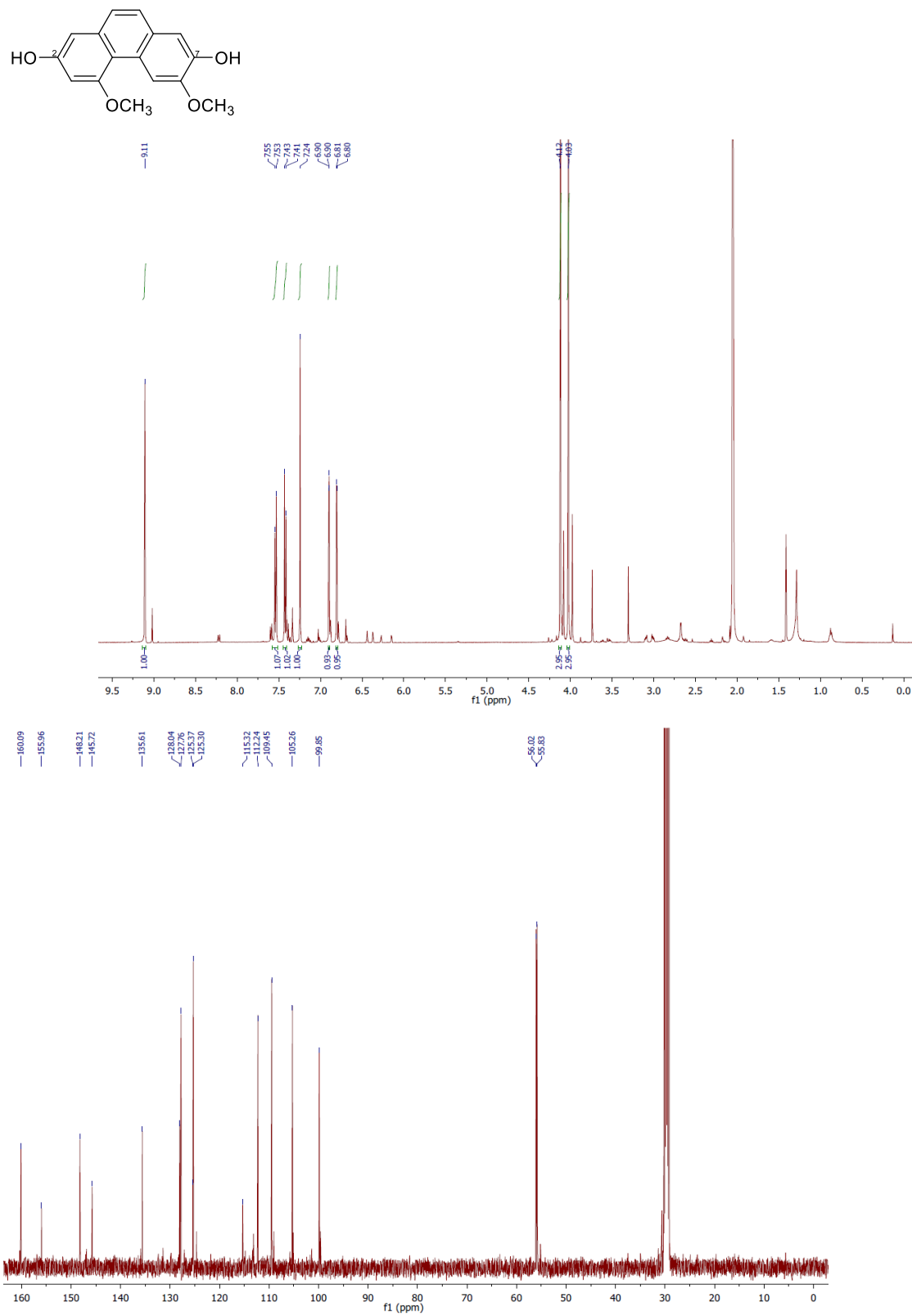


Figure S2. ^1H and ^{13}C NMR spectra of compound 2 (^1H -500MHz, ^{13}C -125MHz, Acetone- d_6)

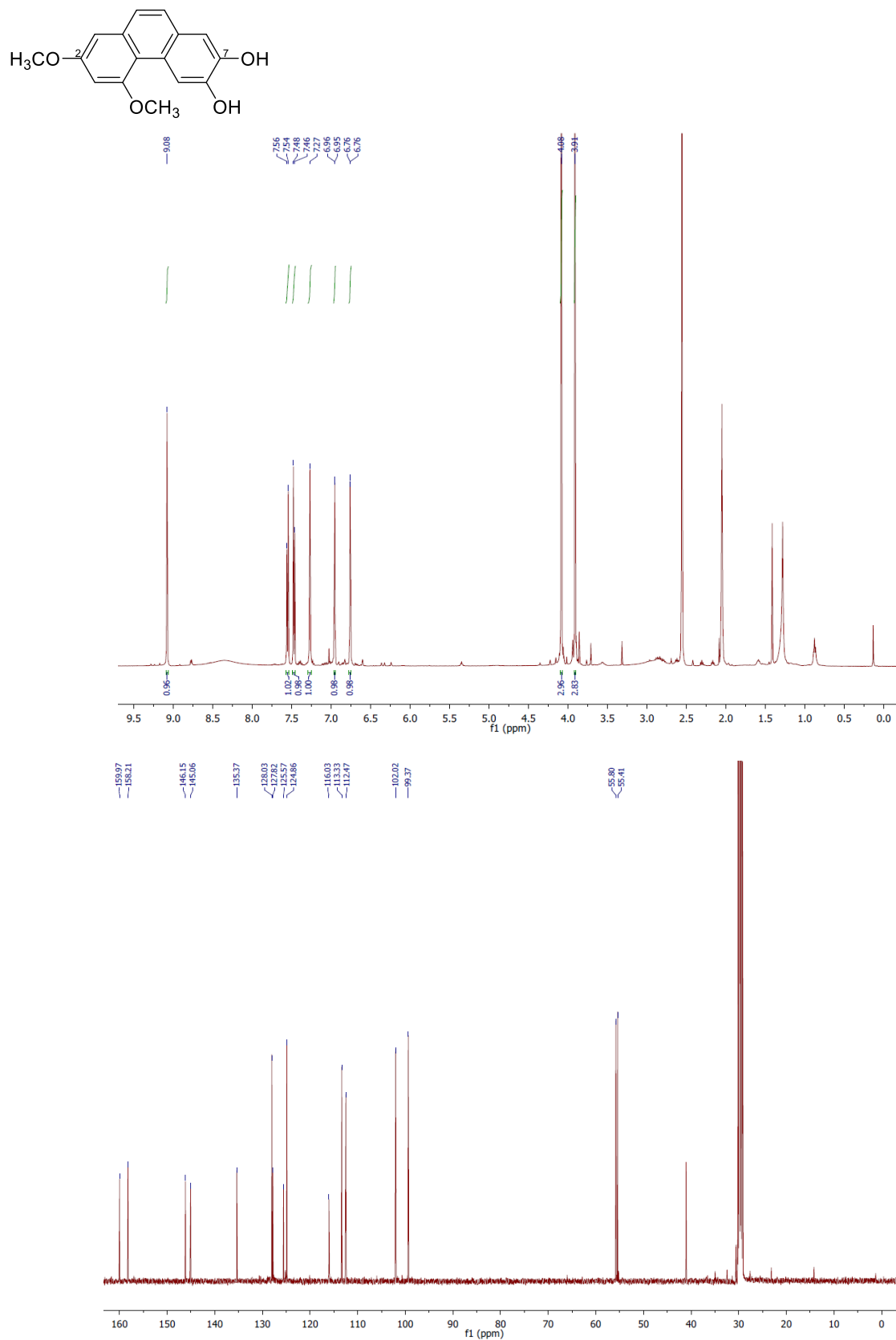


Figure S3. ^1H and ^{13}C NMR spectra of compound 3 (^1H -500MHz, ^{13}C -125MHz, $\text{DMSO-}d_6$)

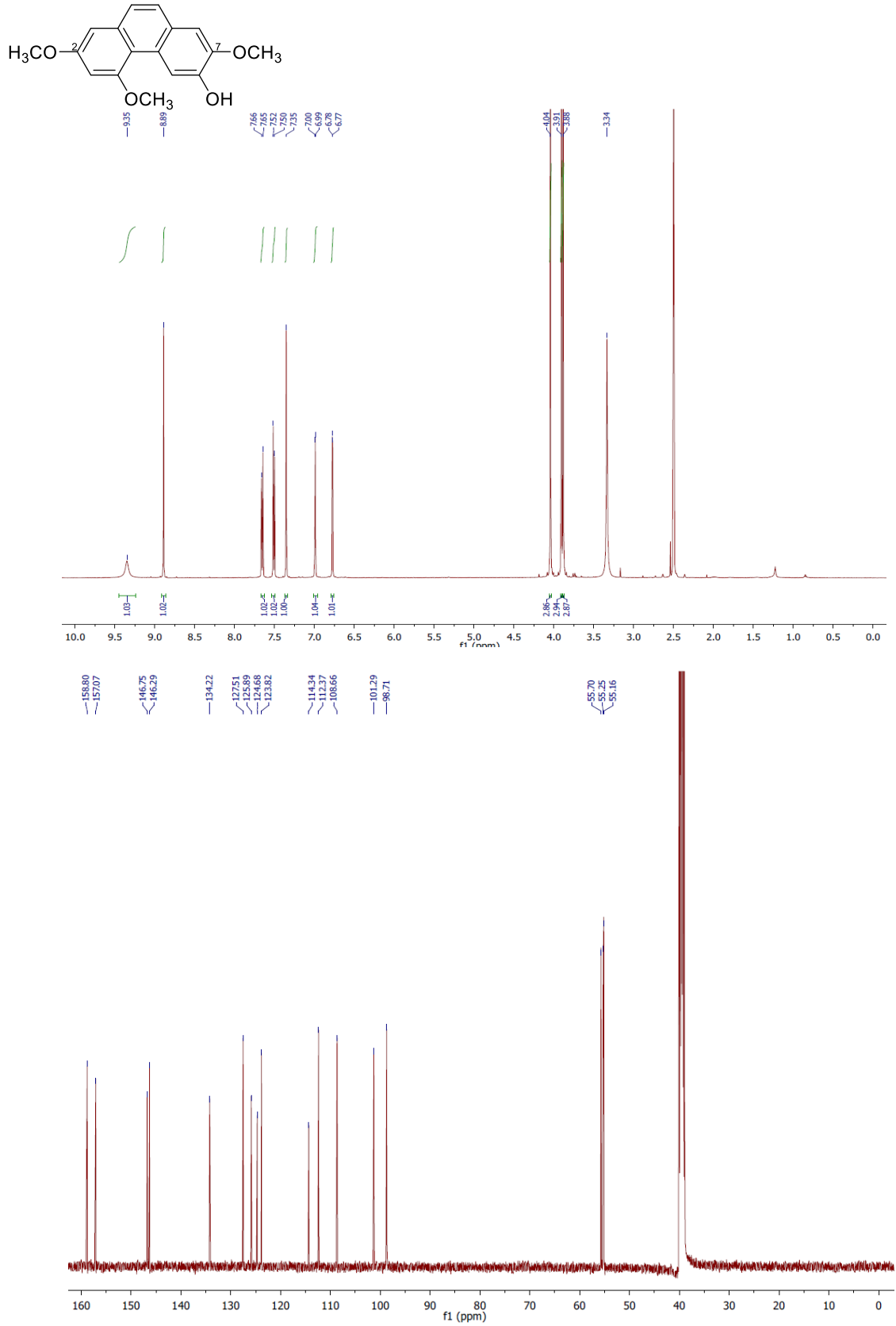


Table S1. DPPH radical scavenging activity of compounds **1-3**, DBP and DBF extracts.

Sample	Concentration (mg/mL)	% Reduction	IC ₅₀ (mg/mL)
<i>L</i> -Ascorbic acid	0.1000	91.35 ± 0.82	0.0431
	0.0500	56.33 ± 1.24	
	0.0250	41.70 ± 3.75	
	0.0125	21.83 ± 1.44	
1	0.1000	79.34 ± 6.28	0.0645
	0.0500	34.93 ± 0.27	
	0.0250	22.14 ± 1.02	
	0.0125	7.34 ± 3.63	
2	0.2500	83.54 ± 2.16	0.1543
	0.1250	40.16 ± 4.74	
	0.0625	17.64 ± 2.59	
	0.0313	6.42 ± 1.02	
3	1.0000	72.62 ± 6.02	0.5656
	0.5000	57.95 ± 0.69	
	0.2500	35.76 ± 1.02	
	0.1250	7.95 ± 0.99	
DBF	10.000	61.22 ± 2.53	7.6758
	5.000	40.96 ± 4.13	
	2.500	18.17 ± 4.32	
	1.250	3.23 ± 3.42	
DBP	1.000	52.31 ± 2.14	0.9441
	0.500	26.46 ± 6.33	
	0.250	9.08 ± 1.64	
	0.125	1.27 ± 1.25	

Table S2. ABTS+ radical scavenging activity of compounds **1-3**, DBP and DBF extracts.

Sample	Concentration (mg/mL)	% Reduction	IC ₅₀ (mg/mL)
<i>L</i> -Ascorbic acid	0.1000	91.80 ± 0.30	0.0499
	0.0500	58.58 ± 7.62	
	0.0250	32.39 ± 4.67	
	0.0125	6.24 ± 4.99	
1	0.1000	88.76 ± 1.04	0.0482
	0.0500	64.35 ± 1.62	
	0.0250	29.68 ± 3.17	
	0.0125	12.55 ± 0.64	
2	0.2000	56.76 ± 6.16	0.1534
	0.1000	44.78 ± 3.72	
	0.0500	32.10 ± 2.79	
	0.0250	14.34 ± 0.68	
3	1.0000	86.68 ± 0.57	0.2965
	0.5000	79.98 ± 1.23	
	0.2500	40.83 ± 4.38	
	0.1250	34.87 ± 7.55	
DBF	10.000	92.27 ± 0.01	3.4269
	5.000	75.45 ± 1.44	
	2.500	43.82 ± 3.34	
	1.250	25.52 ± 2.16	
DBP	1.000	64.41 ± 2.57	0.7708
	0.500	32.7 ± 1.81	
	0.250	17.9 ± 0.58	
	0.125	9.71 ± 2.33	