Synthesis of Lakshminine and Antiproliferative Testing of Related Oxoisoaporphines

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Supporting information

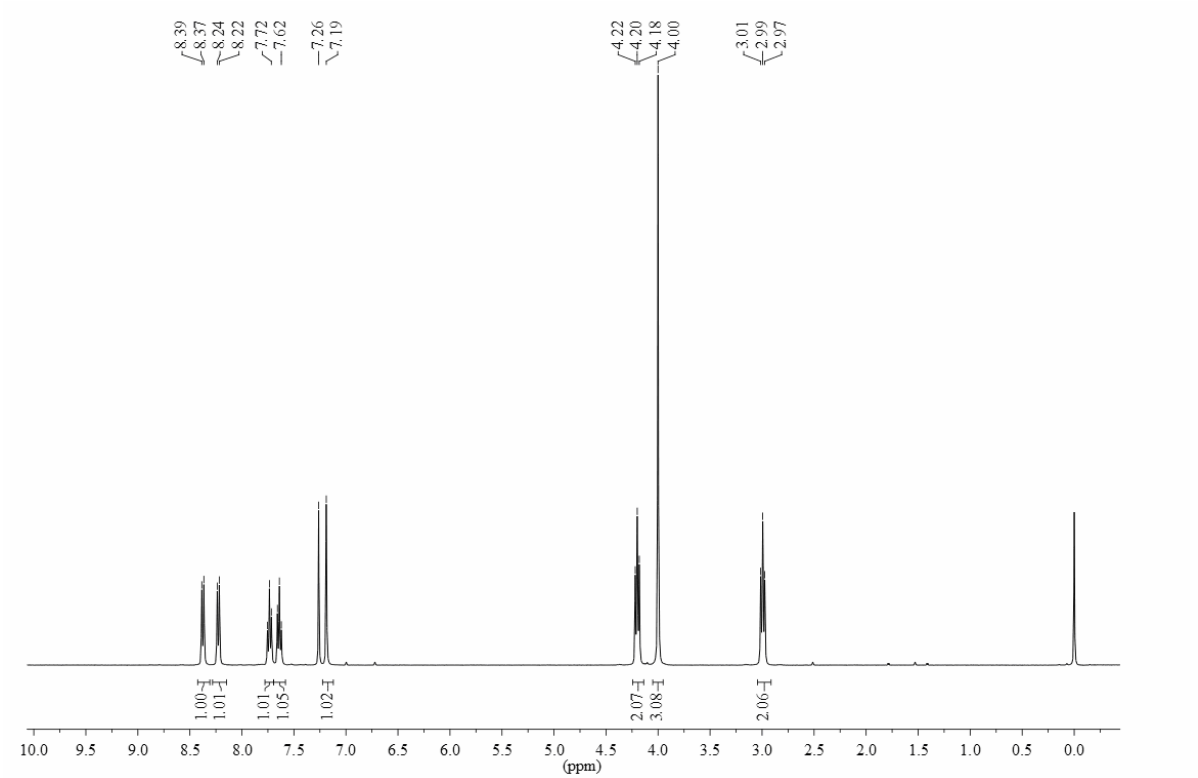
Contents

Compound	Cell line IC_{50} ± SEM (μM)			
	MRC-5 [a]	**AGS** [b]	**SK-MES-1**[c]	**J82** [d]
1	17.9 ± 0.7	78.6 ± 3.9	43.3 ± 3.4	37.6 ± 2.6
2	37.0 ± 1.9	> 100	> 100	> 100
6	> 100	> 100	> 100	> 100
8	80.0 ± 4.8	47.7 ± 2.9	> 100	48.3 ± 2.4
10	10.2 ± 0.5	4.5 ± 0.3	17.1 ± 1.0	25.4 ± 1.3
11	41.6 ± 2.9	32.9 ± 1.6	> 100	93.6 ± 5.7
ETO	3.9 ± 0.2	0.36 ±0.02	2.5 ± 0.2	2.8 ± 0.2

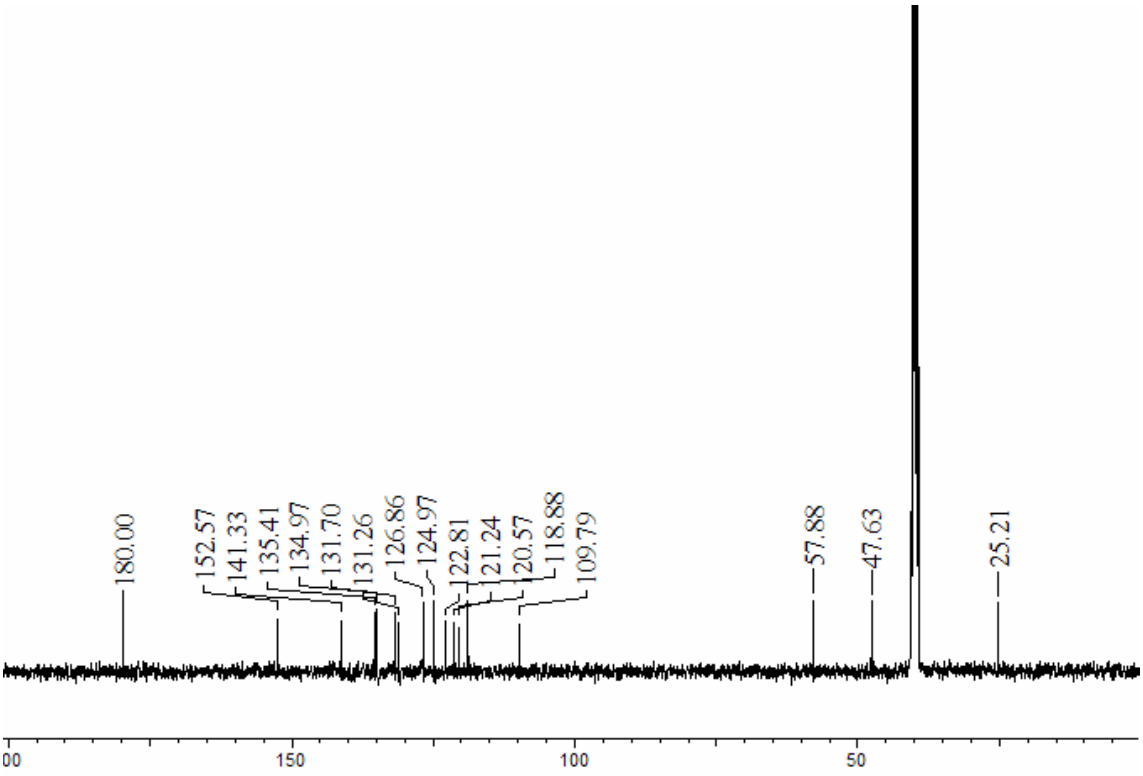
Results are shown as the means of the concentrations (μM) inhibiting cell growth by 50% ± SEM (three independent determinations). All compounds were tested as free bases.

[a] MRC-5: normal lung fibroblasts (CCL-171); [b]AGS: gastric adenocarcinoma cells (CRL-1739); [c] SK-MES-1: lung cancer cells (HTB-58); [d] J82: bladder carcinoma (HTB-1).

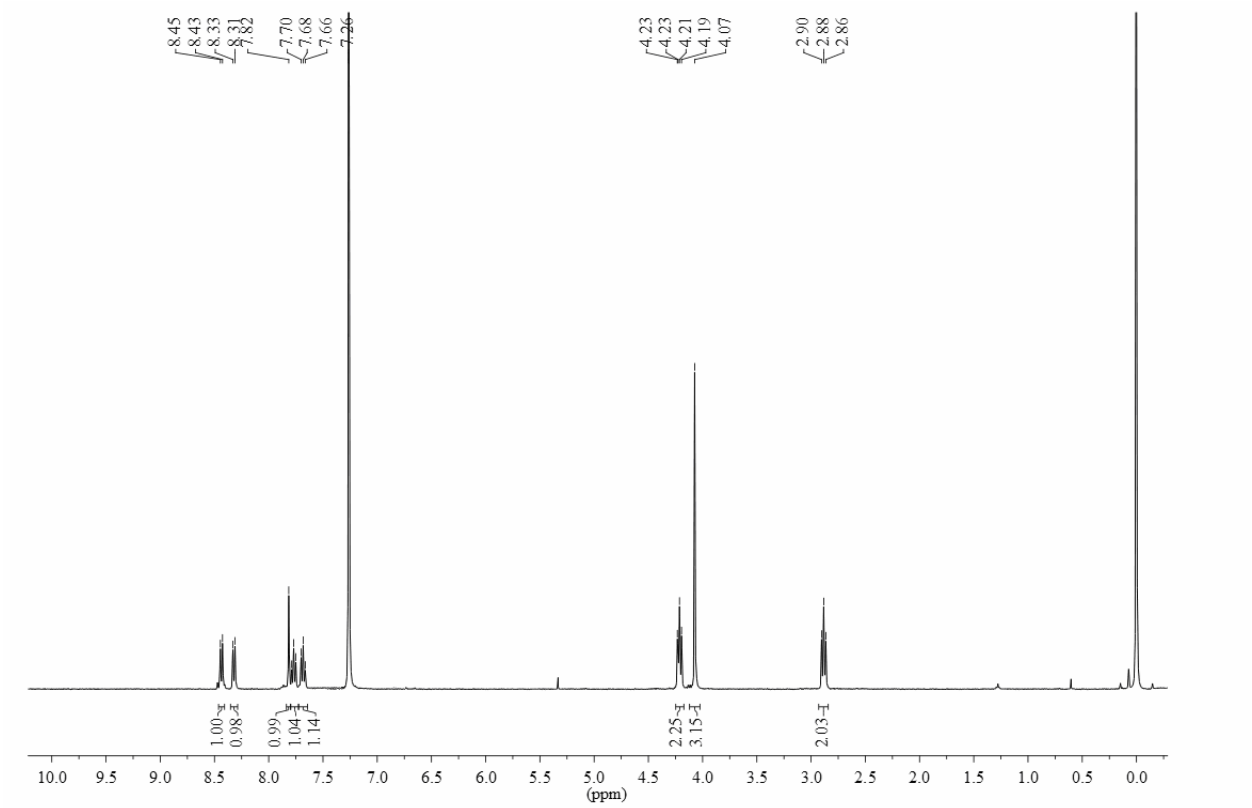
Table 1. In vitro Antiproliferative Activity of Amino-1-azabenzanthrones **1** and **2**, the Related Compounds **6, 8, 10,** and **11**, and Etoposide (**ETO**), Towards Normal and Cancerous Human Cell Lines.



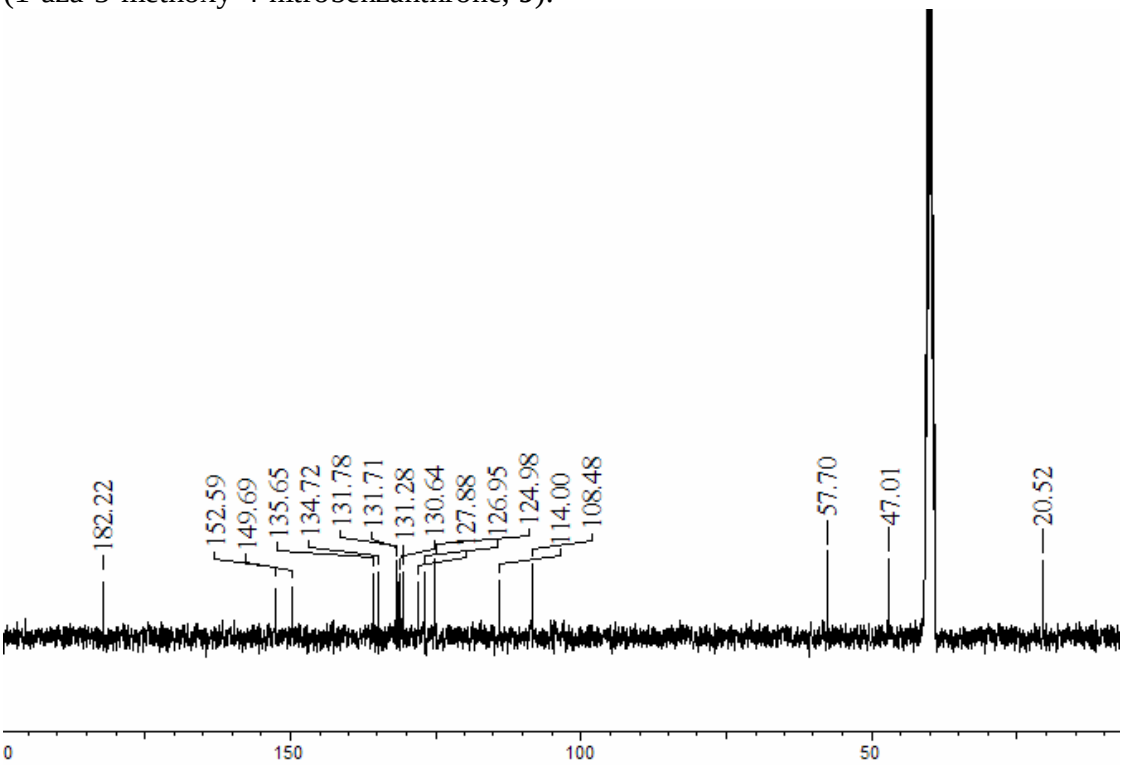
S1. ^{1}H-NMR spectrum of 2,3-dihydro-5-methoxy-6-nitro-7*H*-dibenzo[*de*,*h*]quinolin-7-one (1-aza-5-methoxy-6-nitrobenzanthrone, **7**).



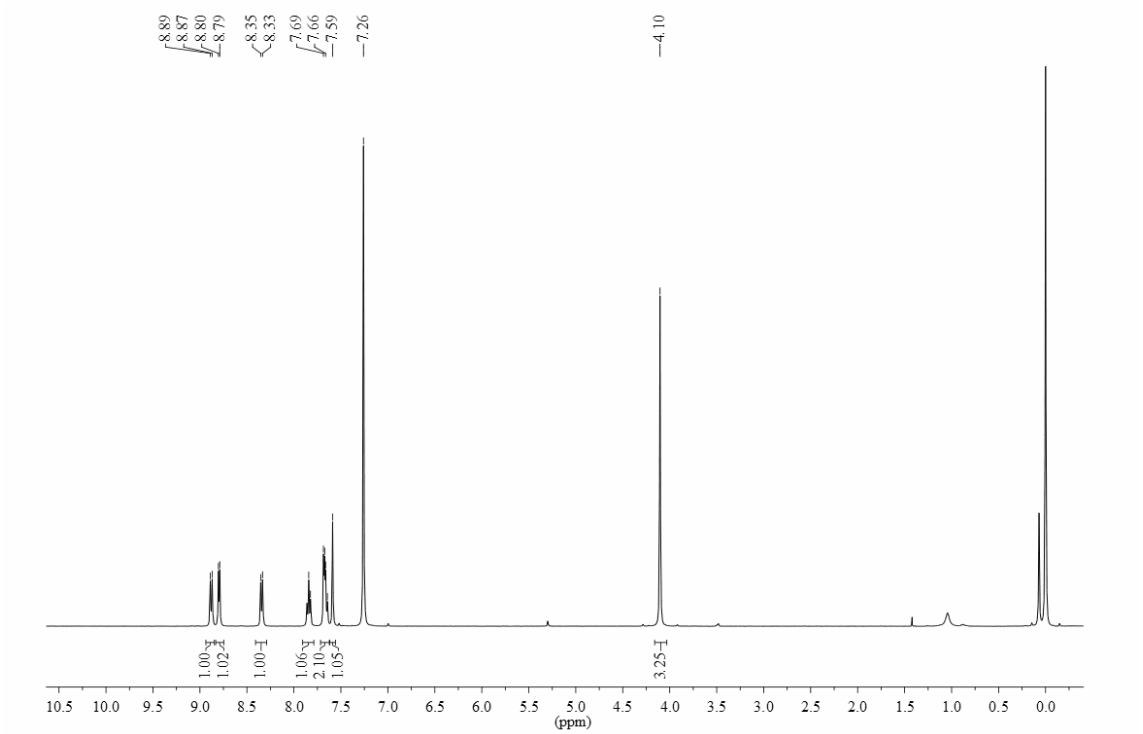
S2. ^{13}C-NMR spectrum of 2,3-dihydro-5-methoxy-6-nitro-7*H*-dibenzo[*de*,*h*]quinolin-7-one (1-aza-5-methoxy-6-nitrobenzanthrone, **7**).



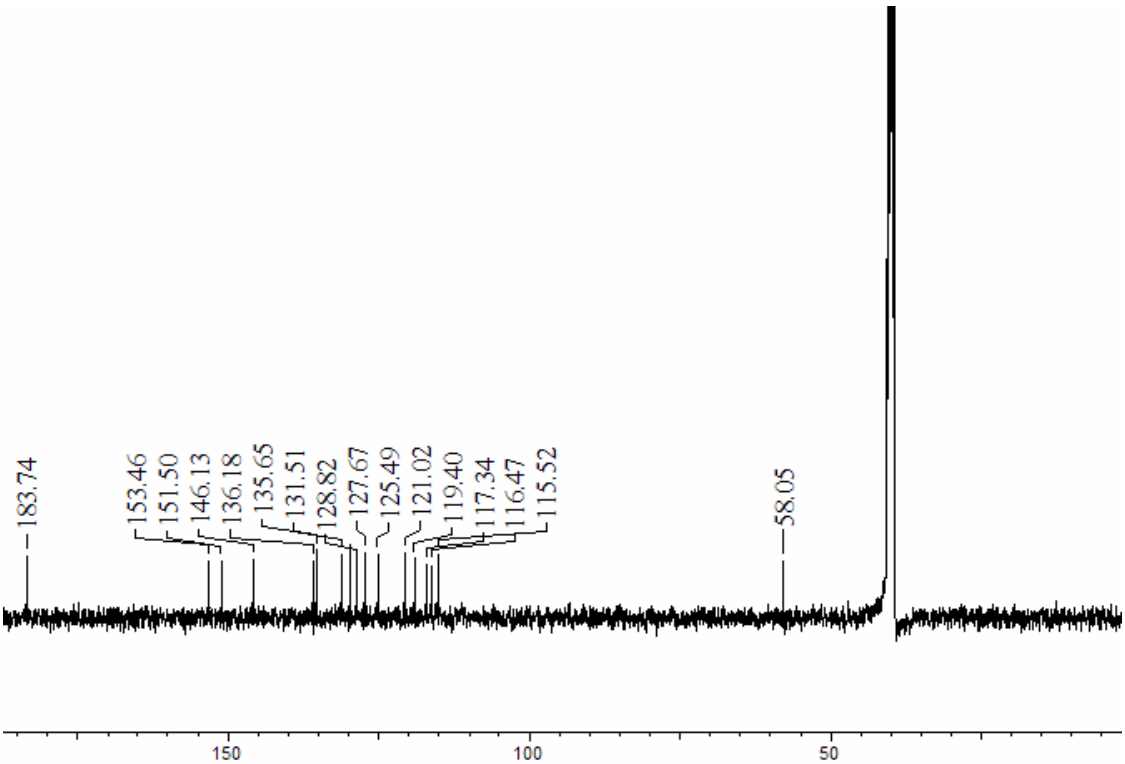
S3. ^{1}H-NMR spectrum of 2,3-dihydro-5-methoxy-4-nitro-7*H*-dibenzo[*de,h*]quinolin-7-one (1-aza-5-methoxy-4-nitrobenzanthrone, **9**).



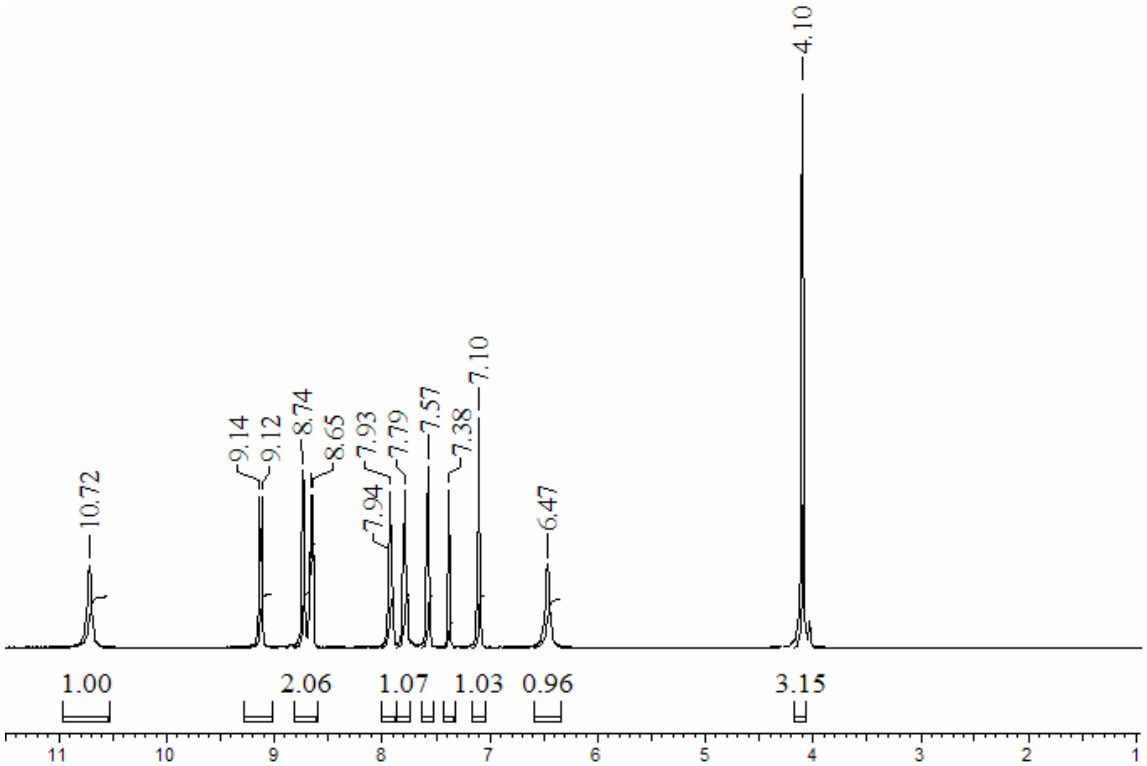
S4. ^{13}C-NMR spectrum of 2,3-dihydro-5-methoxy-4-nitro-7*H*-dibenzo[*de,h*]quinolin-7-one (1-aza-5-methoxy-4-nitrobenzanthrone, **9**).



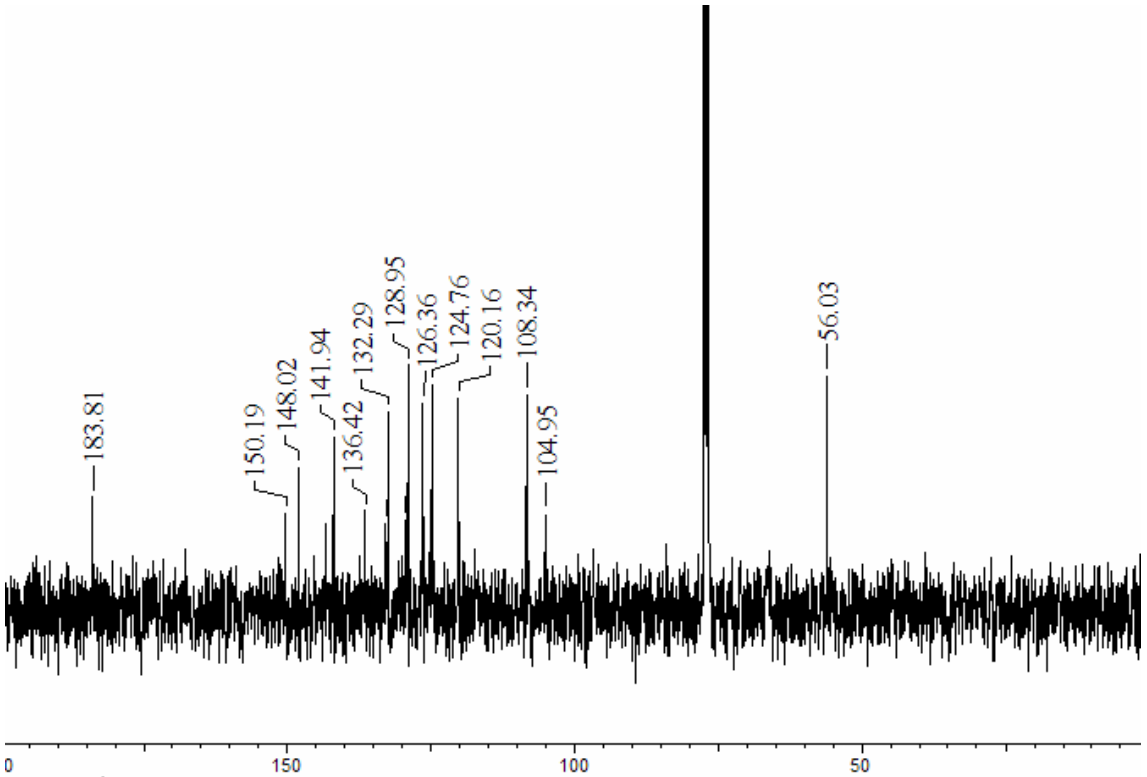
S5. [1]H-NMR spectrum of 5-methoxy-6-nitro-7*H*-dibenzo[*de,h*]quinolin-7-one (1-aza-5-methoxy-6-nitrobenzanthrone, **8**).



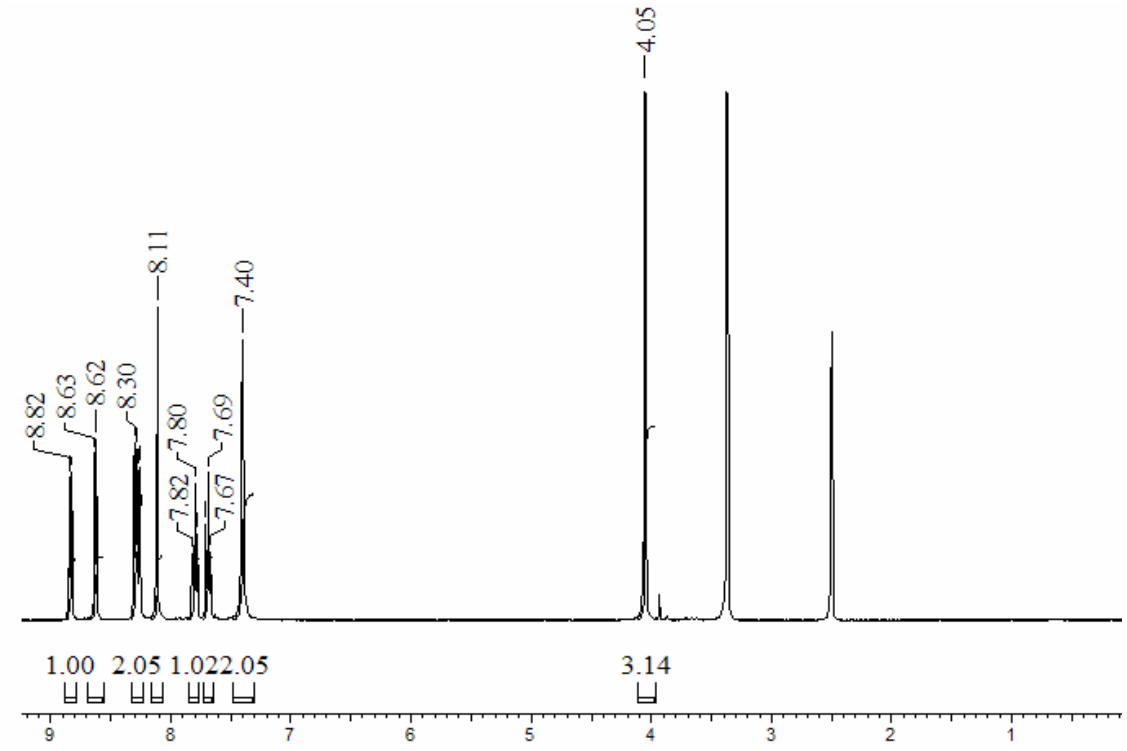
S6. [13]C-NMR spectrum of 5-methoxy-6-nitro-7*H*-dibenzo[*de,h*]quinolin-7-one (1-aza-5-methoxy-6-nitrobenzanthrone, **8**).



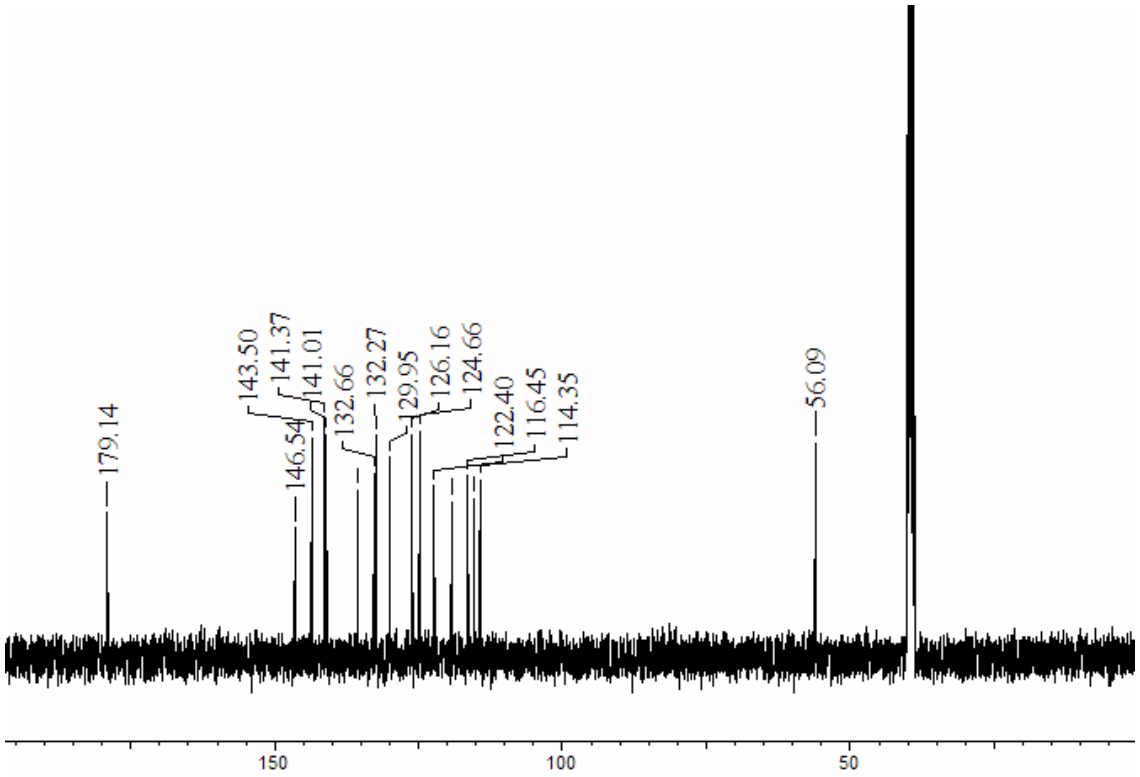
S7. ^{1}H-NMR spectrum of 6-amino-5-methoxy-7*H*-dibenzo[*de,h*]quinolin-7-one (lakshminine, **1**).



S8 ^{13}C-NMR spectrum of 6-amino-5-methoxy-7*H*-dibenzo[*de,h*]quinolin-7-one (lakshminine, **1**).



S9. ^{1}H-NMR spectrum of 4-amino-5-methoxy-7*H*-dibenzo[*de,h*]quinolin-7-one (**2**).



S10. ^{13}C-NMR spectrum of 4-amino-5-methoxy-7*H*-dibenzo[*de,h*]quinolin-7-one (**2**).