Supporting Information

Tel-Cu-Nps catalyst: Synthesis of Naphtho[2,3-g]phthalazine derivatives as potential of inhibit tyrosinase enzymes and their investigation of kinetic, molecular docking, cytotoxicity studies

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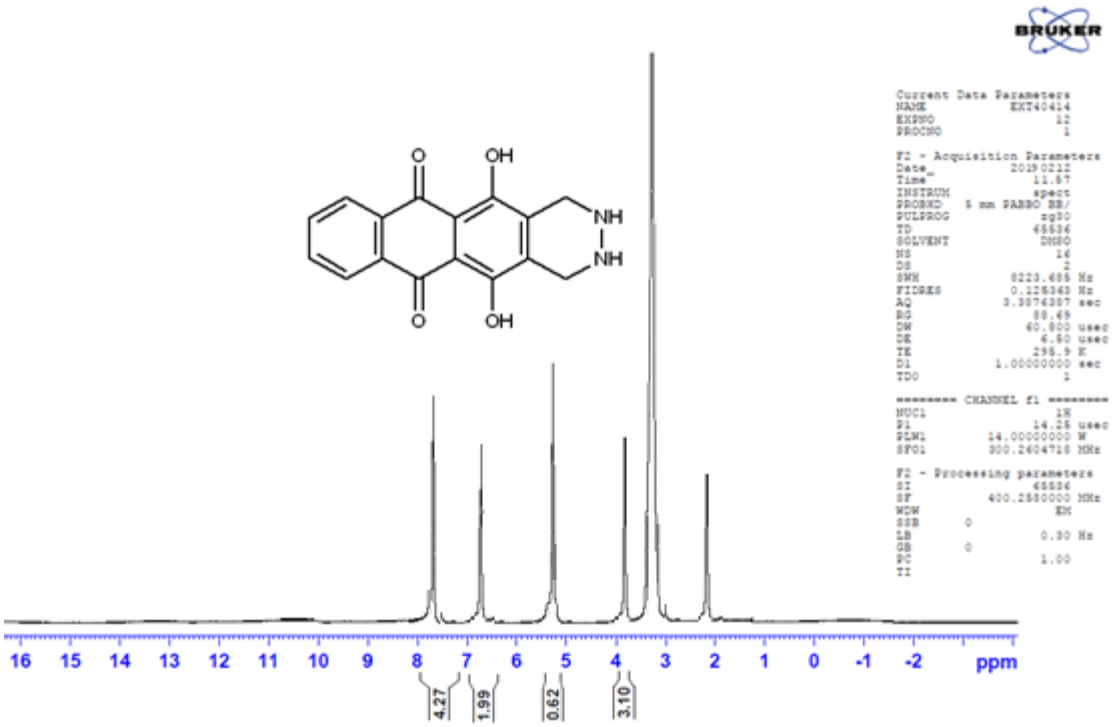
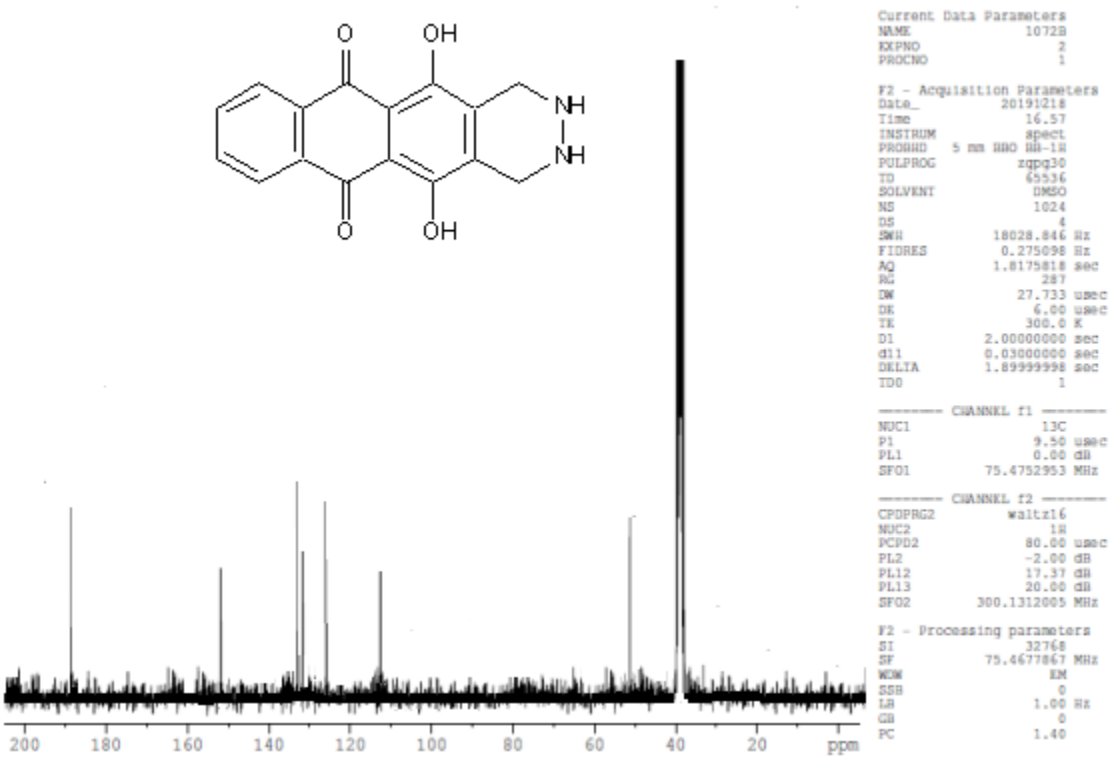
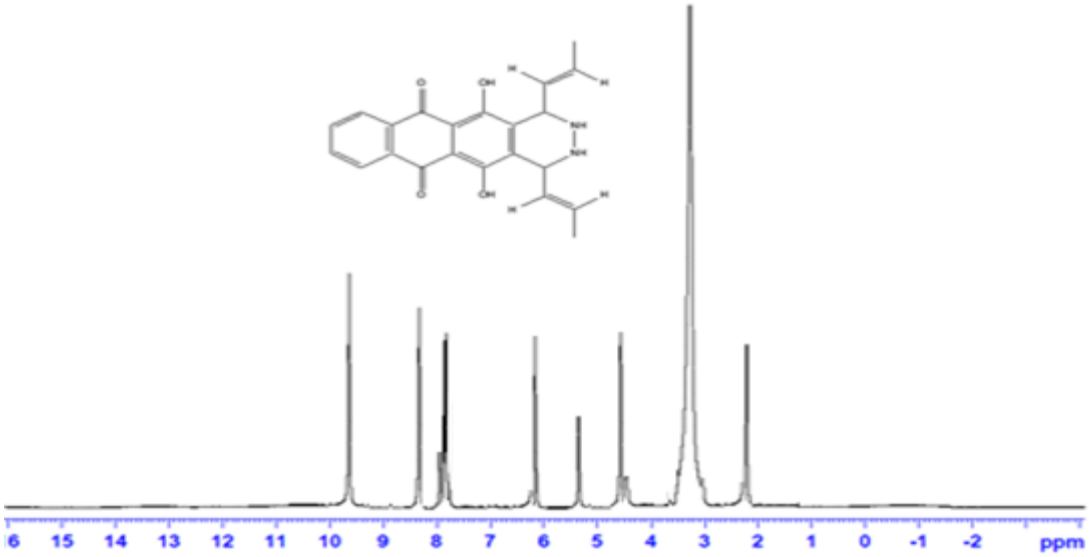


^{1}H NMR spectrum of the compound 1a



^{13}C NMR spectrum of the compound 1a



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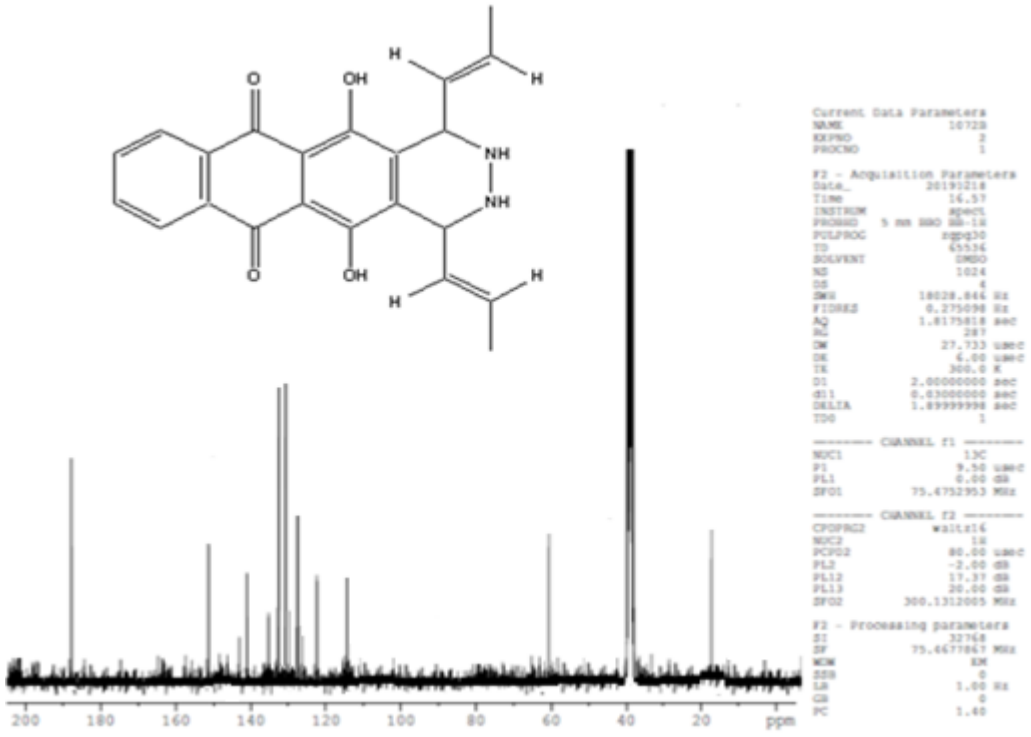

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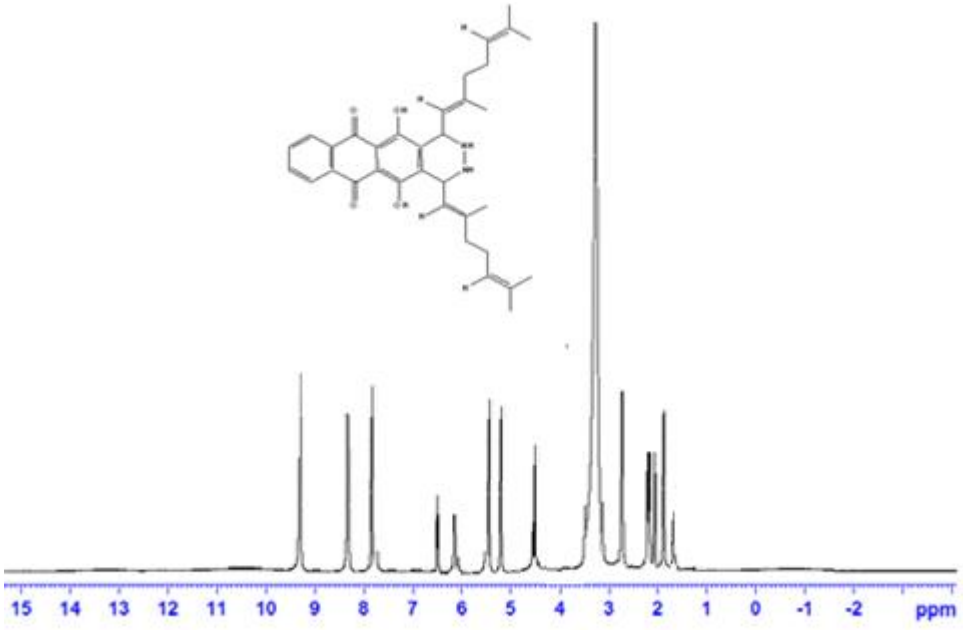

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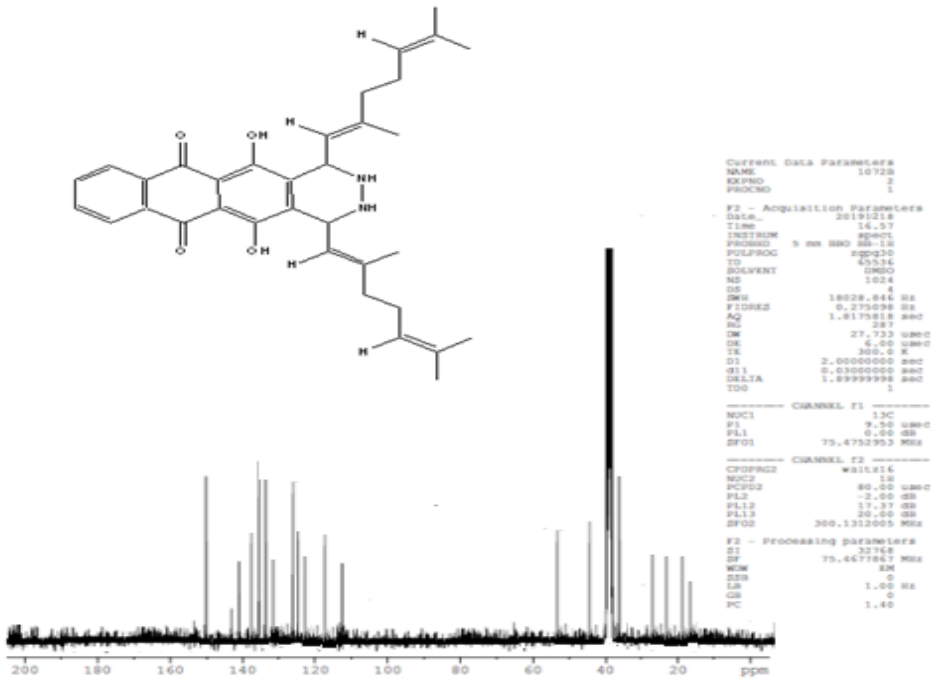

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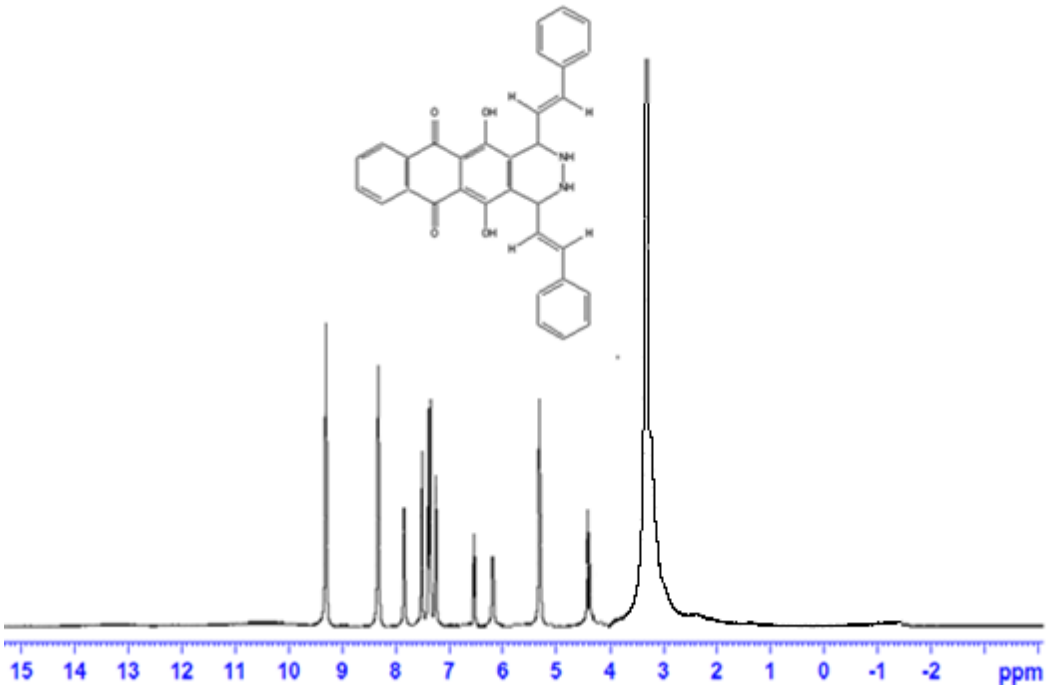

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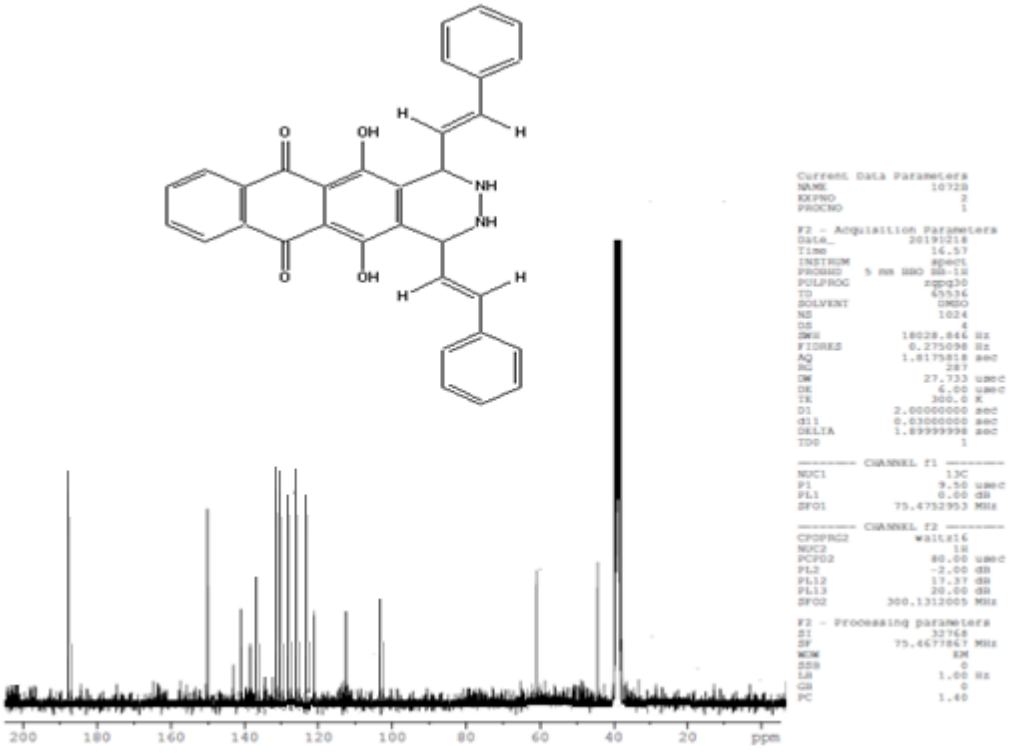

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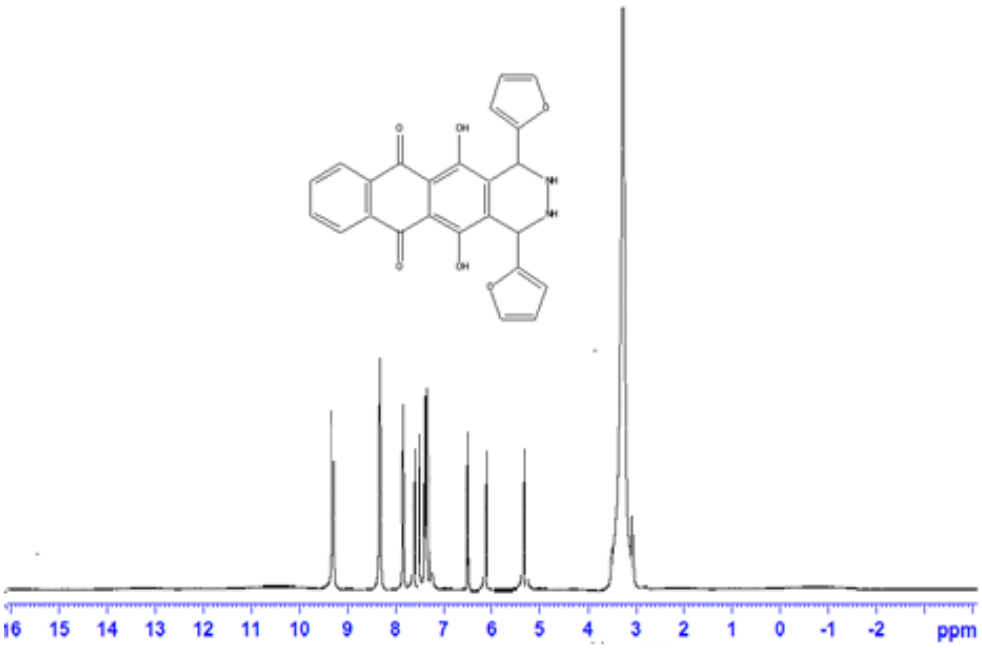

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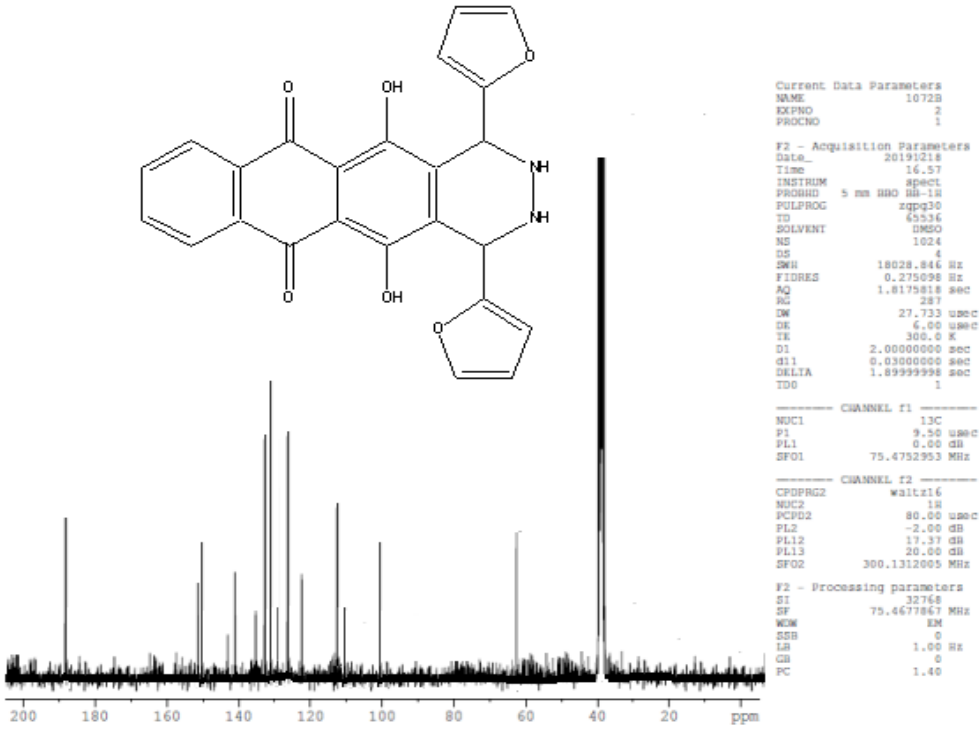

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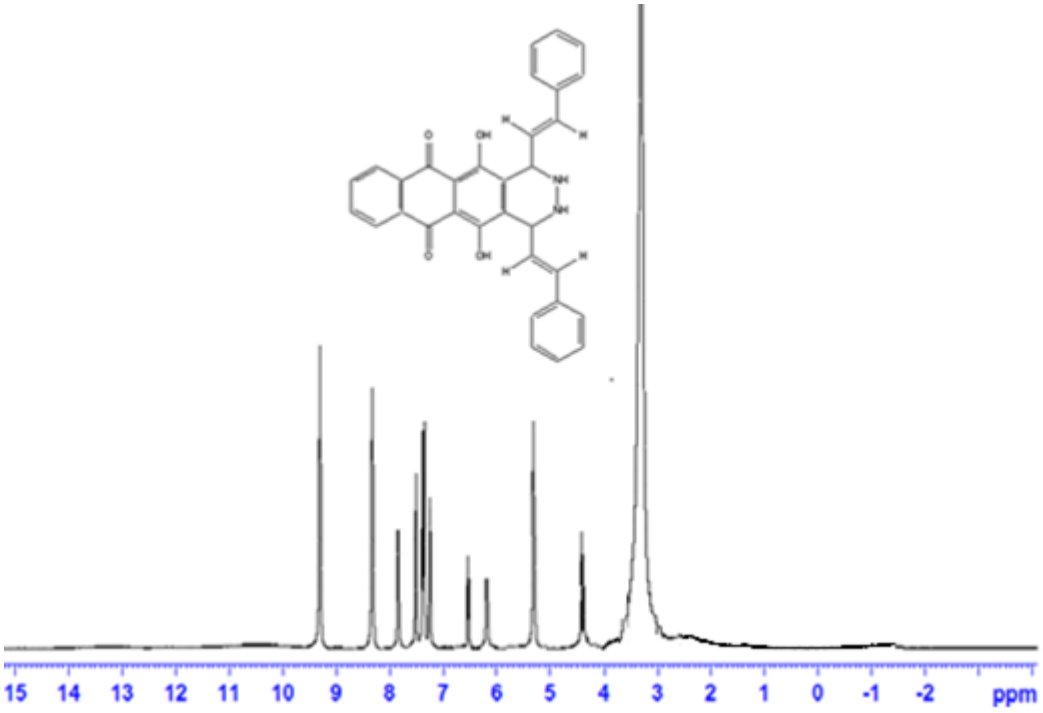

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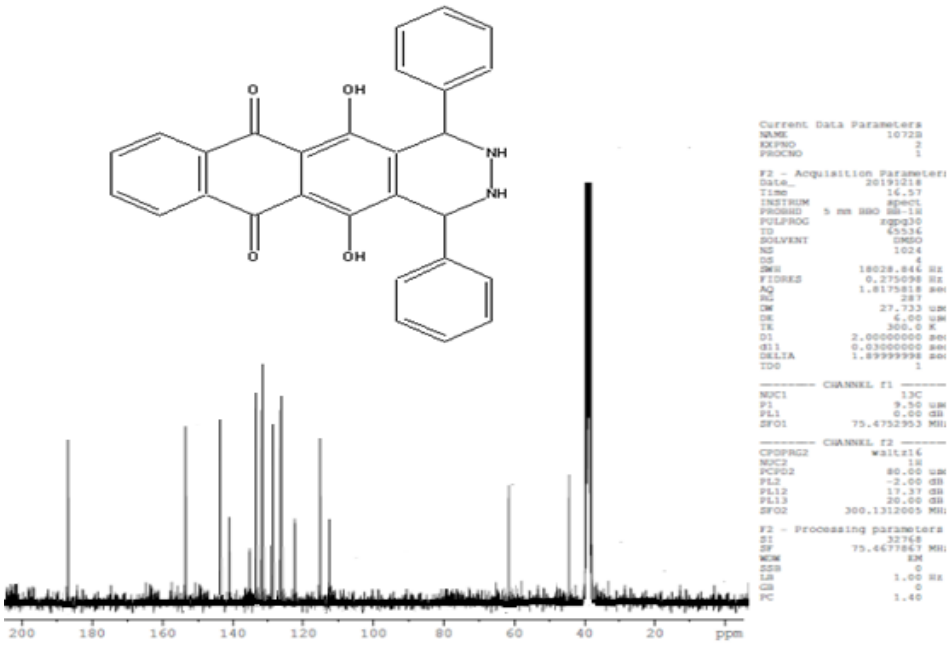
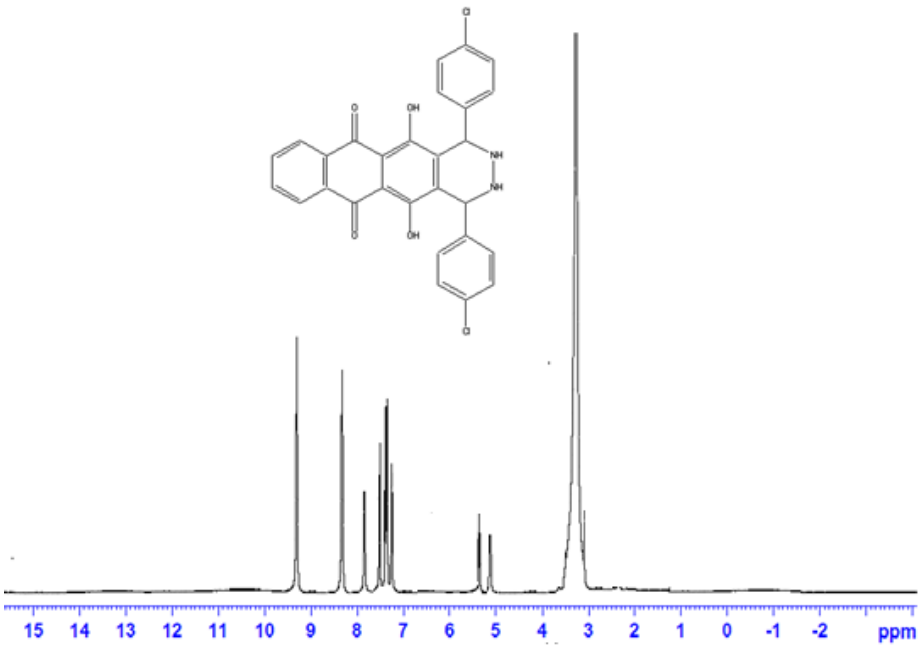


^{13}C NMR spectrum of the compound 1f



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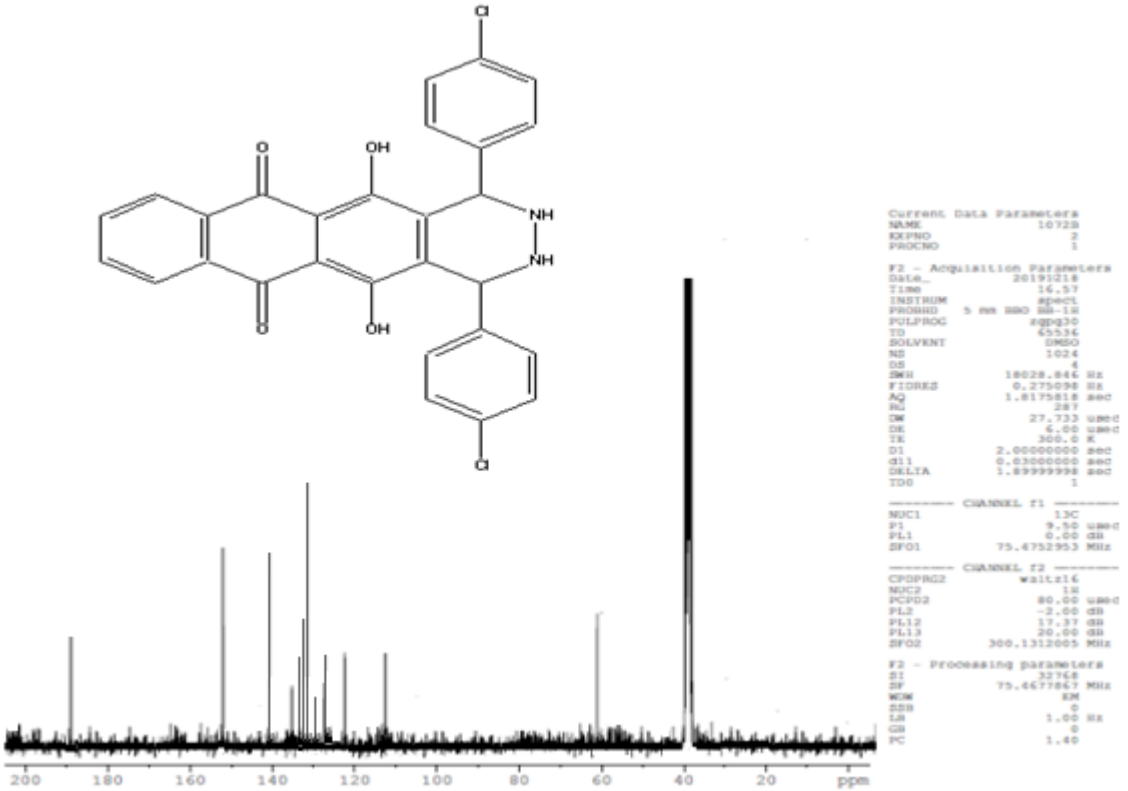
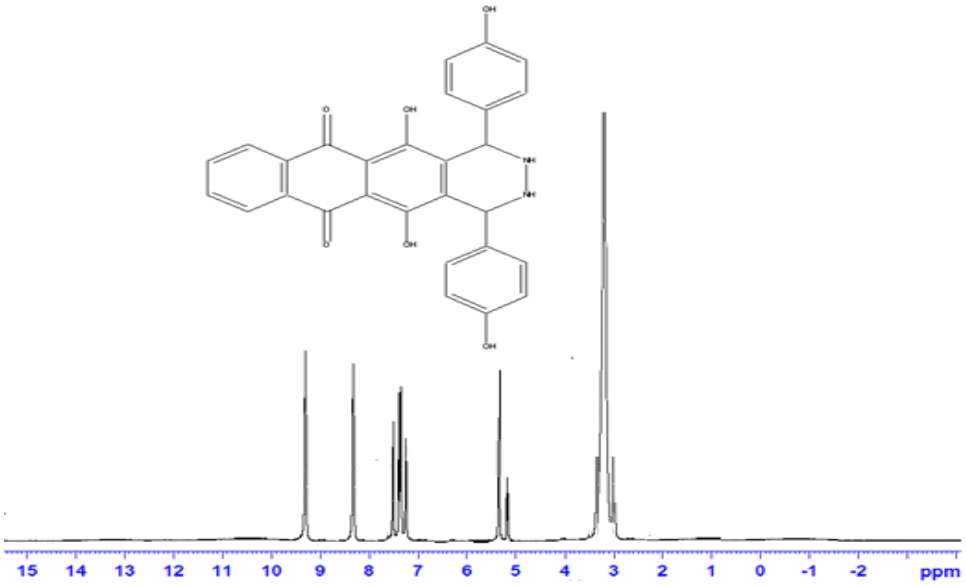


^{13}C NMR spectrum of the compound 1g



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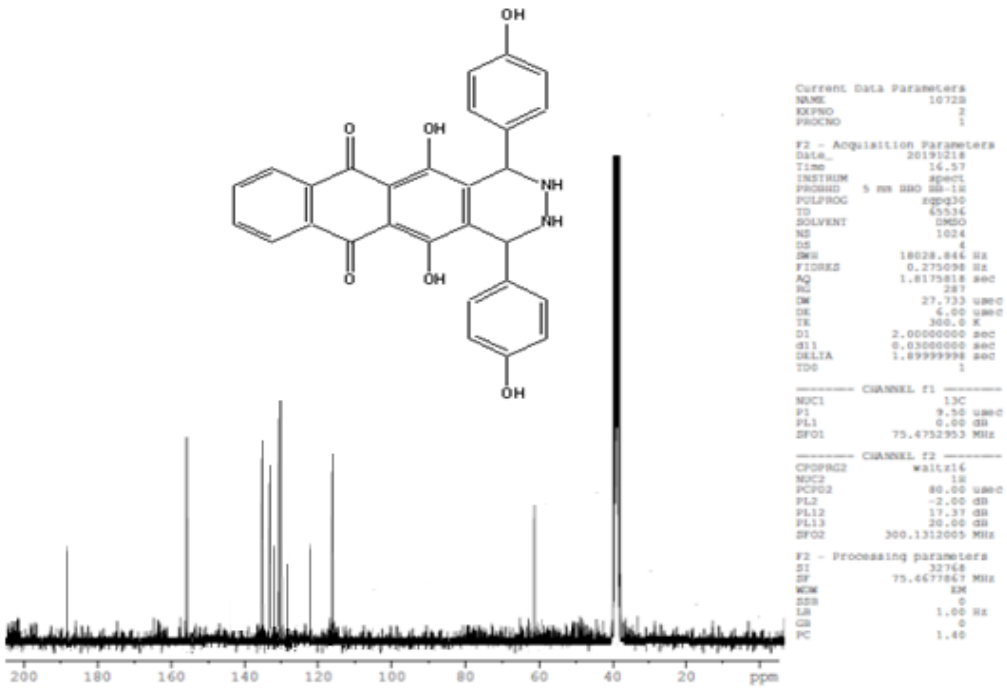
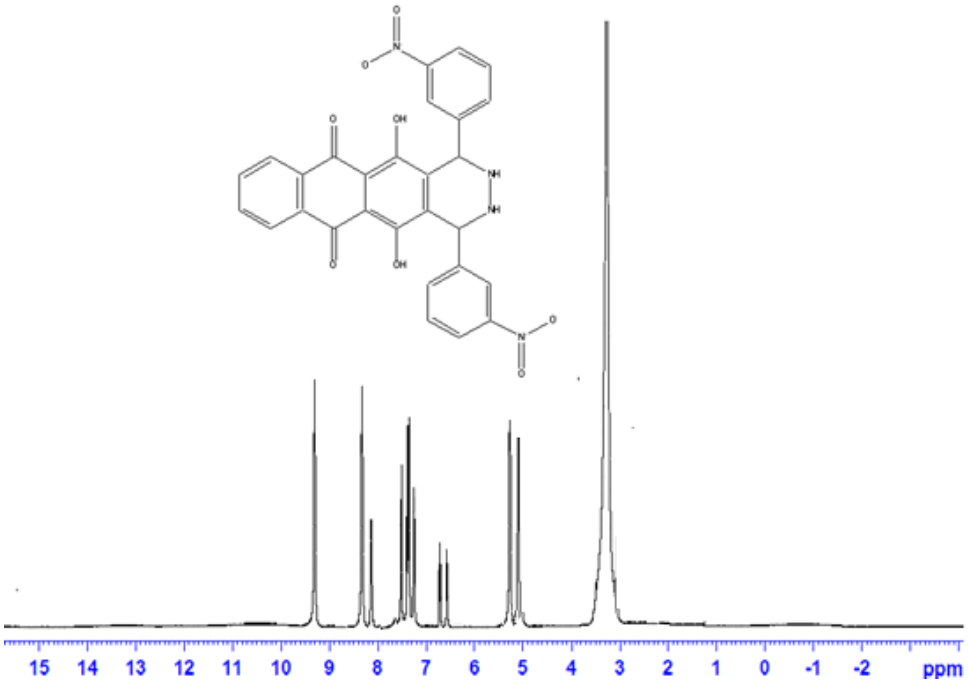


^{13}C NMR spectrum of the compound 1h



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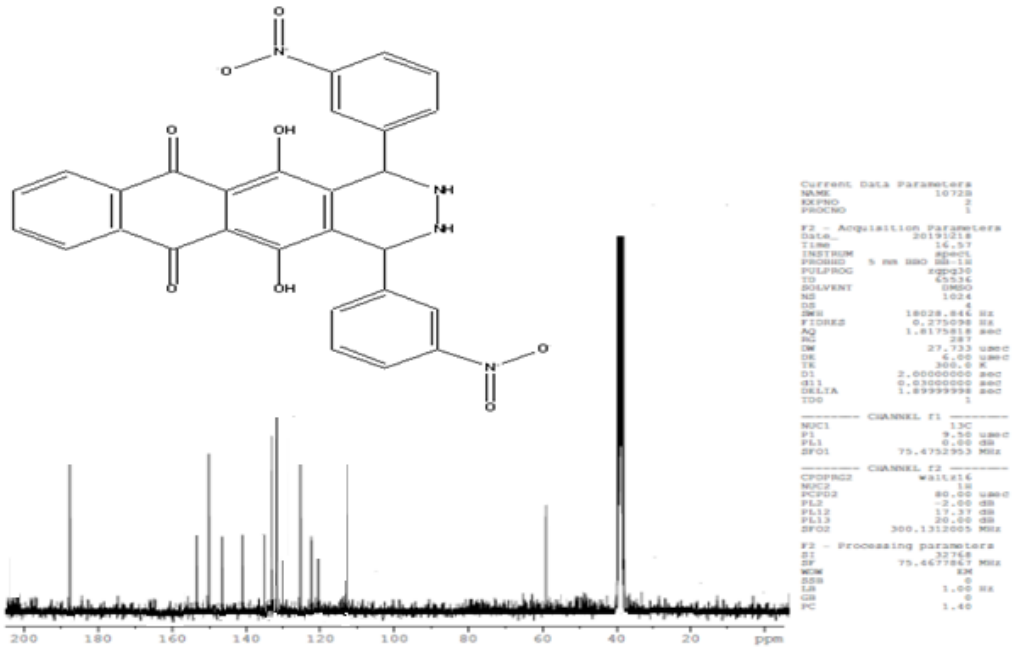
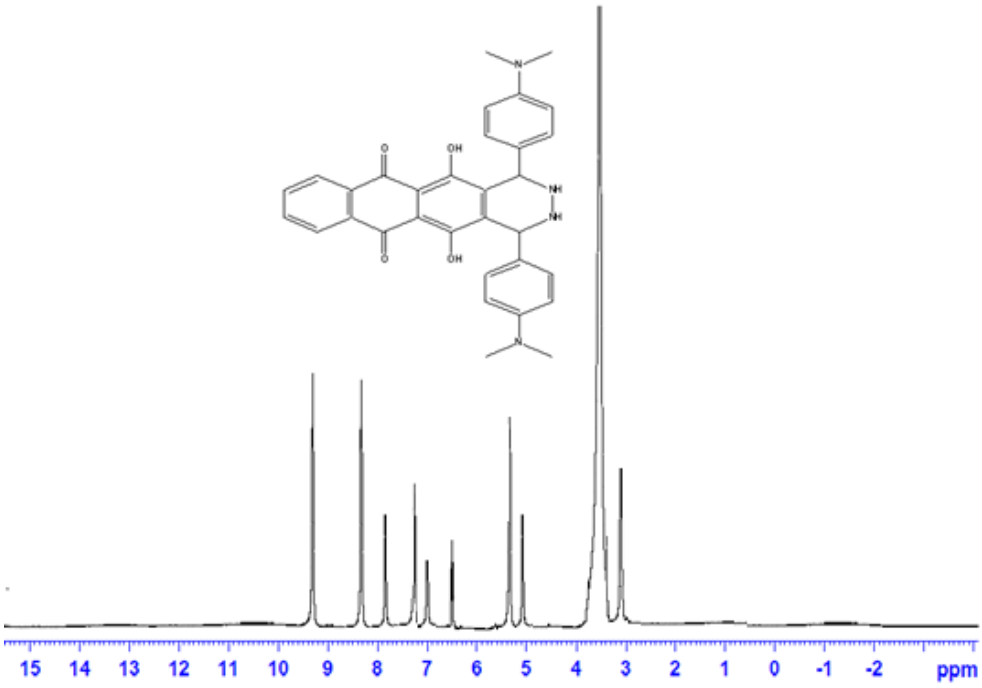
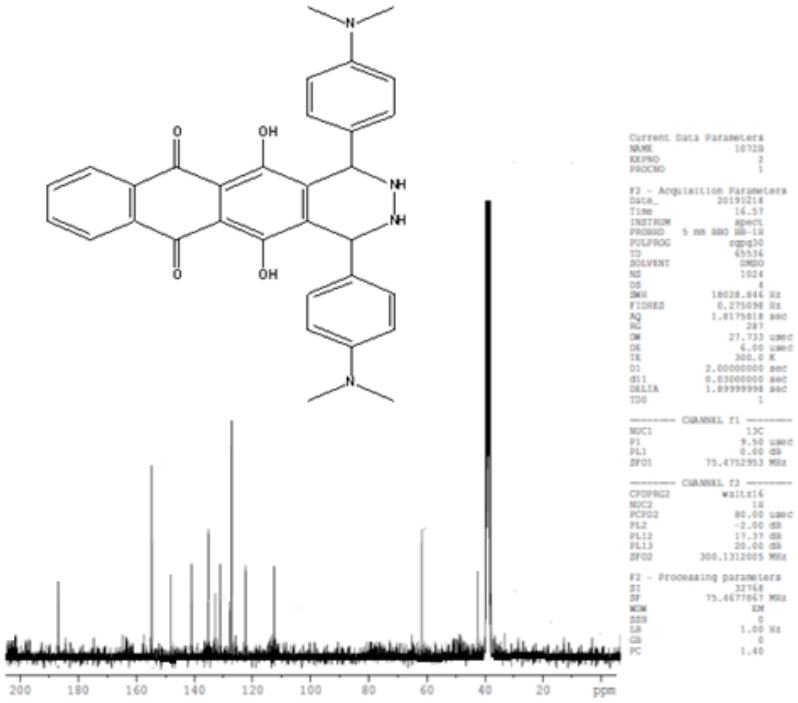


^{13}C NMR spectrum of the compound 1i



^{1}H NMR spectrum of the compound 1j



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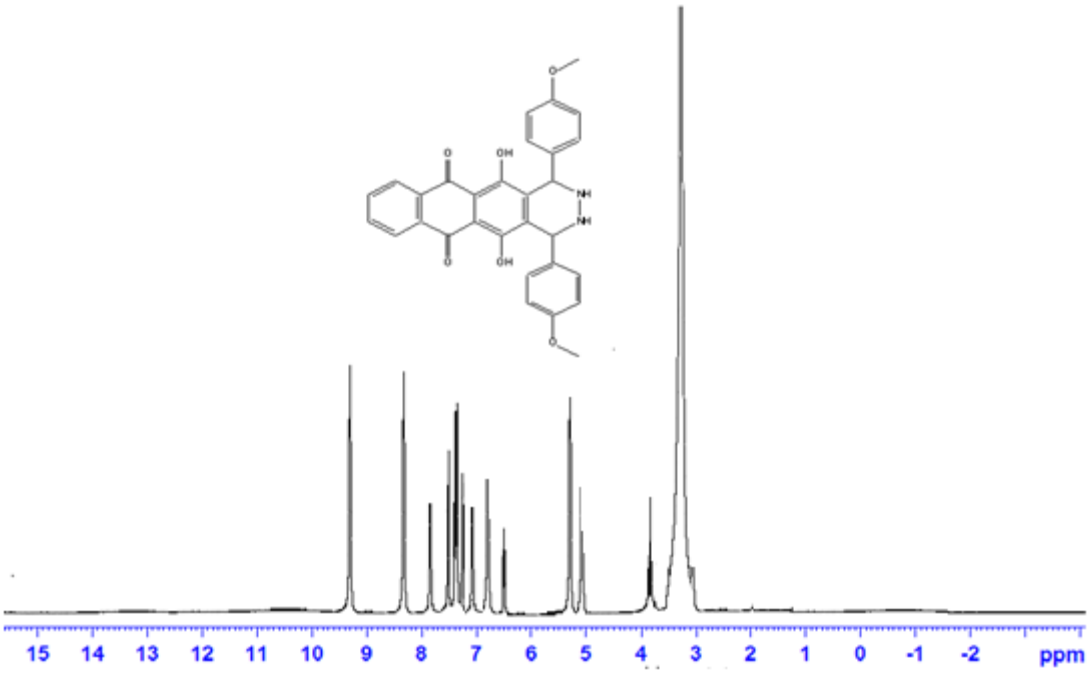

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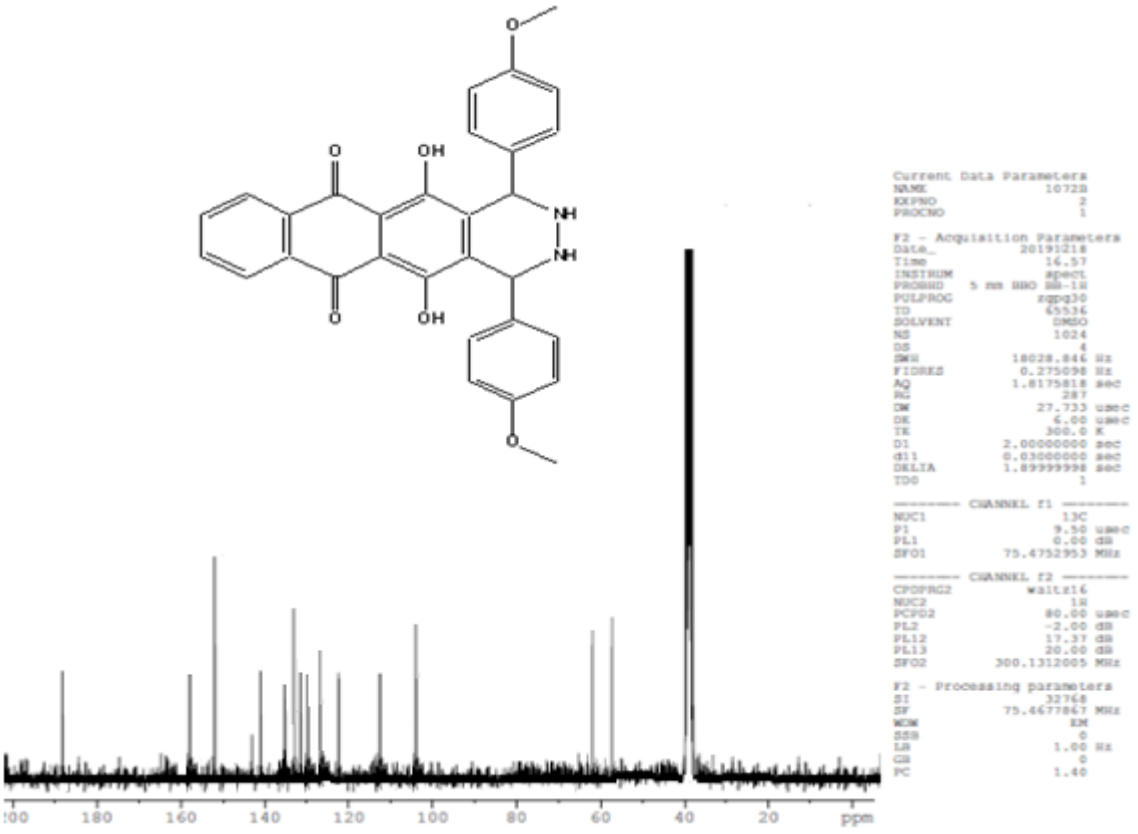

^{13}C NMR spectrum of the compound 1k

Cytotoxic screening

The newly synthesized compounds (1a-k) were screened for their cytotoxic activity according to a previously published procedure [33,34] (Scudiero et al.,1988). Compounds (100 µM) were incubated in a microtiter plate with three different cell lines for 72 h, and cell viability was assessed by MTT assay. The three cell lines were HepG2 (liver), MCF-7(breast), and HeLa(cervical). The percentage of growth of the treated cells compared to that of the untreated control cells was calculated. Compounds that reduced the growth of a cell line by 32% or morewere considered to have antitumor activity.

The measured 0.1mL of the cell suspension (containing 5×10^6 cells/100µL) and 0.1mL of the test solution (6.25-100µg 1% DMSO such that the final concentration of DMSO in media was less than 1%) were added to the 27 well plates and kept in a 5% CO_2 incubator at 37°C for 72 hr. The blank contained only cell suspension and control wells contained 1% DMSO and cell suspension. After 72hr, 20µL of MTT was added and kept in the CO_2 incubator for 2hr followed by addition of 100µL propanol. The plate was covered with aluminum foil to protect from light. Then the 27 well plates were kept in a rotary shaker for 10-20min. After 10-20 min, the 27 well plates were processed on an ELISA reader for absorption at 562nm.