Electronic Supplementary Information for Dalton Transactions


# DNA cleavage and antitumor activity of platinum(II) and copper(II) compounds derived from 4-methyl-2-*N*-(2-pyridylmethyl)aminophenol: spectroscopic, electrochemical and biological investigation

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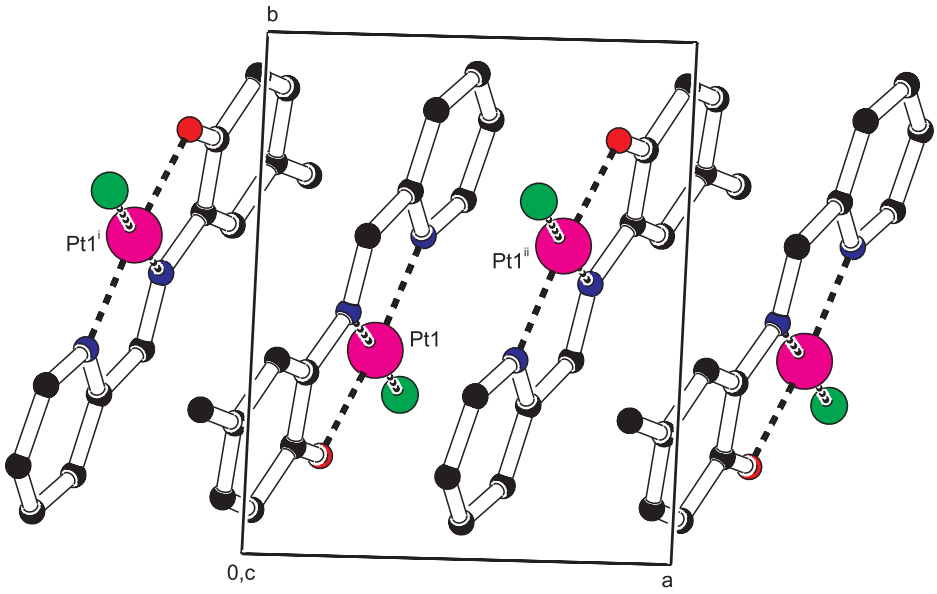
**Fig. S12.** $^{1}$H NMR, 2-D NOESY spectrum of PtL-Cl (in DMSO-$d_6$ + $D_2O$) at 27 $^{o}$C in the presence of d(GTCGAC)$_2$ in $H_2O$ at 1:1 ratio (PtL-Cl : oligonucleotide).

**Table S1.** Selected bond lengths [Å] and bond angles [$^{o}$] for the compound PtL-Cl

| Bond lengths | |
|---|---|
| Pt(1) – N(1) | 2.009 (4) |
| Pt(1) – N(2) | 1.946 (4) |
| Pt(1) – Cl(1) | 2.3017 (12) |
| Pt(1) – O(1) | 2.016 (3) |
| Bond angles | |
| Cl(1) – Pt(1) – O(1) | 94.88 (9) |
| Cl(1) – Pt(1) – N(1) | 99.14 (11) |
| Cl(1) – Pt(1) – N(2) | 177.04 (10) |
| N(1) – Pt(1) – N(2) | 81.74 (15) |
| O(1) – Pt(1) – N(2) | 84.23 (14) |
| N(1) – Pt(1) – O(1) | 165.97(14) |

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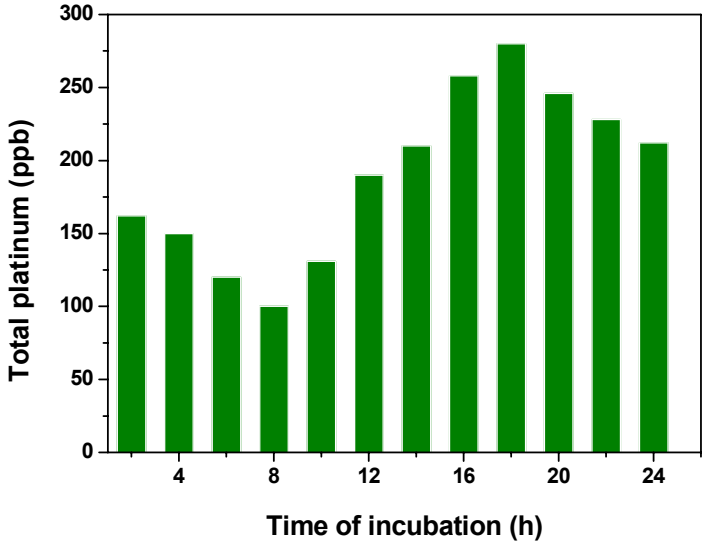


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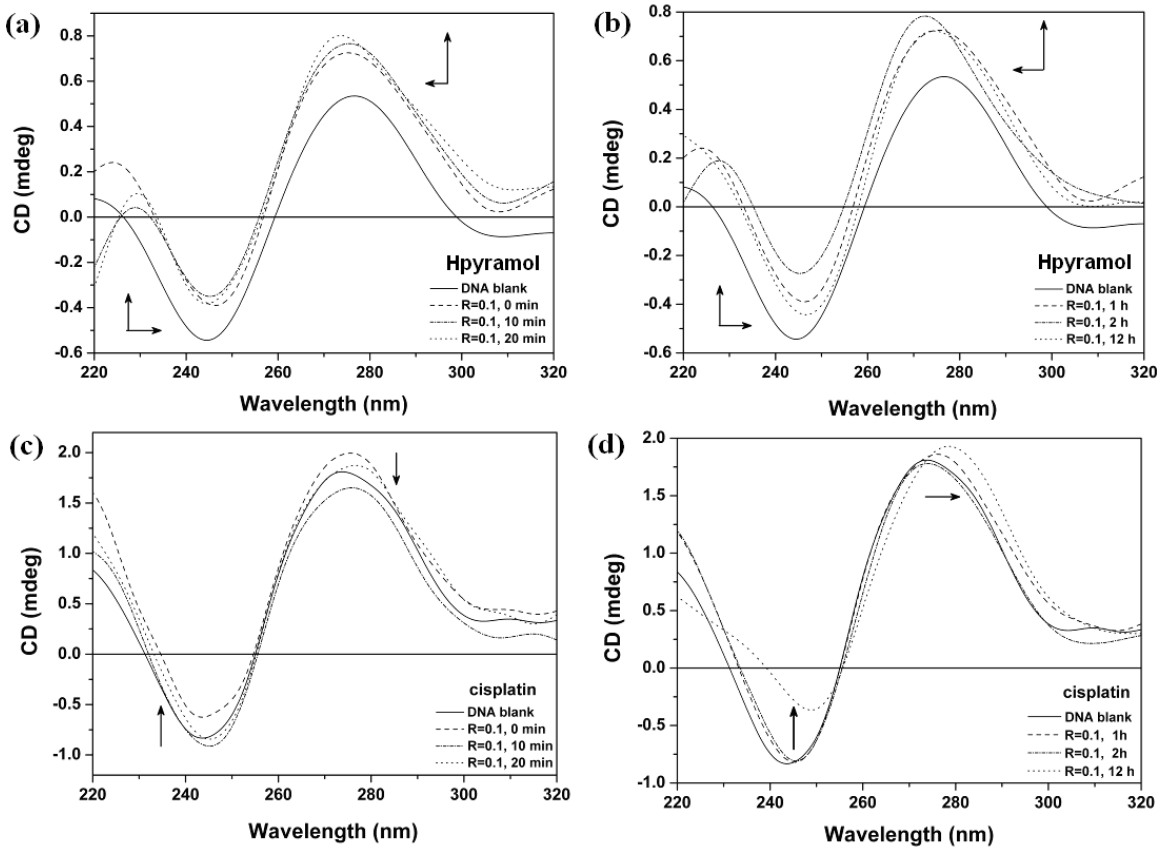



**Fig. S3.** Time-dependent conformational changes of right-handed DNA upon addition of Hpyramol and cisplatin in phosphate buffer (10 mM) at pH = 7.2 at 37 $^{o}$C with R=0.1.

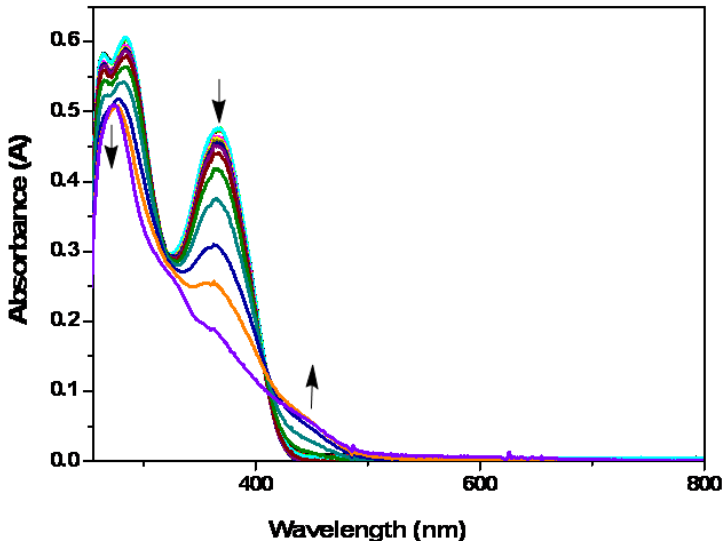
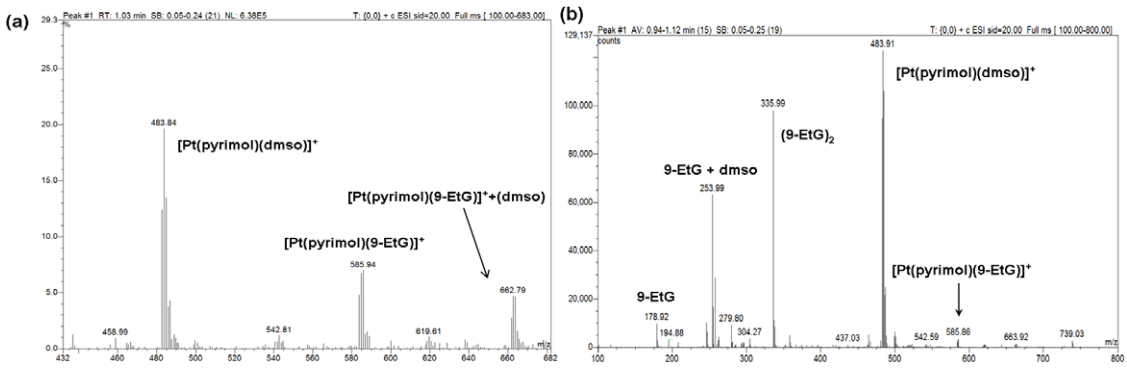



**Fig. S4.** UV-Vis spectral changes accompanying the oxidation of Hpyrimol ligand at the electrode potential O2 (Fig. 8b) to an assumed phenoxyl radical species in DMF at room temperature, using an OTTLE cell.

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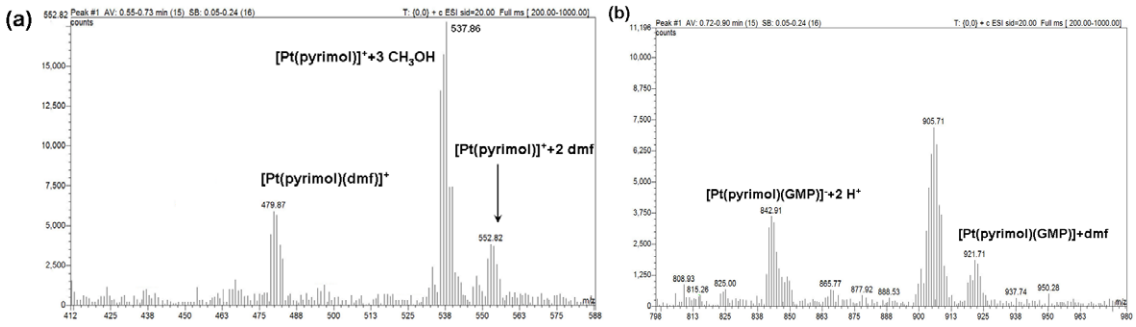


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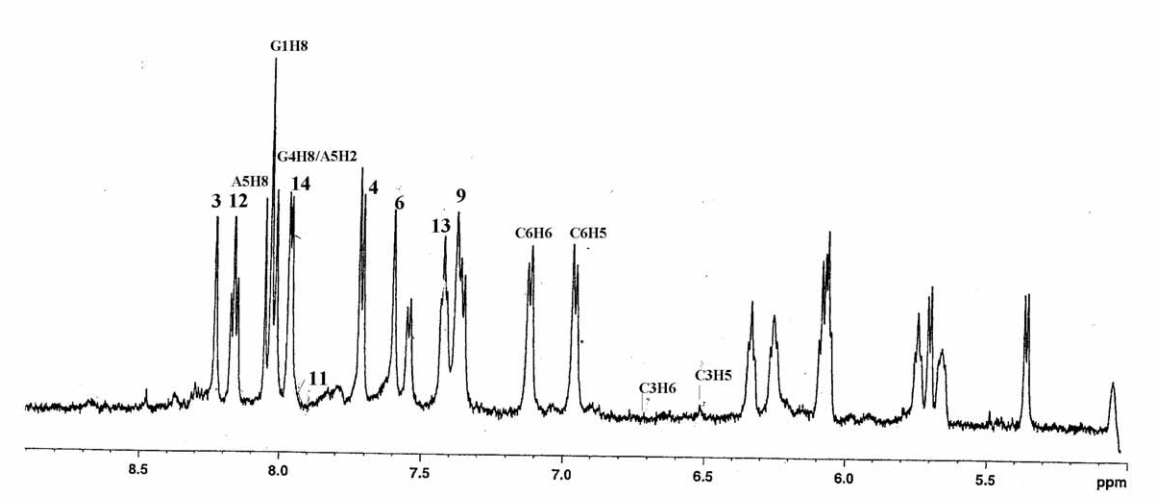


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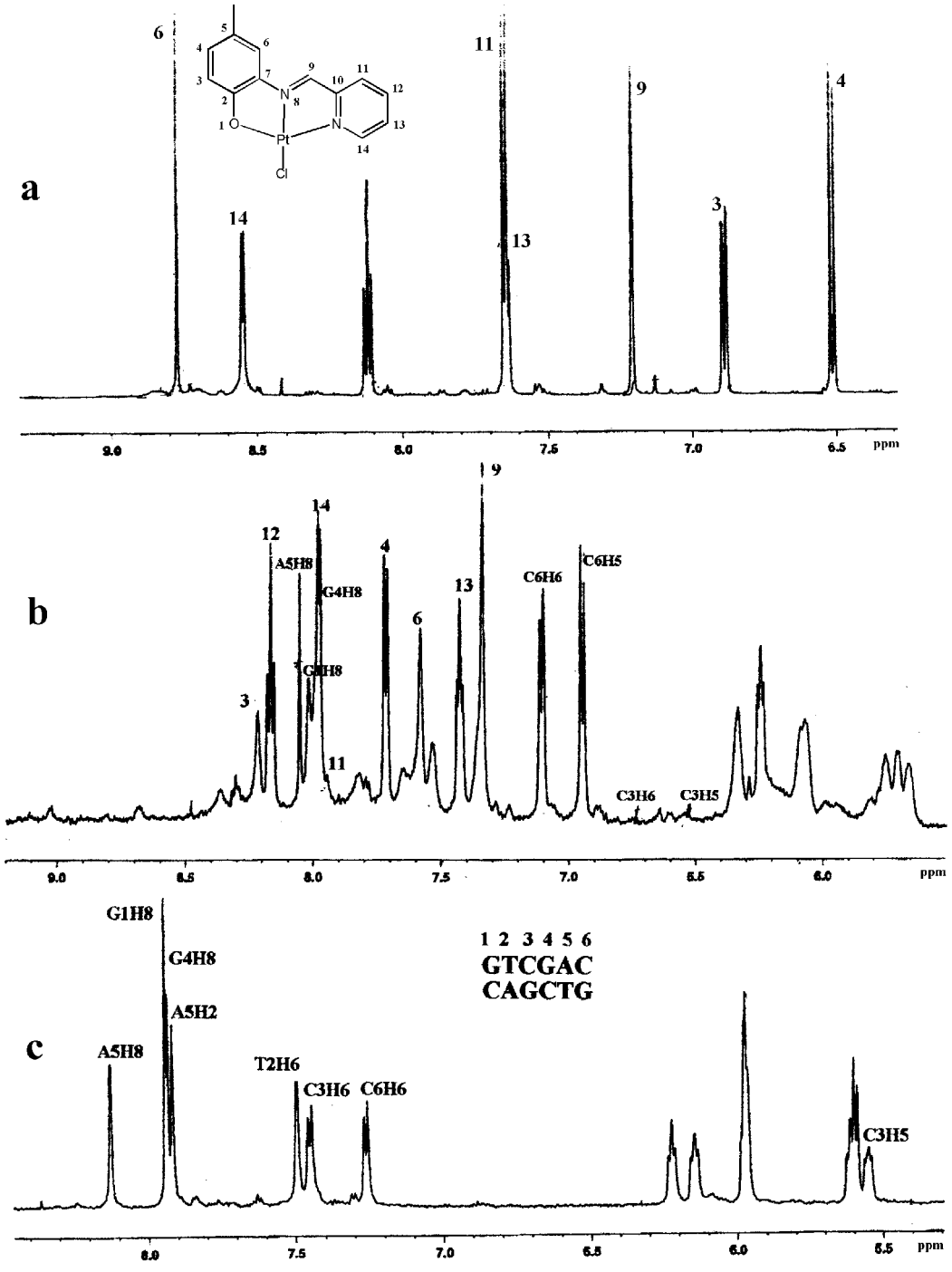


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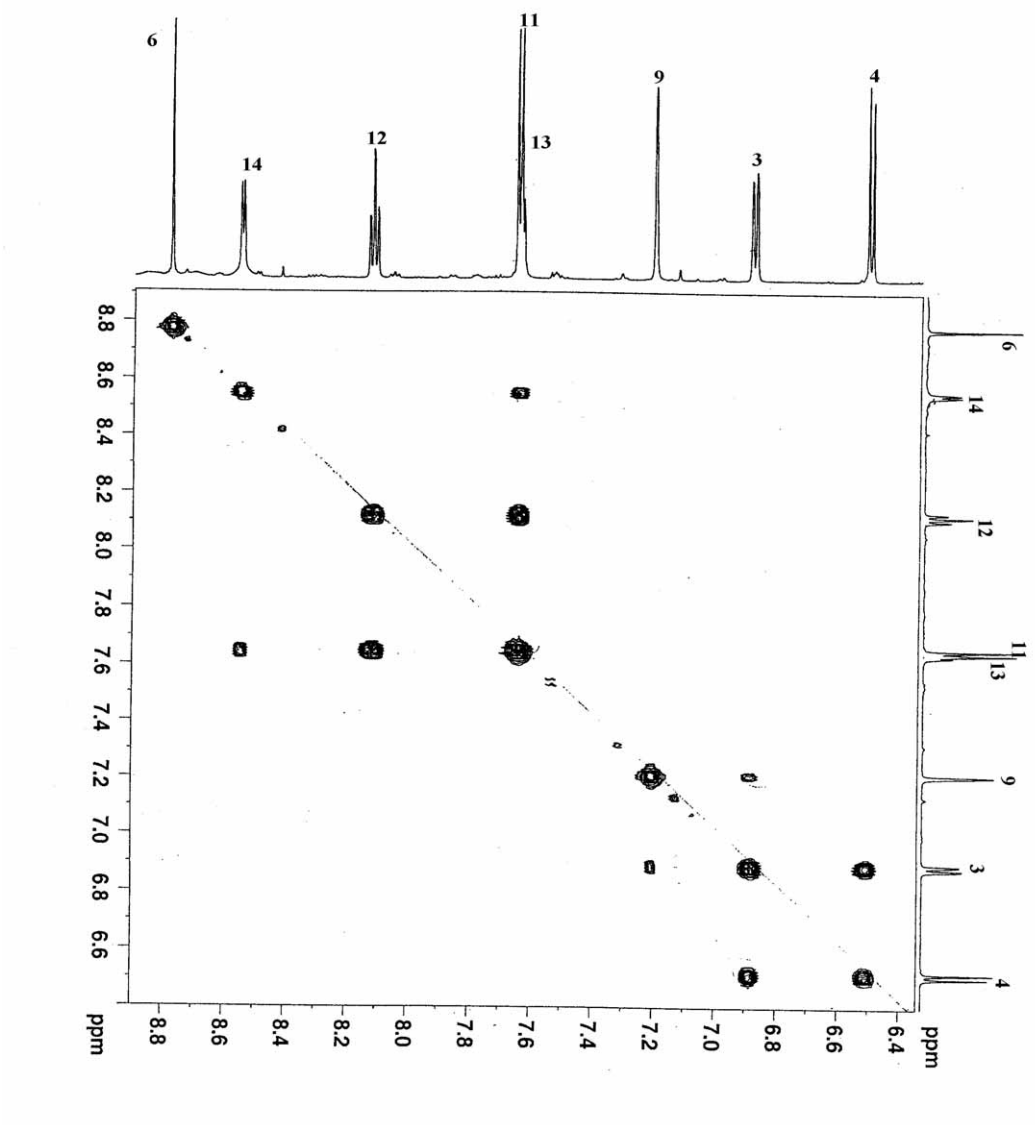


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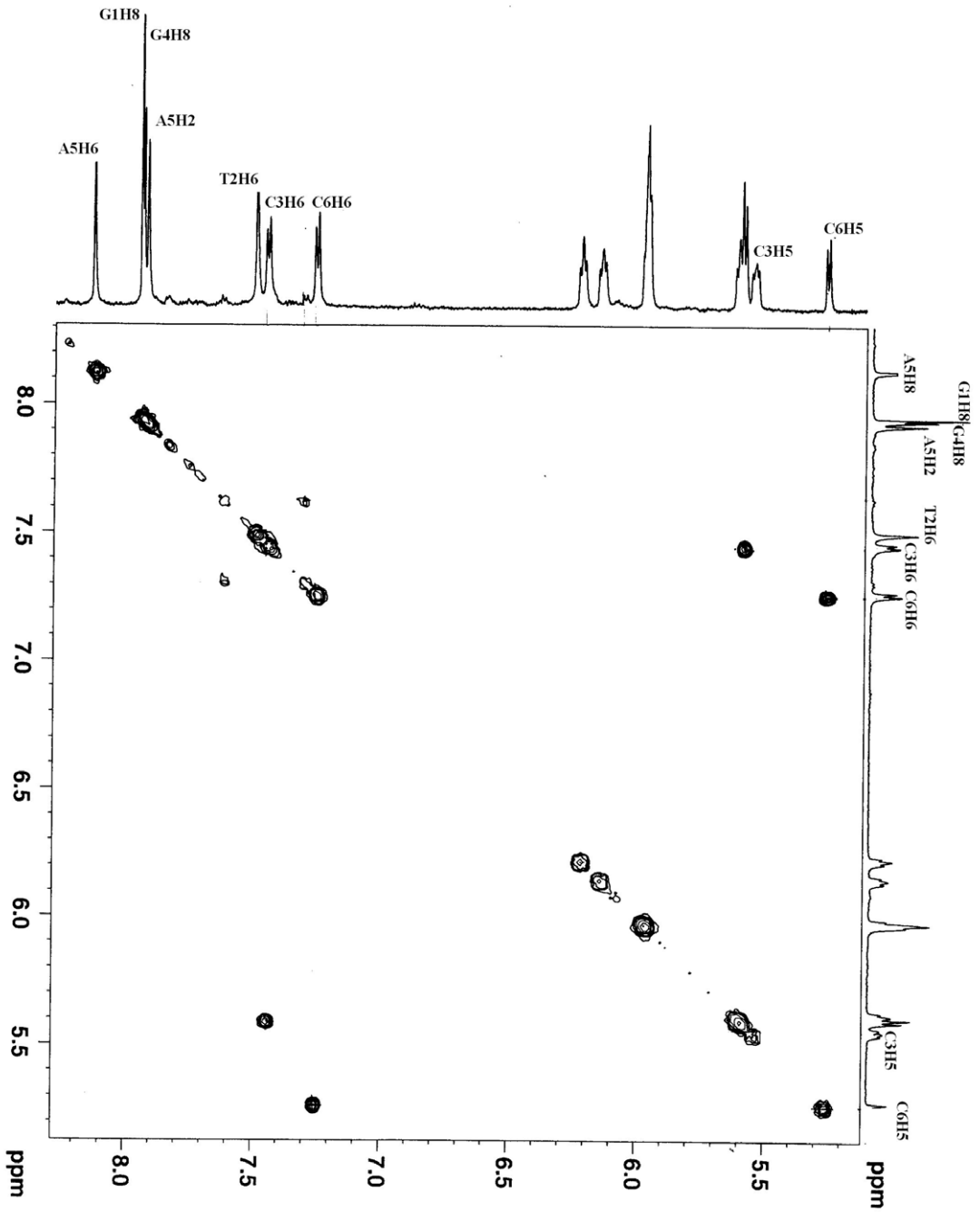
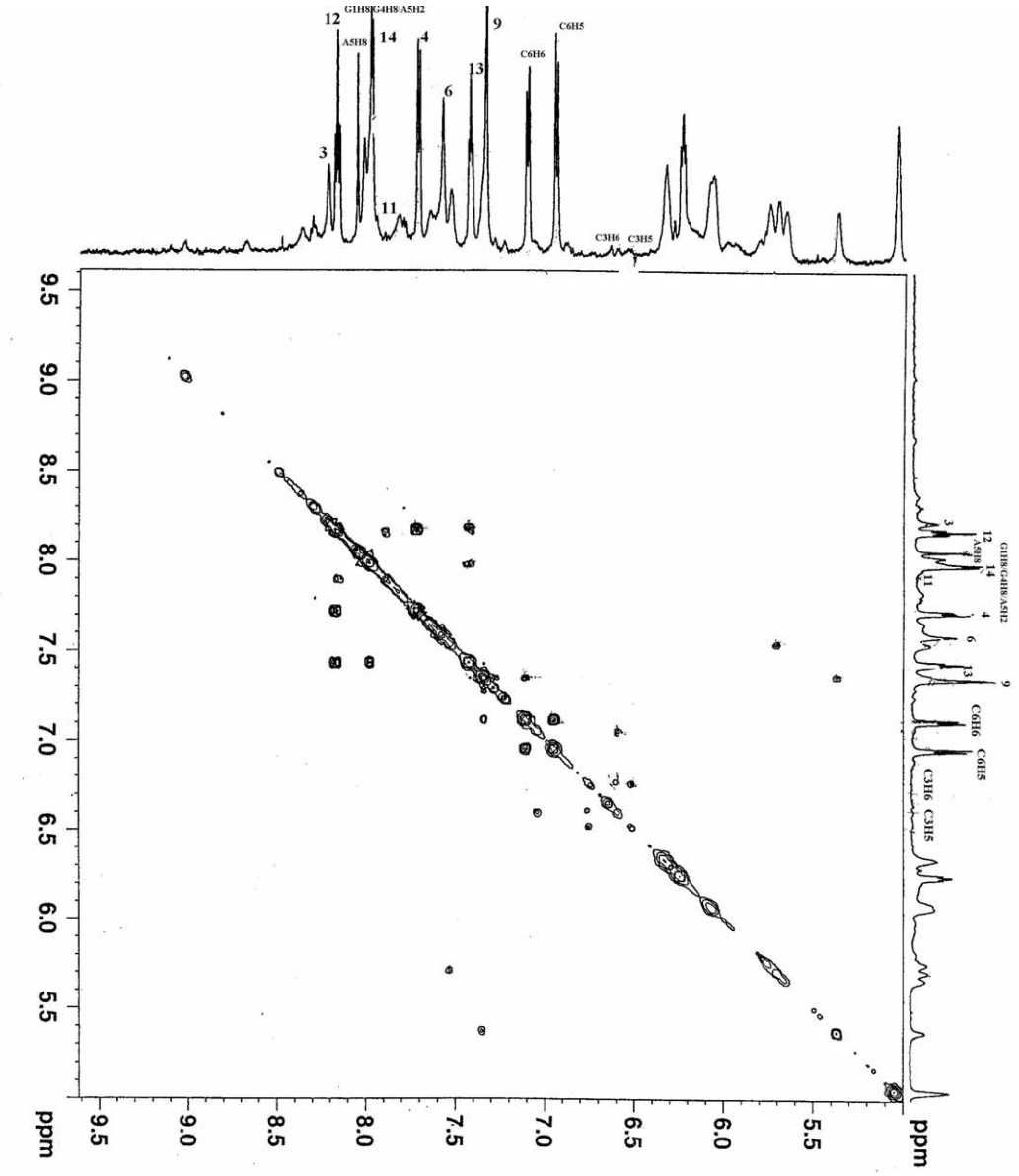



**Fig. S10.** $^{1}$H NMR, 2-D DQF-COSY for the pure d(GTCGAC)$_2$ in 90% $H_2O$ and 10% $D_2O$ at 27 $^{o}$C. The assignments were done according to through-bond interactions.

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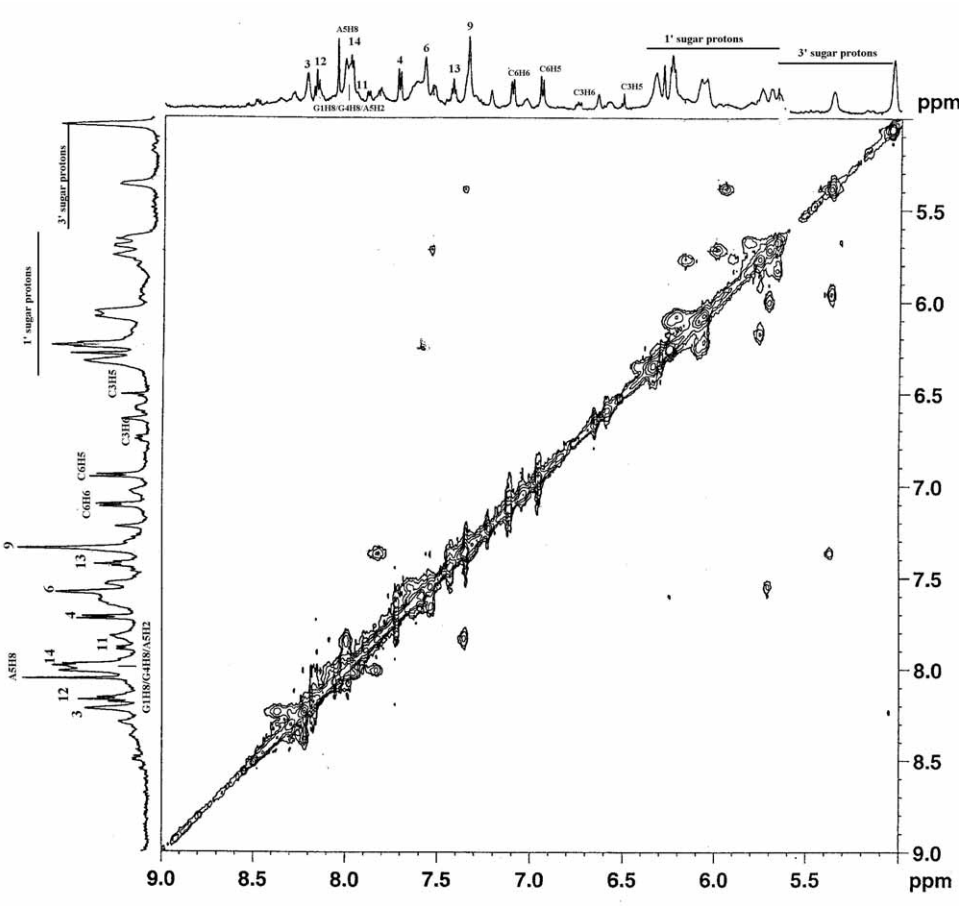


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