

Fabrication and analysis of dye-sensitized solar cells (DSSCs) using porphyrin dyes with catechol anchoring group

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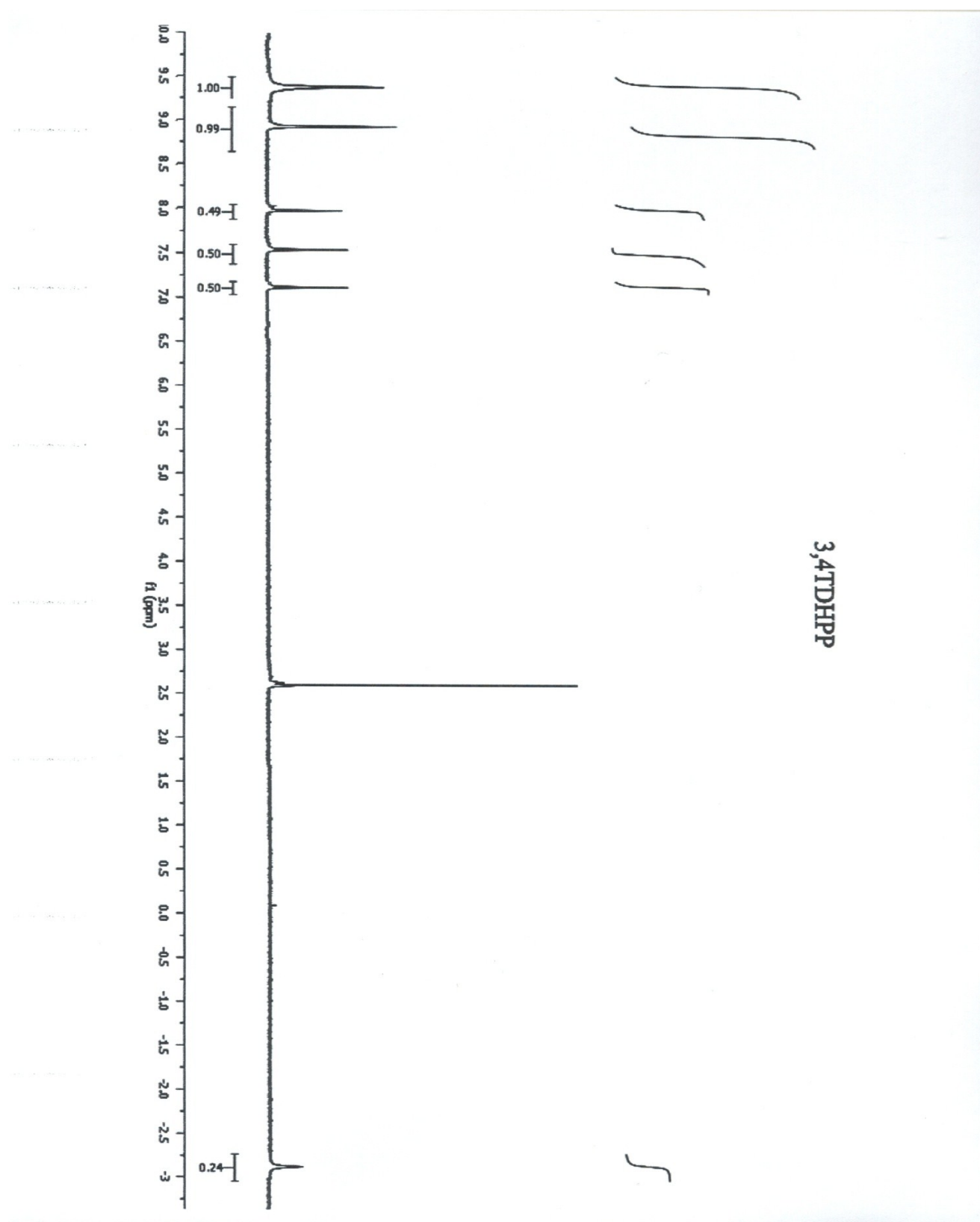
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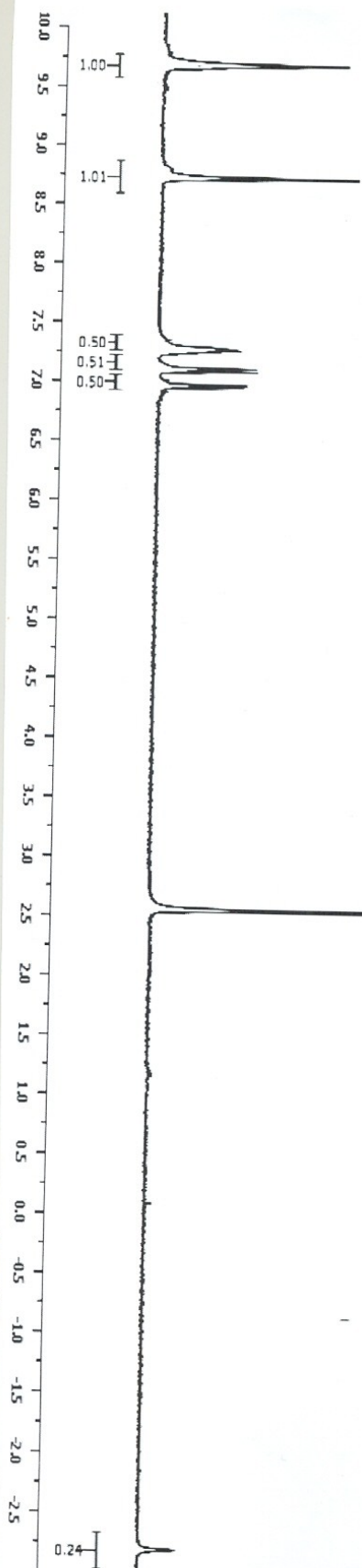
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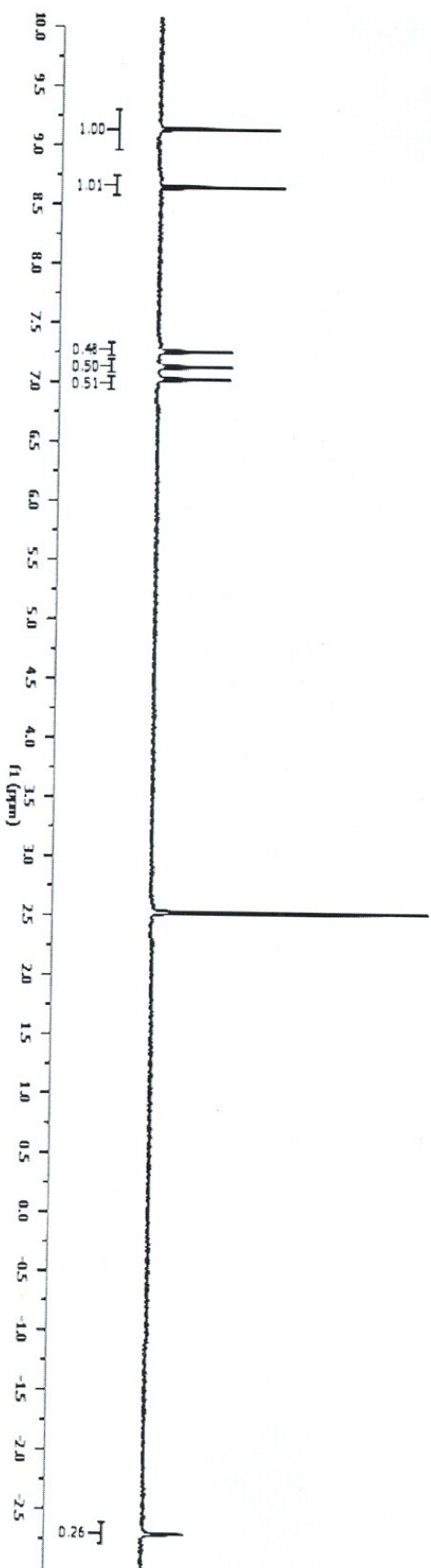
¹H NMR of tetrakis dihydroxyphenyl porphyrins



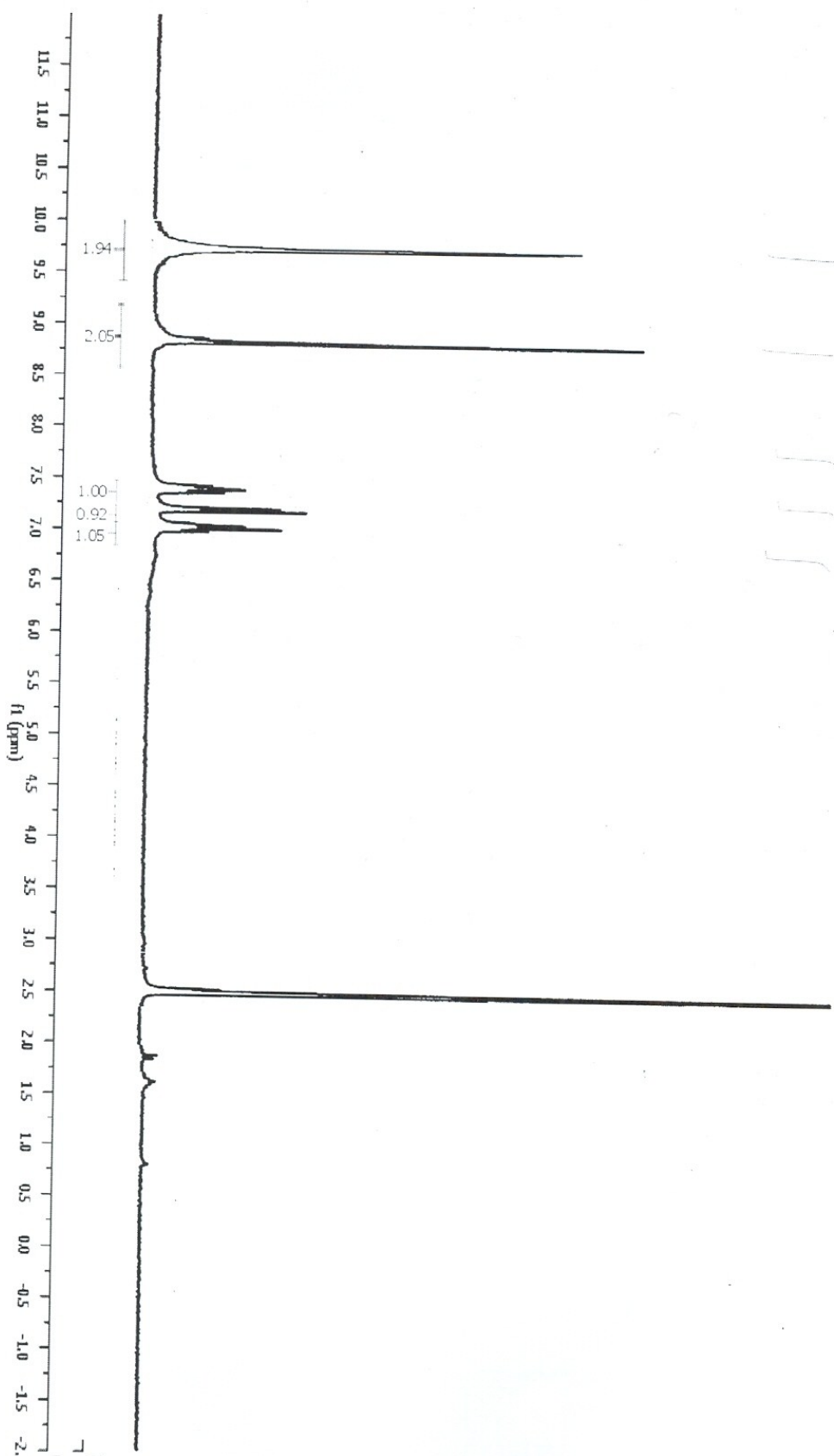
2,3 TDHPP
1H NMR



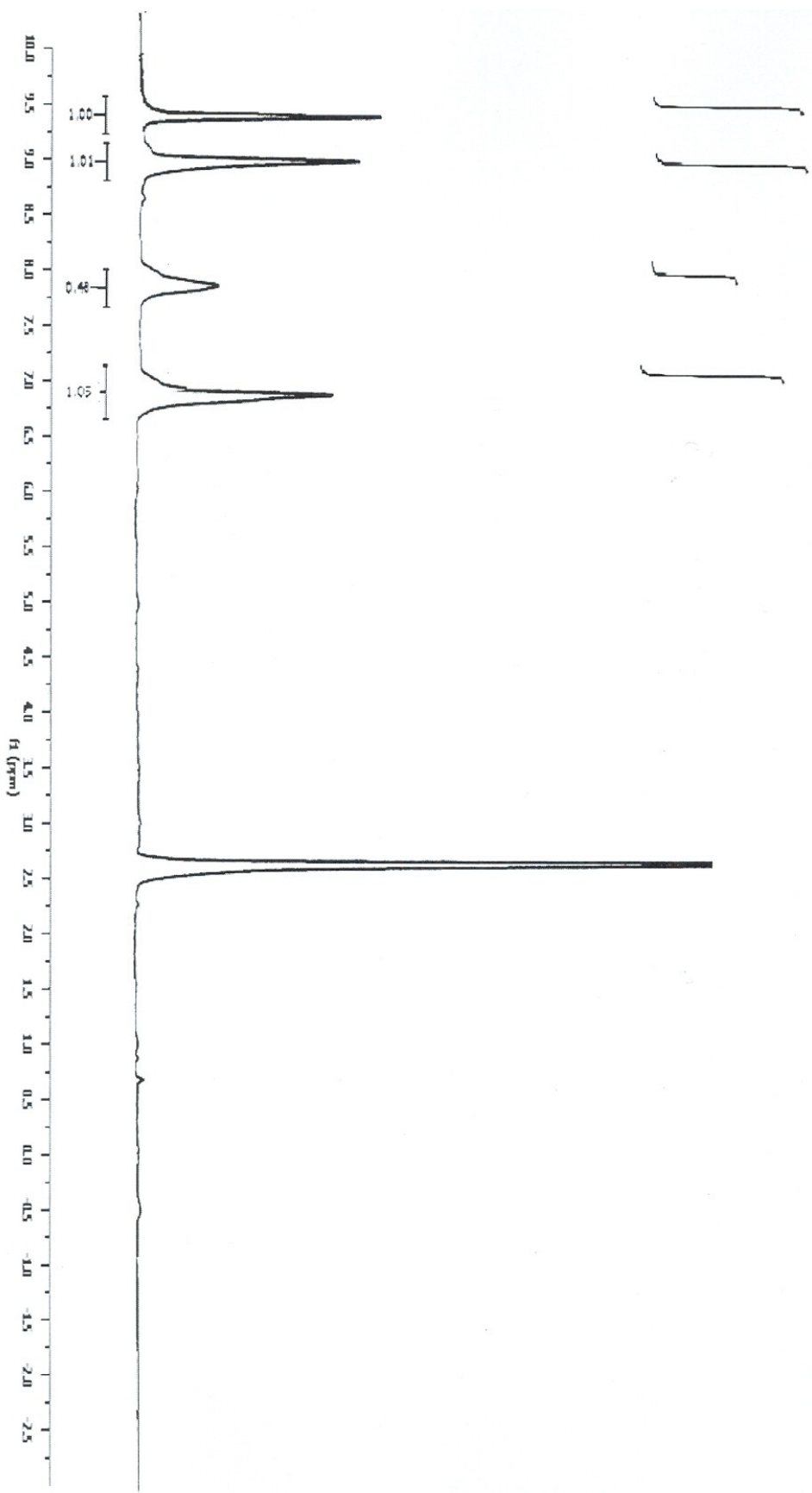
2,4TDHPP
1H NMR



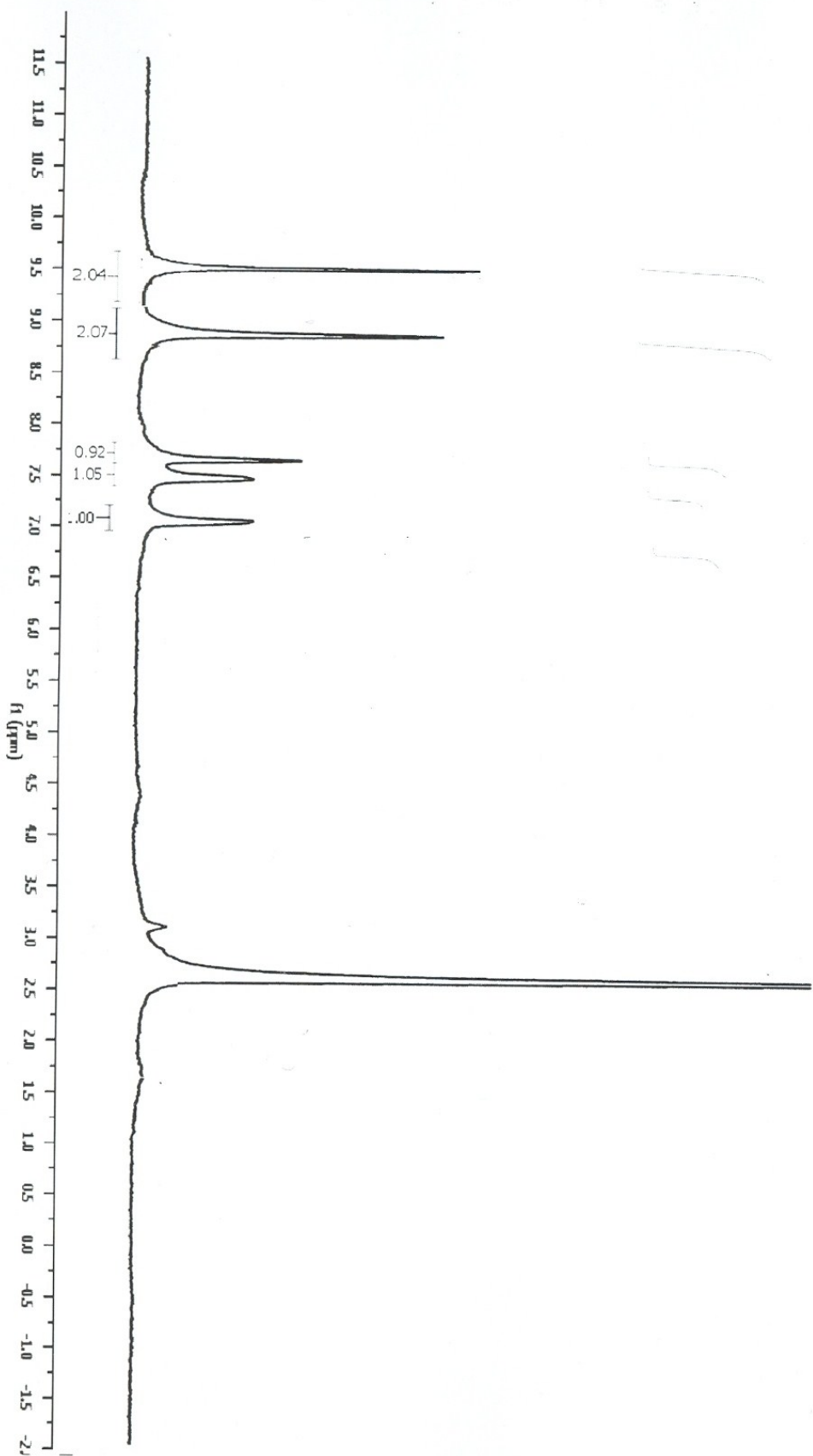
$\text{Zn}_2, 3$ TDHPP
 ^1H NMR



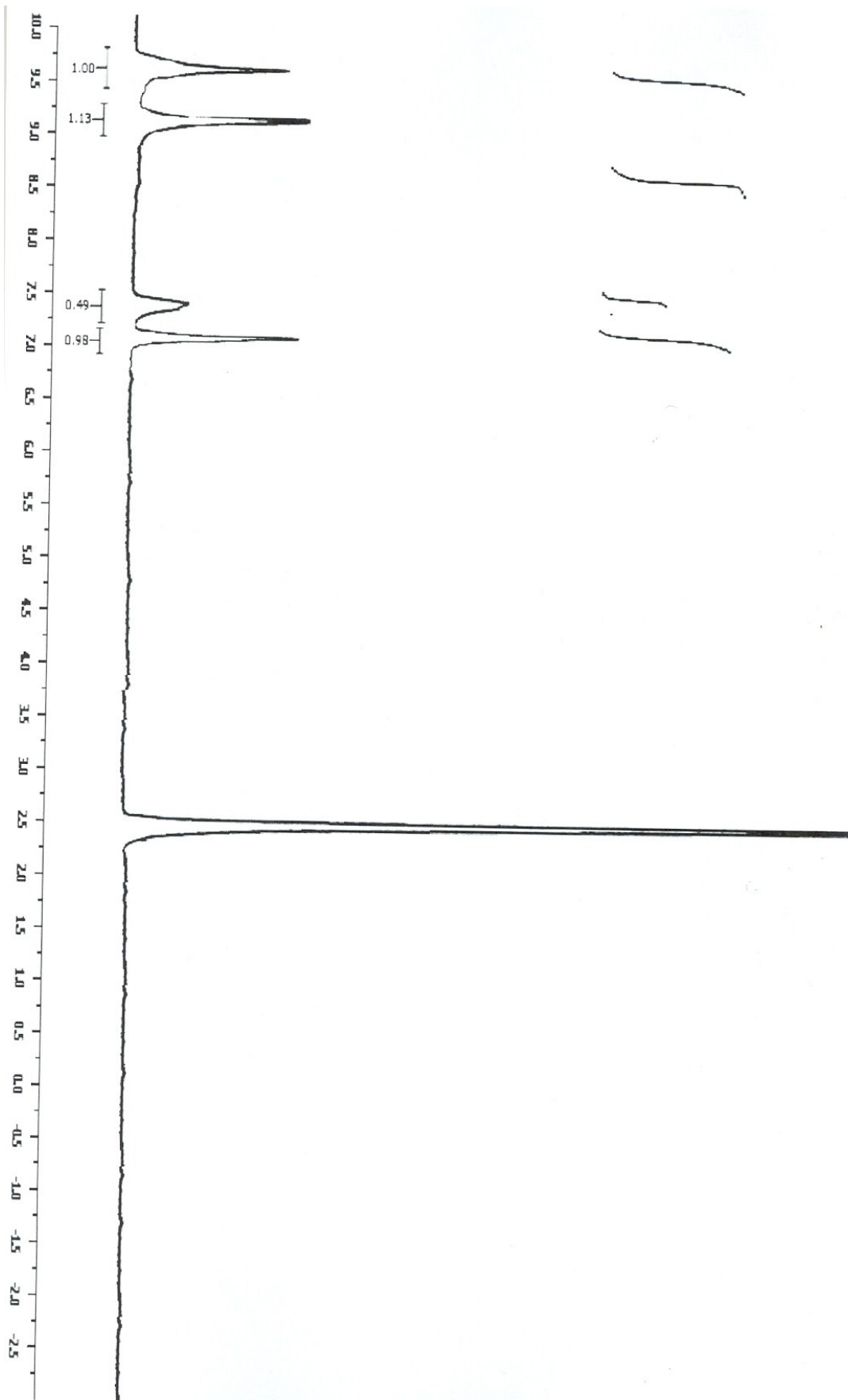
Zn₂,4TDHPF
1H NMR



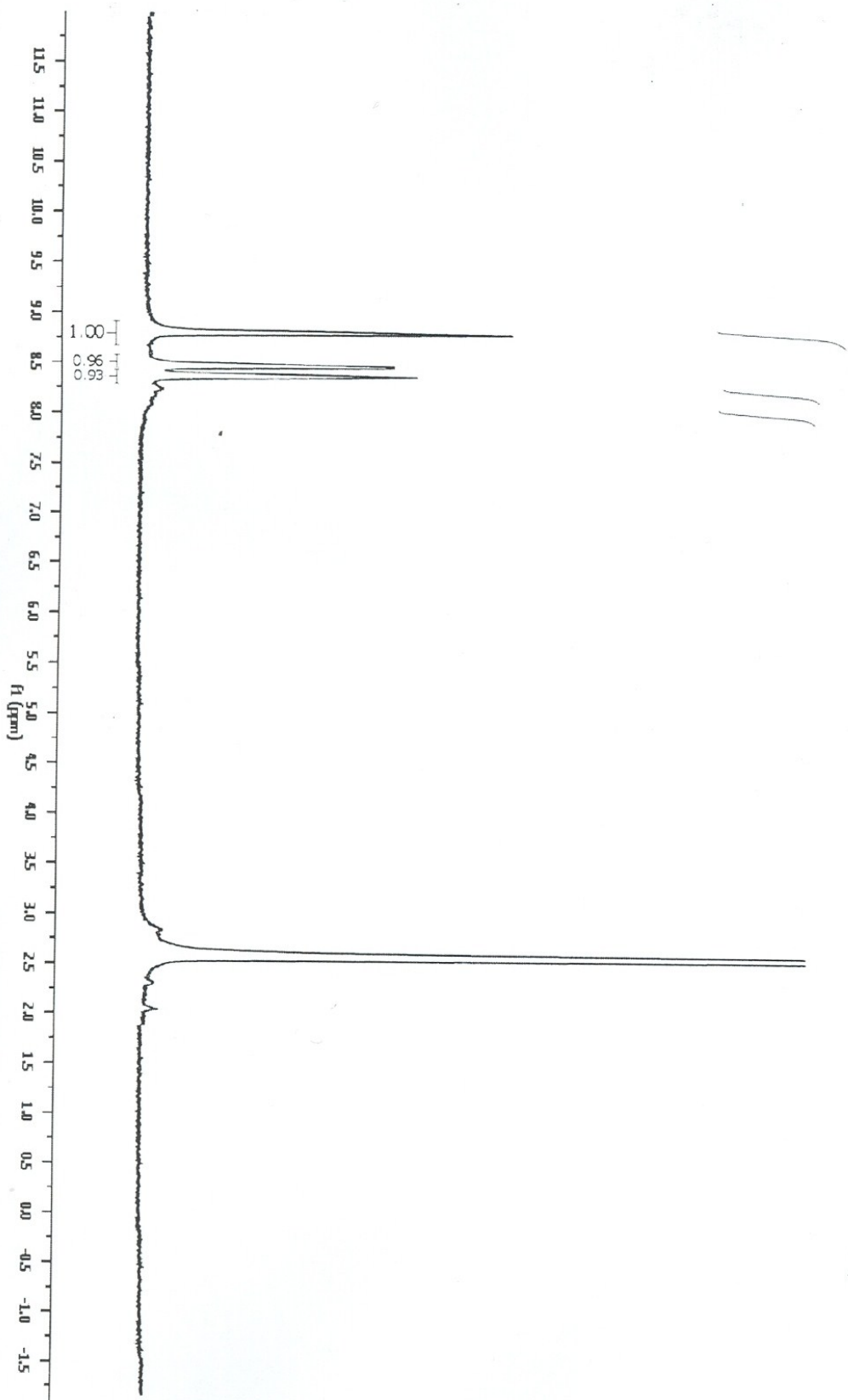
Zn₃,4-TDHP
1H NMR



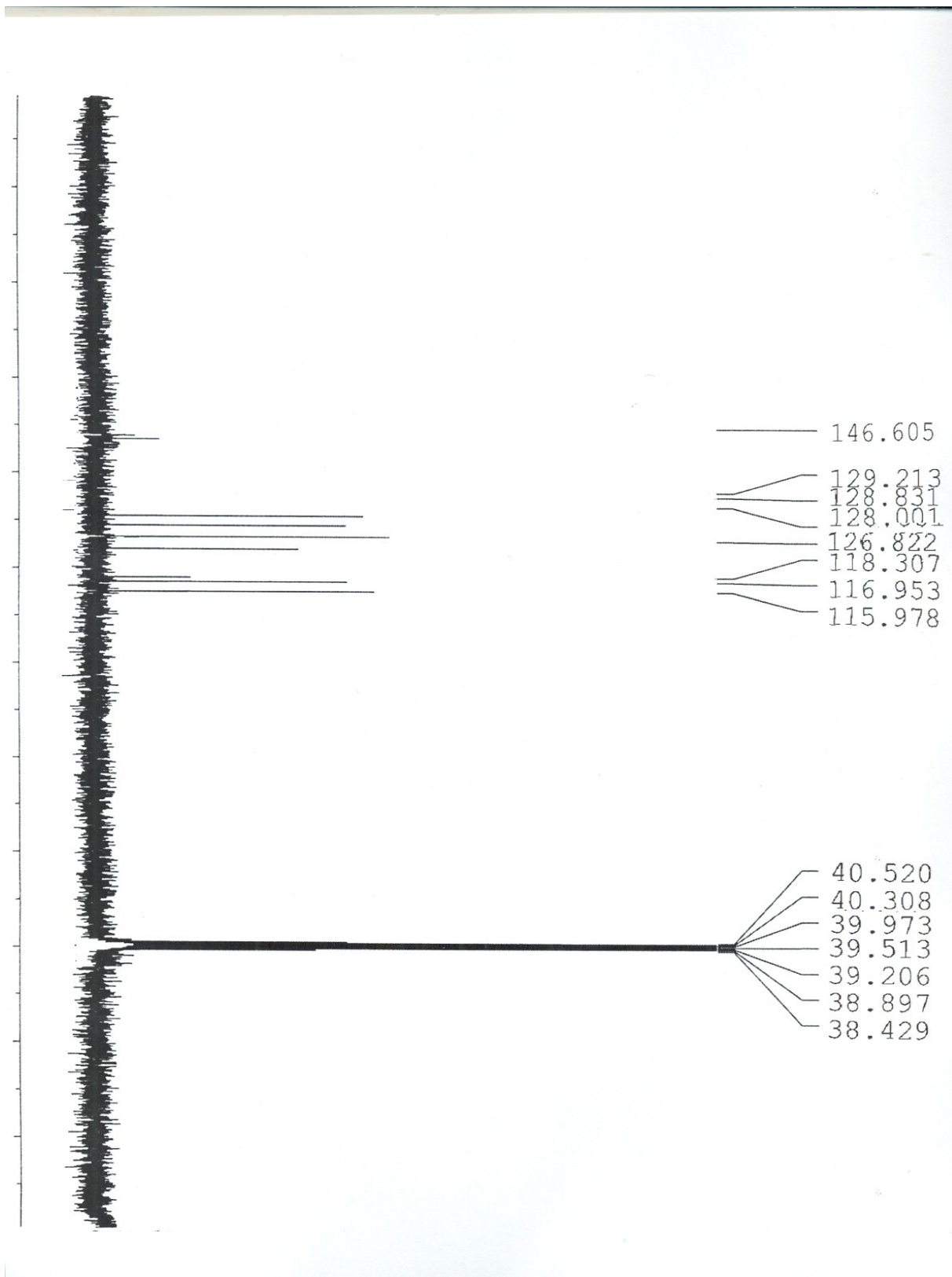
Zn2,5TDHP
1H NMR



ZnTCPP
1H NMR



$^{13}\text{C}\{^1\text{H}\}$ NMR of $\text{Zn}_2,3\text{TDHPP}$



$^{13}\text{C}\{^1\text{H}\}$ NMR of $\text{Zn}_3,4\text{TDHPP}$

