

A New Antimicrobial PVC-based Polymeric Material Incorporating Bisacylthiourea Complexes

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Supplementary materials

Supplementary 1:

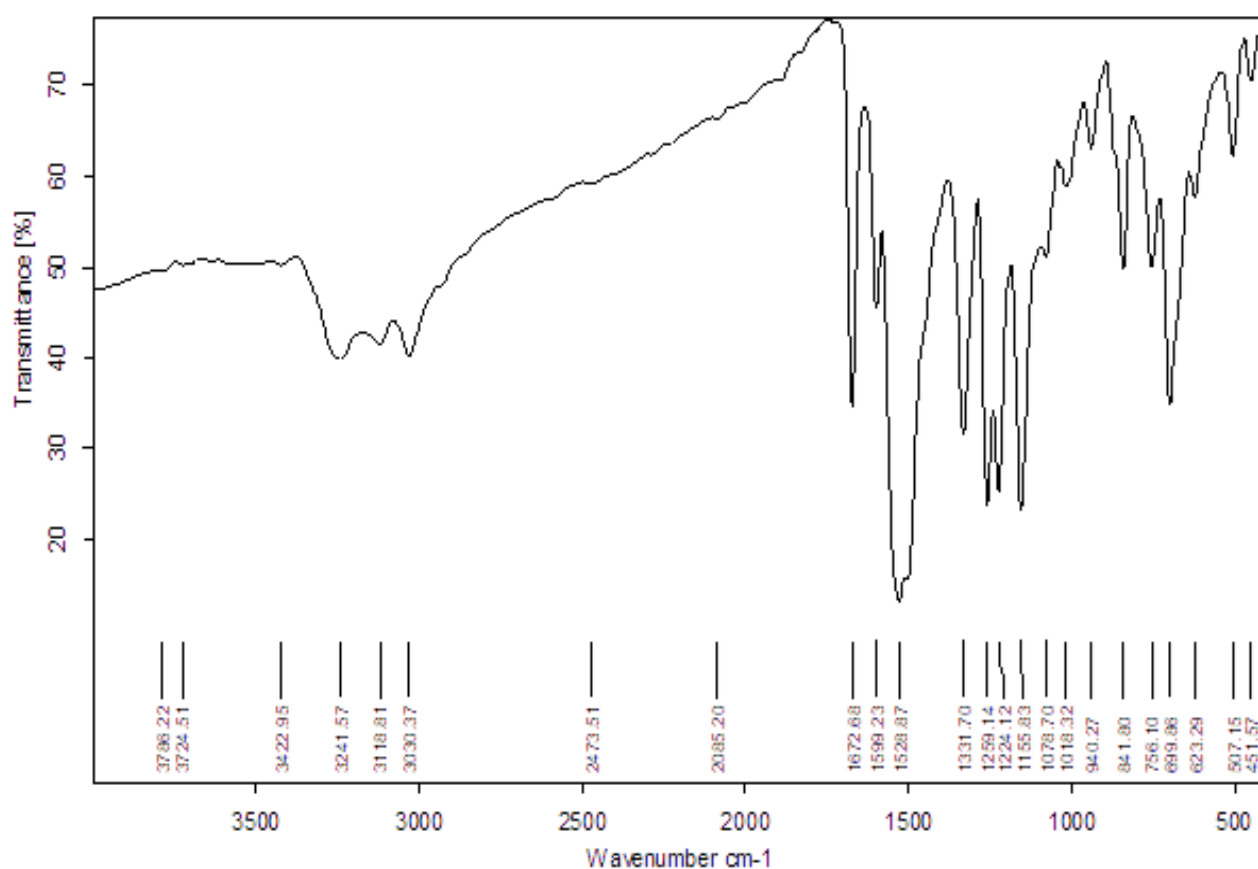


Figure S1: IR spectrum of N,N'-(((oxybis(4,1-phenylene))bis(azanediyl))bis(carbonothioyl))dibenzamide **4**

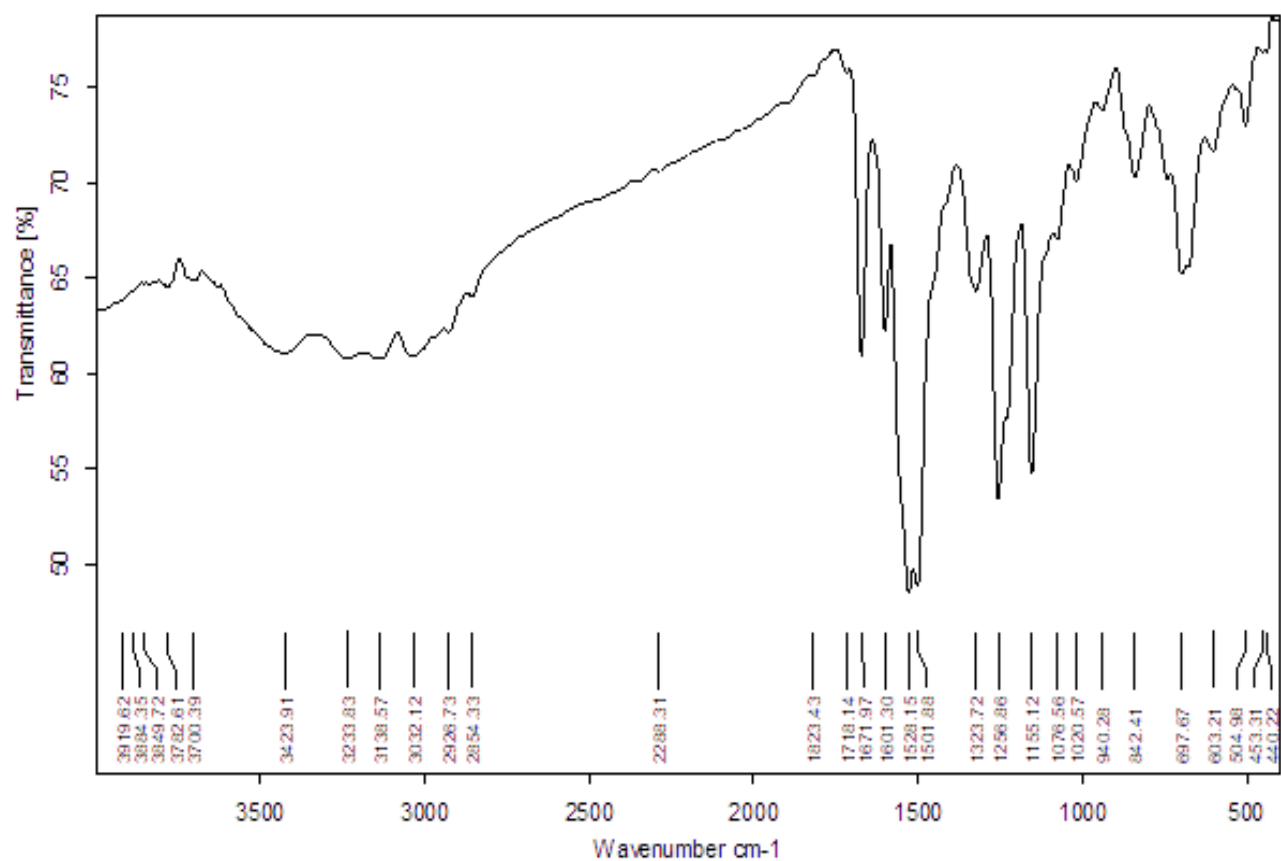


Figure S2: IR spectrum of the copper complex 5

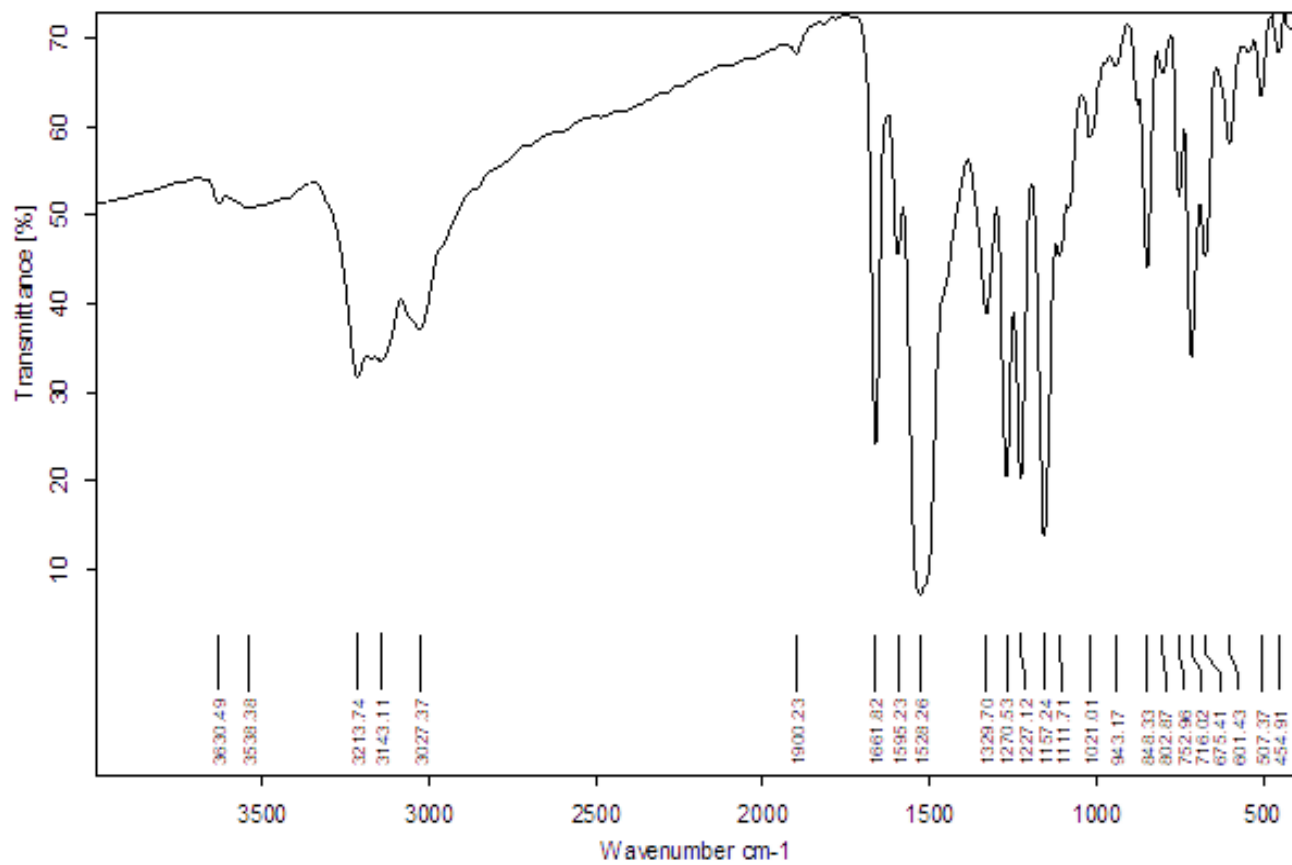


Figure S3: IR spectrum of the cadmium complex 6

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Supplementary 4

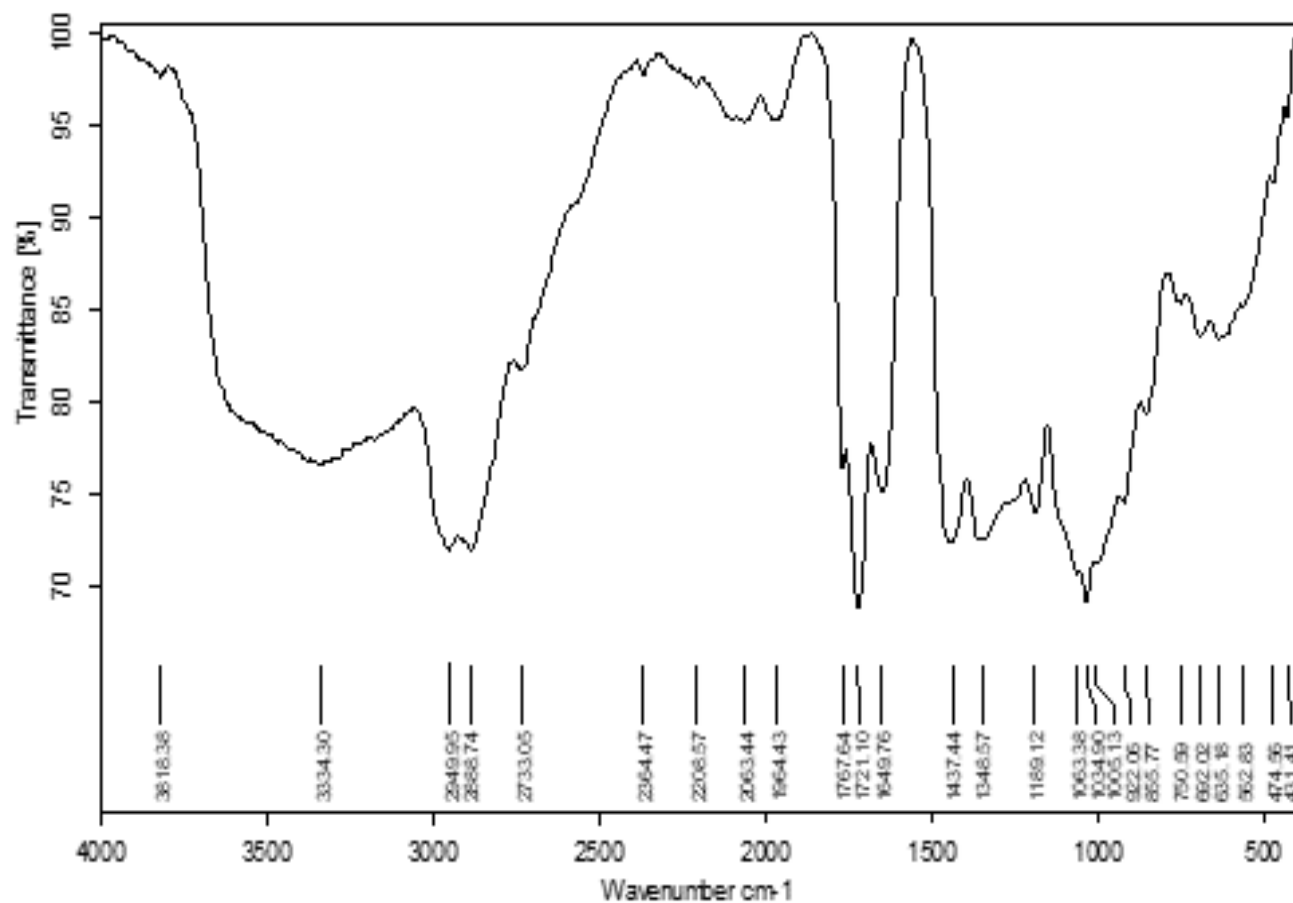


Figure S4: IR Spectrum of the prepared PVC film

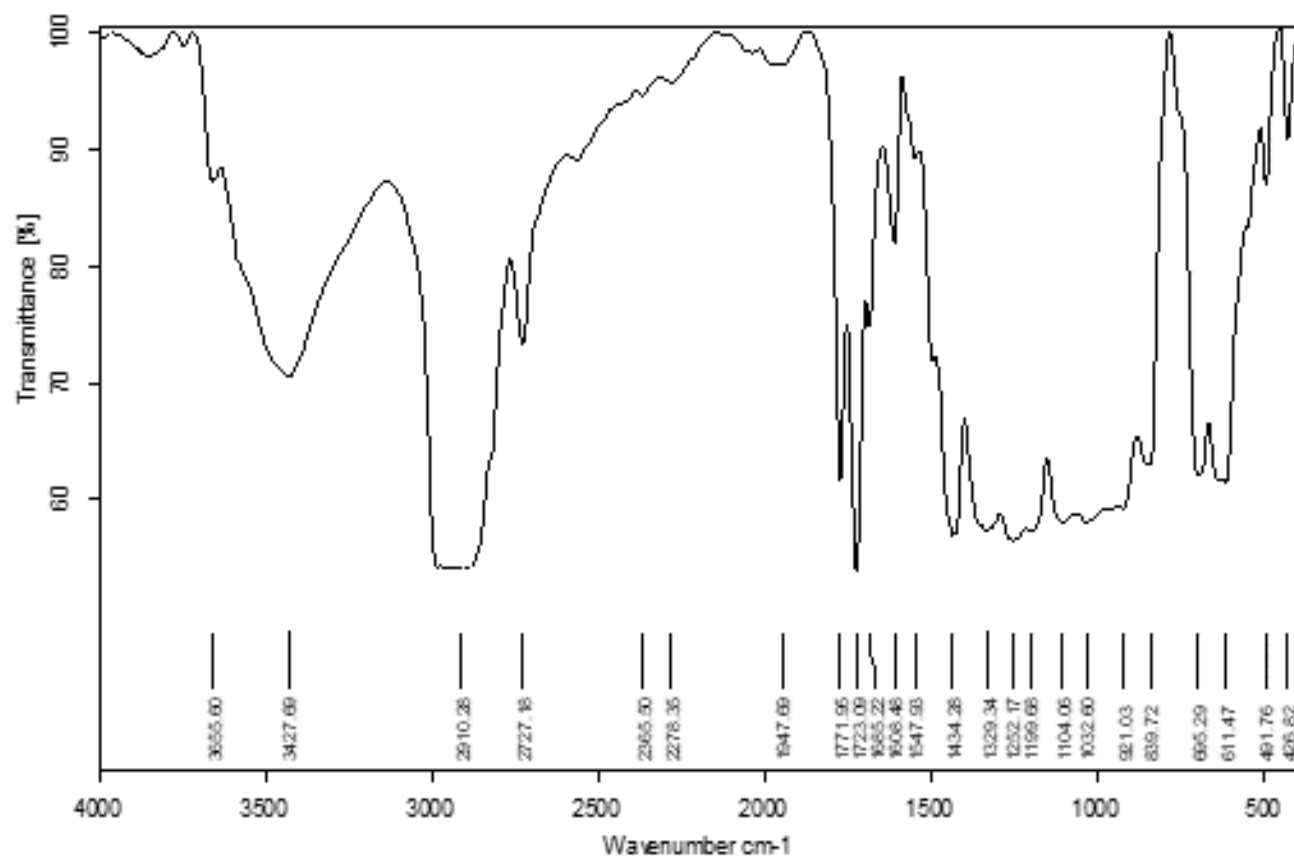


Figure S5: IR Spectrum of the prepared PVC/4 composite film

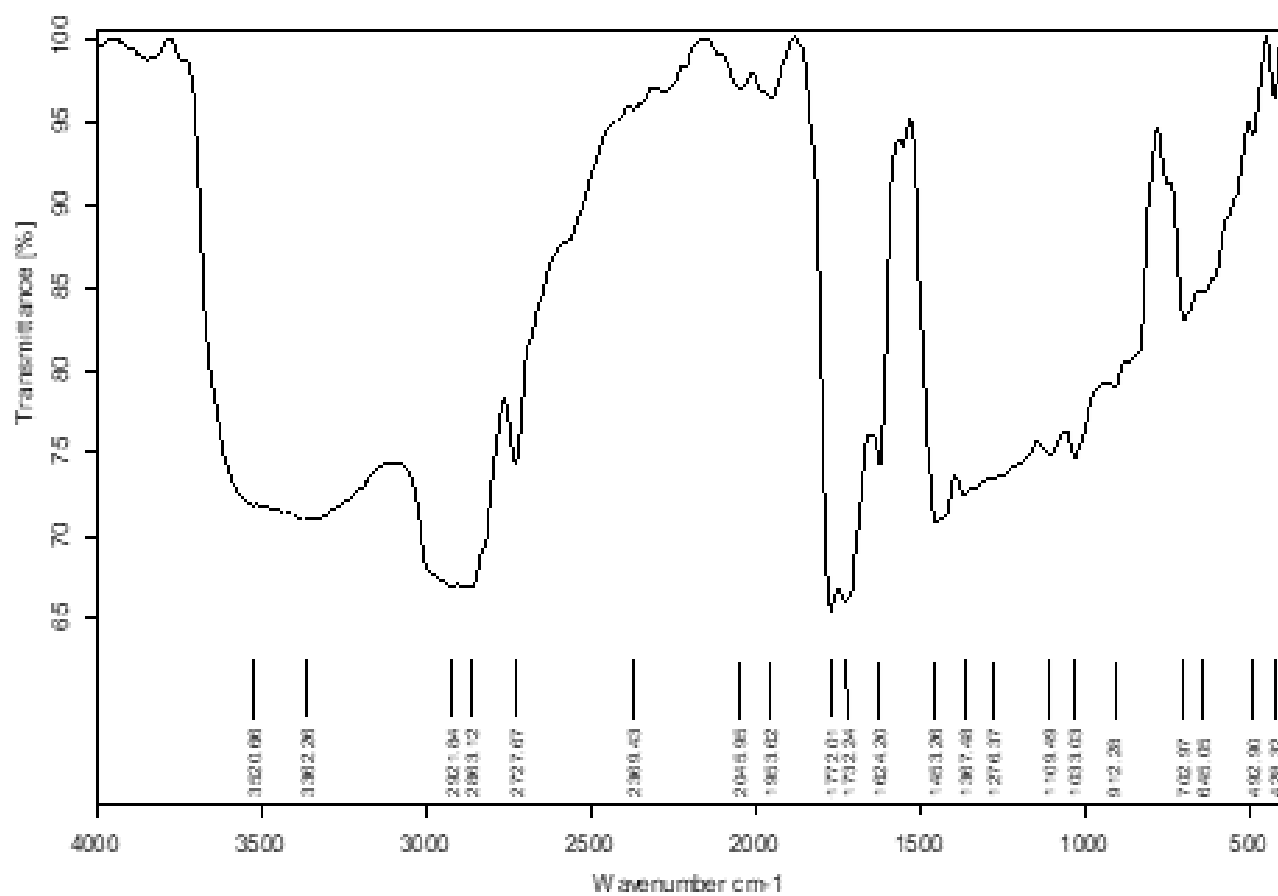


Figure S6: IR Spectrum of the prepared PVC/5 composite film

(Supplementary 7).

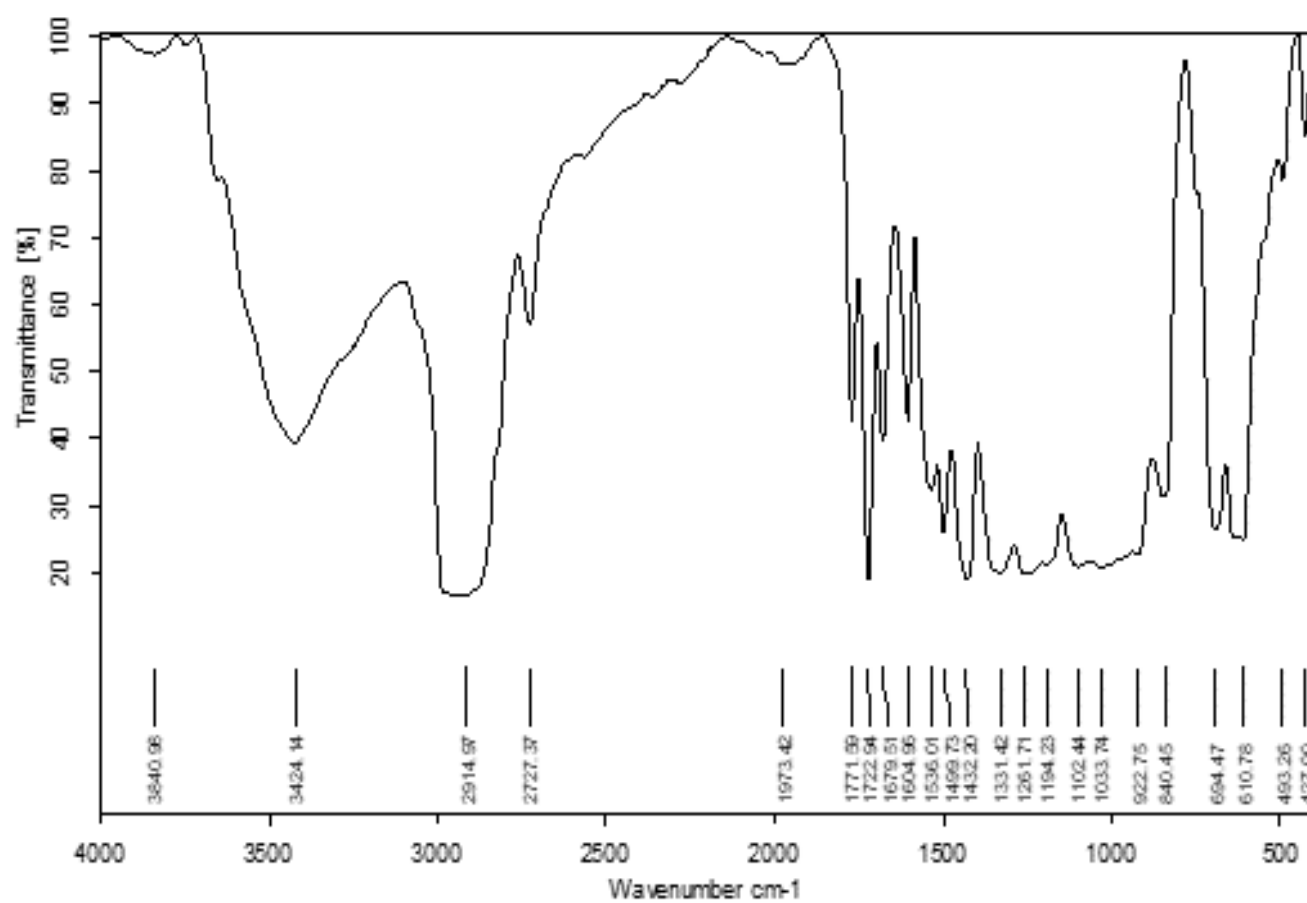


Figure S7: IR Spectrum of the prepared PVC/6 composite film

(Supplementary 8).

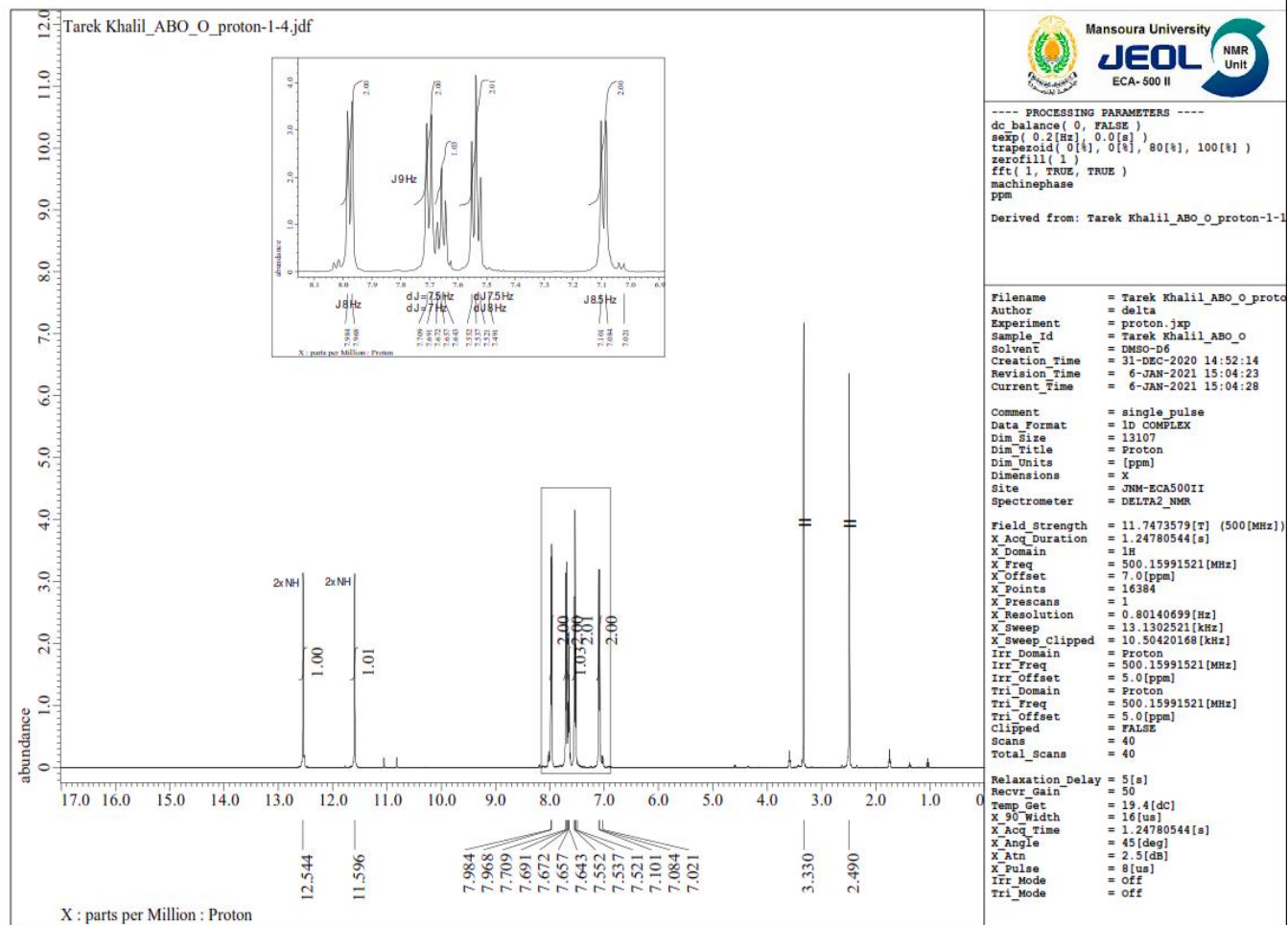


Figure S8: ¹H-nmr spectrum of N,N'-(((oxybis(4,1-phenylene))bis(azanediyl))bis(carbonothioyl))dibenzamide 4

(Supplementary 9)

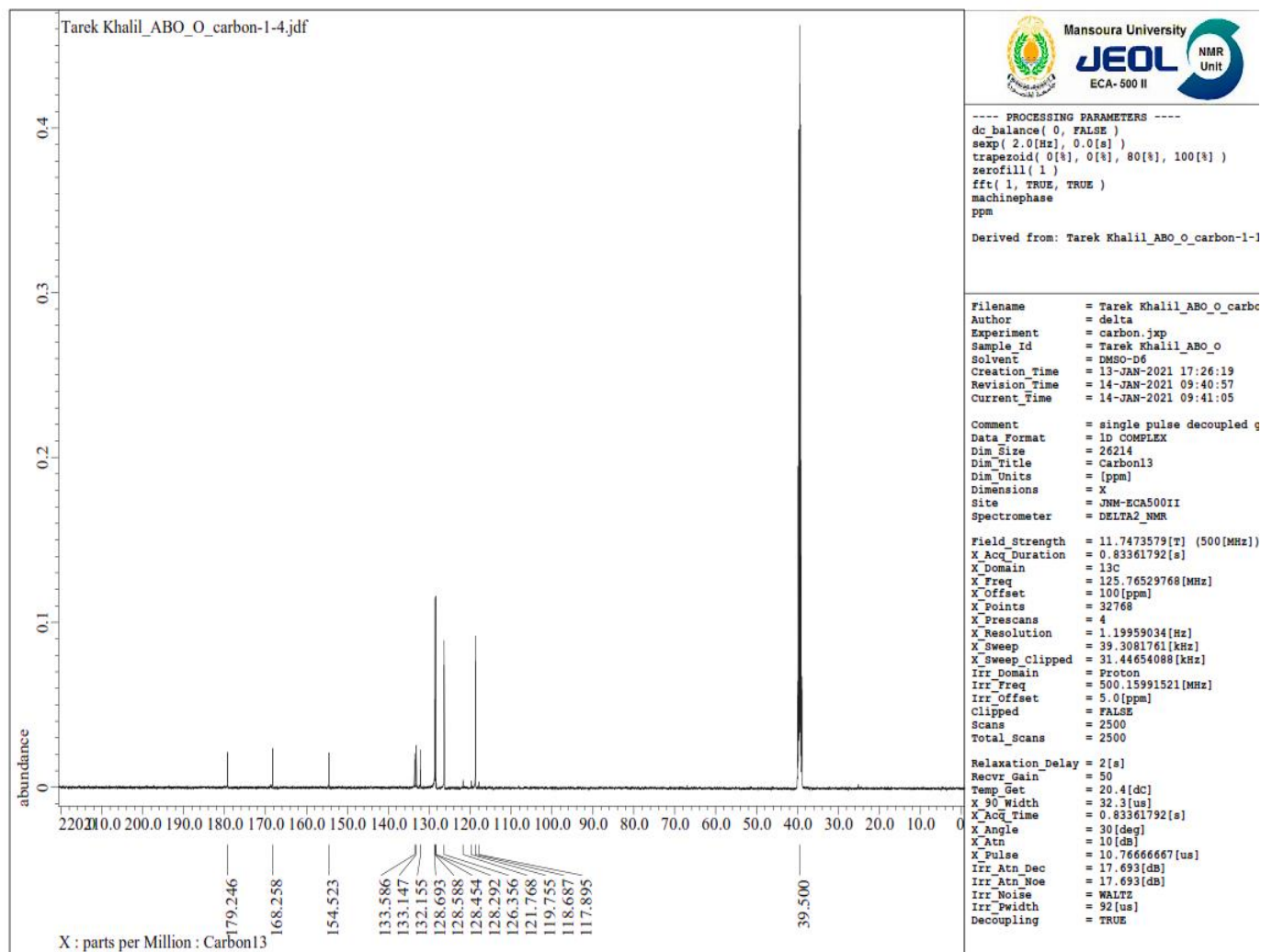


Figure S9: ^{13}C -nmr spectrum of N,N'-(((oxybis(4,1-phenylene))bis(azanediyl))bis(carbonothioyl))dibenzamide 4

Supplementary 10

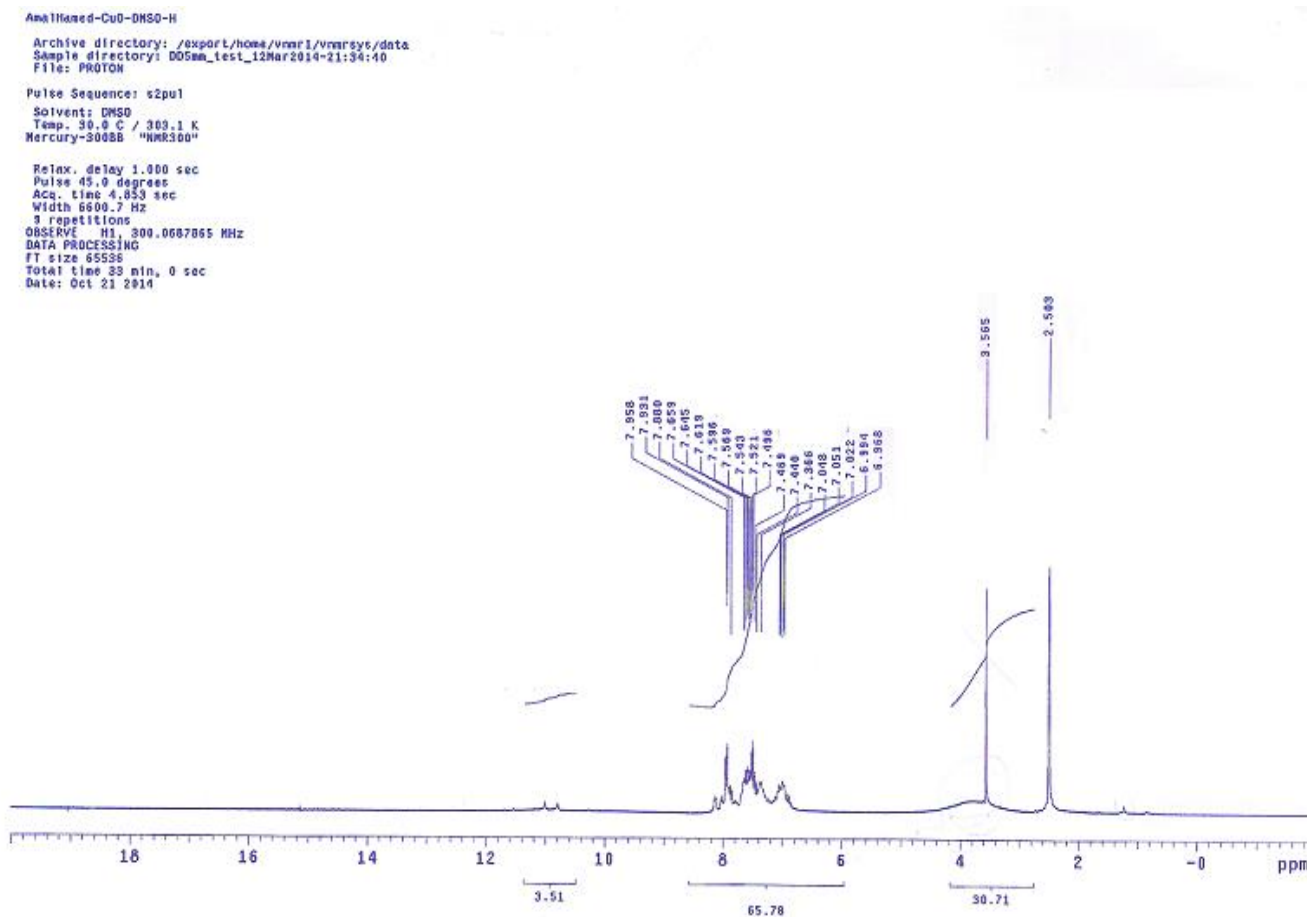


Figure S10: ¹H-nmr spectrum of copper complex 5

Supplementary 11

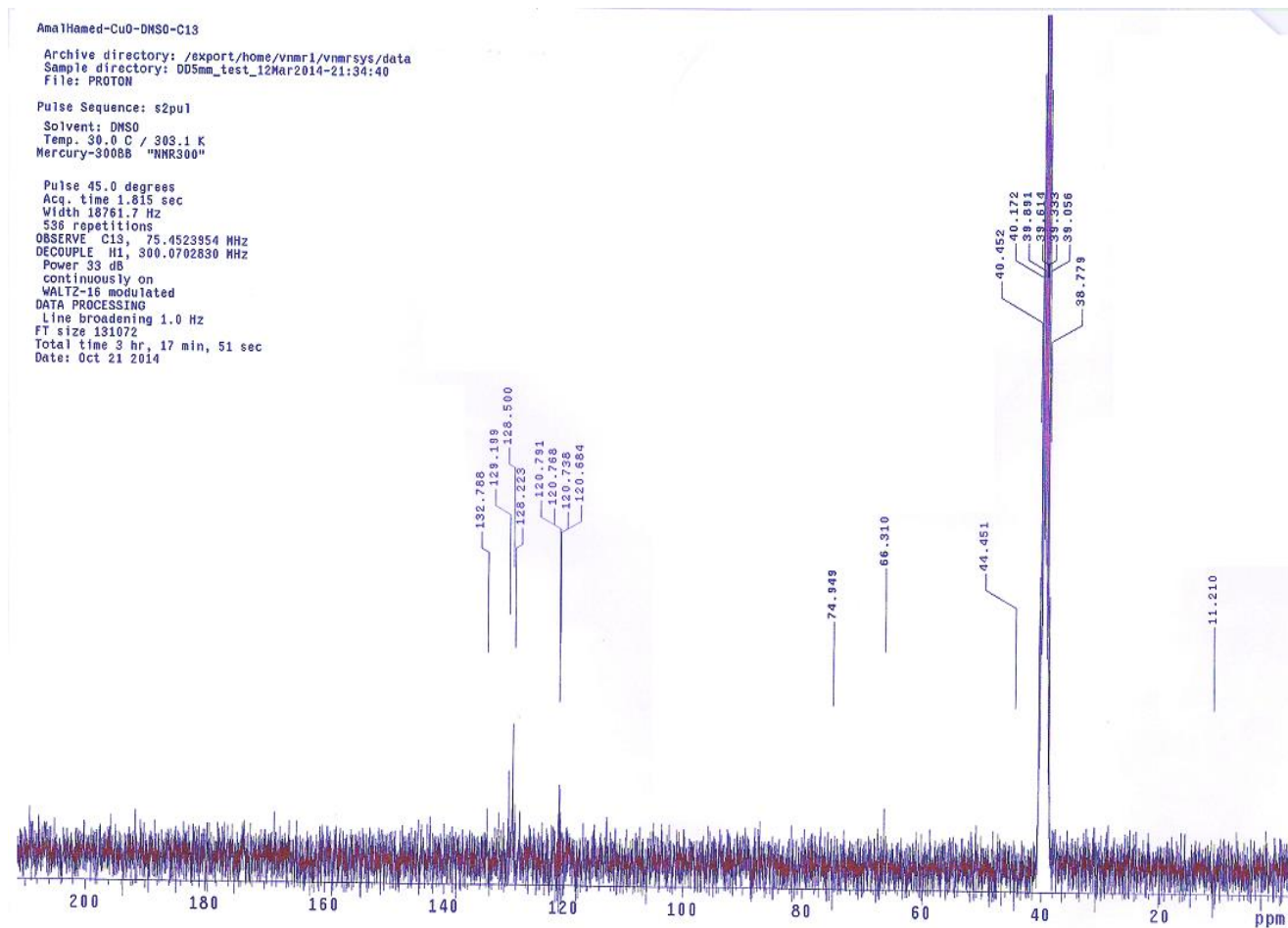


Figure S11: ^{13}C -nmr spectrum of copper complex 5

Supplementary 12

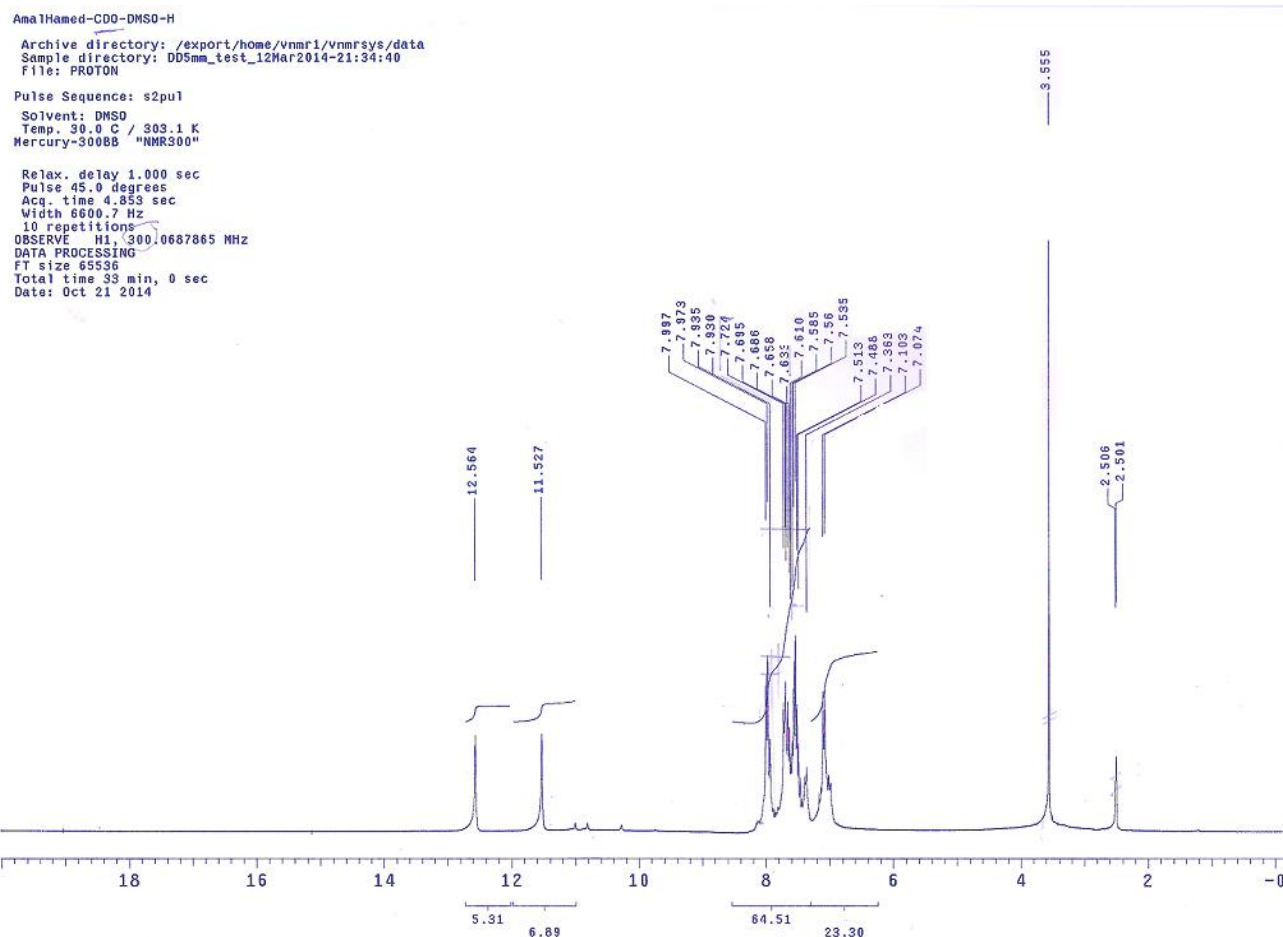


Figure S12: ^1H -nmr spectrum of cadmium complex **6**

Supplementary 13

Am1Hamed-CD0-DMSO-C13

Archive directory: /export/home/vnmr1/vnmrsys/data
Sample directory: 005mm_test_12Mar2014-21:34:40
File: PROTON

Pulse Sequence: s2pu1

Solvent: DMSO
Temp. 30.0 C / 303.1 K
Mercury-300BB "NMR300"

Pulse 45.0 degrees
Acq. time 1.815 sec
Width 18761.7 Hz
736 repetitions
OBSERVE C13, 75.4523954 MHz
DECOUPLE H1, 300.0702830 MHz
Power 33 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 131072
Total time 3 hr, 17 min, 51 sec
Date: Oct 21 2014

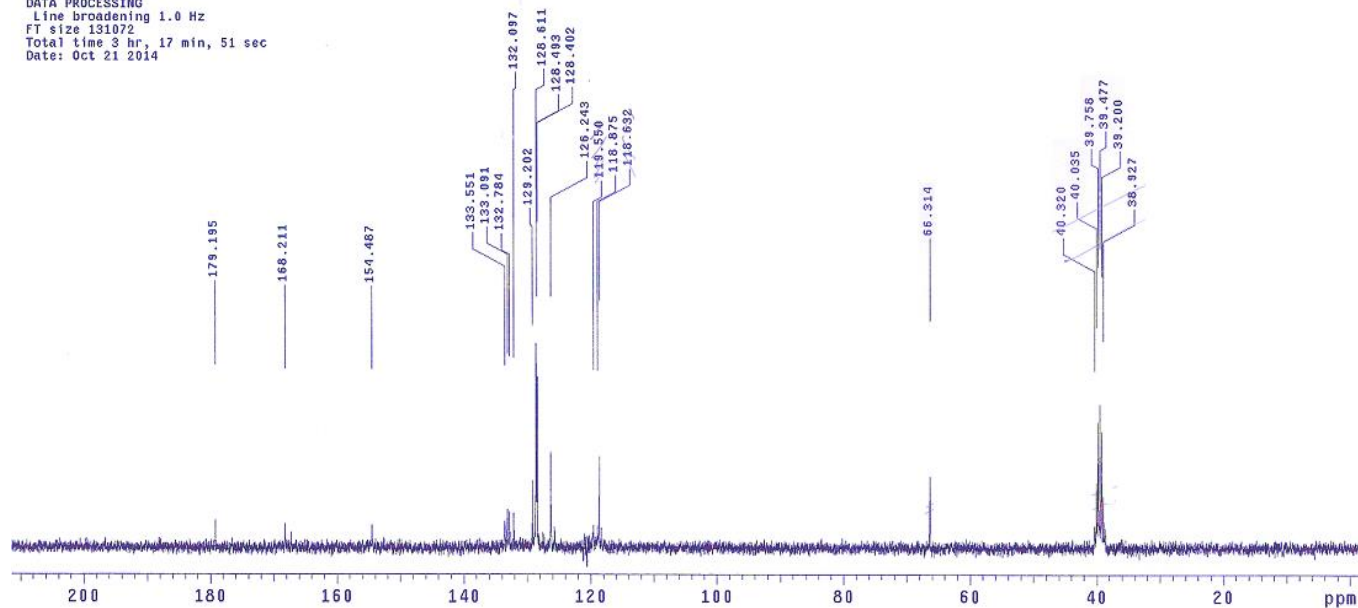


Figure S13: ^{13}C -nmr spectrum of cadmium complex **6**

Supplementary 14

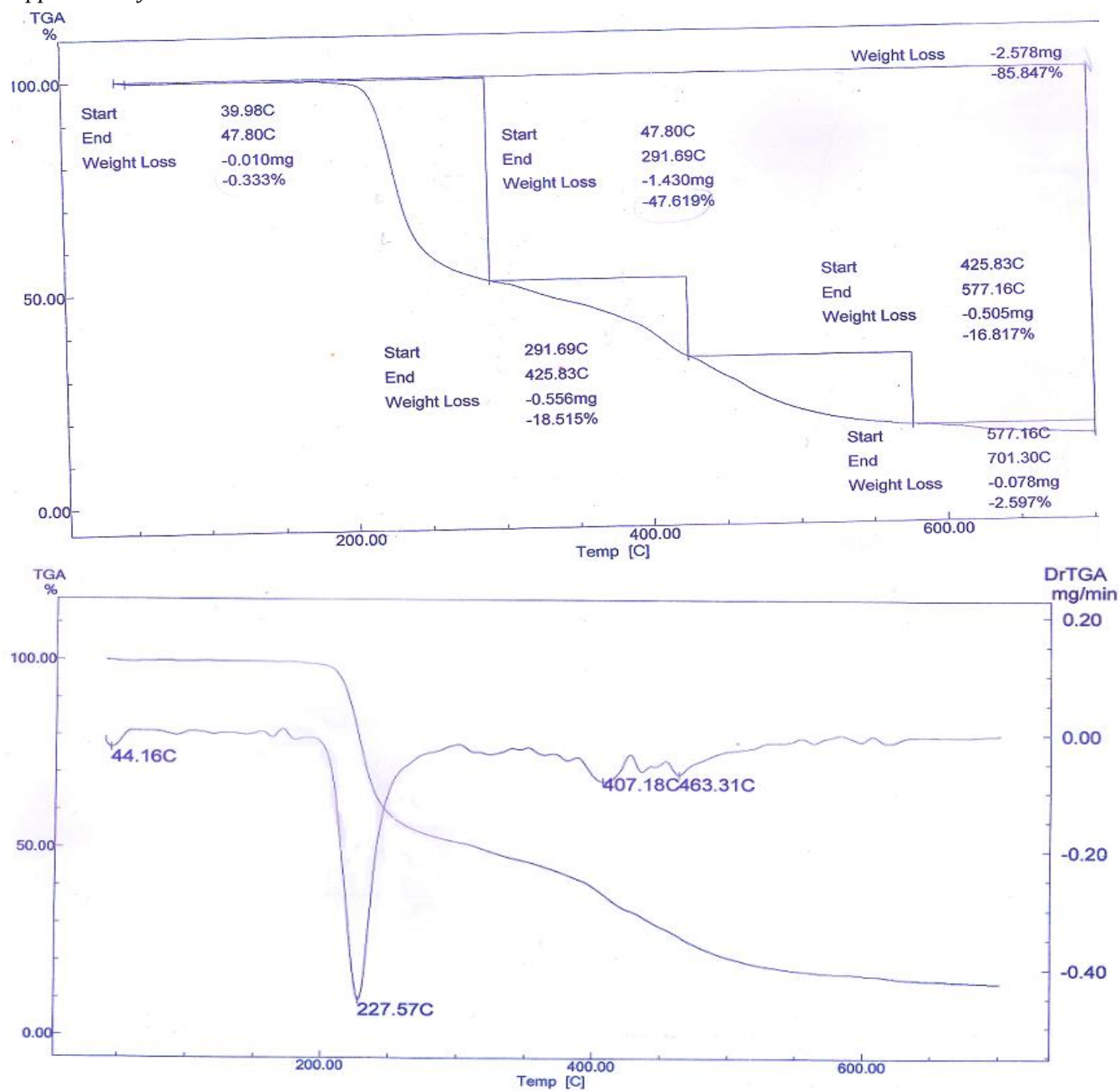


Figure S14: Thermal analysis data of N,N'-(((oxybis(4,1-phenylene))bis(azanediyl))bis(carbonothioyl))dibenzamide **4**

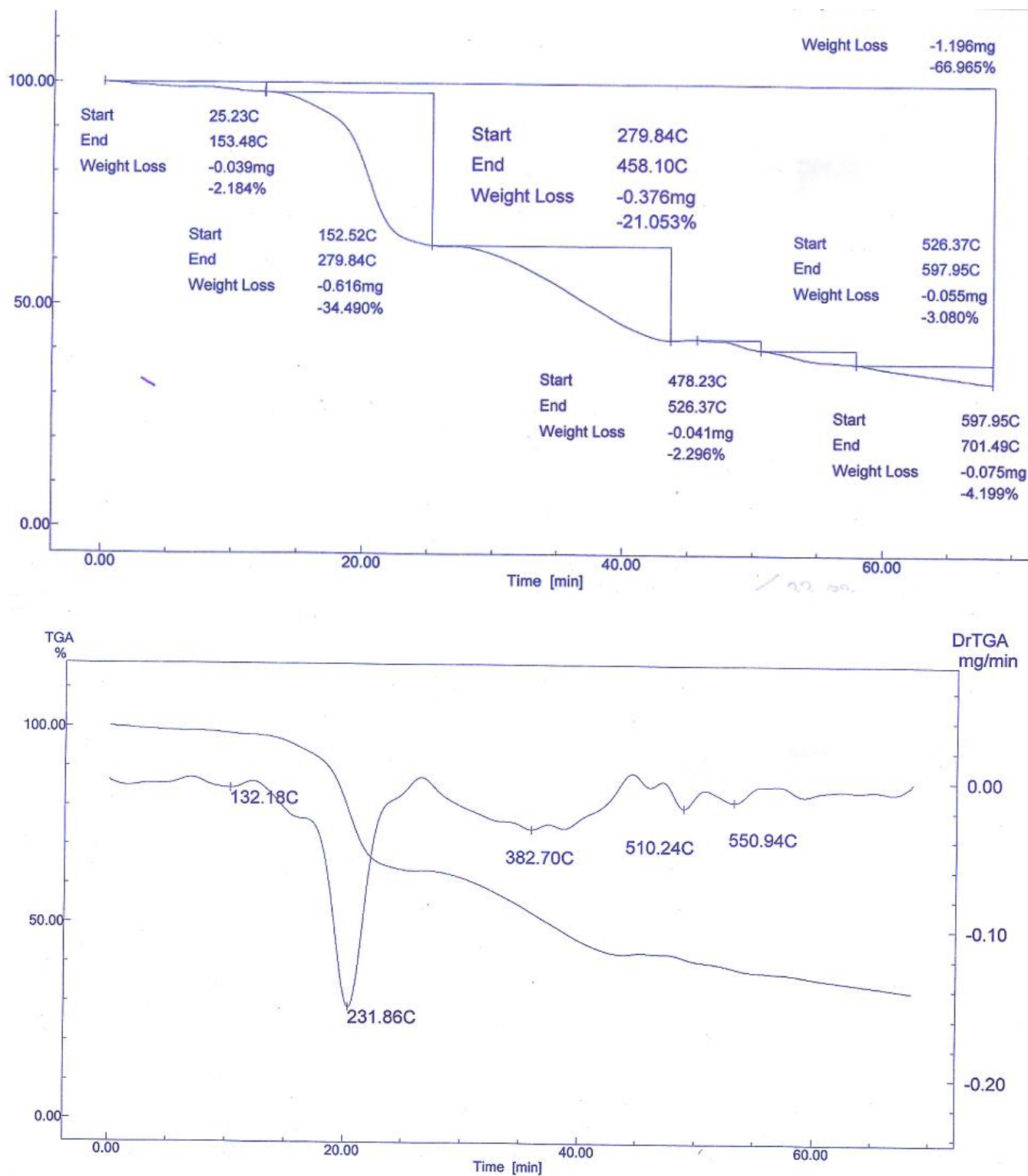


Figure S15: Thermal analysis data of copper complex 5

Supplementary 16

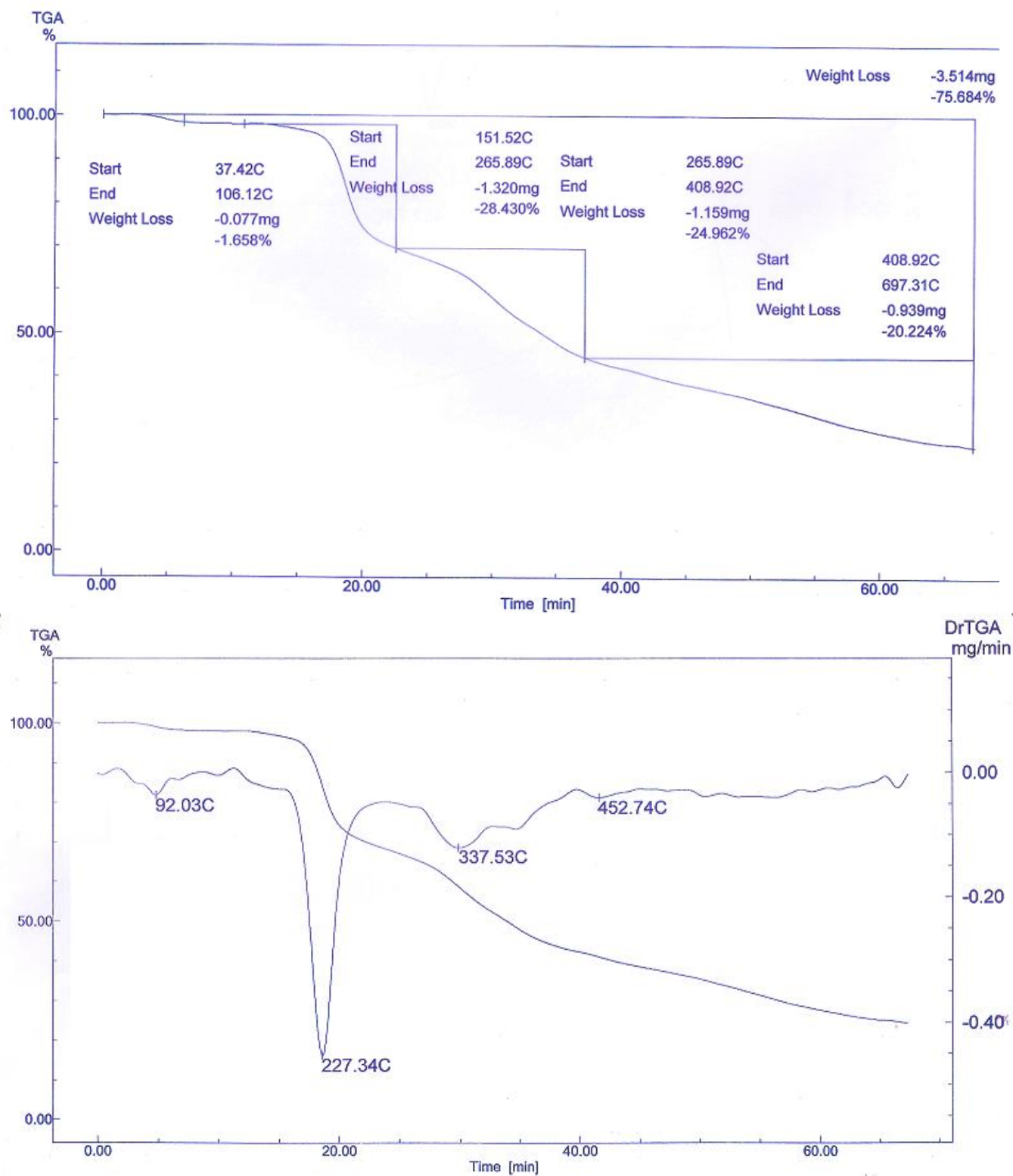


Figure S16: Thermal analysis data of cadmium complex 6