

SUPPORTING INFORMATION

Brønsted acidic ionic liquid anchored on magnetite nanoparticles as a novel recoverable heterogeneous catalyst in the Biginelli reaction

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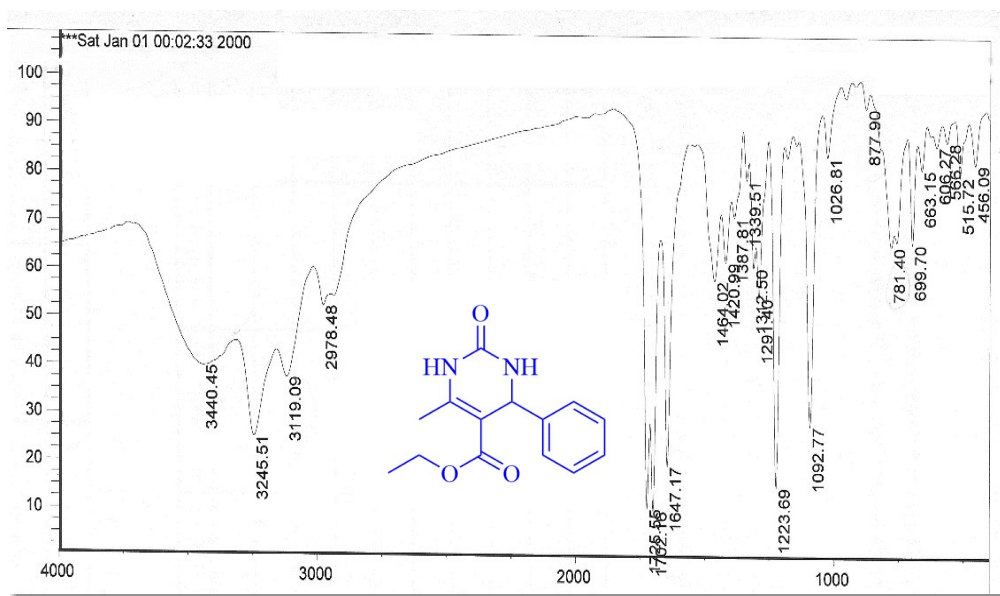
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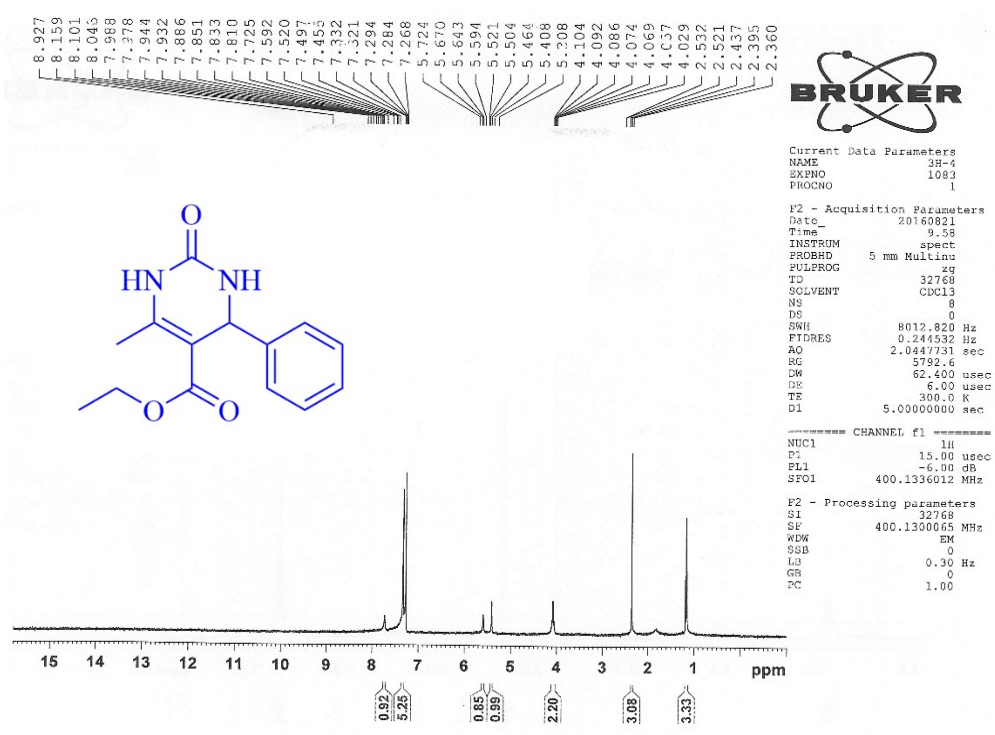
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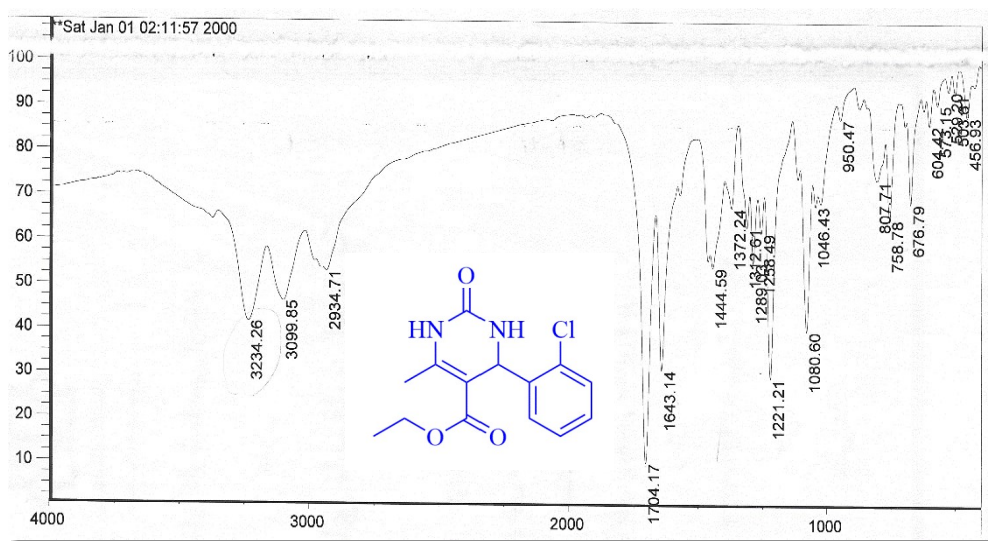
The FT-IR spectra of compound 4a



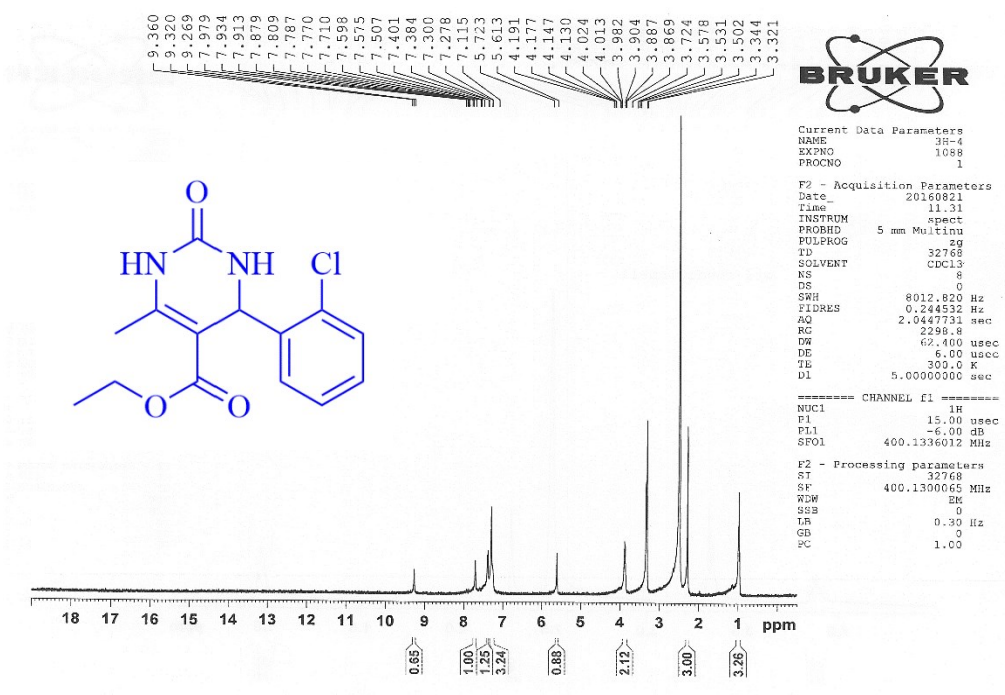
The ¹H NMR spectrum of 4a



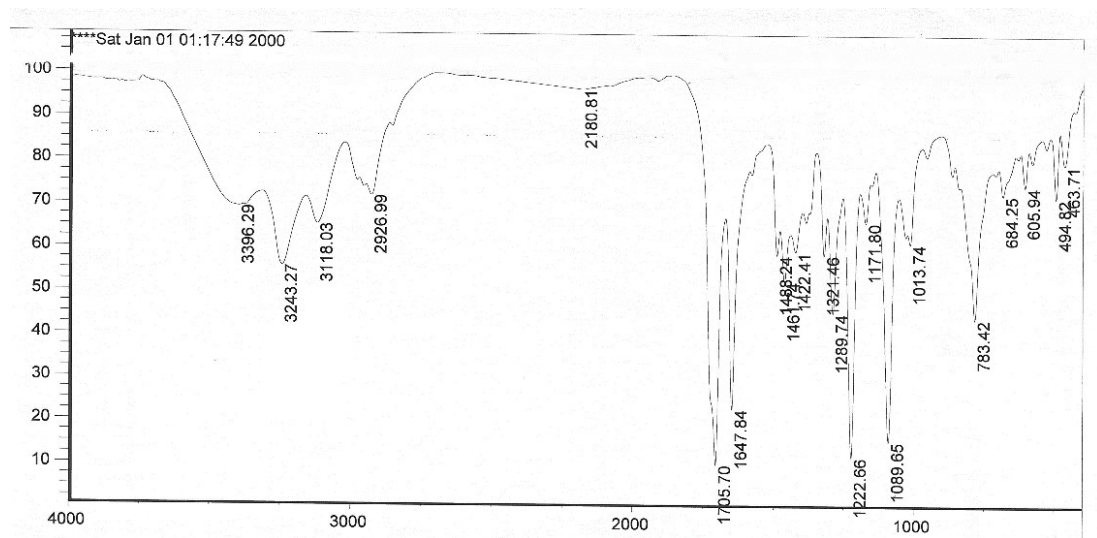
The FT-IR spectra of compound **4b**



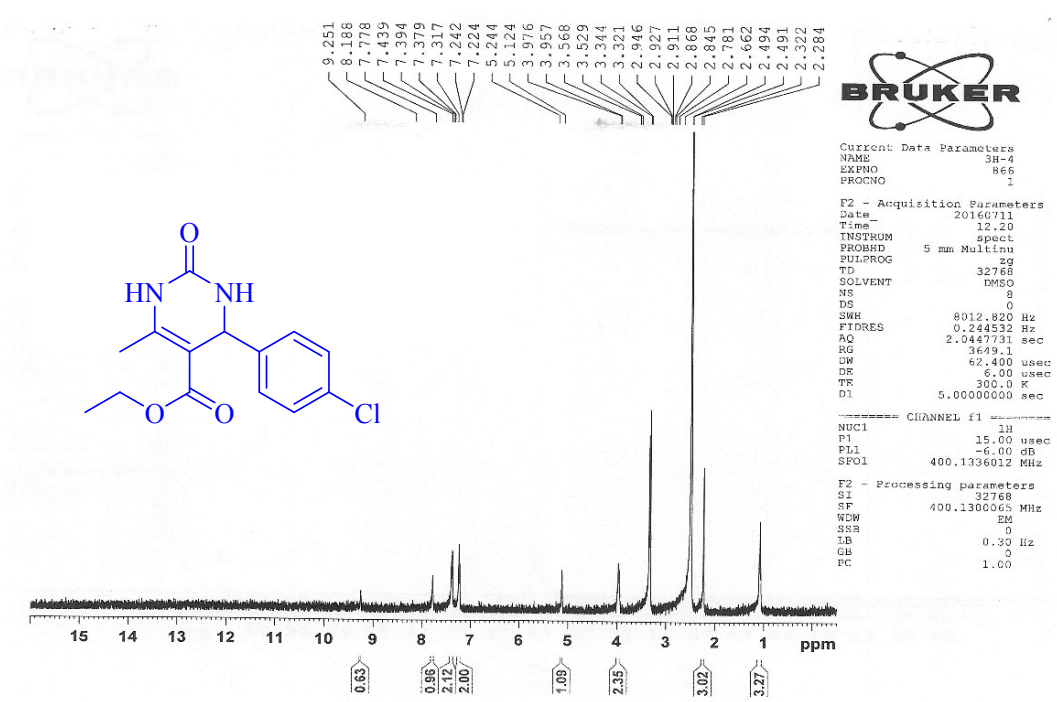
The ¹H NMR spectrum of **4b**



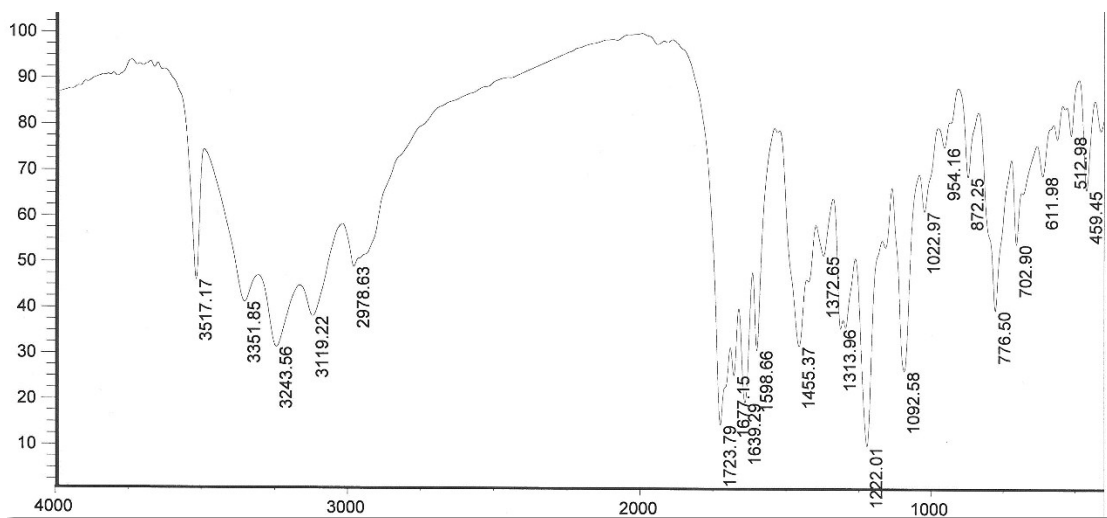
The FT-IR spectra of compound 4c



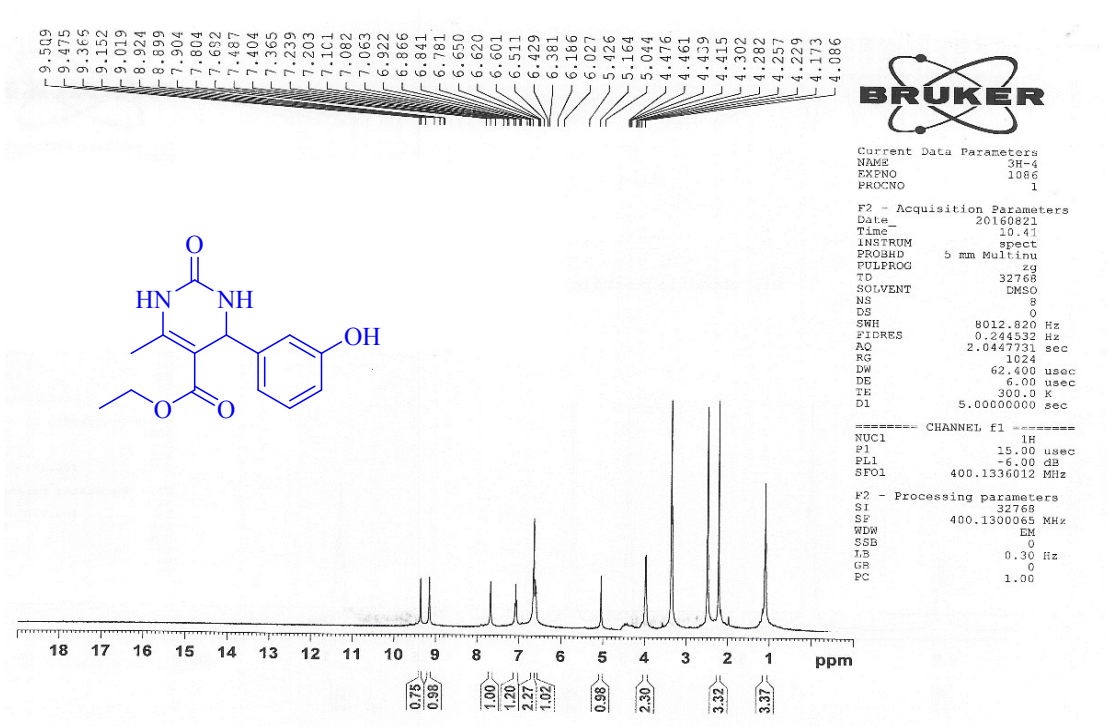
The ¹H NMR spectrum of 4c



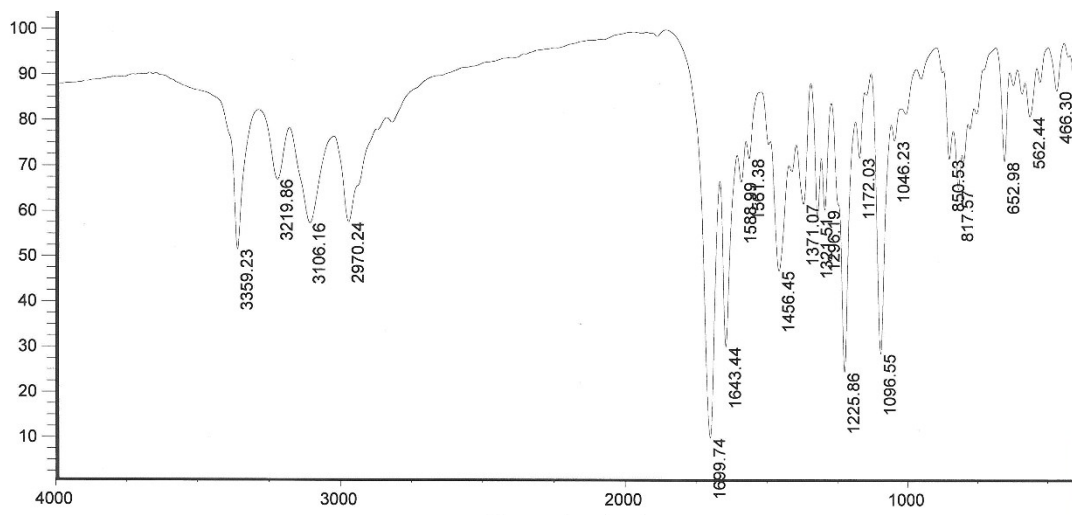
The FT-IR spectra of compound 4d



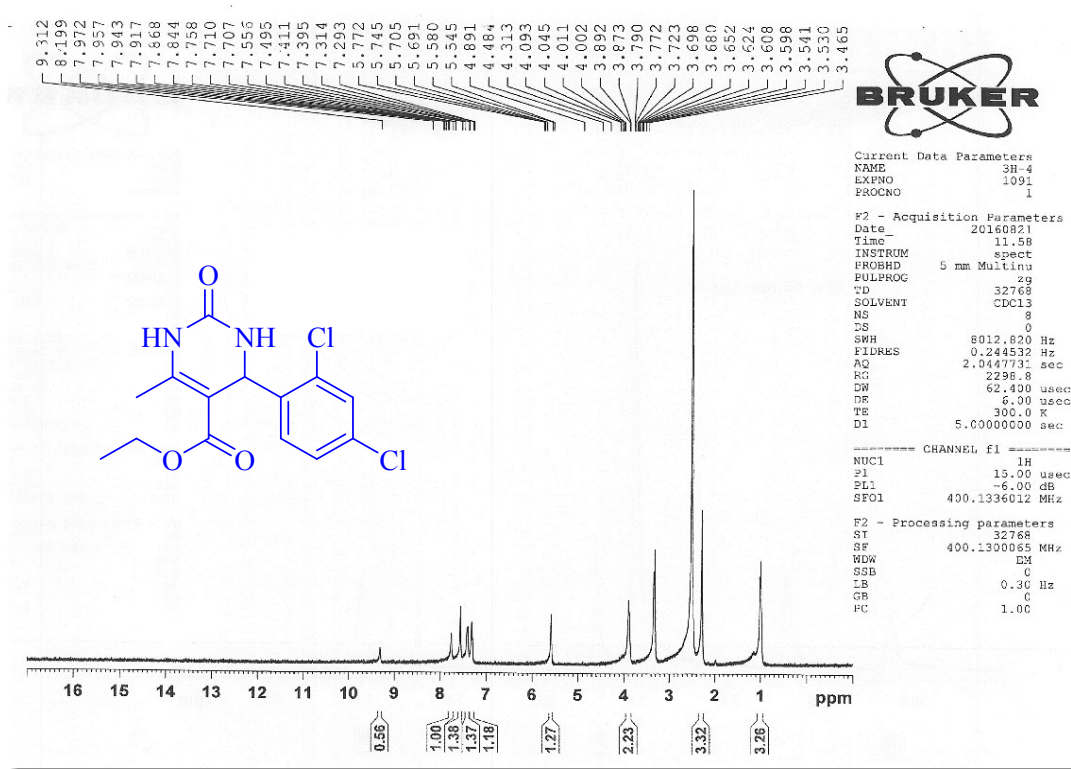
The ¹H NMR spectrum of 4d



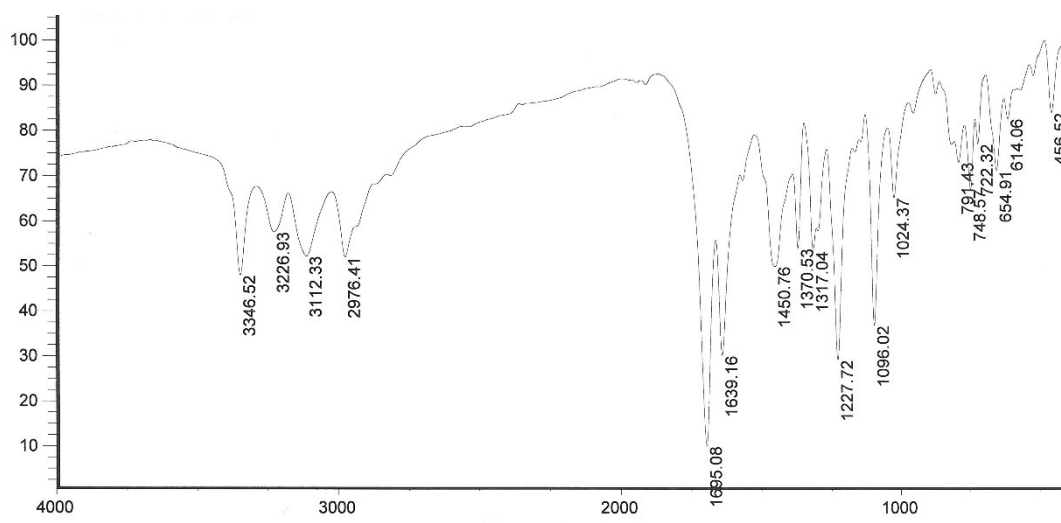
The FT-IR spectra of compound 4e



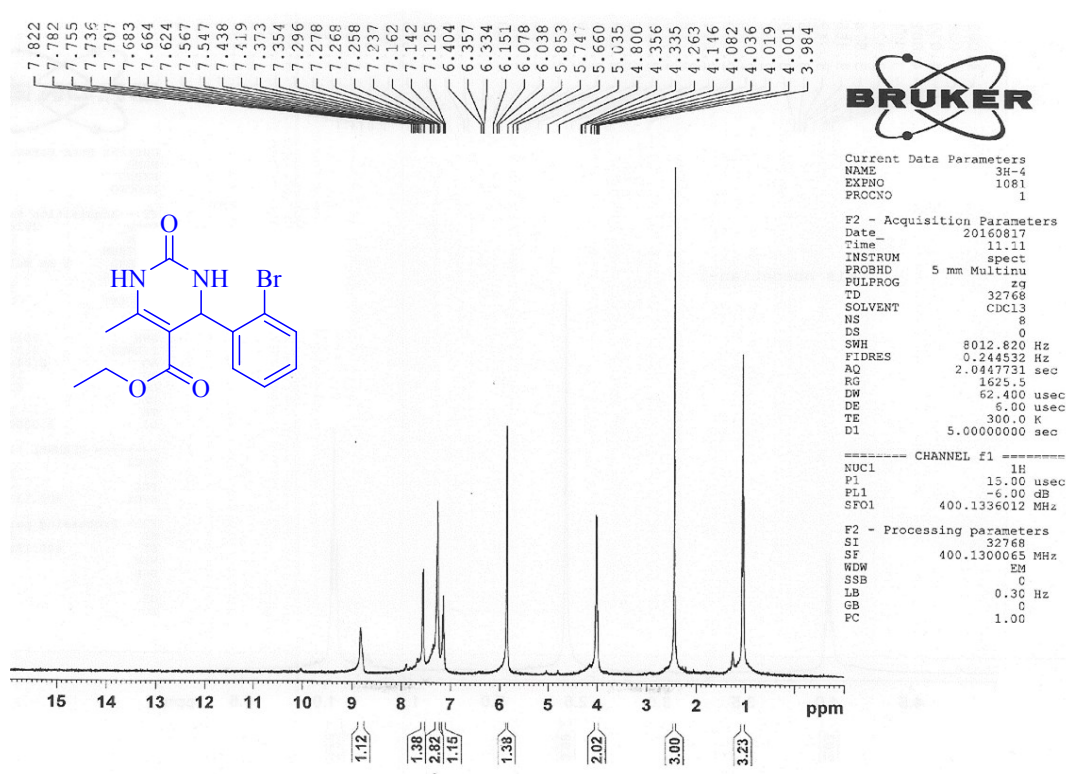
The ^1H NMR spectrum of 4e



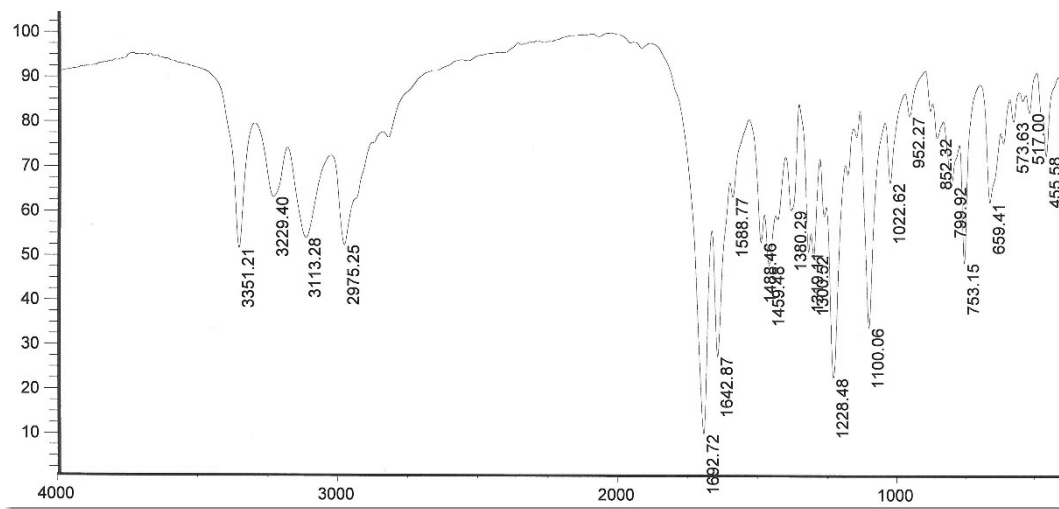
The FT-IR spectra of compound **4f**



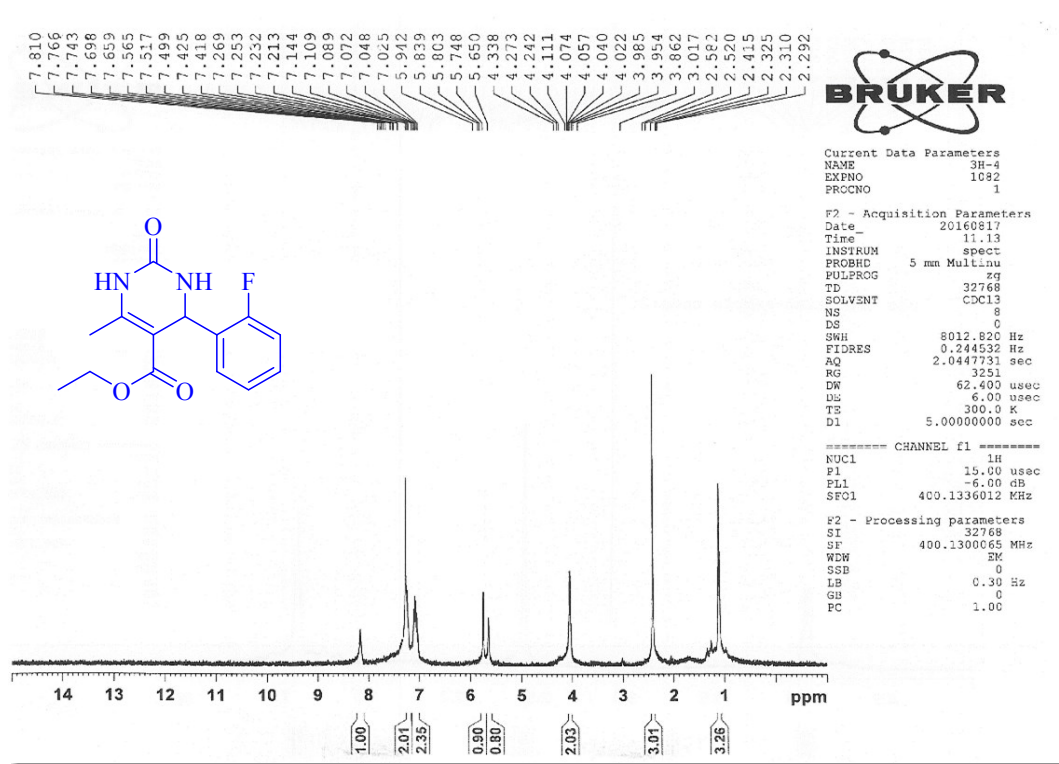
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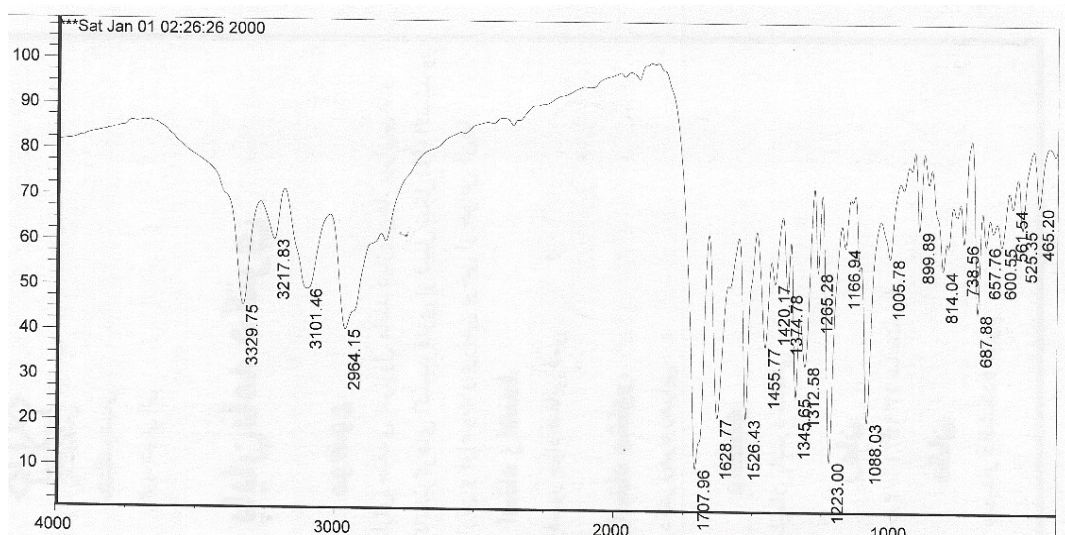
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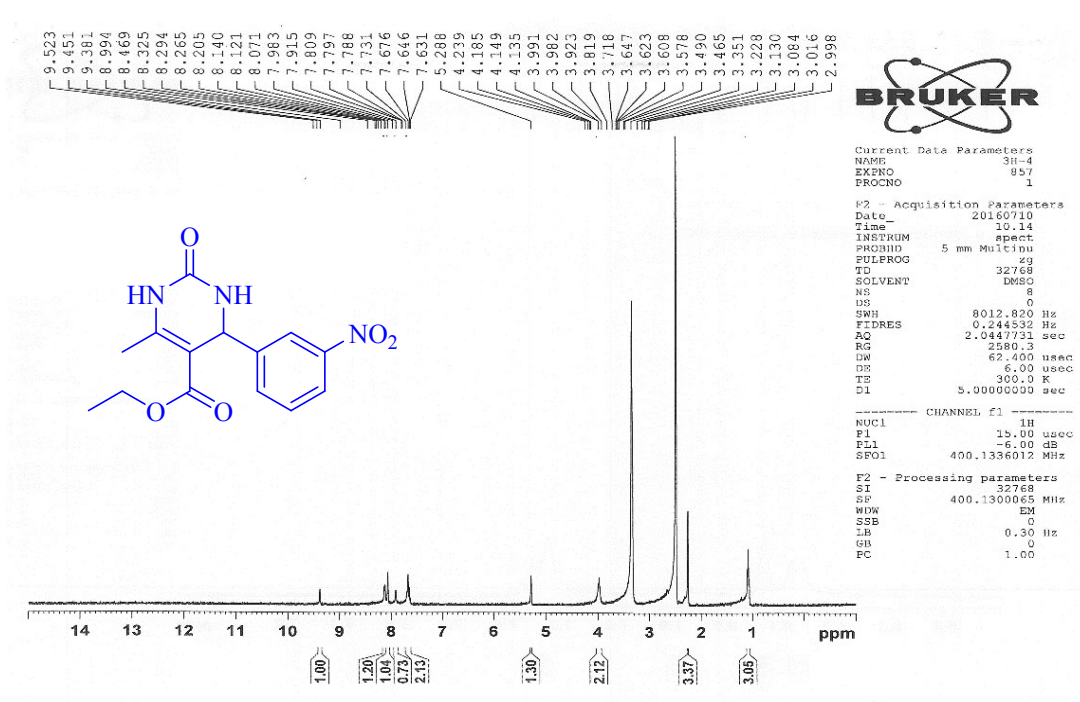
The ¹H NMR spectrum of 4g



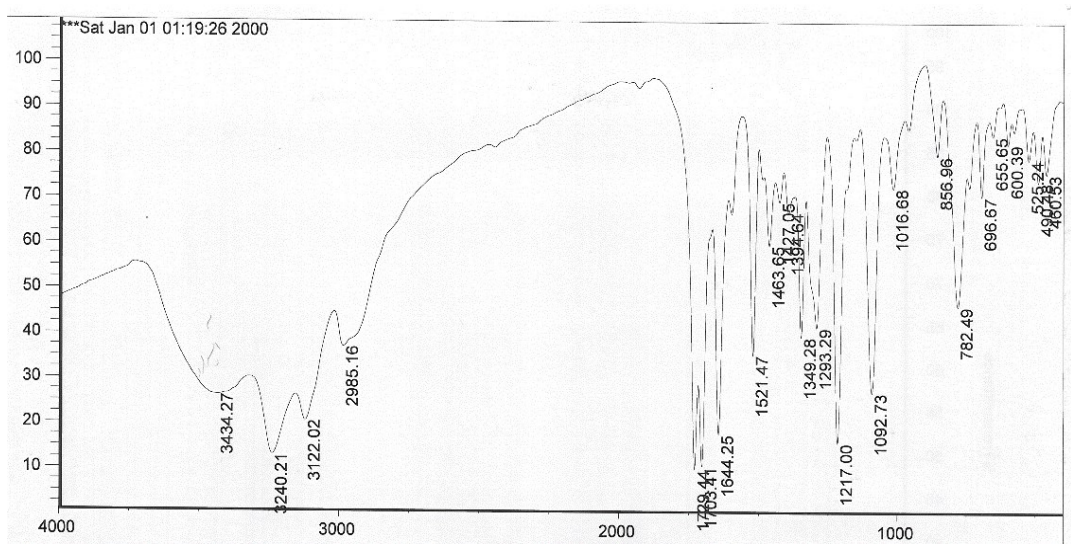
The FT-IR spectra of compound 4h



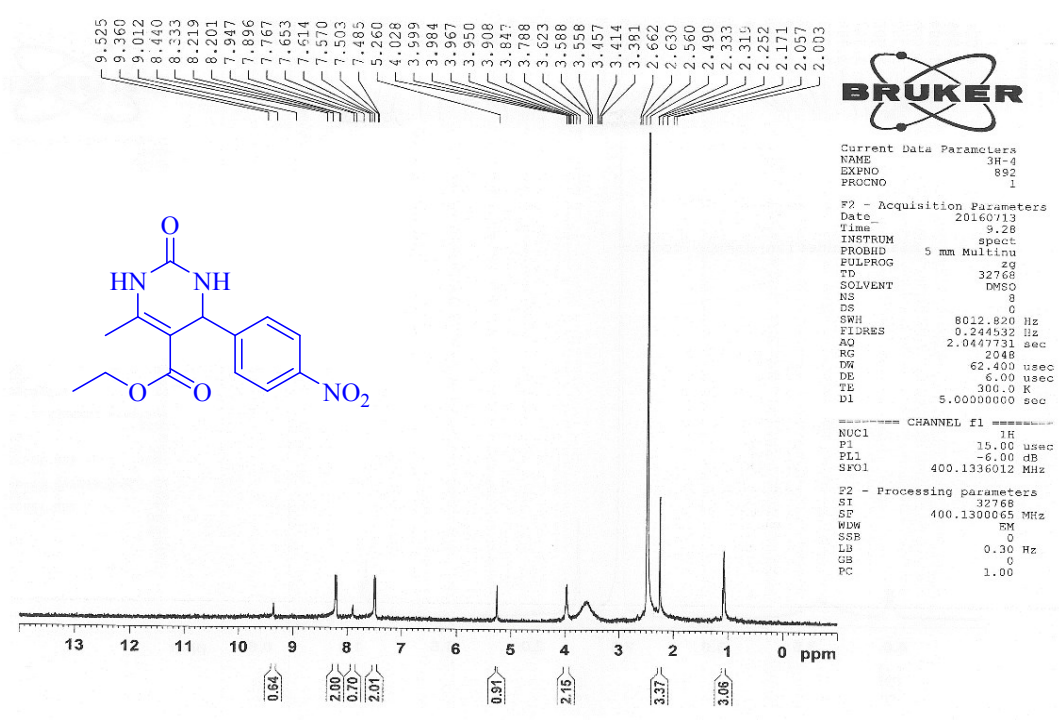
The ^1H NMR spectrum of **4h**



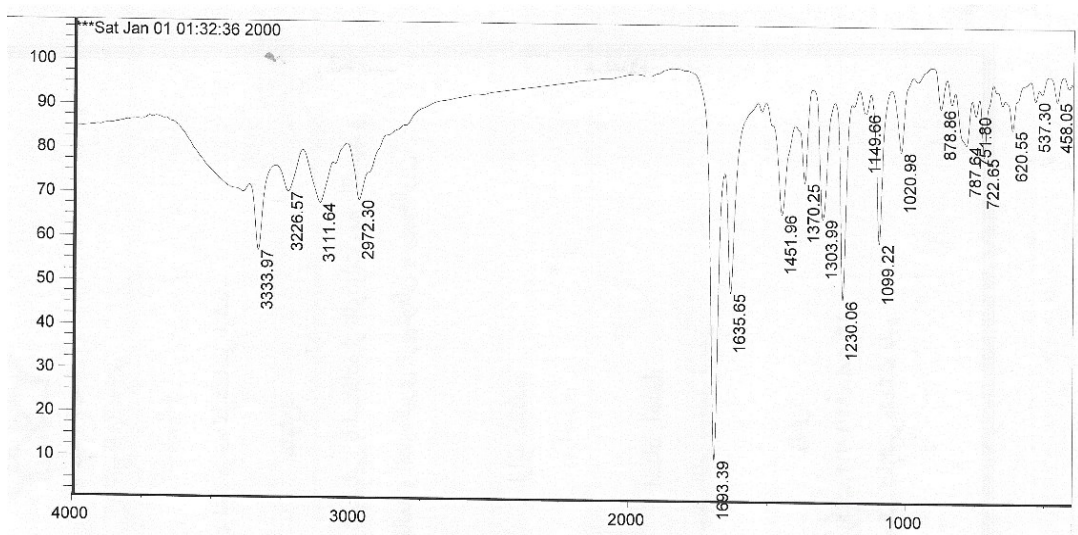
The FT-IR spectra of compound **4i**



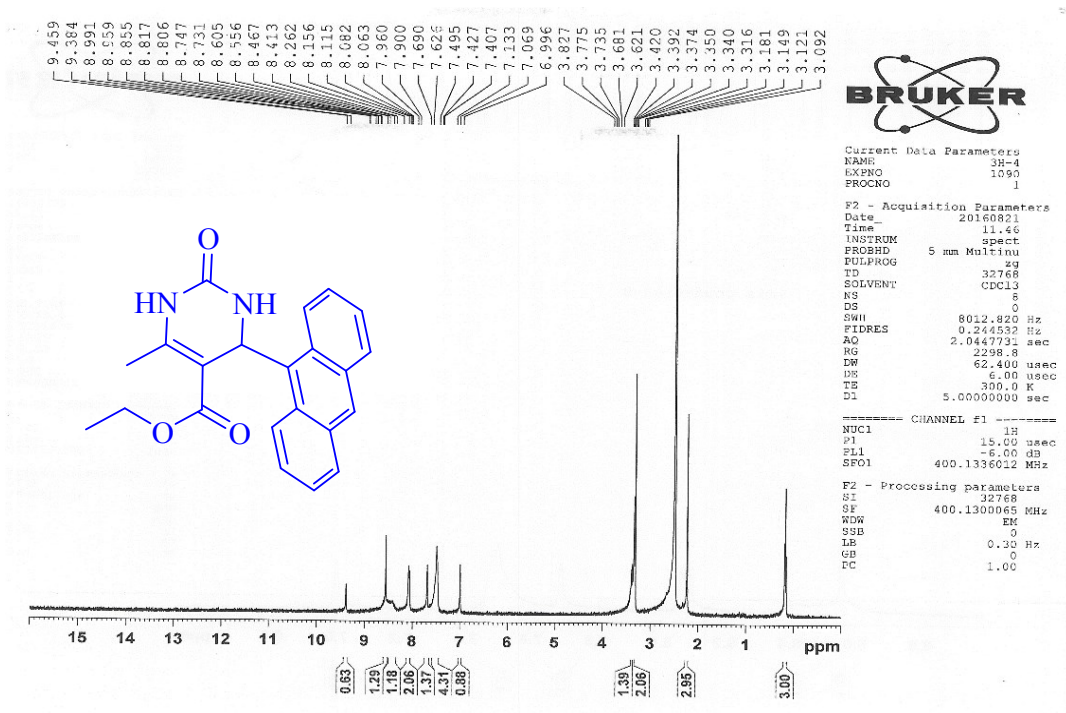
The ¹H NMR spectrum of **4i**



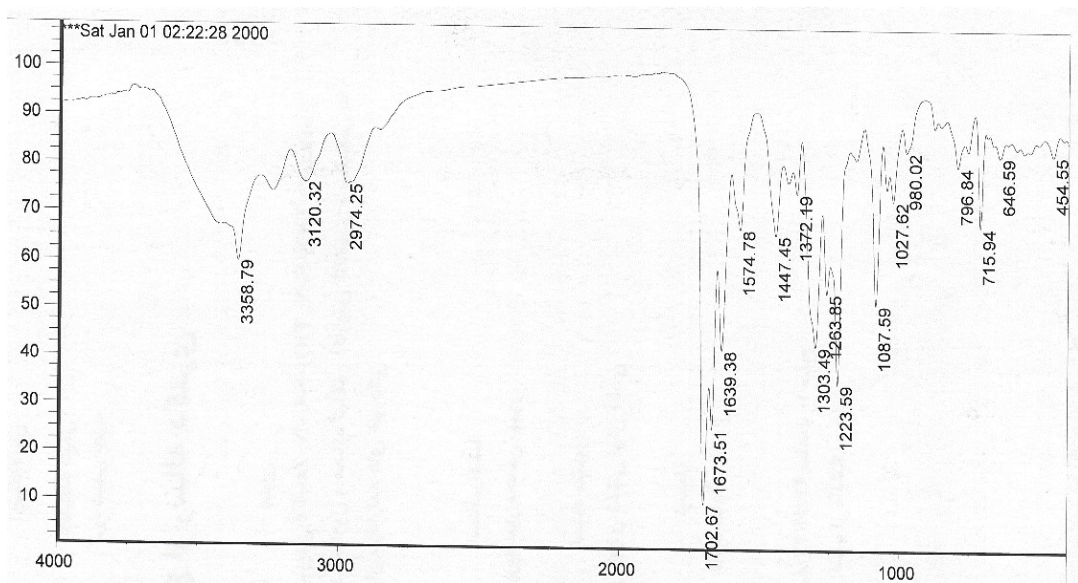
The FT-IR spectra of compound **4j**



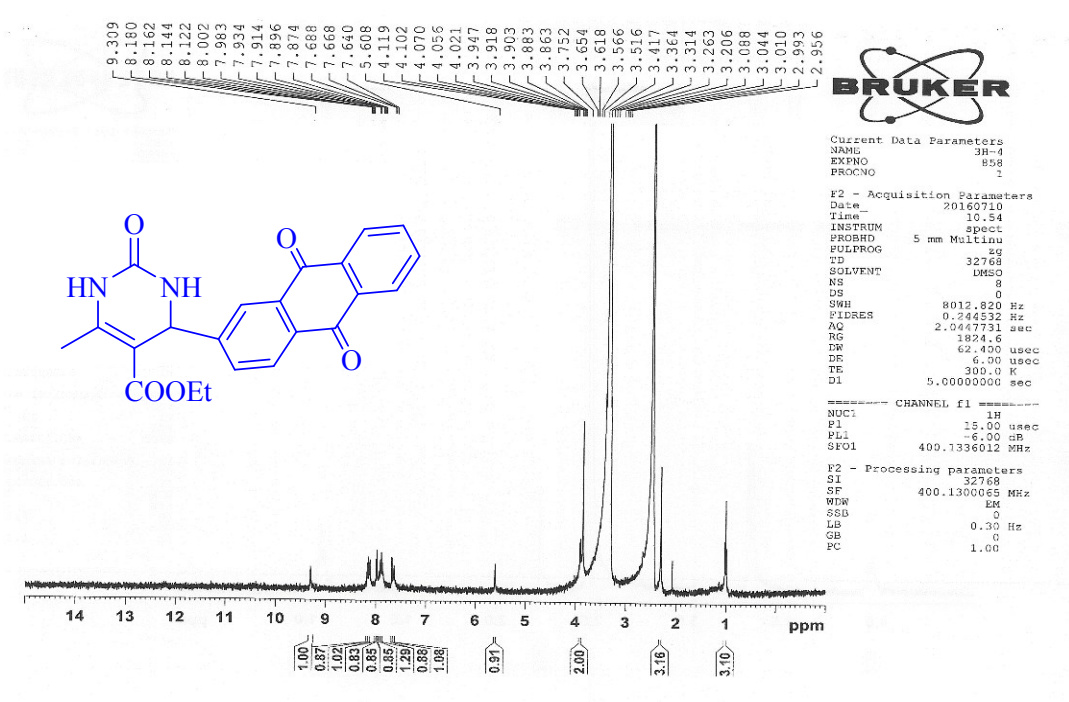
The ^1H NMR spectrum of **4j**



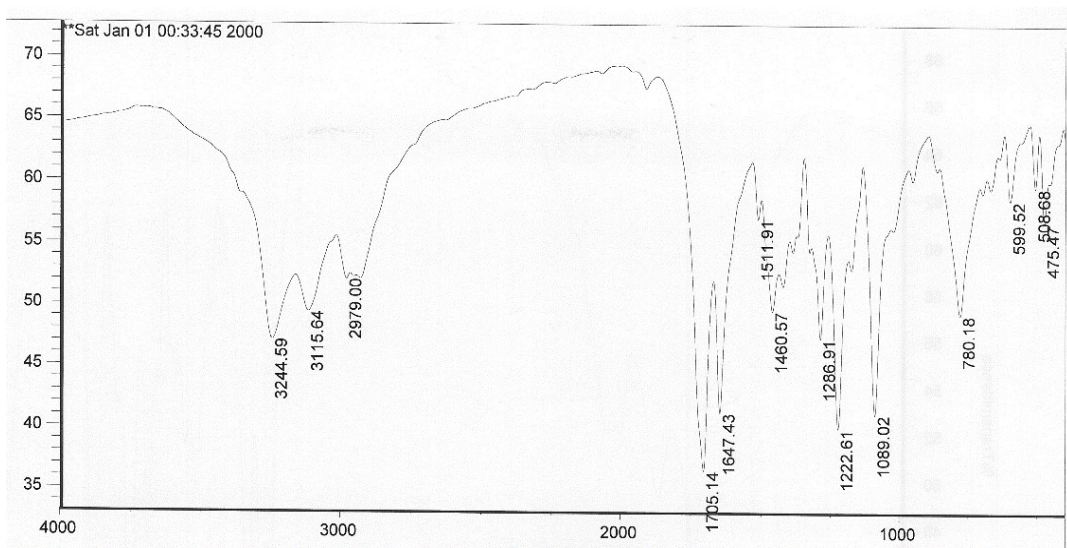
The FT-IR spectra of compound **4k**



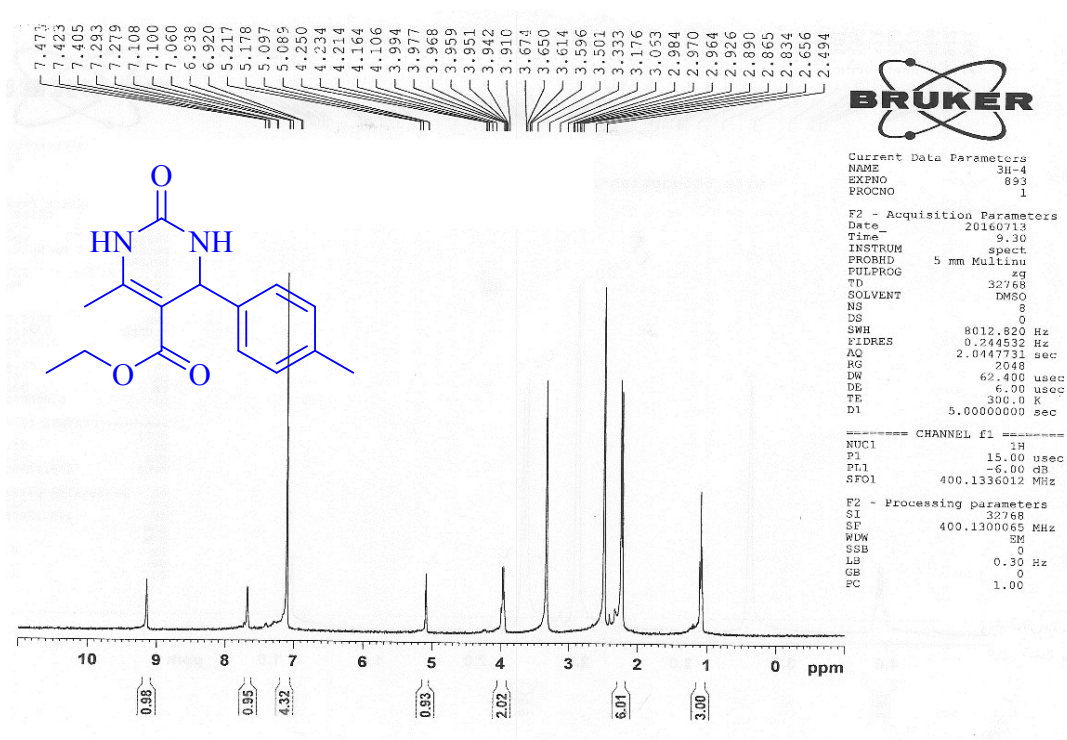
The ^1H NMR spectrum of 4k



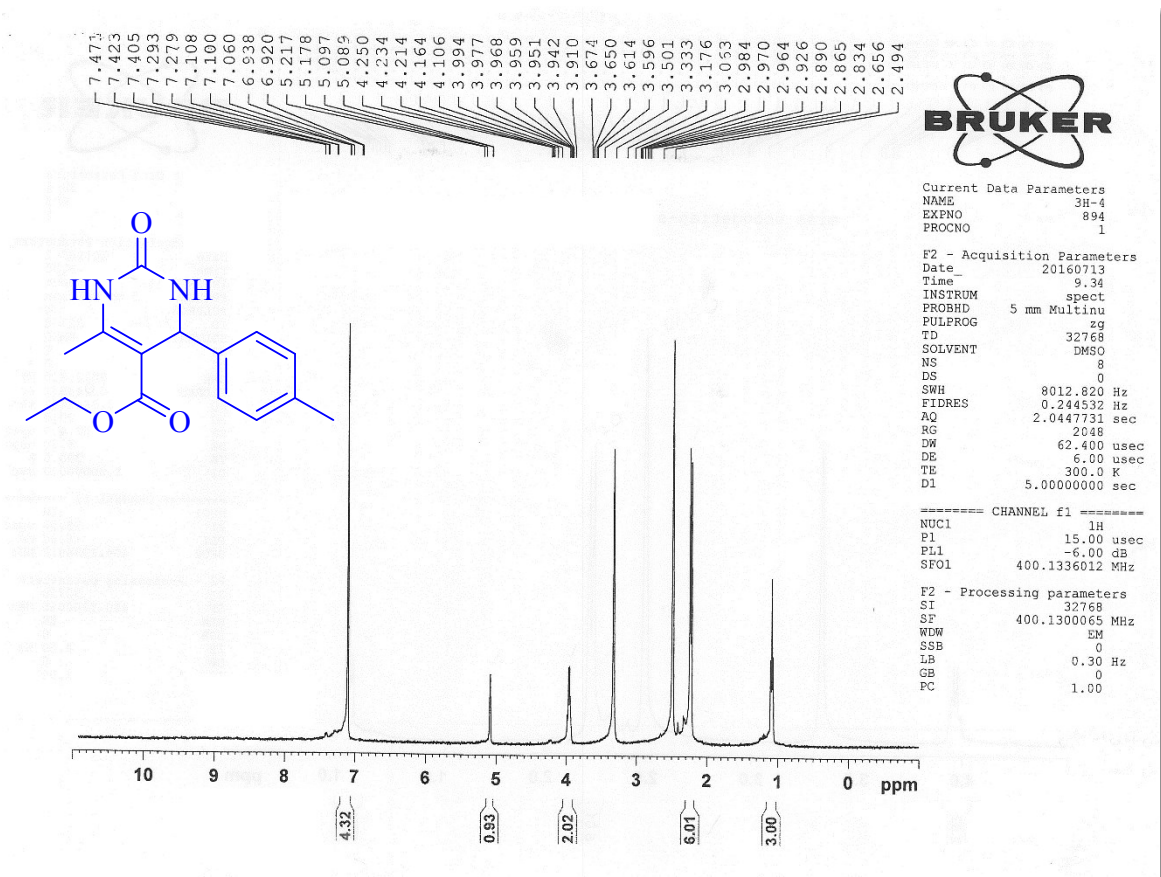
The FT-IR spectra of compound 4l



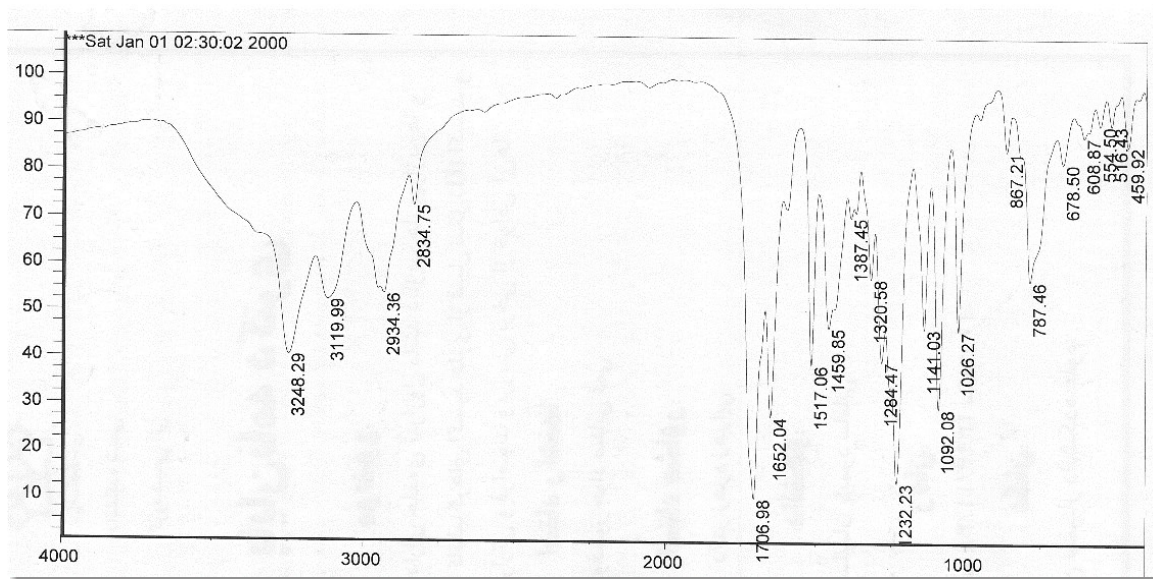
The ^1H NMR spectrum of **4I**



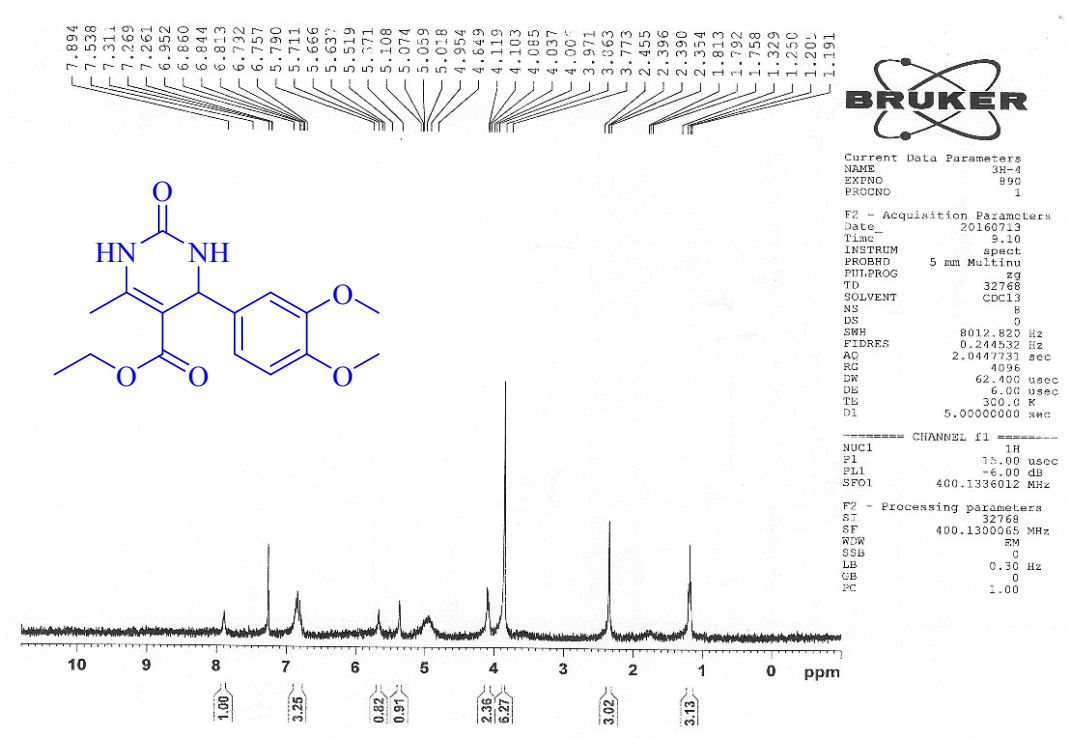
The ^1H NMR spectra of **4I** in DMSO-D_6 and D_2O as NMR solvent



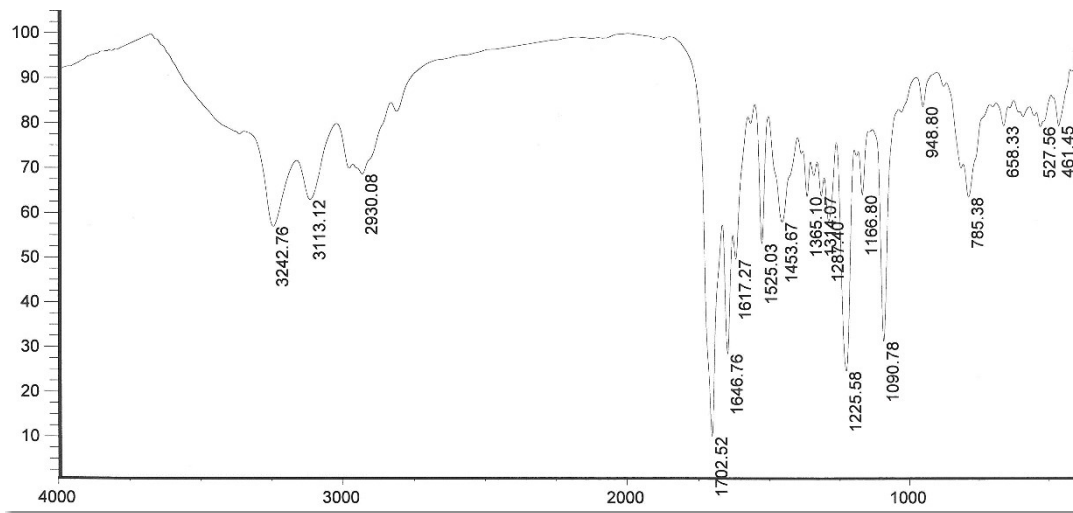
The FT-IR spectra of compound **4m**



The ¹H NMR spectrum of **4m**



The FT-IR spectra of compound **4n**



The ¹H NMR spectrum of **4n**

8.981
8.040
7.895
7.568
7.768
7.723
7.706
7.680
7.663
7.579
7.548
7.504
7.451
7.402
7.367
7.346
7.326
7.302
7.165
7.141
7.106
7.086
7.034
7.013
6.842
6.652
6.631
6.555
6.525
6.451
5.458
5.119
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3.970
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3.940
3.905

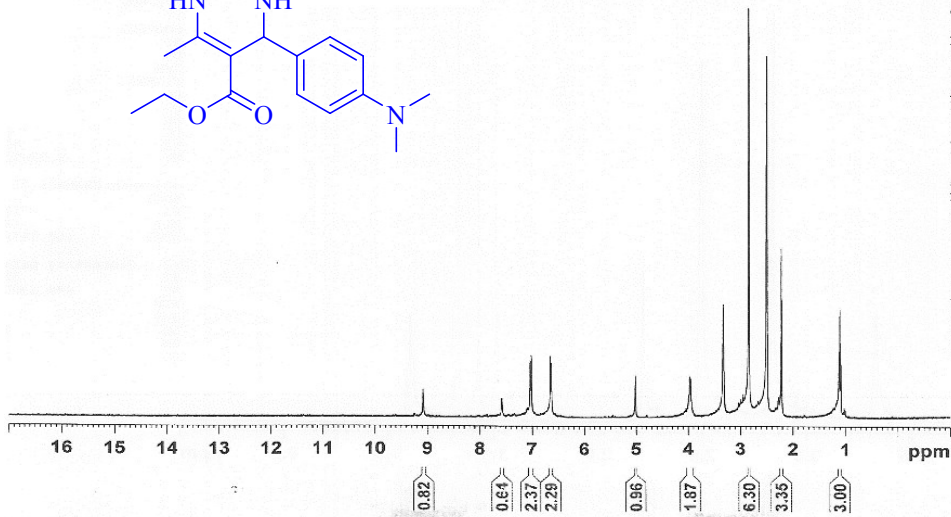
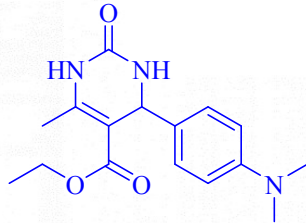


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EXPNO 1089
PROCNO 1

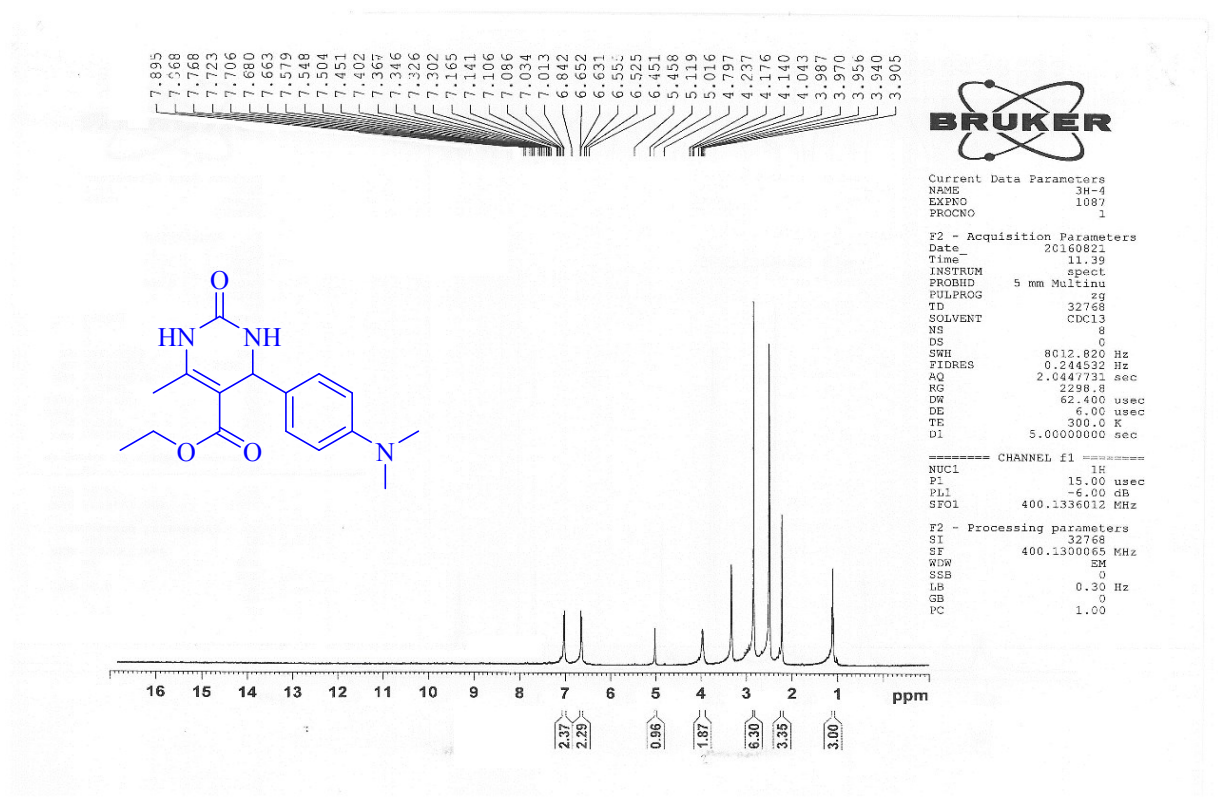
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FIDRES 0.244532 Hz
AQ 2.0447731 sec
RG 2298.8
DW 62.400 usec
DE 6.00 usec
TE 300.0 K
D1 5.00000000 sec

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PL1 -6.00 dB
SFO1 400.1336012 MHz

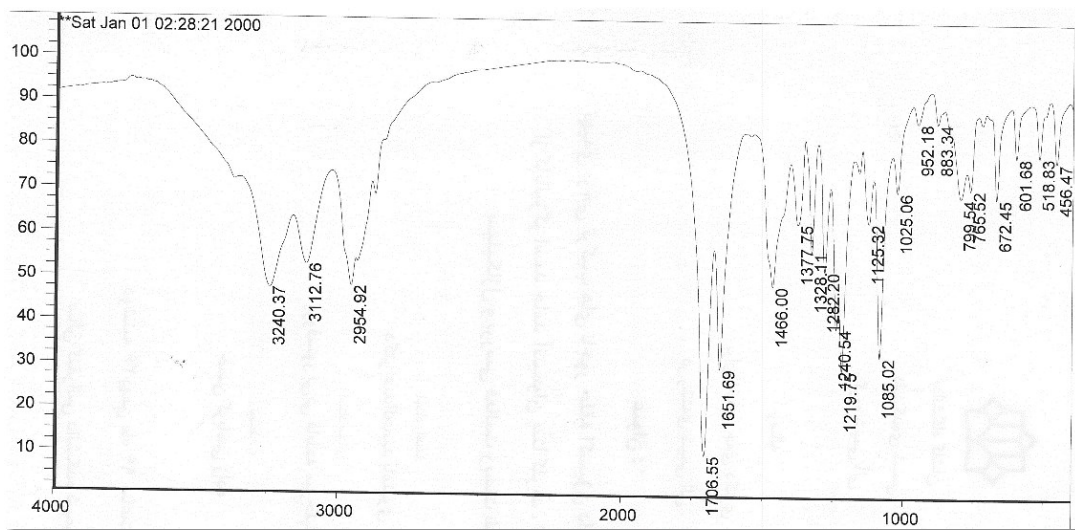
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GB 0
FC 1.00



The ^1H NMR spectra of **4n** in $\text{CHCl}_3\text{-D}_6$ and D_2O as NMR solvent



The FT-IR spectra of compound **4o**



The ^1H NMR spectrum of **4o**

