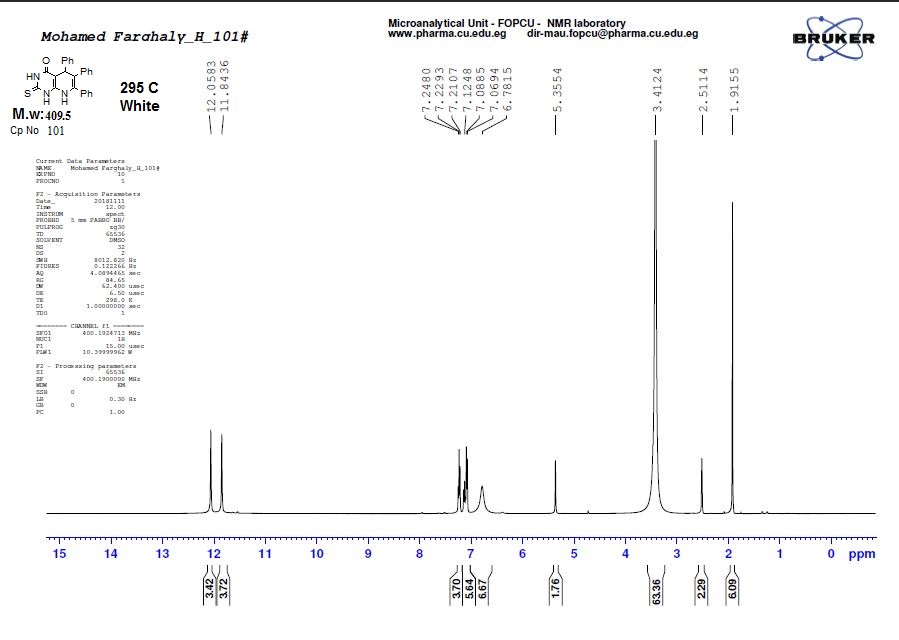
One-Pot, Three-Component Synthesis of Pyrido[2,3-*d*]pyrimidinones Using Aluminate Sulfonic Acid Nanocatalyst Under Grinding Technique

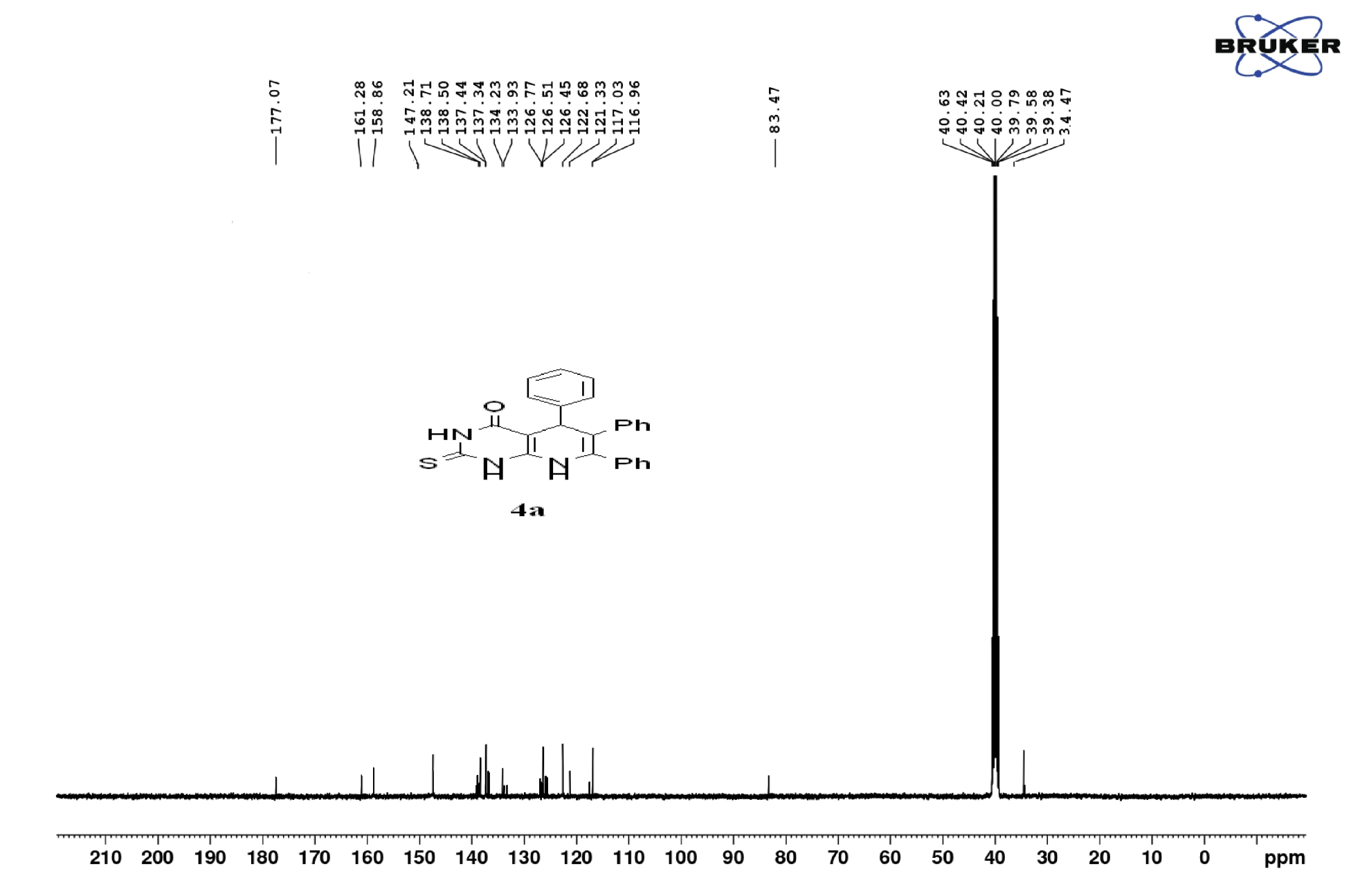
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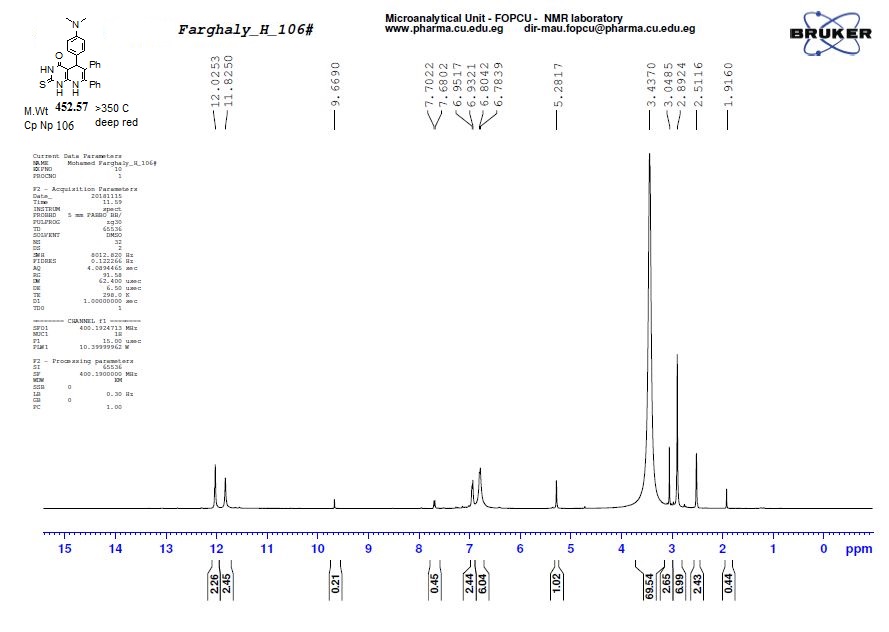
1HNMR of compound **4a**

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13CNMR of compound **4a**

D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\101_IR.jpg

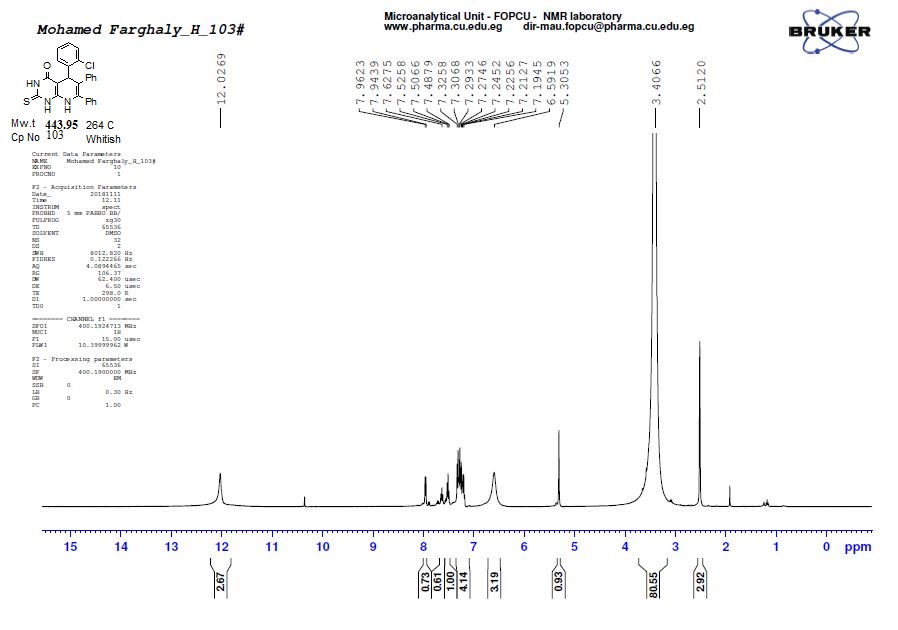
IR of compound **4a**

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1HNMR of compound **4c**

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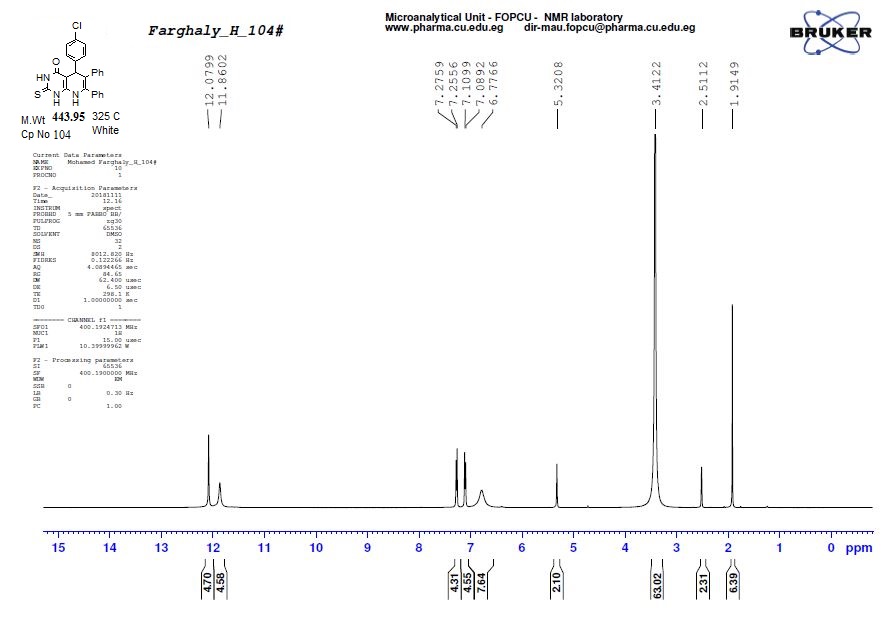
IR of compound **4c**

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1HNMR of compound **4d**

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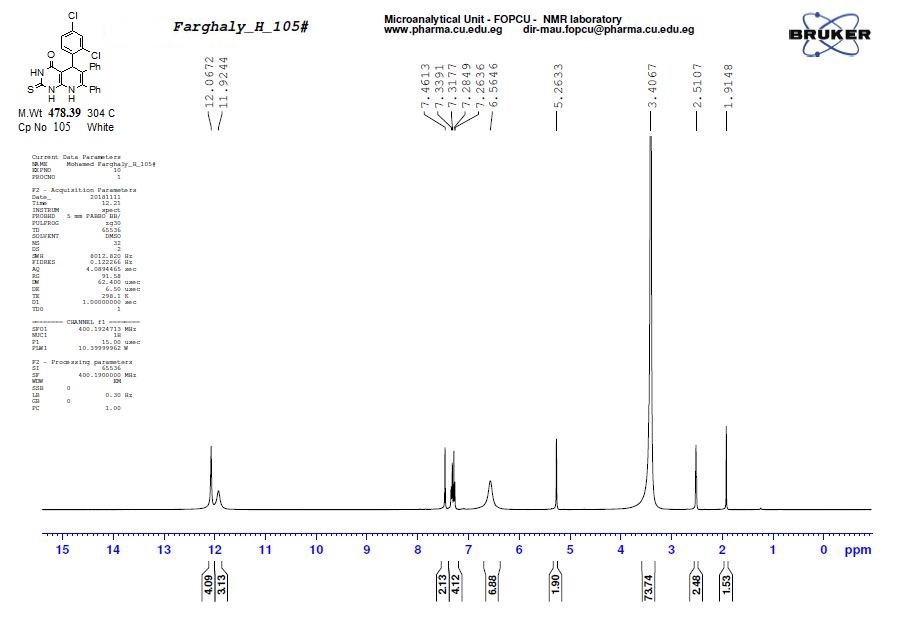
IR of compound **4d**



1HNMR of compound **4e**

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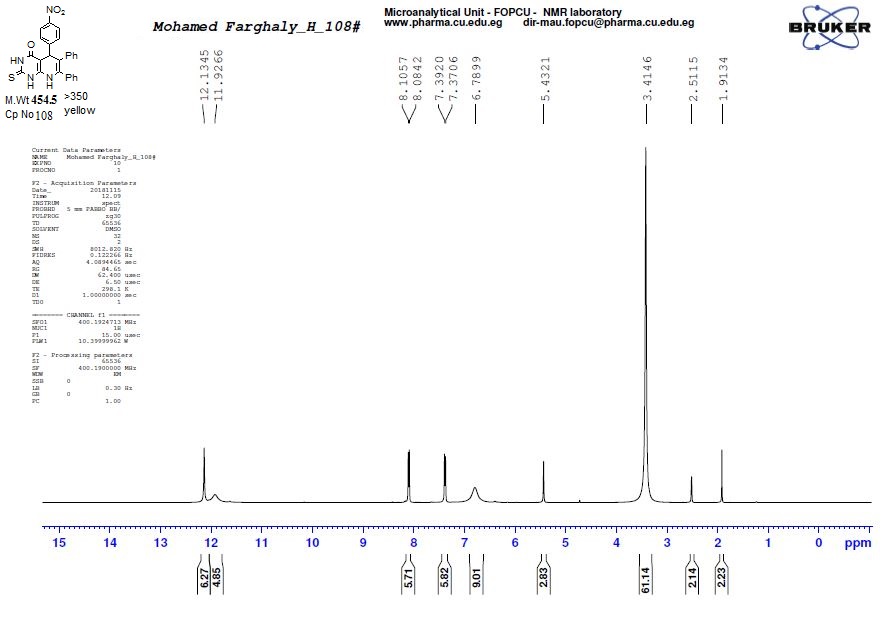
IR of compound **4e**

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1HNMR of compound **4f**

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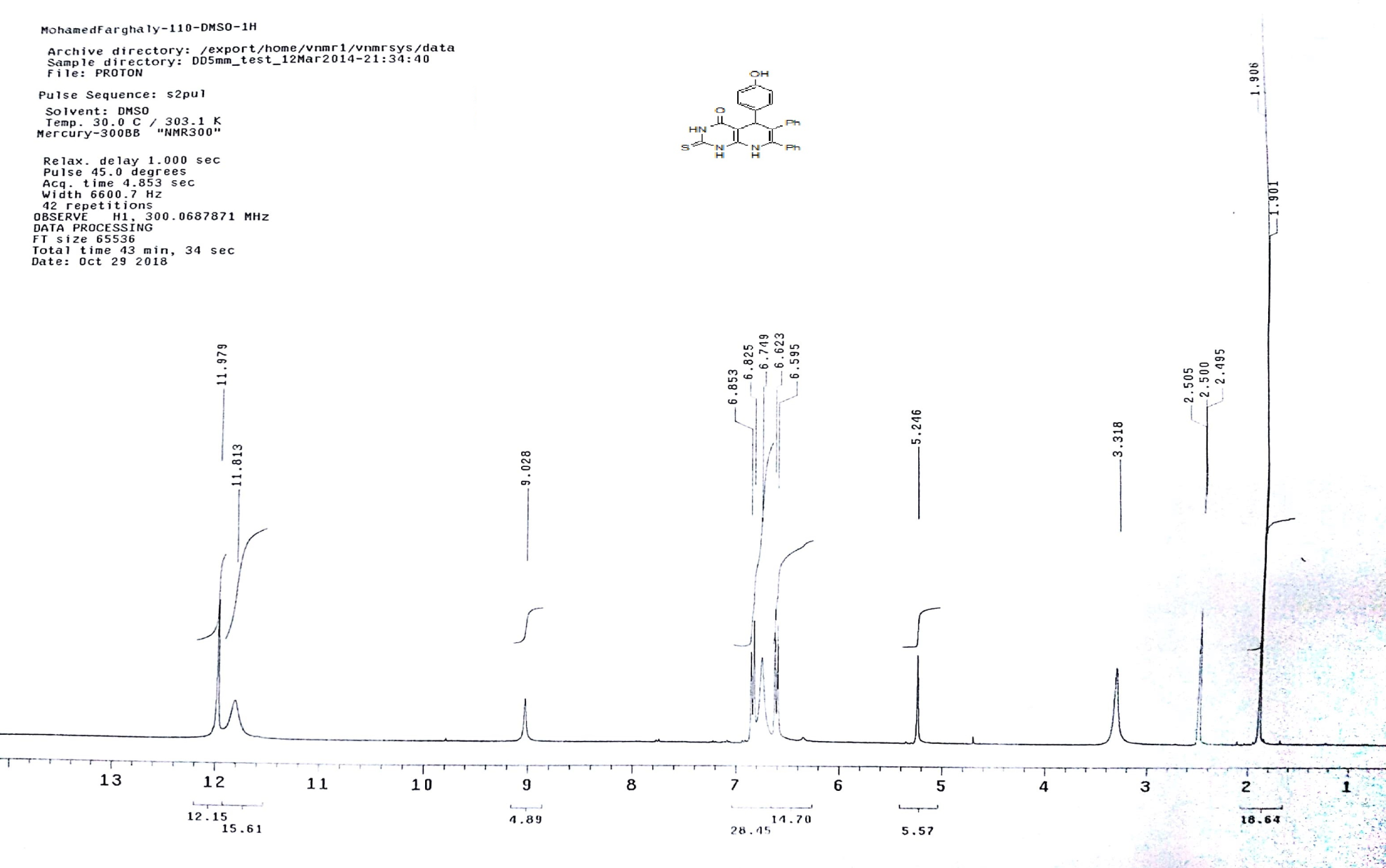
IR of compound **4f**

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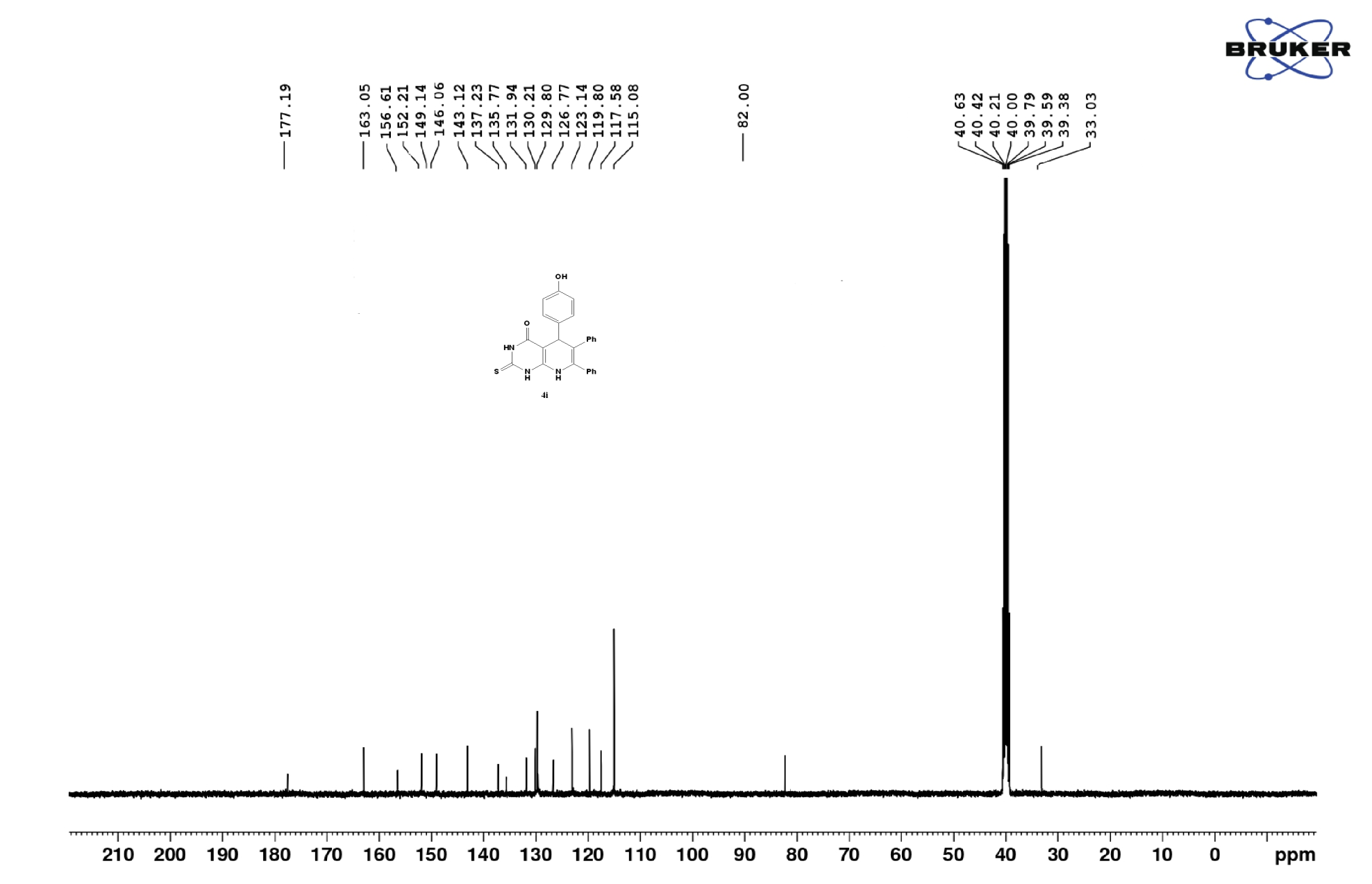
1HNMR of compound **4g**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\108_IR.jpg**

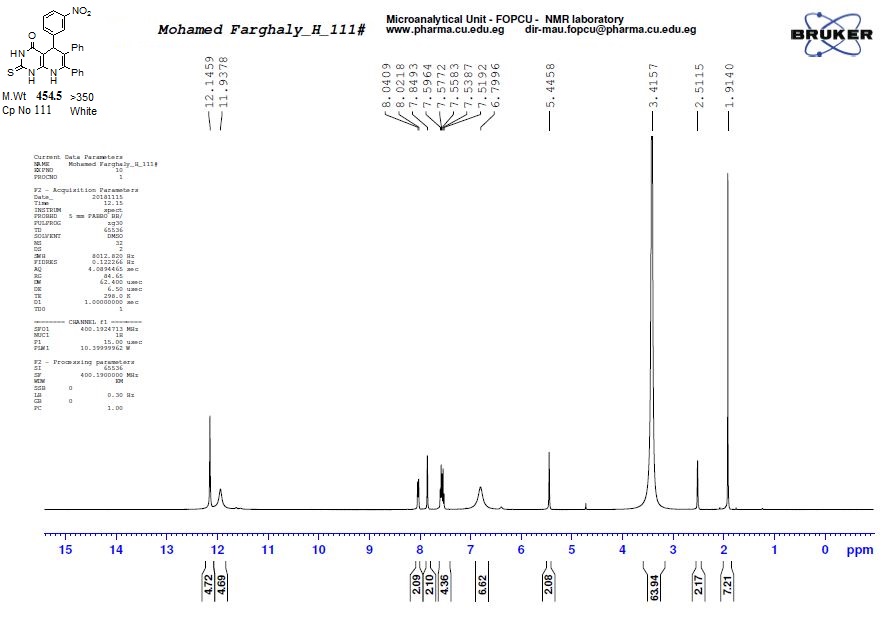
IR of compound **4g**

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1HNMR of compound **4i**



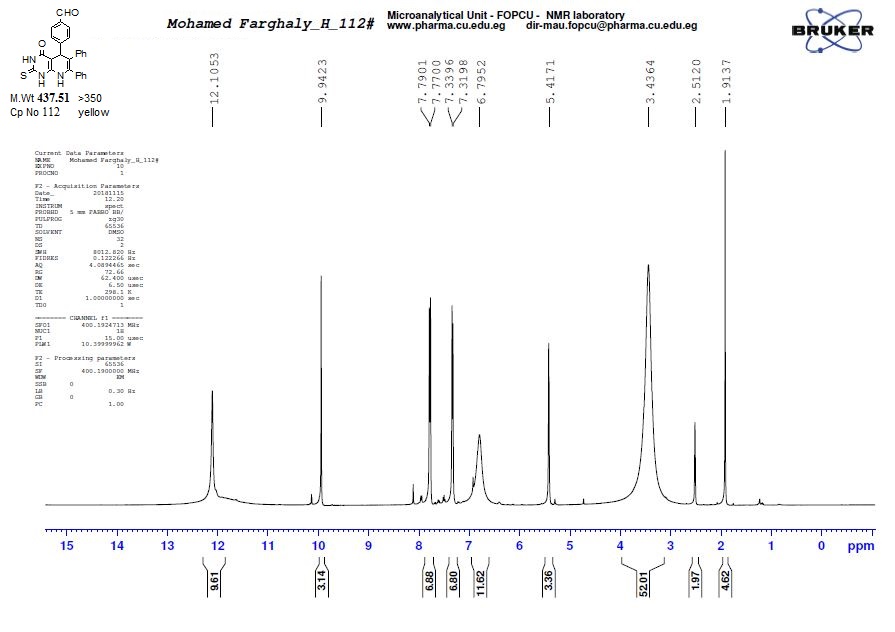
13CNMR of compound **4i**

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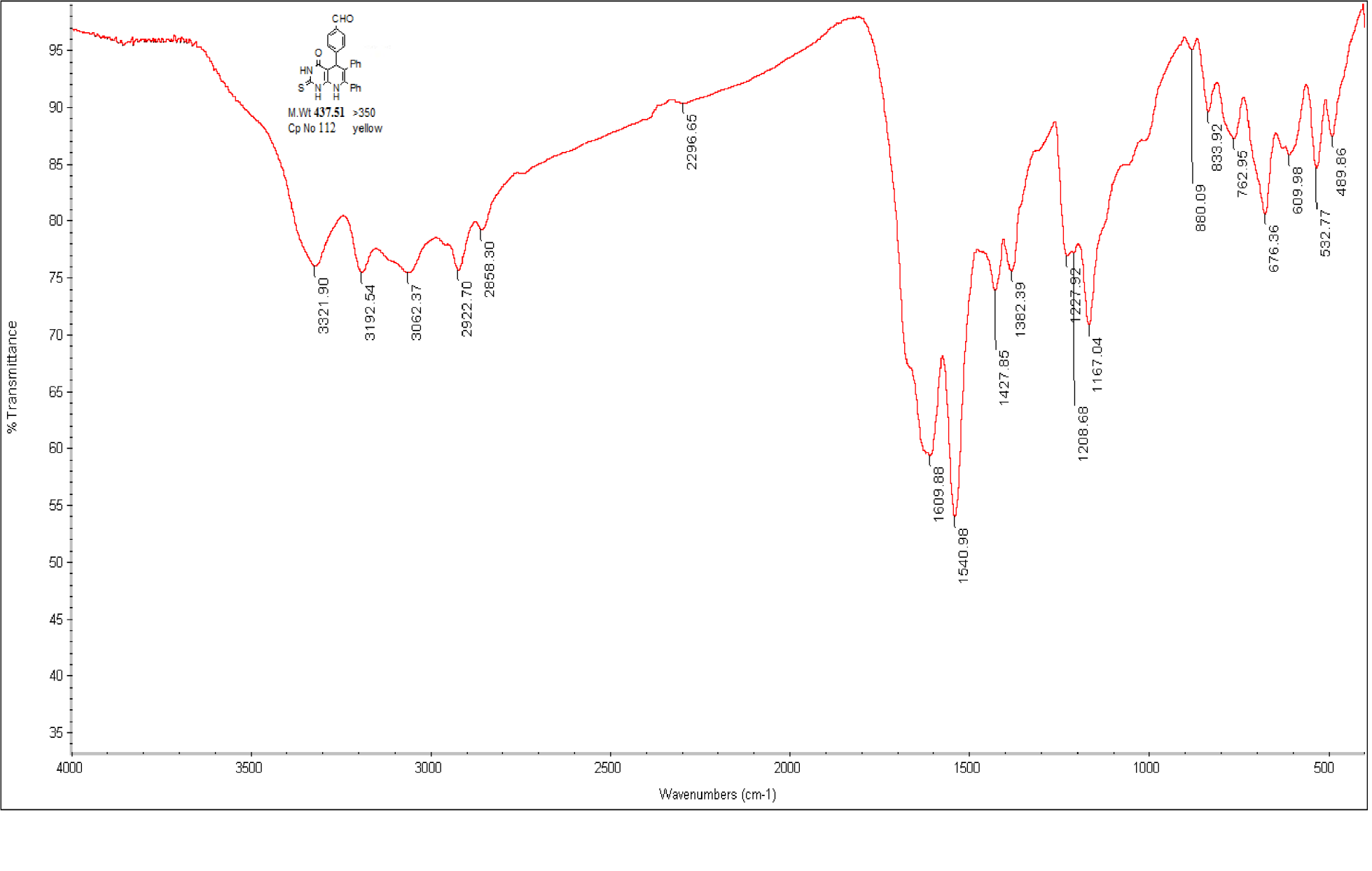
1HNMR of compound **4h**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\111_IR.jpg**

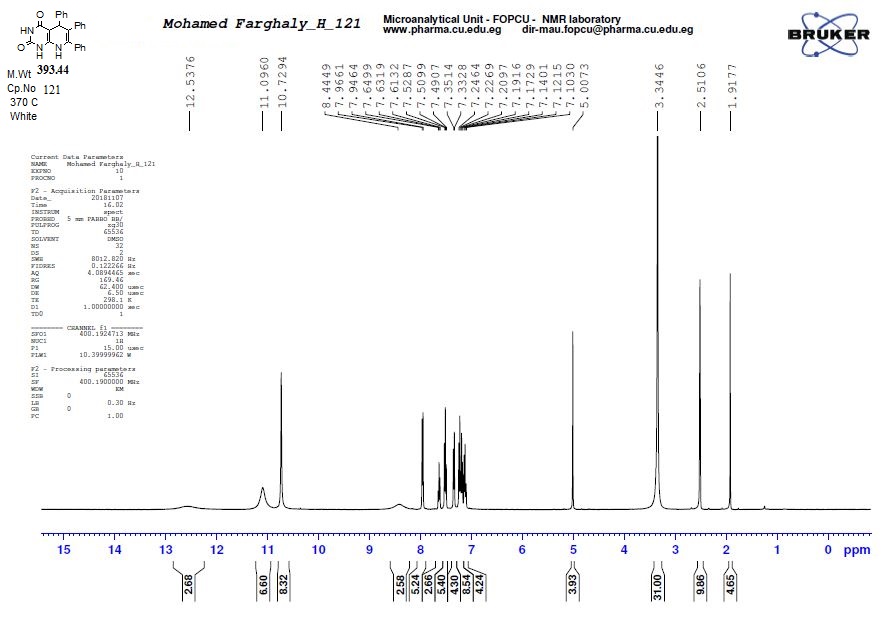
IR of compound **4h**

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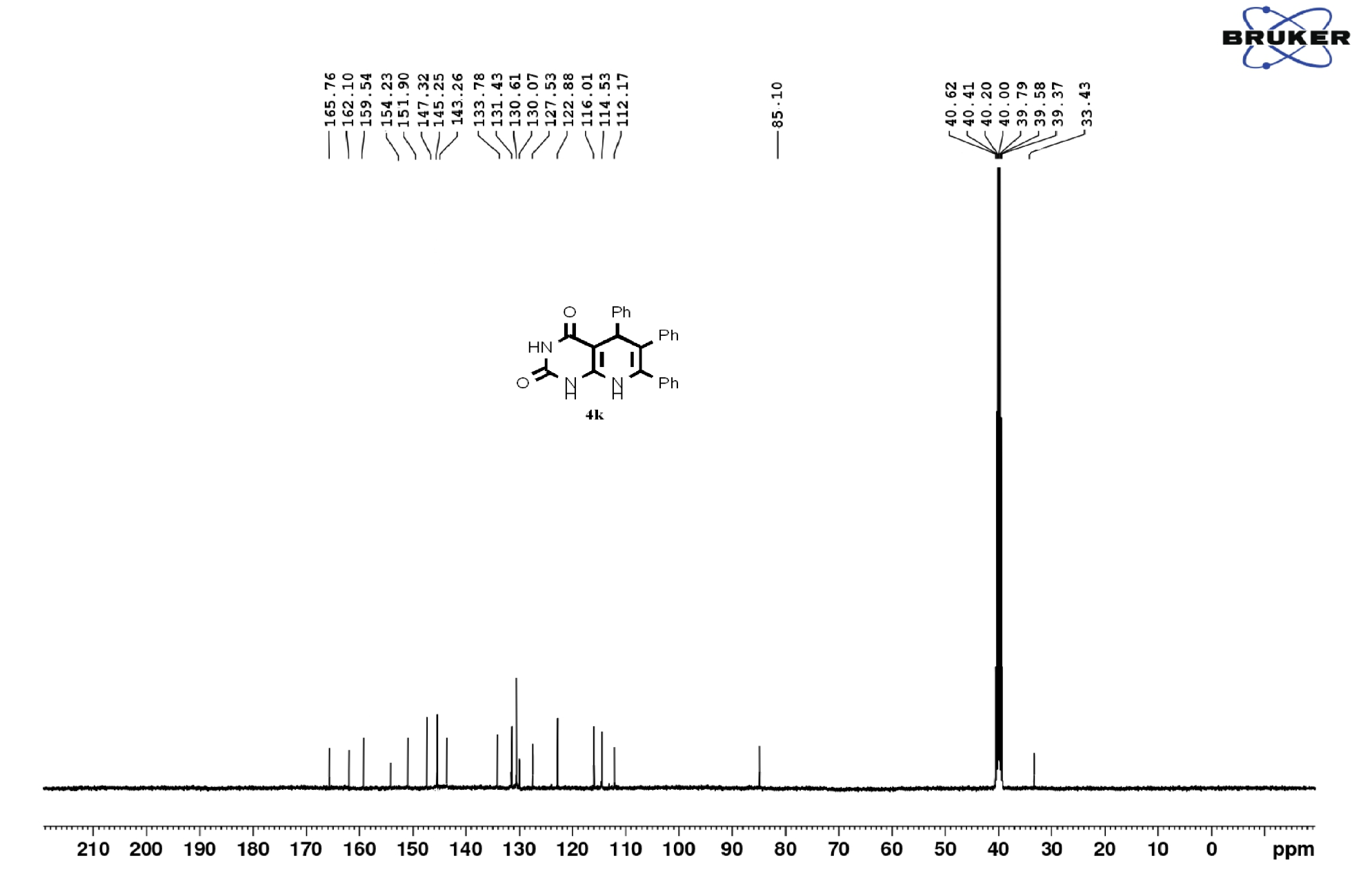
1HNMR of compound **4j**

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IR of compound **4j**

****

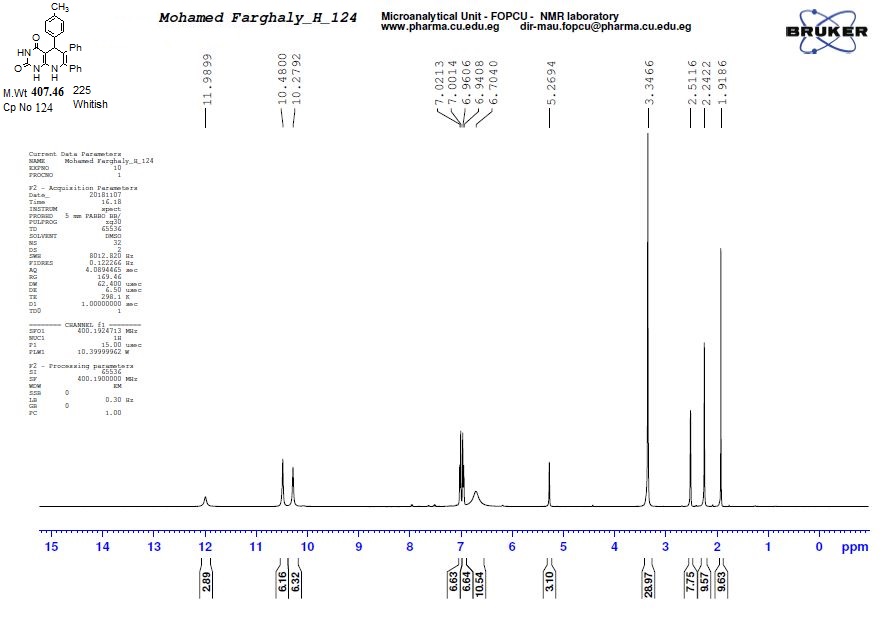
1HNMR of compound **4k**

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13CNMR of compound **4k**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\121_IR.jpg**

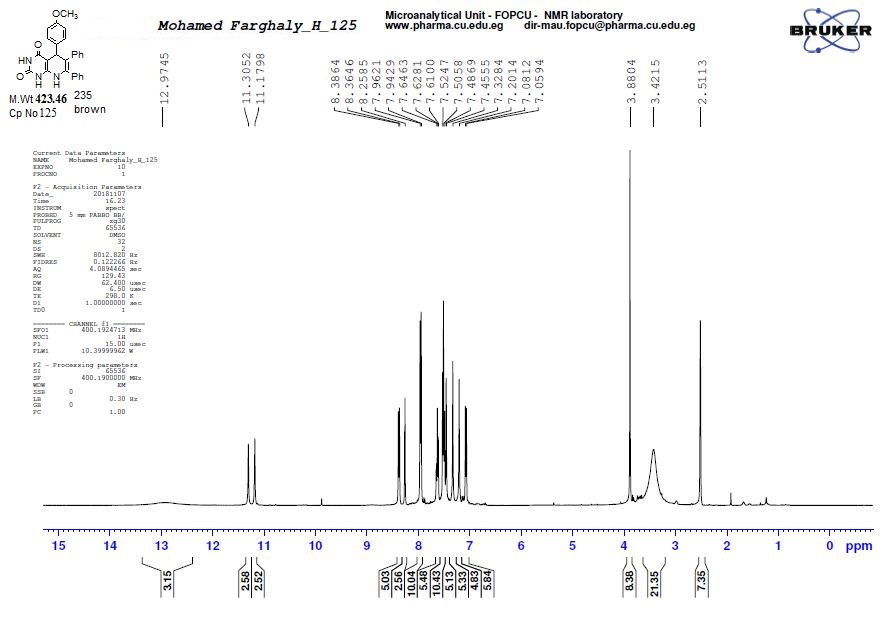
IR of compound **4k**

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1HNMR of compound **4l**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\124_IR.jpg**

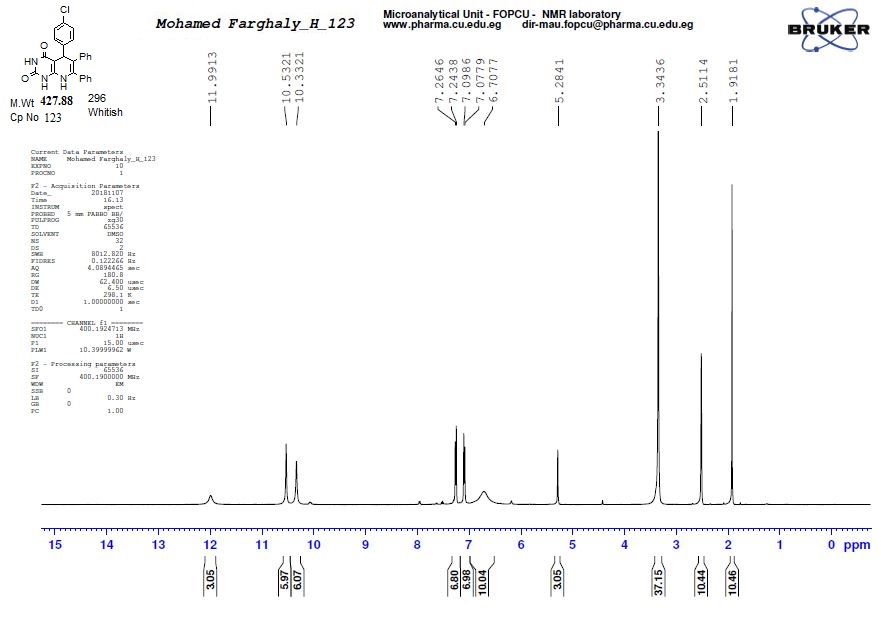
IR of compound **4l**

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1HNMR of compound **4m**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\125_IR.jpg**

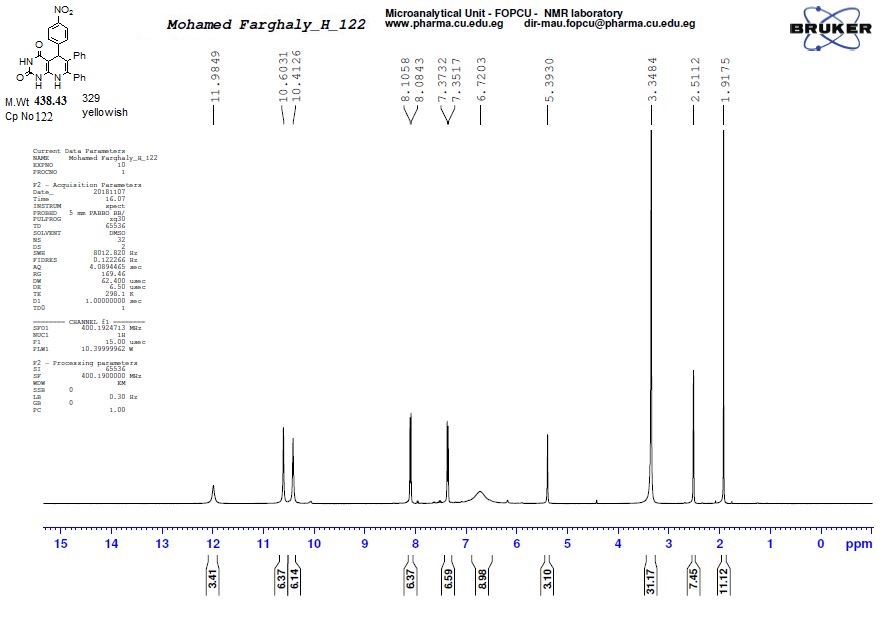
IR of compound **4m**

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1HNMR of compound **4n**

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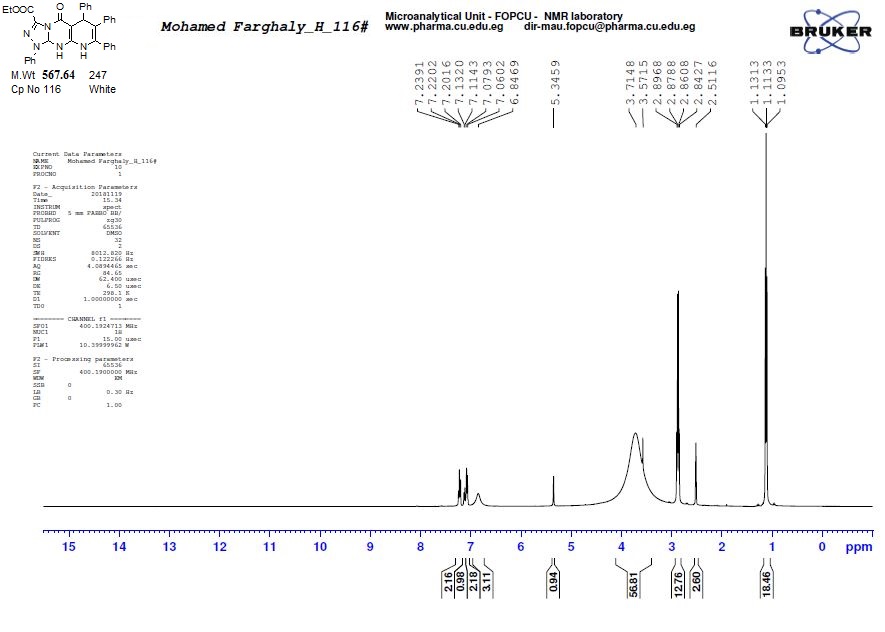
IR of compound **4n**

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1HNMR of compound **4o**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\122_IR.jpg**

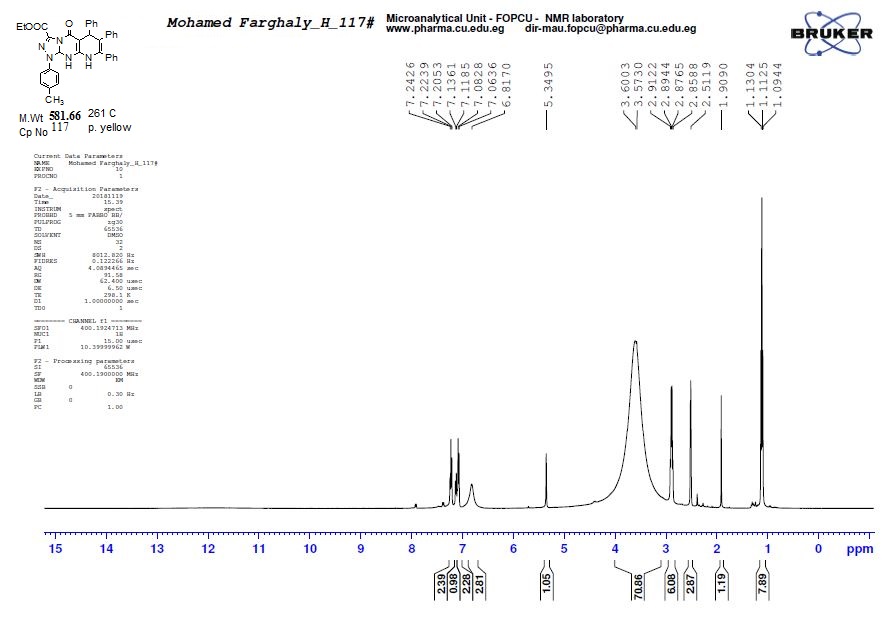
IR of compound **4o**



1HNMR of compound **6a**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\116_IR.JPG**

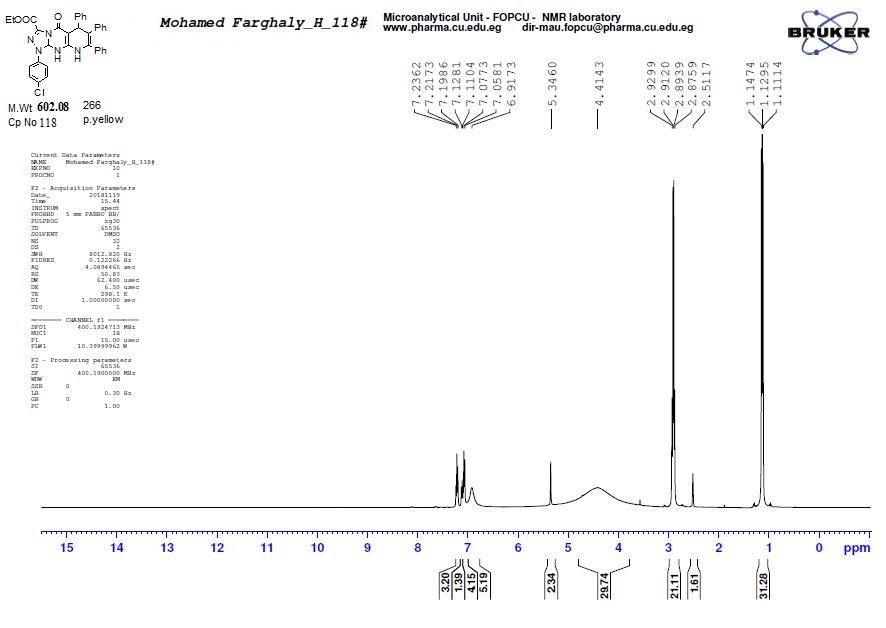
IR of compound **6a**

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1HNMR of compound **6b**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\117_IR.JPG**

IR of compound **6b**

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1HNMR of compound **6c**

**D:\s.m.papers\Fathy Abdelrazek\farghaly\Part two (deoxybenzoin)\M3\spectra\MN3_Cpds_Spectra_Farghaly_PhD\118_IR.JPG**

IR of compound **6c**