Electronic Supplementary Material (ESI) for New Journal of Chemistry.

(Supplementary Information)

Synthesis and Characterization of Magnetic Graphene Oxide/Zn-Ni-Fe Layered Double Hydroxide Nanocomposite: An Efficient Mesoporous Catalyst for the Green Preparation of Biscoumarins

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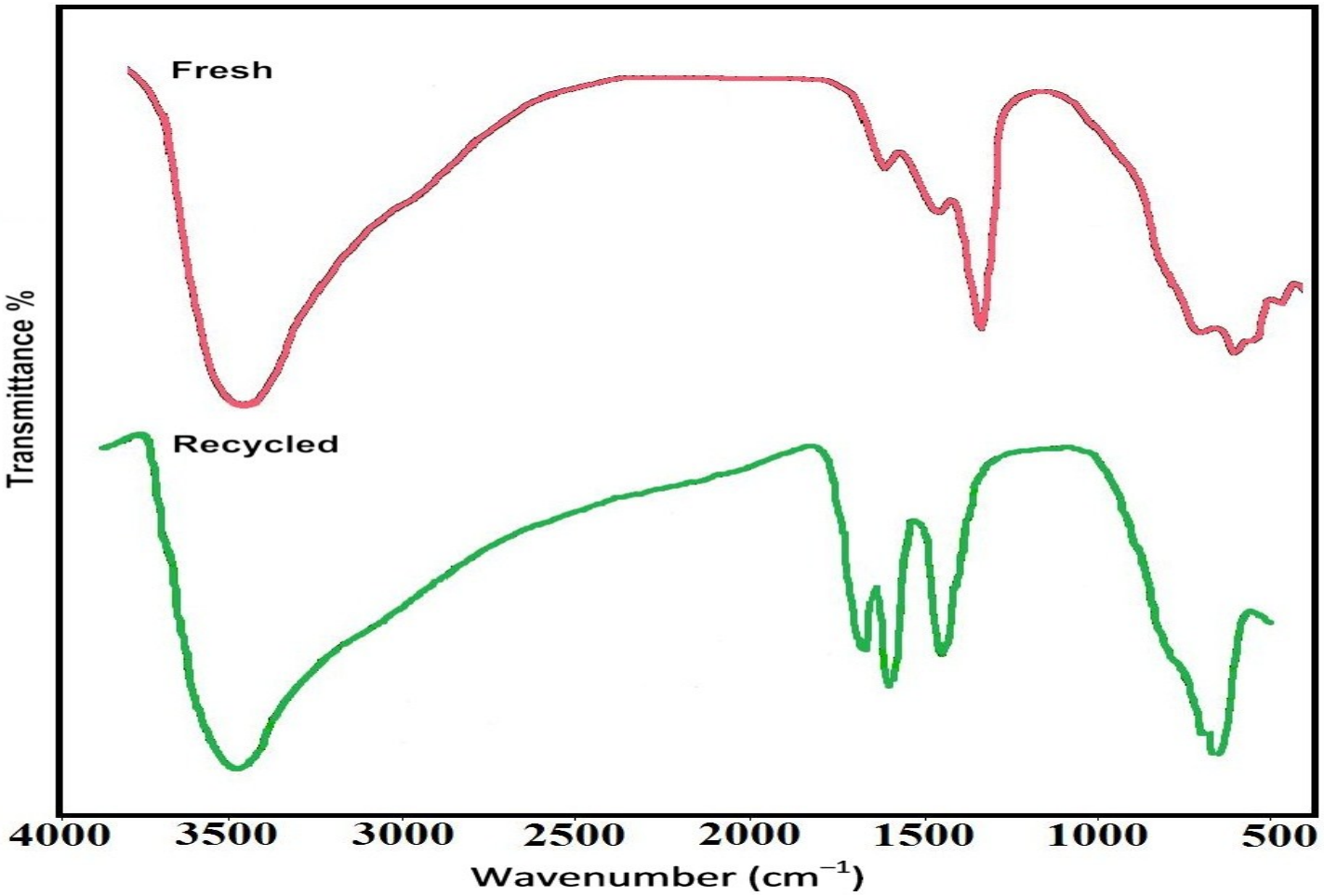
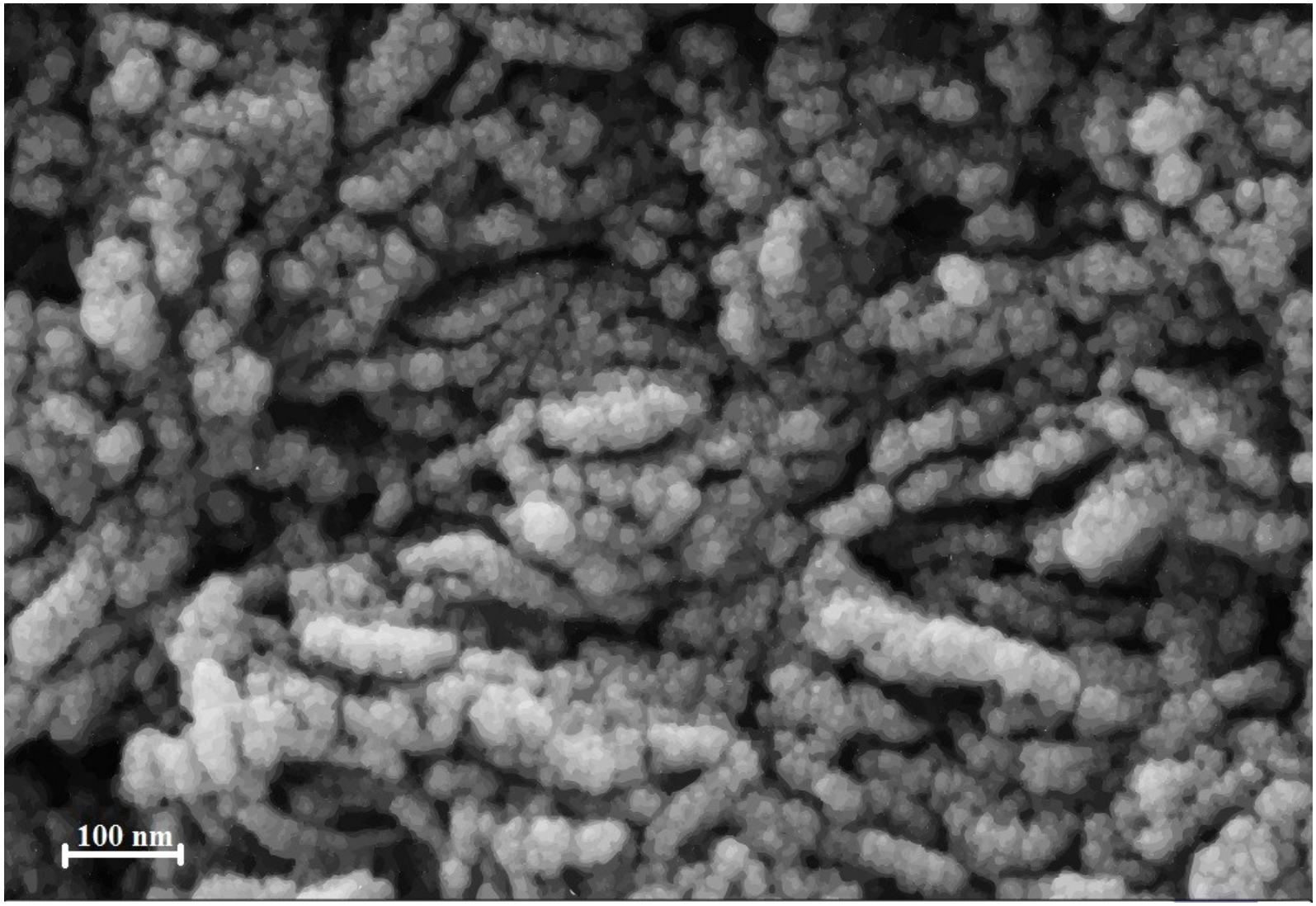


Figure S1. FTIR spectrum of the Fresh and first recycled Fe_3O_4@GO@Zn-Ni-Fe-LDH system


100 nm

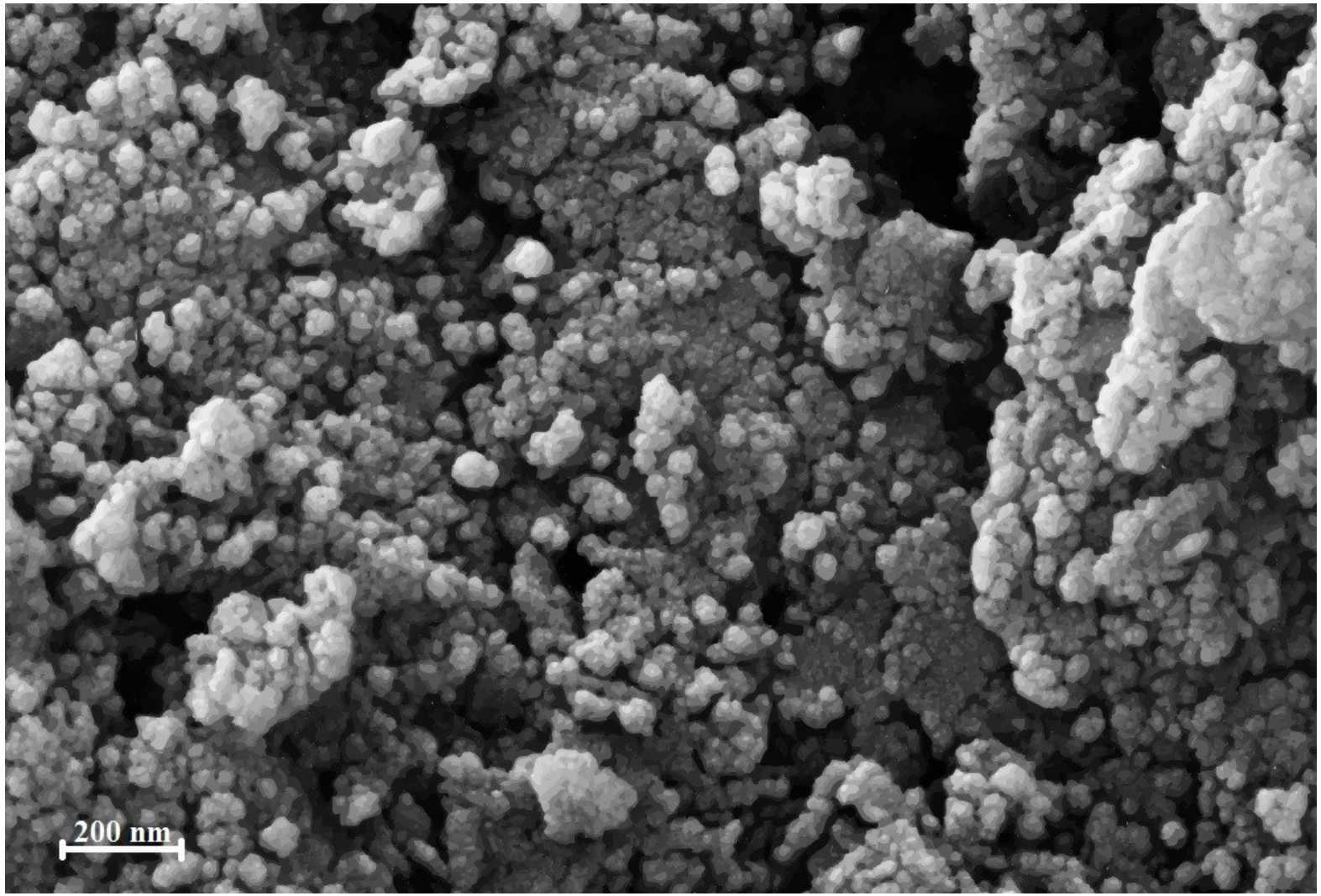


Figure S2. SEM images of the first recycled Fe_3O_4@GO@Zn-Ni-Fe-LDH system

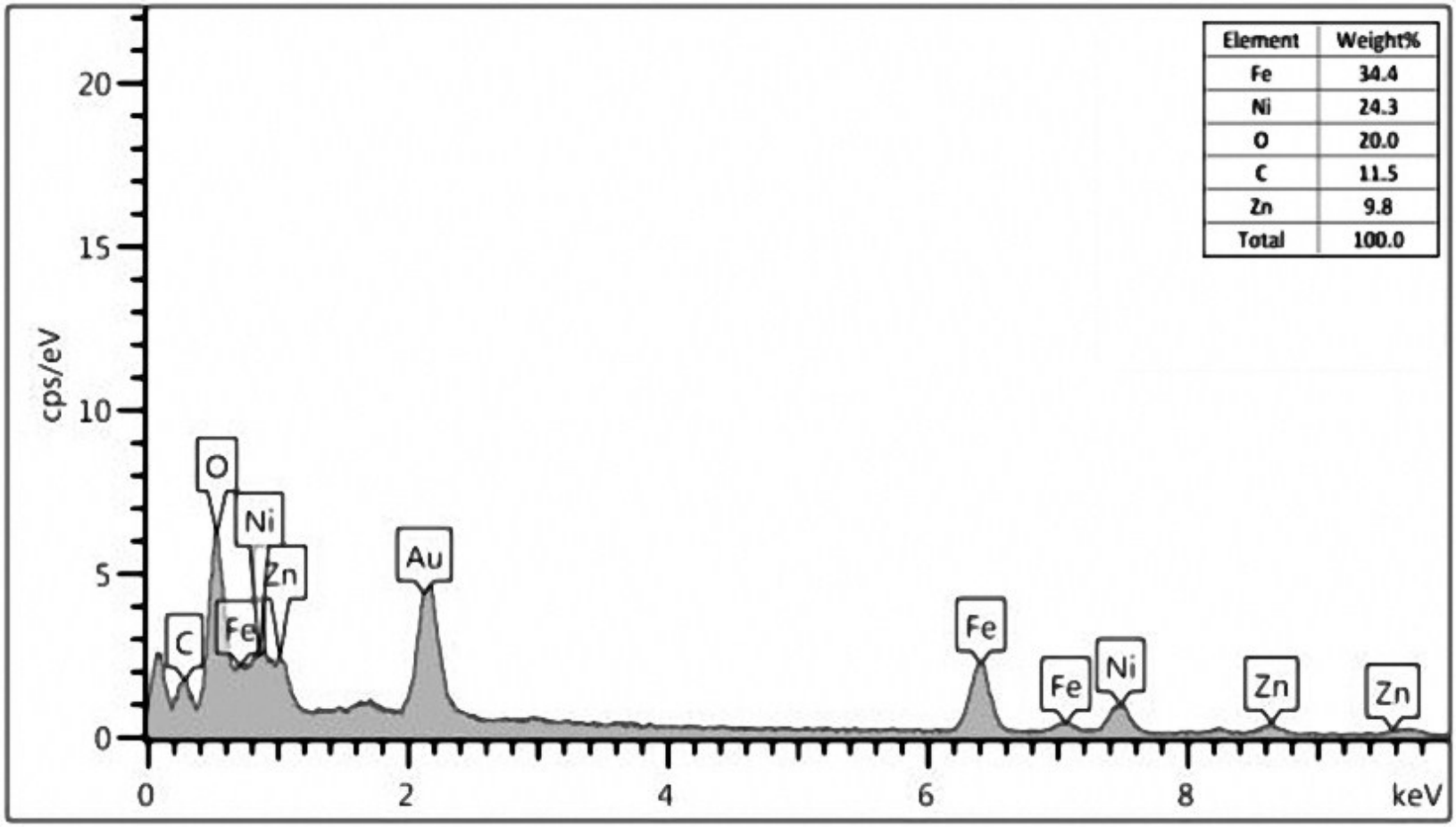
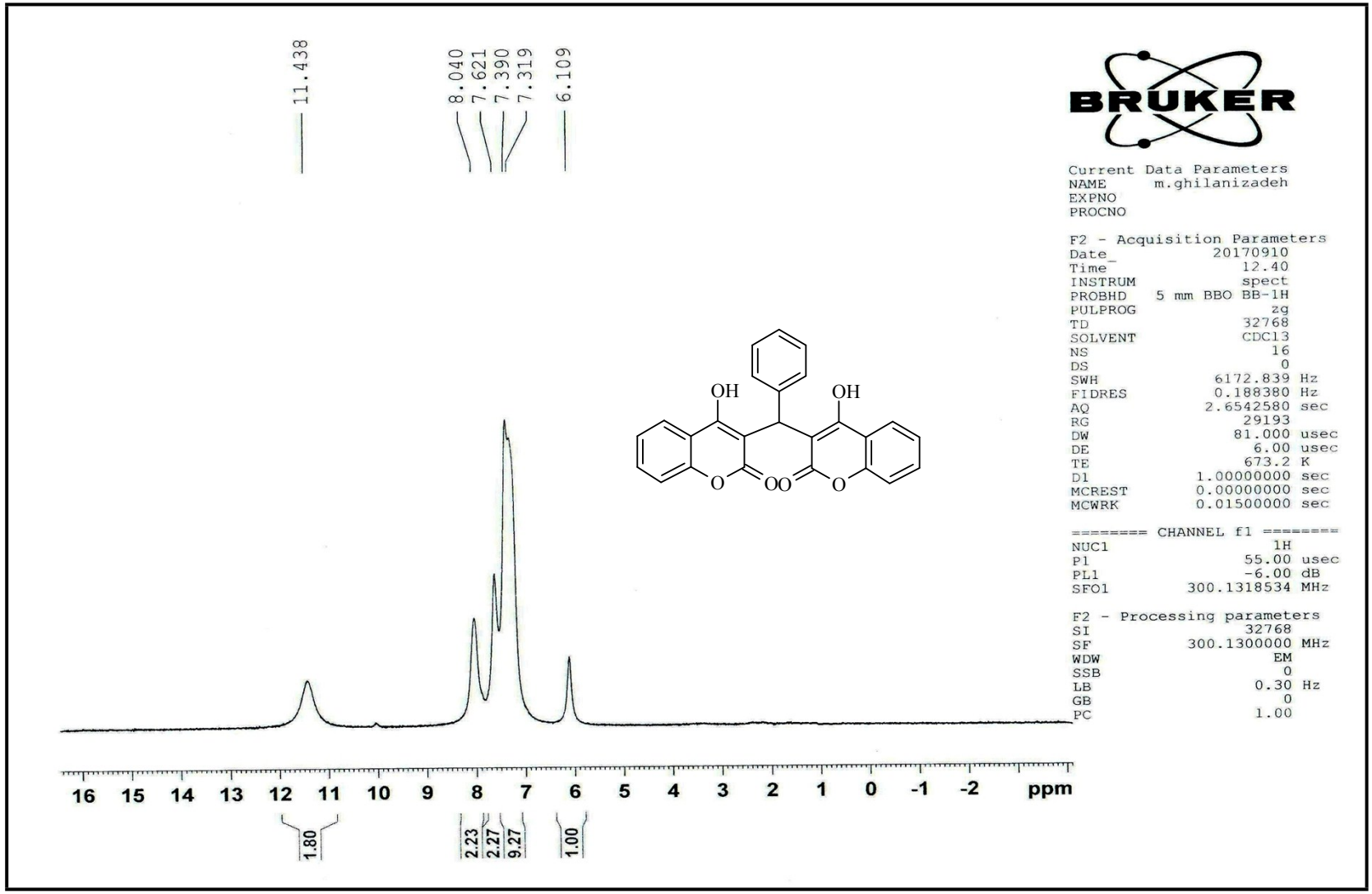
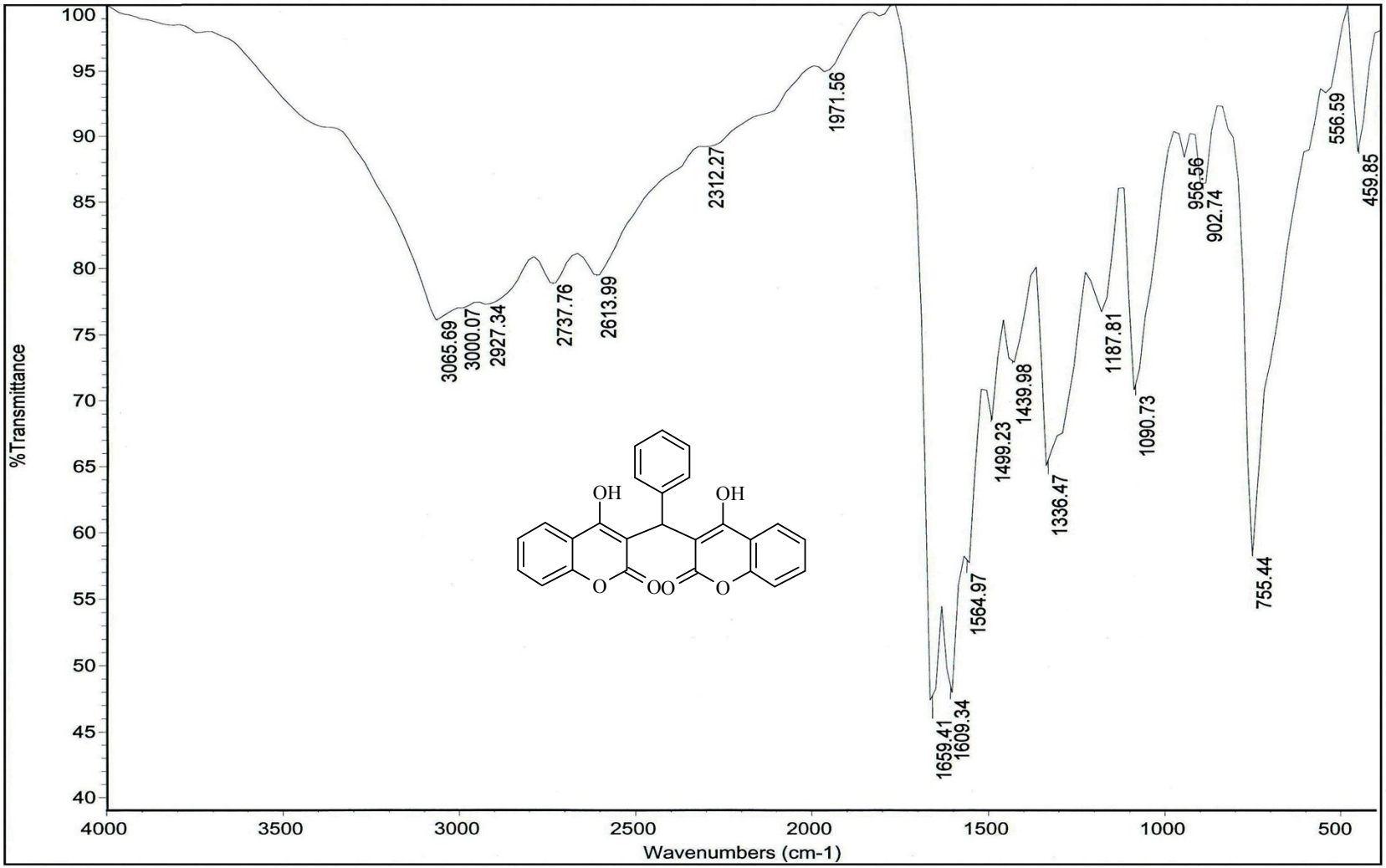


Figure S3. EDX spectrum of the first recycled Fe_3O_4@GO@Zn-Ni-Fe-LDH system

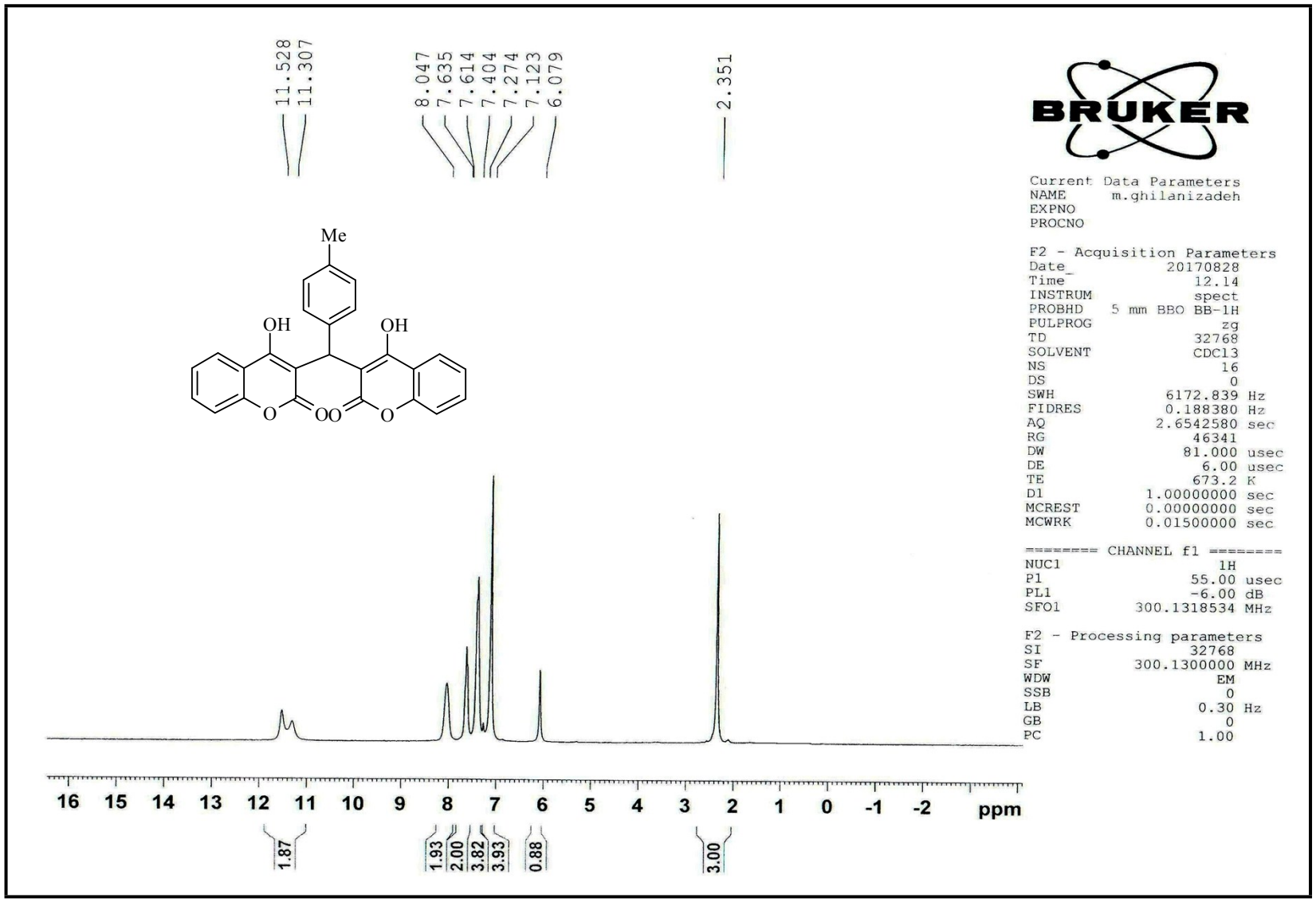
^{1}H NMR (Table 2, entry 1)



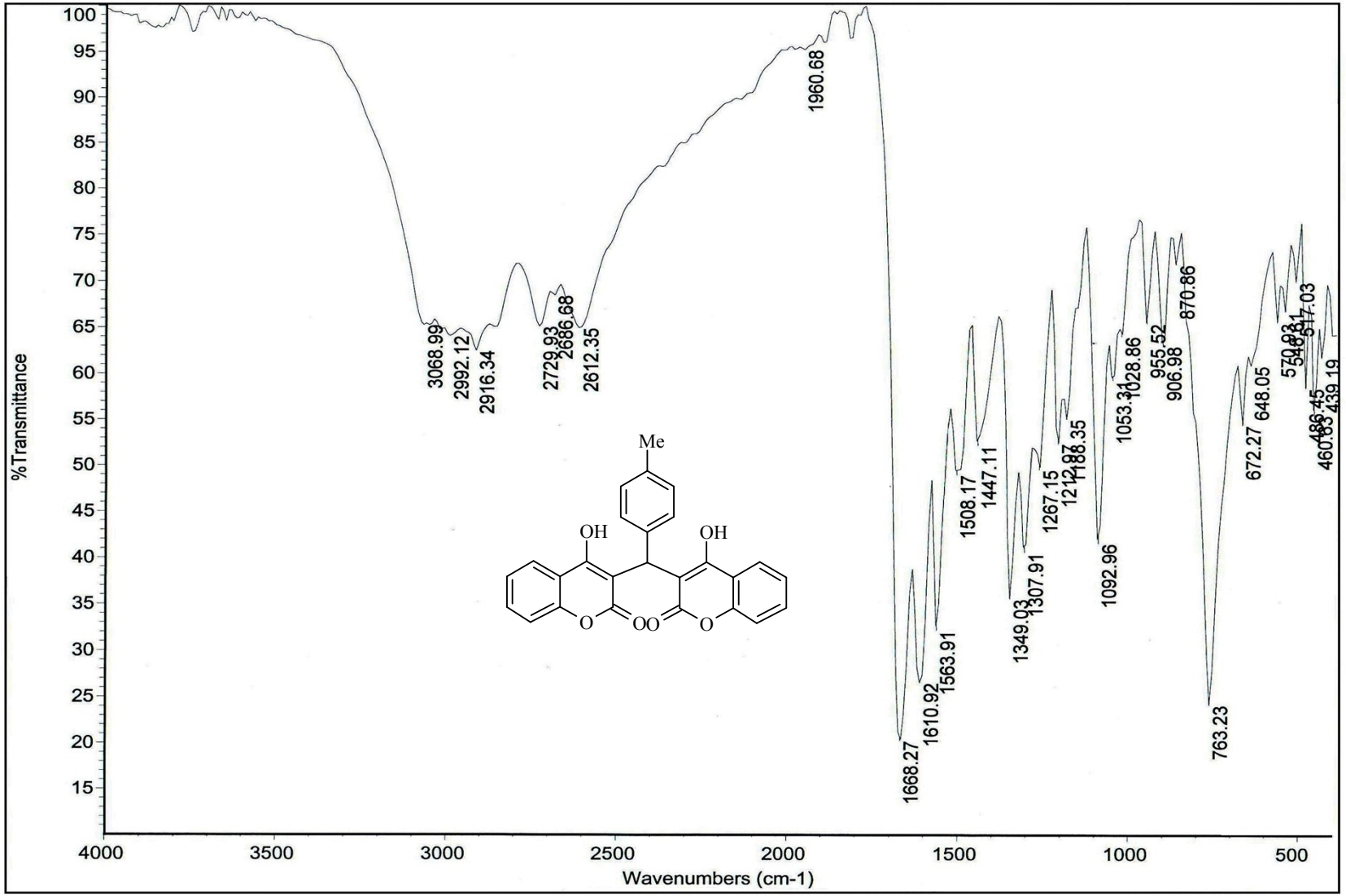
FT-IR (Table 2, entry 1)


%Transmittance
Wavenumbers (cm-1)
100
95
90
85
80
75
70
65
60
55
50
45
40
4000
3500
3000
2500
2000
1500
1000
500
3065.69
3000.07
2927.34
2737.76
2613.99
2312.27
1971.56
1659.41
1609.34
1564.97
1499.23
1439.98
1336.47
1187.81
1090.73
956.56
902.74
755.44
556.59
459.85
OH
OH
O
O
O

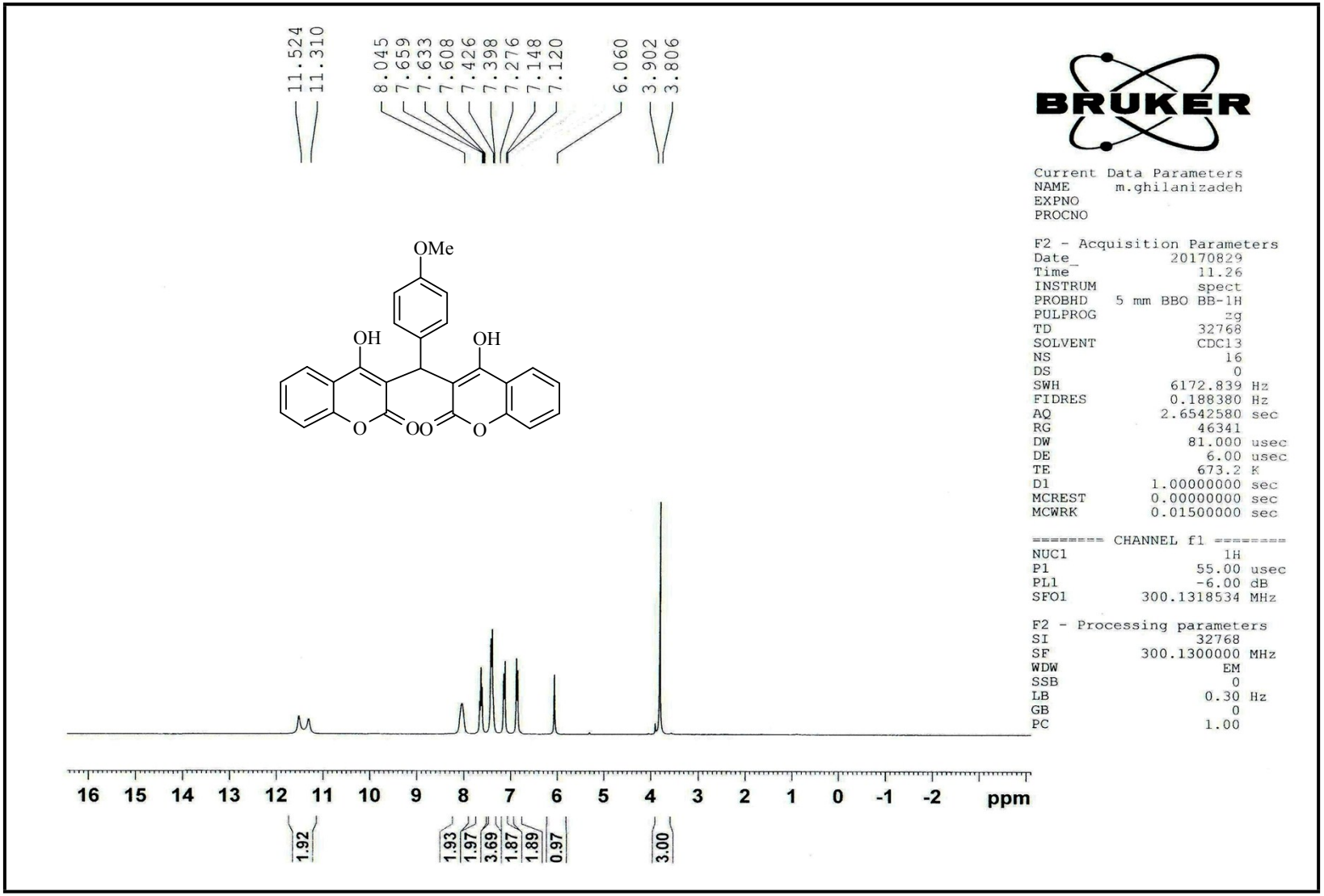
^{1}H NMR (Table 2, entry 2)



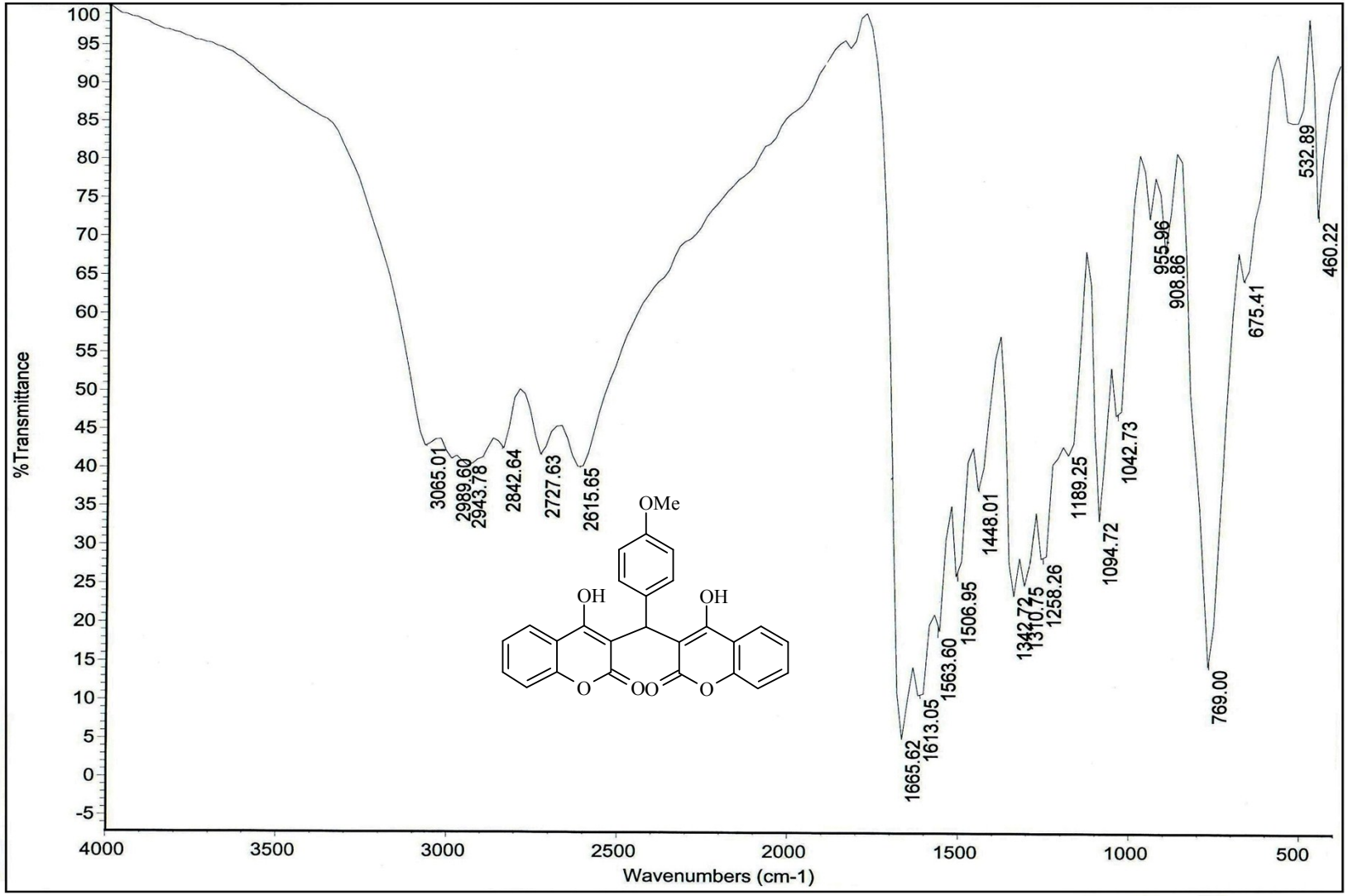
FT-IR (Table 2, entry 2)



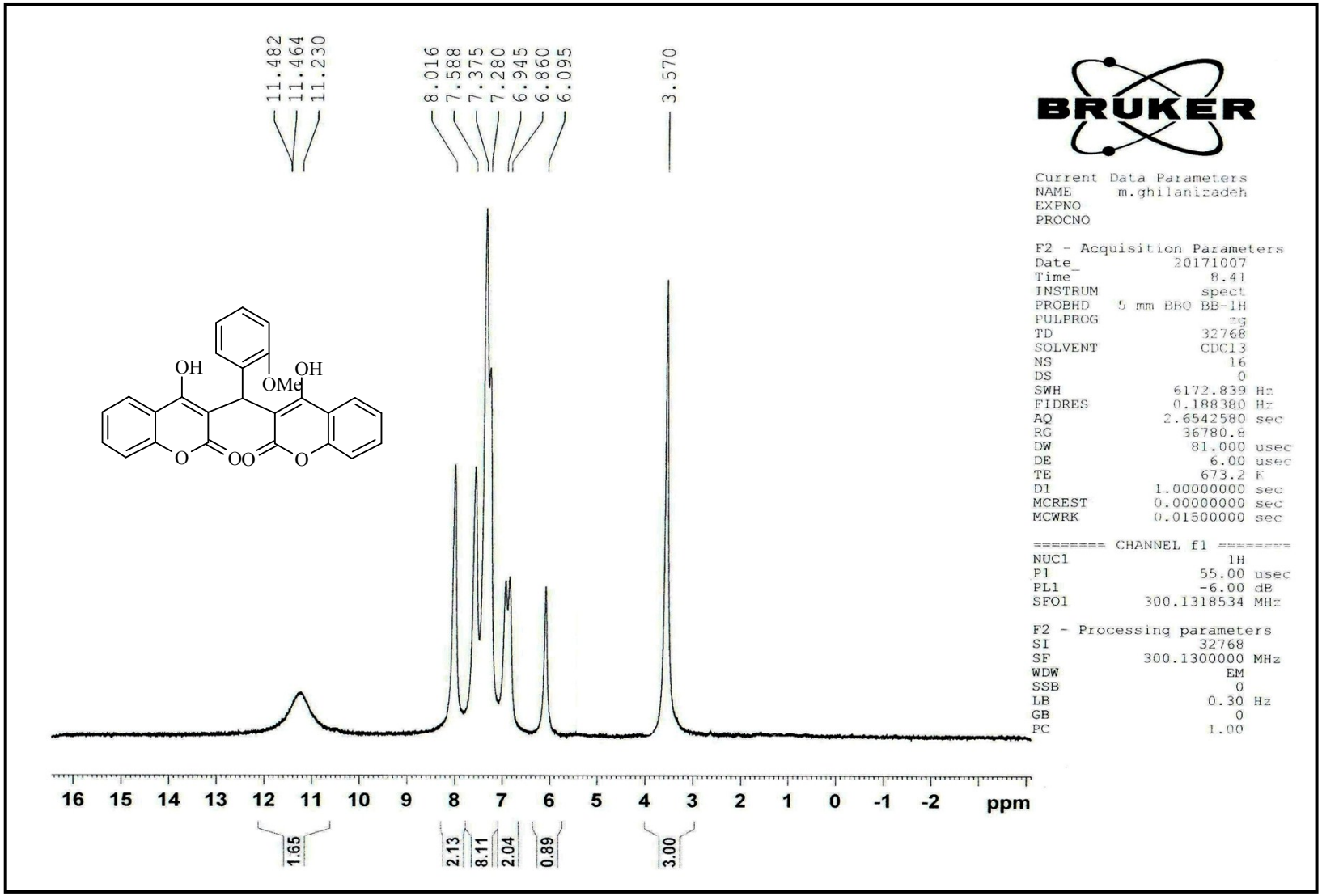
^{1}H NMR (Table 2, entry 3)



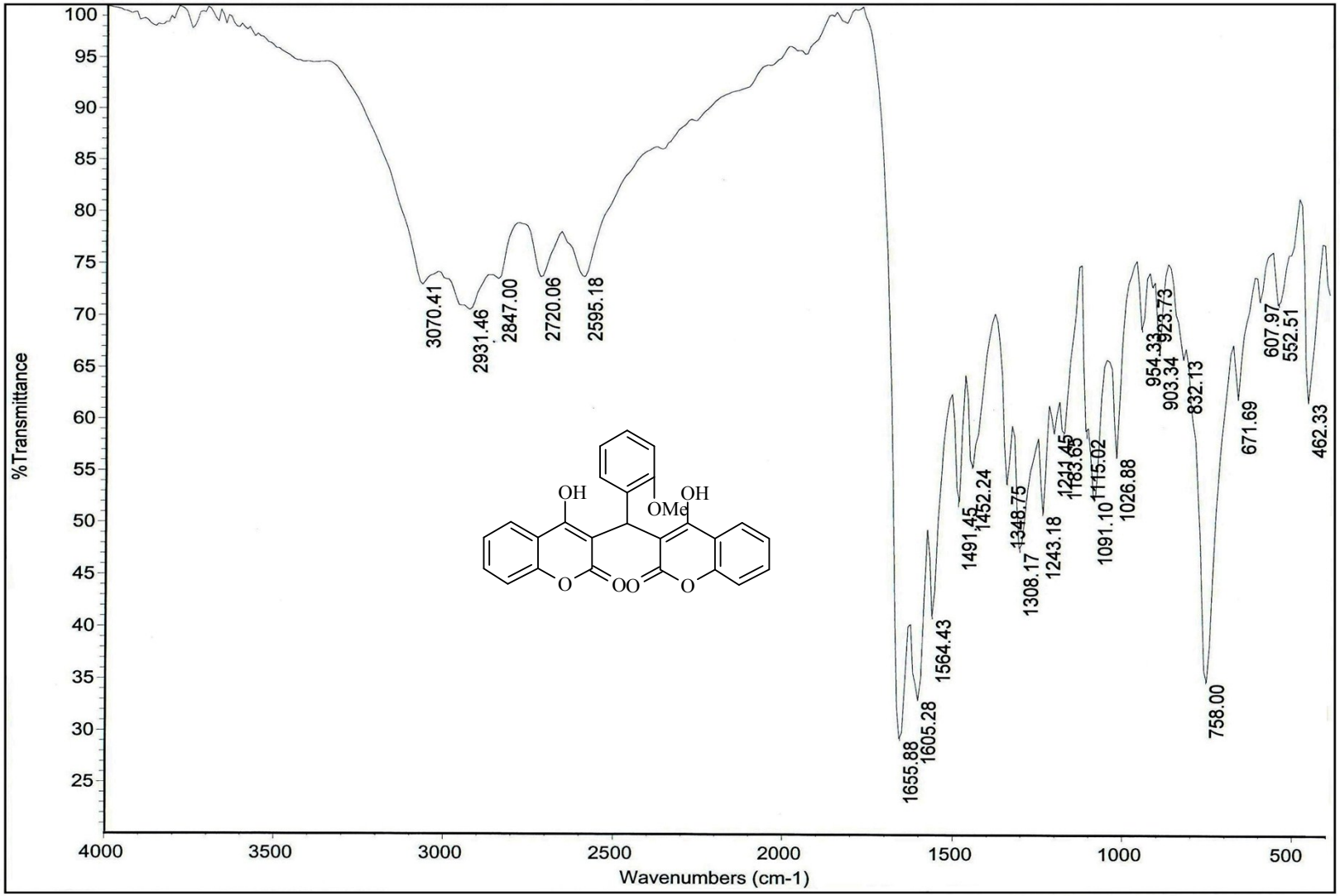
FT-IR (Table 2, entry 3)



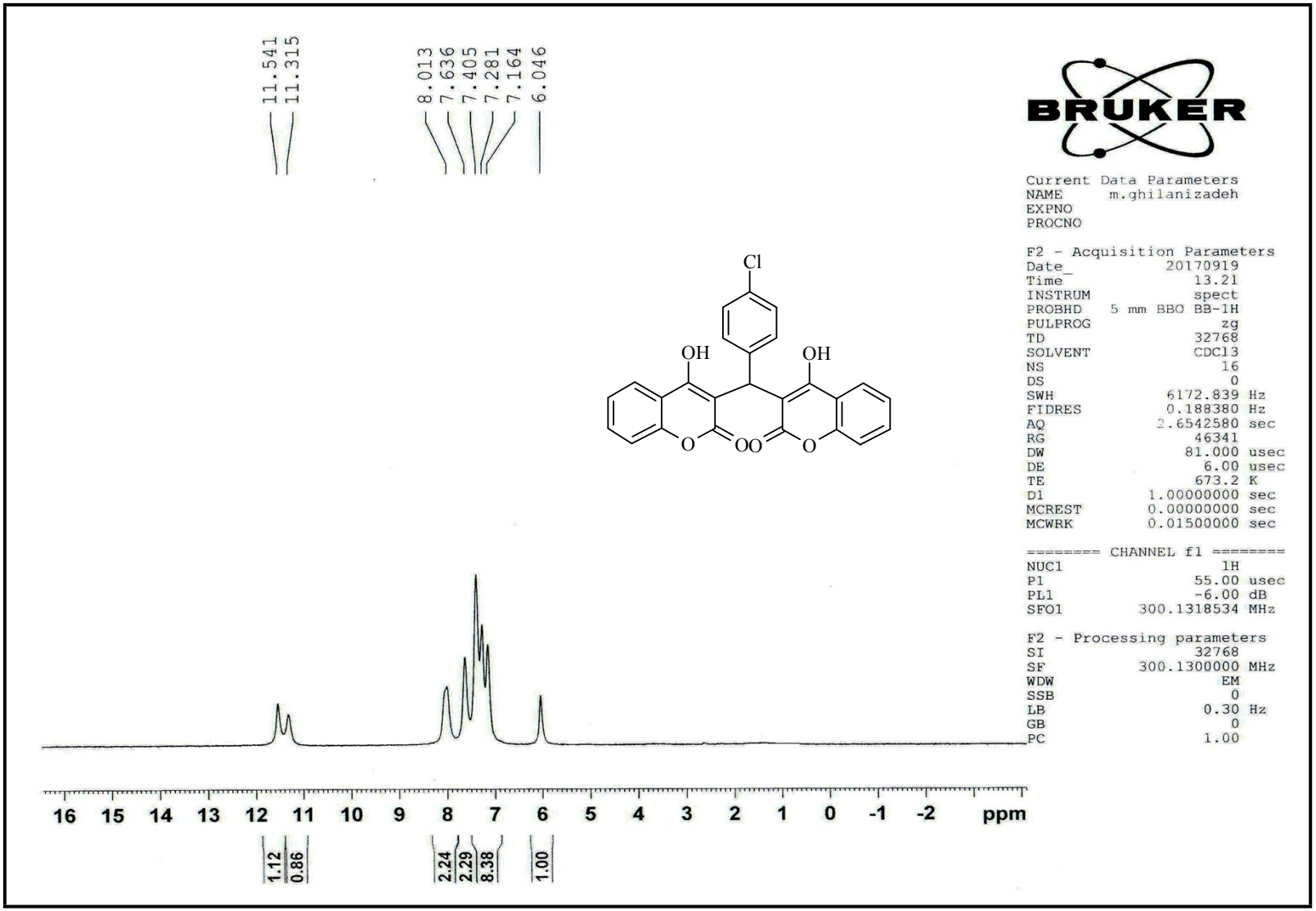
^{1}H NMR (Table 2, entry 4)



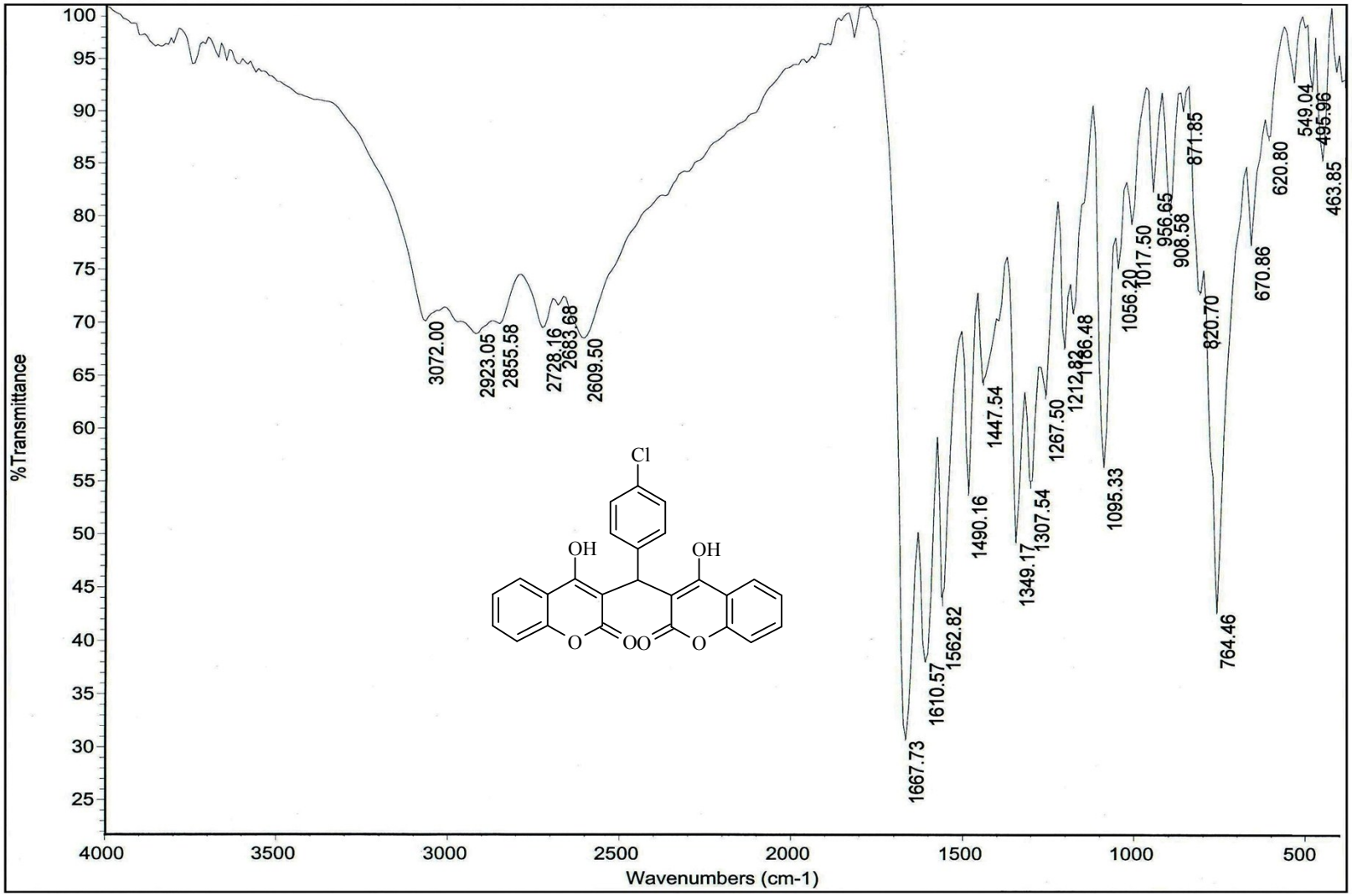
FT-IR (Table 2, entry 4)



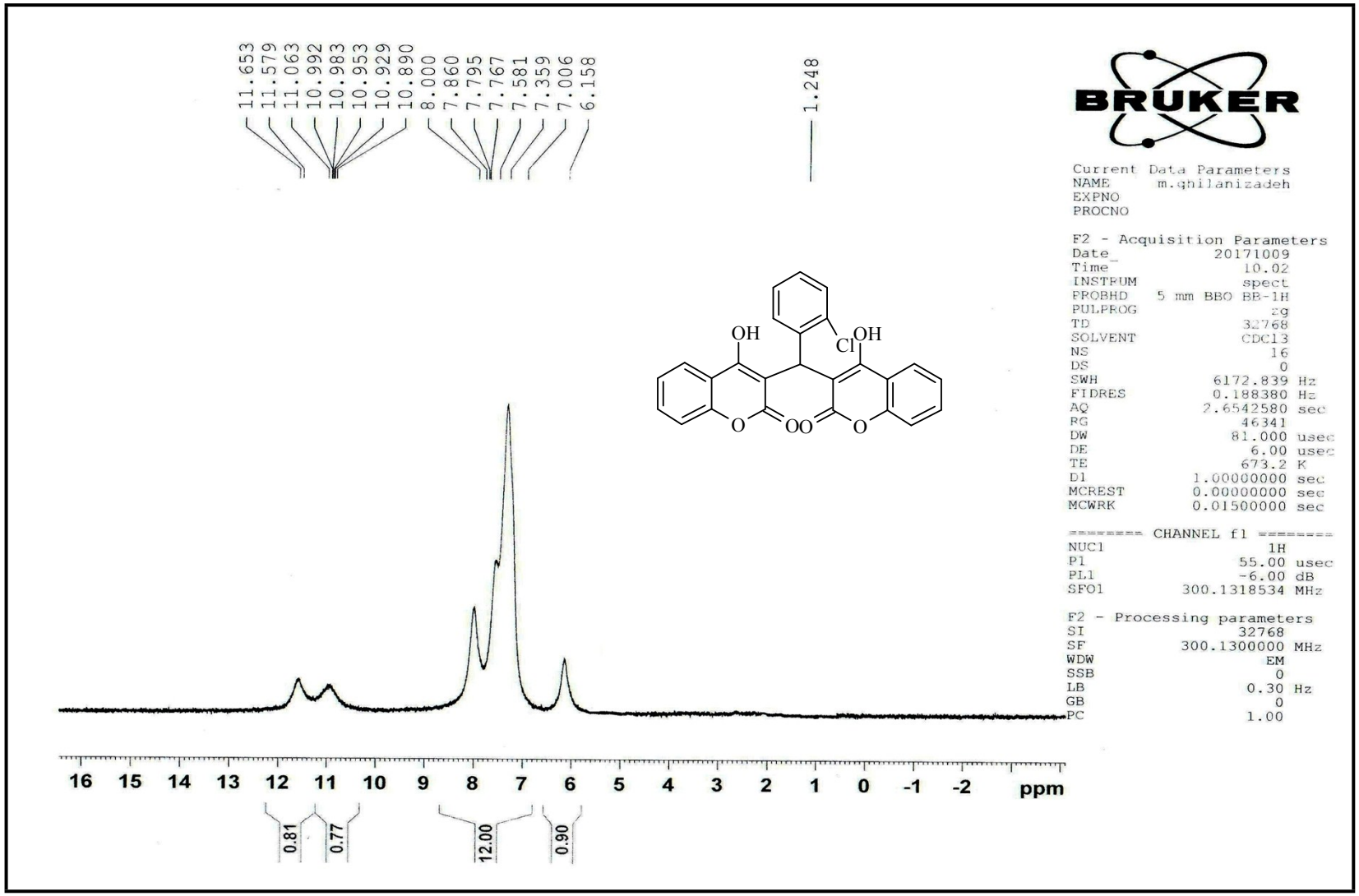
^{1}H NMR (Table 2, entry 5)



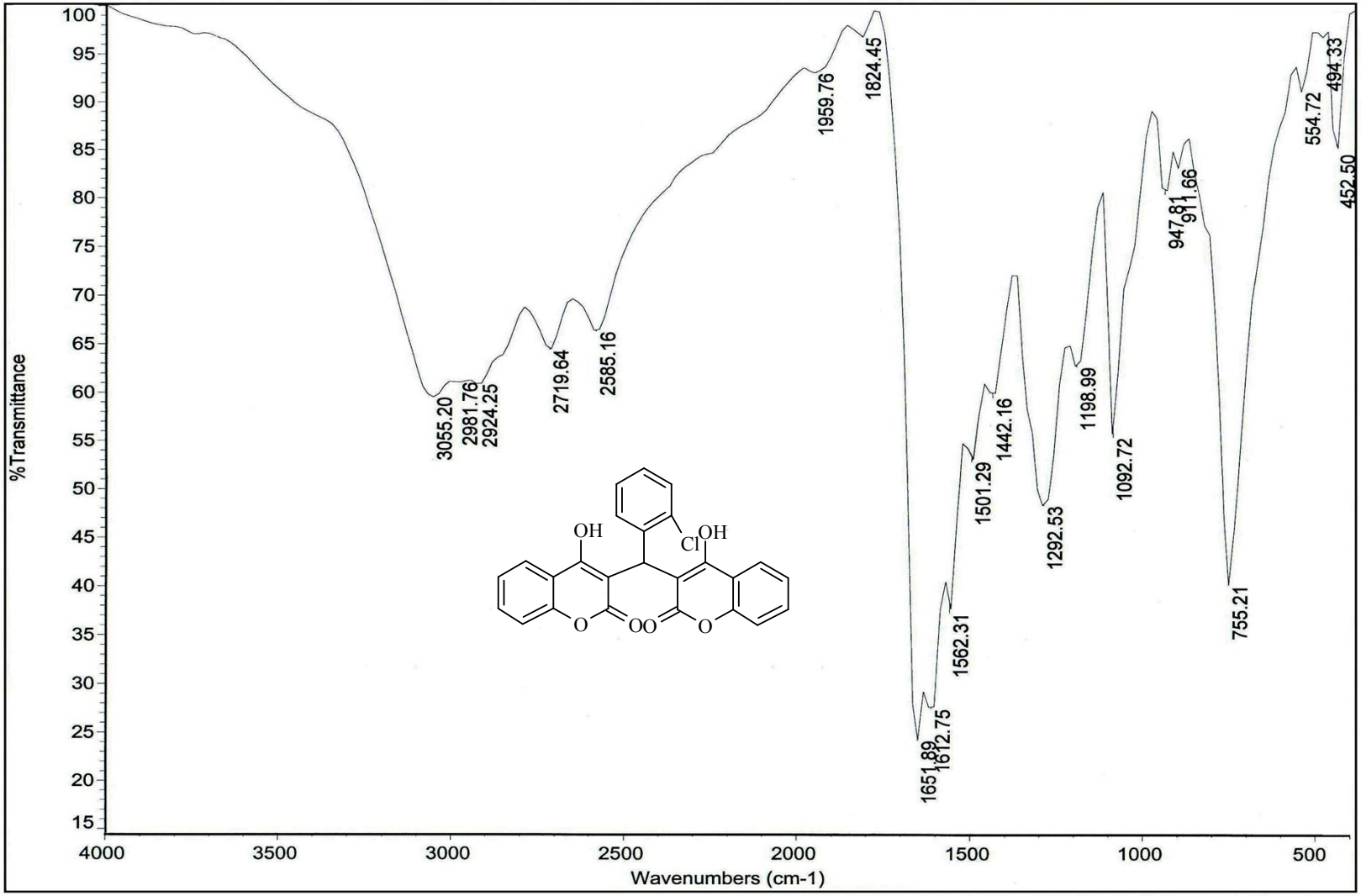
FT-IR (Table 2, entry 5)



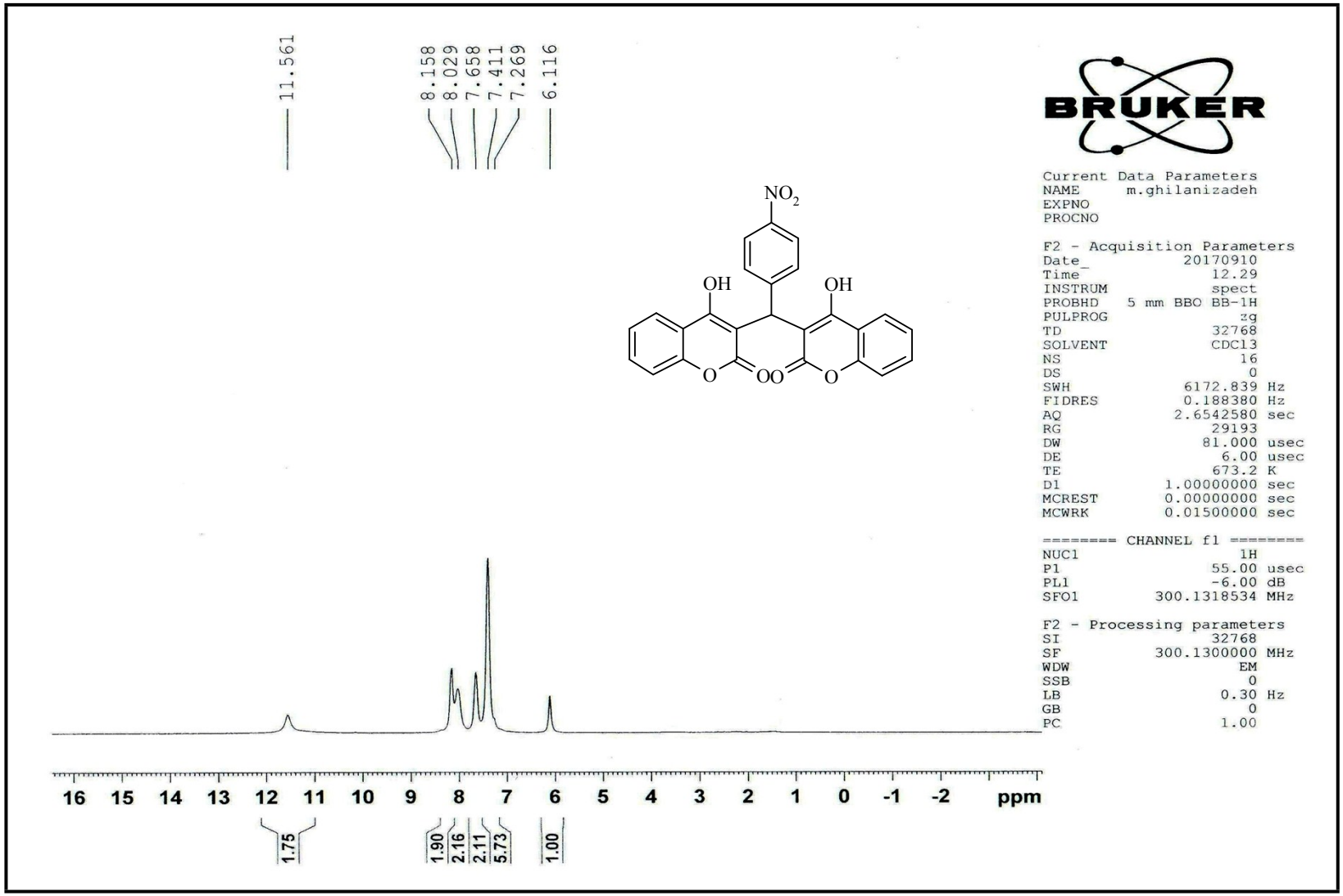
^{1}H NMR (Table 2, entry 6)



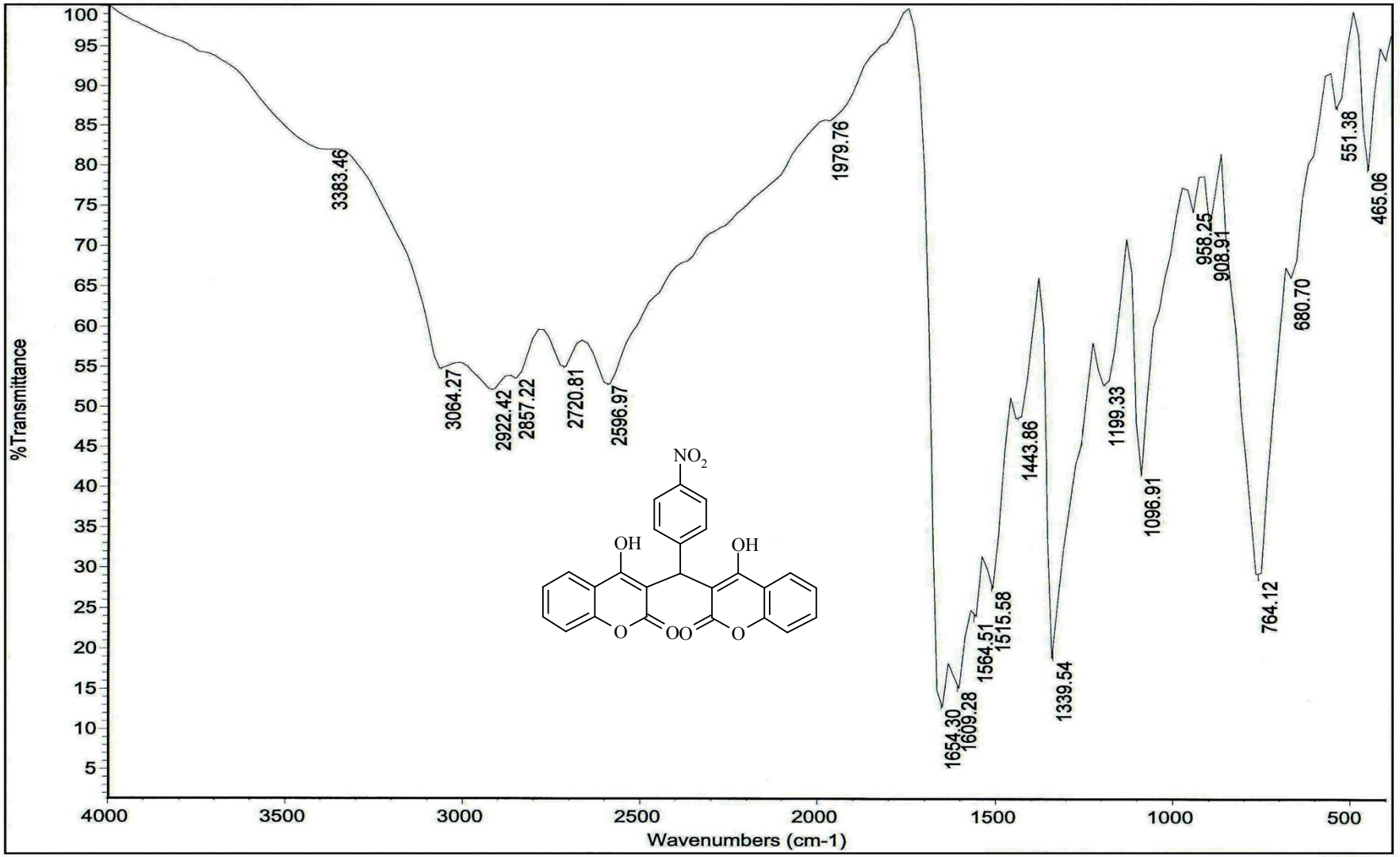
FT-IR (Table 2, entry 6)



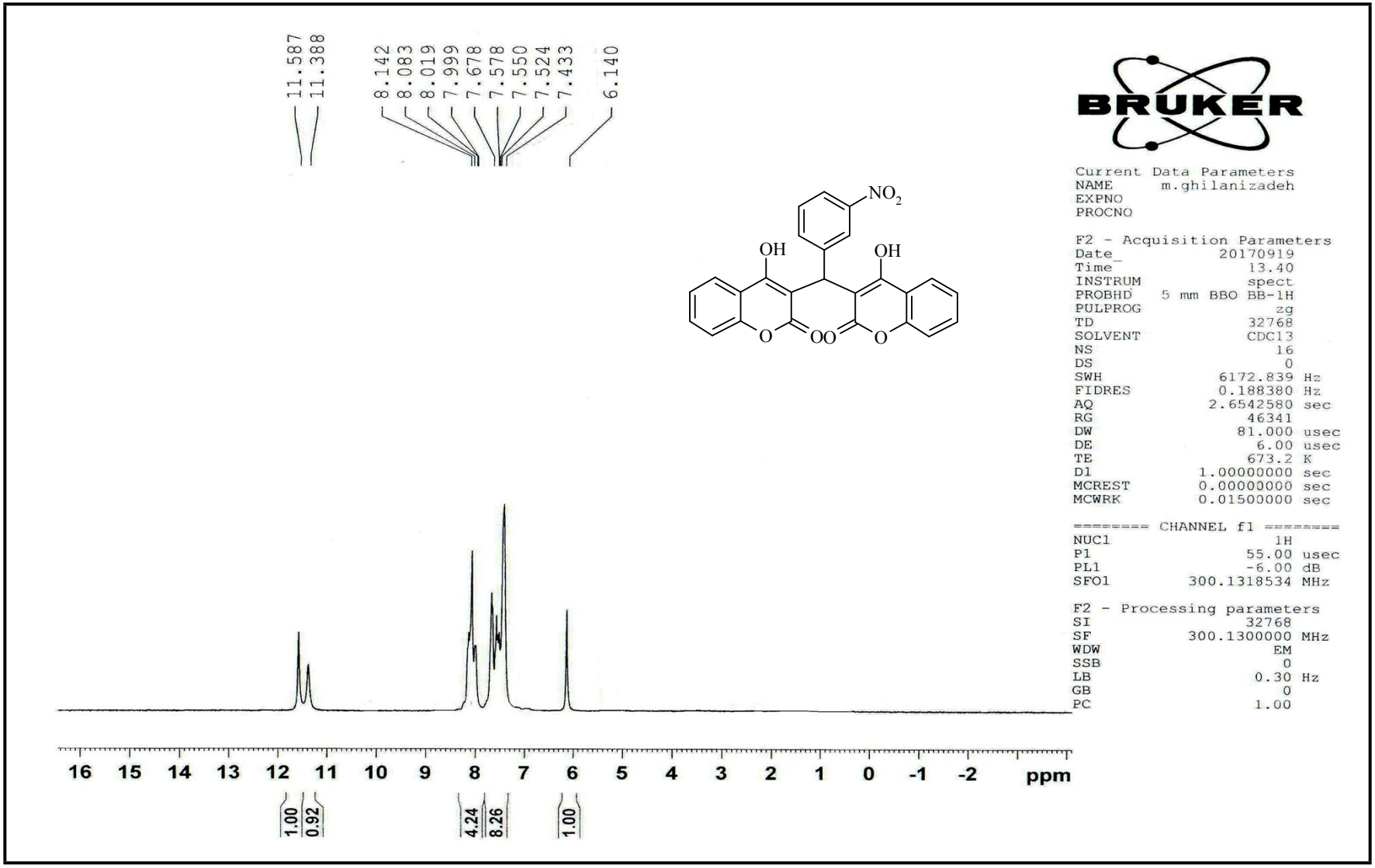
^{1}H NMR (Table 2, entry 7)



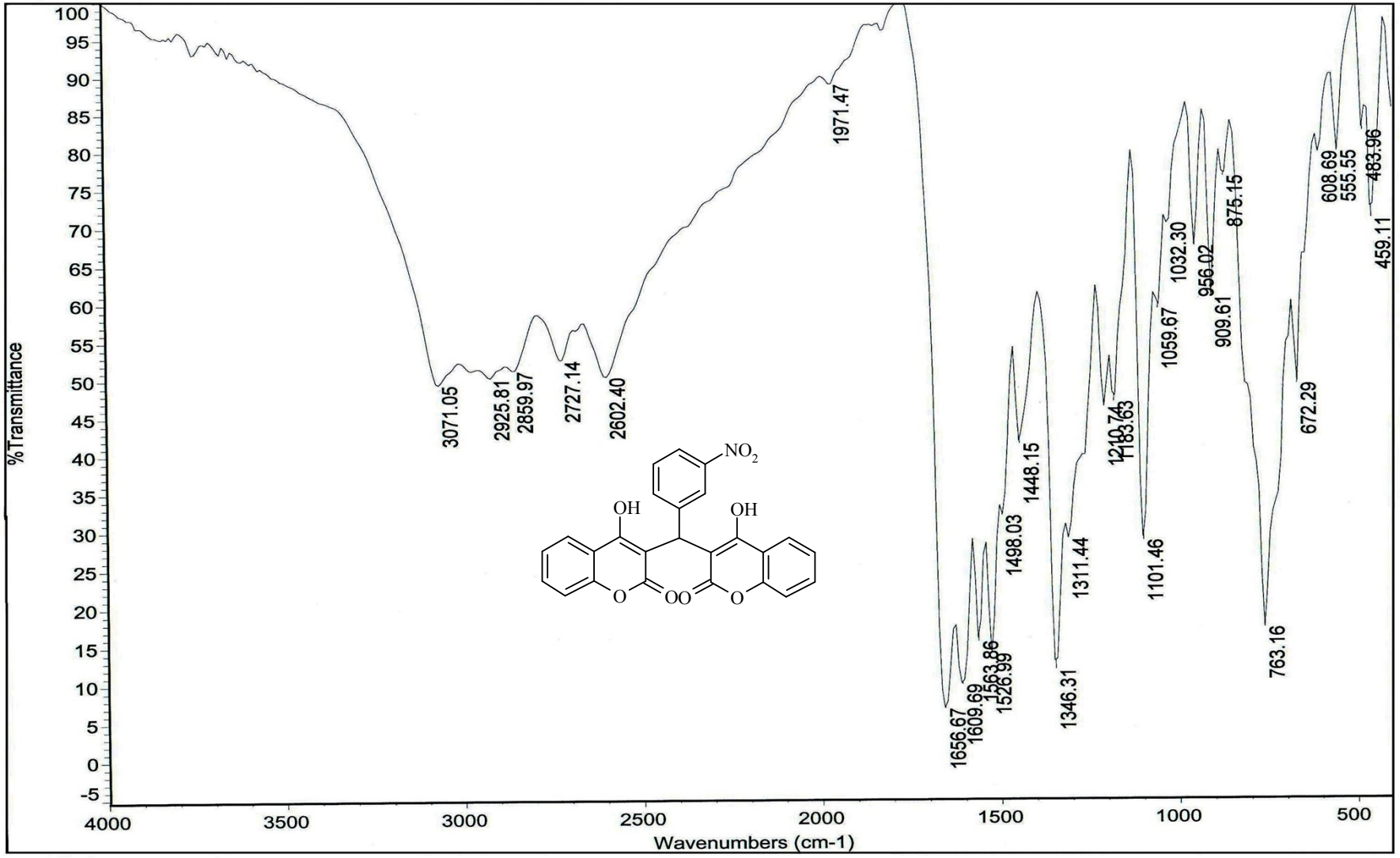
FT-IR (Table 2, entry 7)



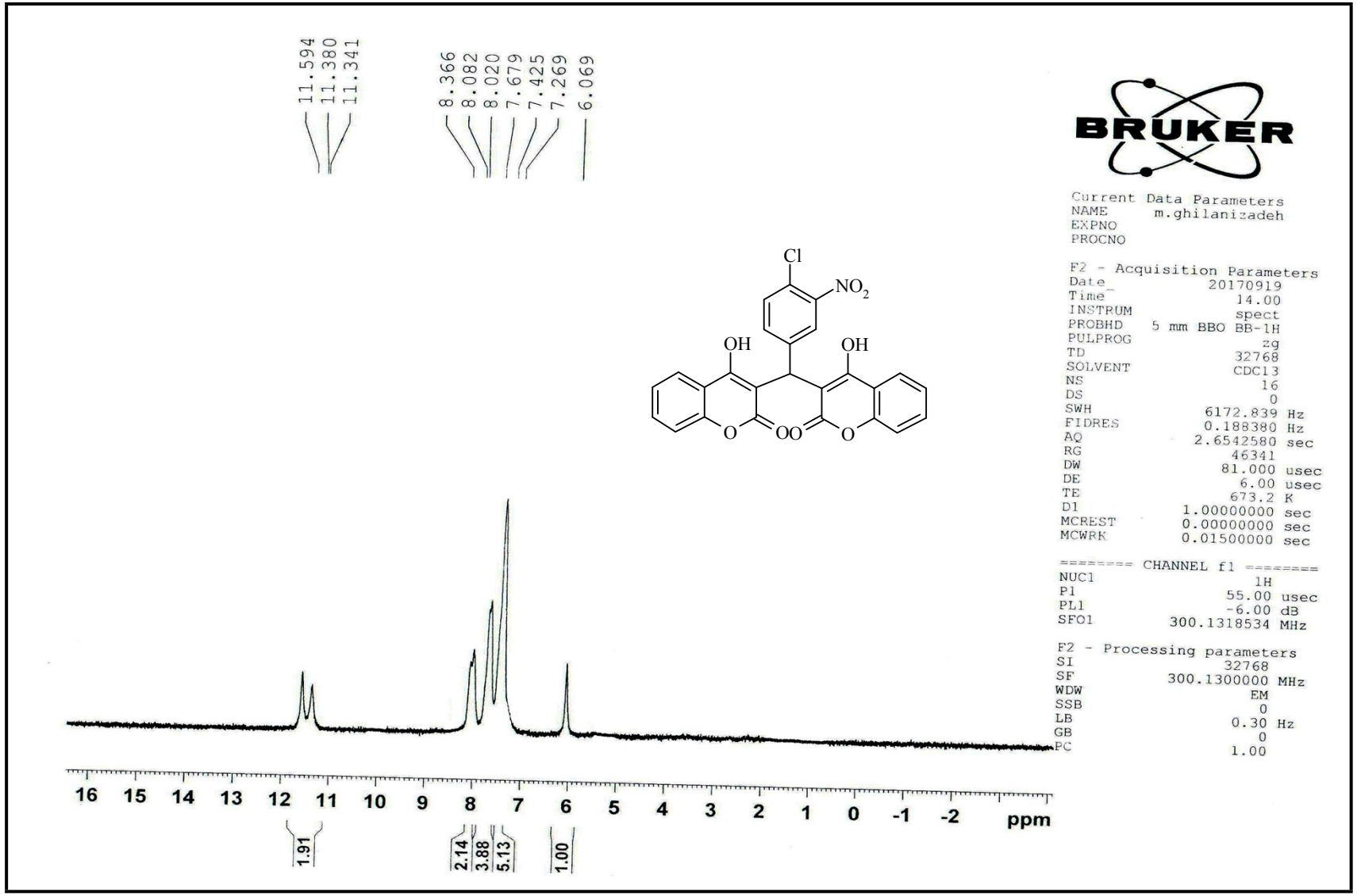
^{1}H NMR (Table 2, entry 8)



FT-IR (Table 2, entry 8)



^{1}H NMR (Table 2, entry 9)



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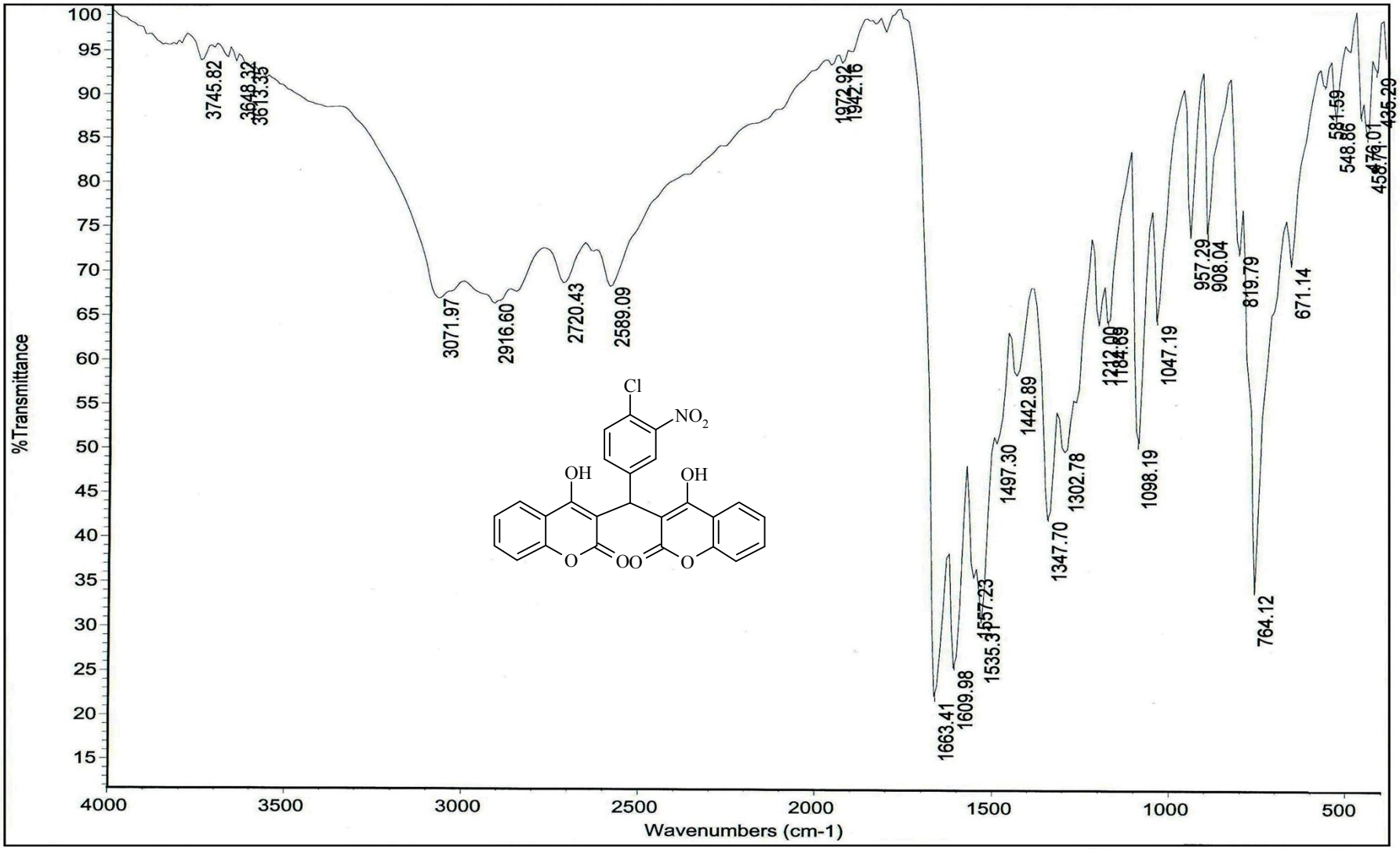
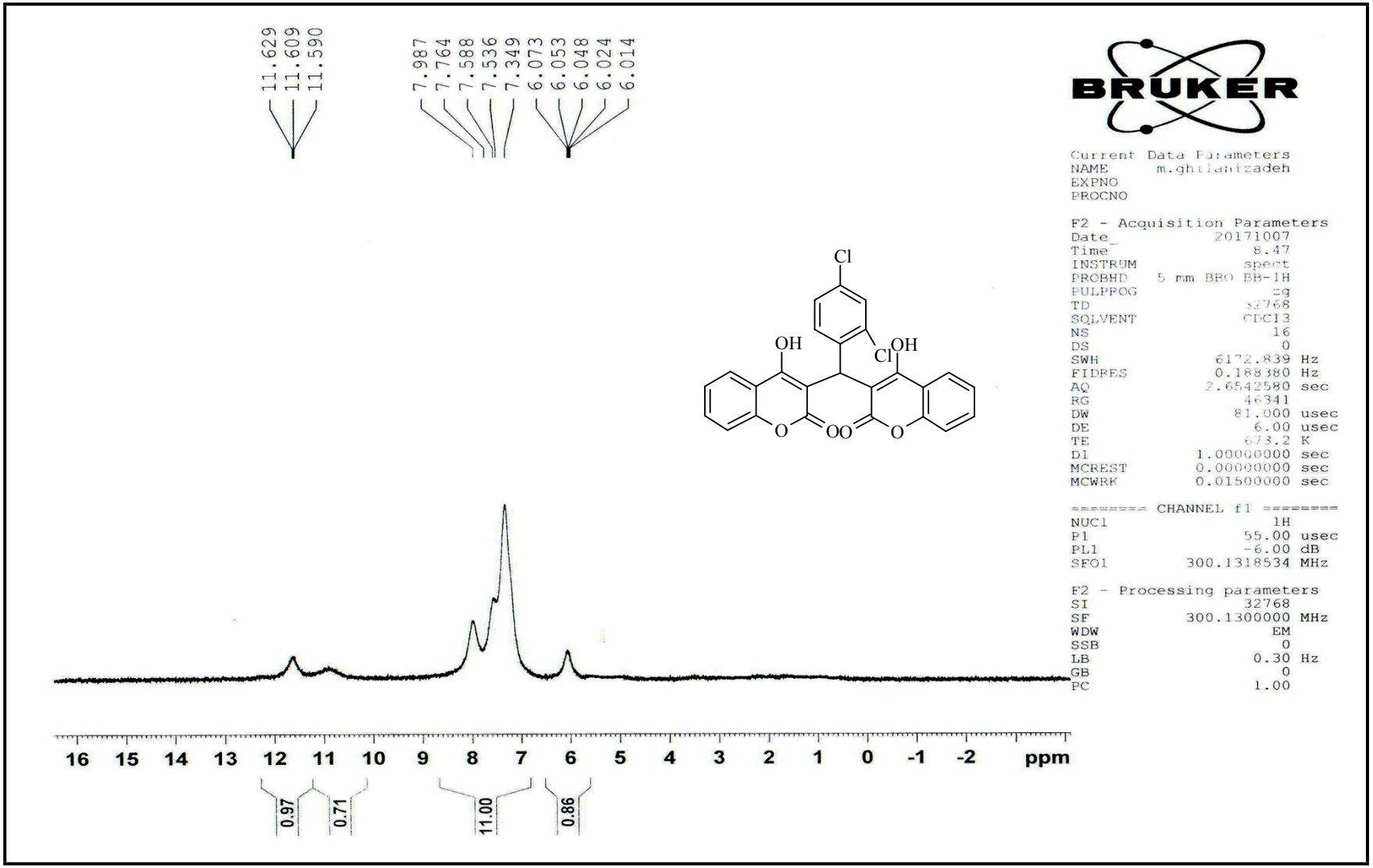


^{1}H NMR (Table 2, entry 10)



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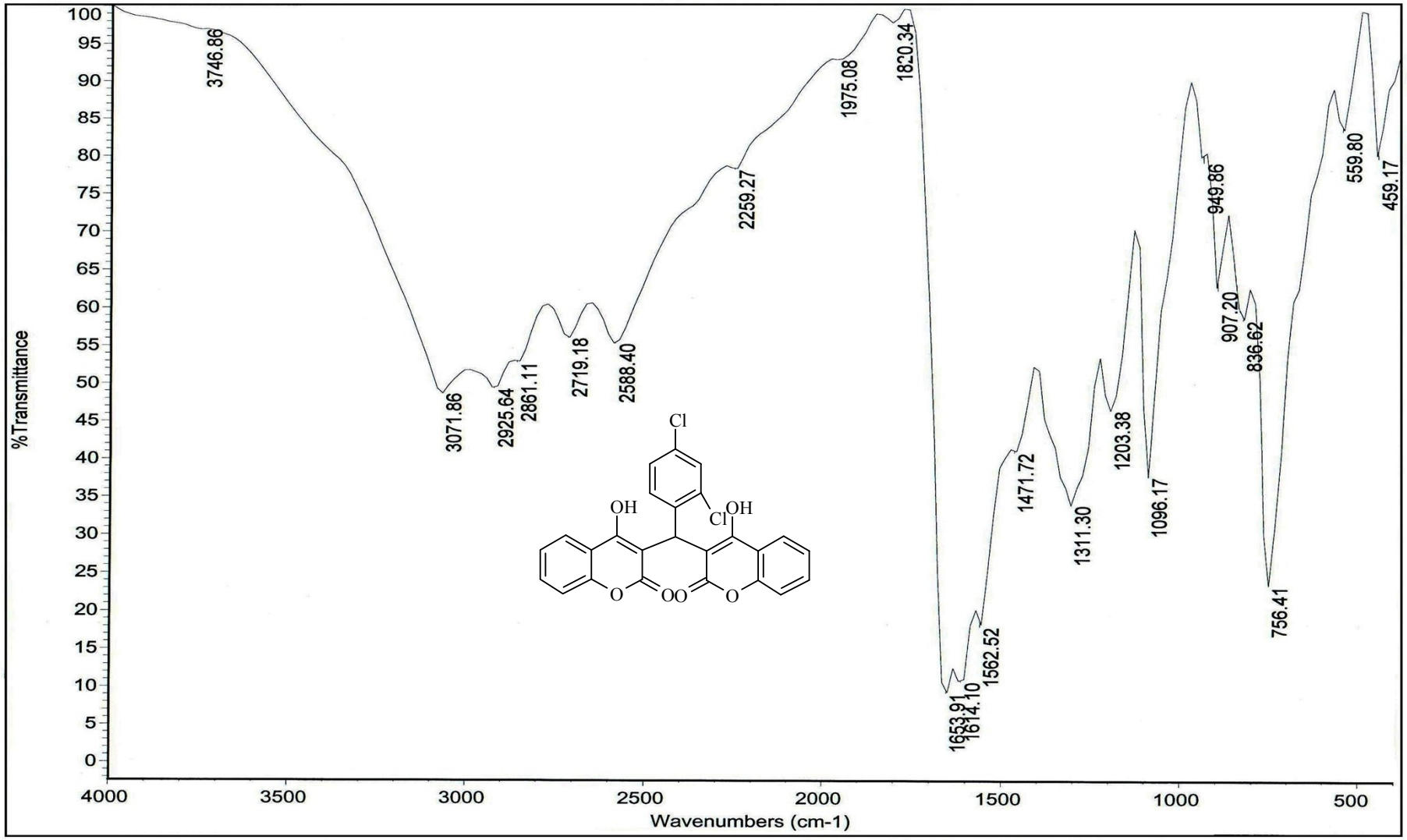
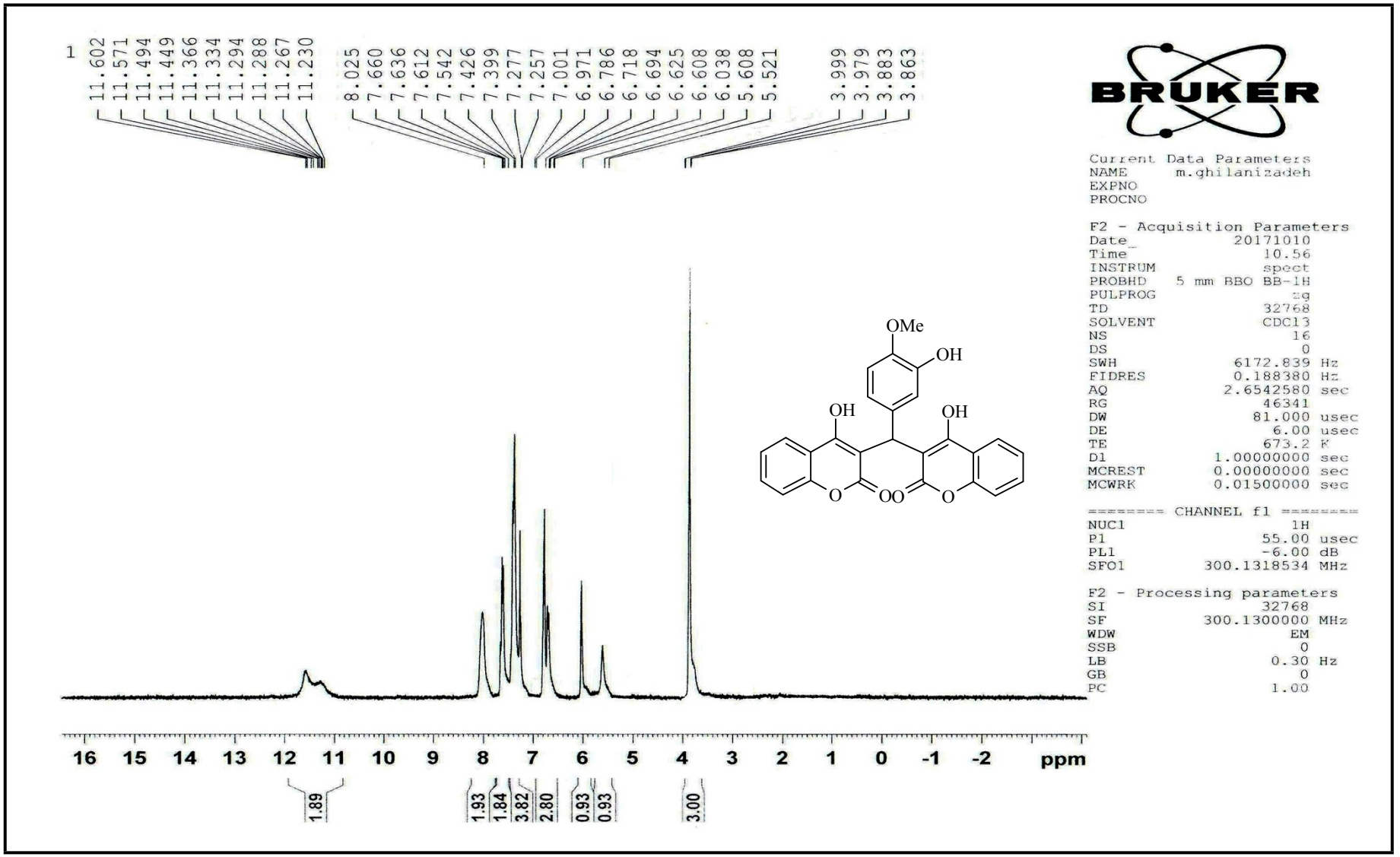


^{1}H NMR (Table 2, entry 11)



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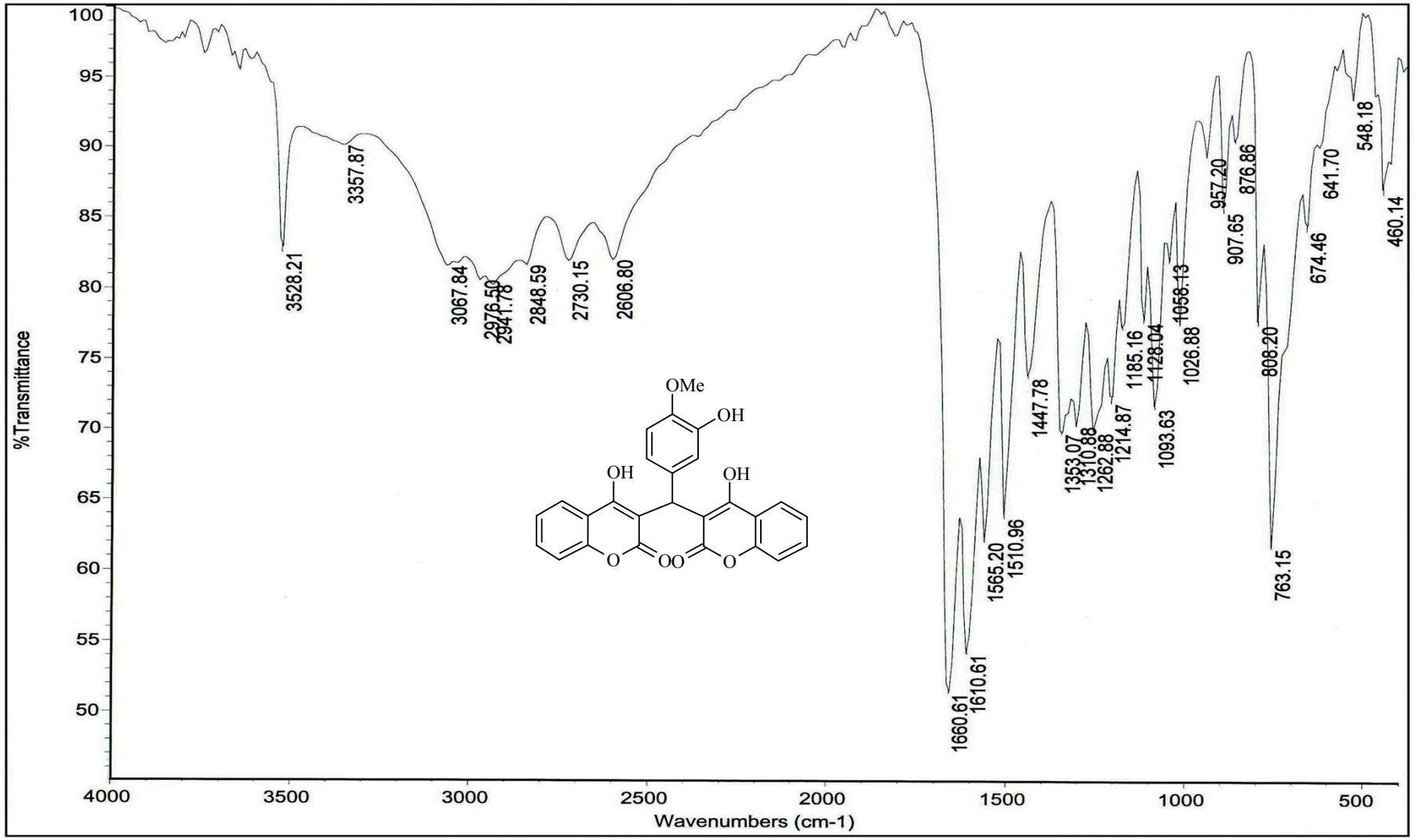

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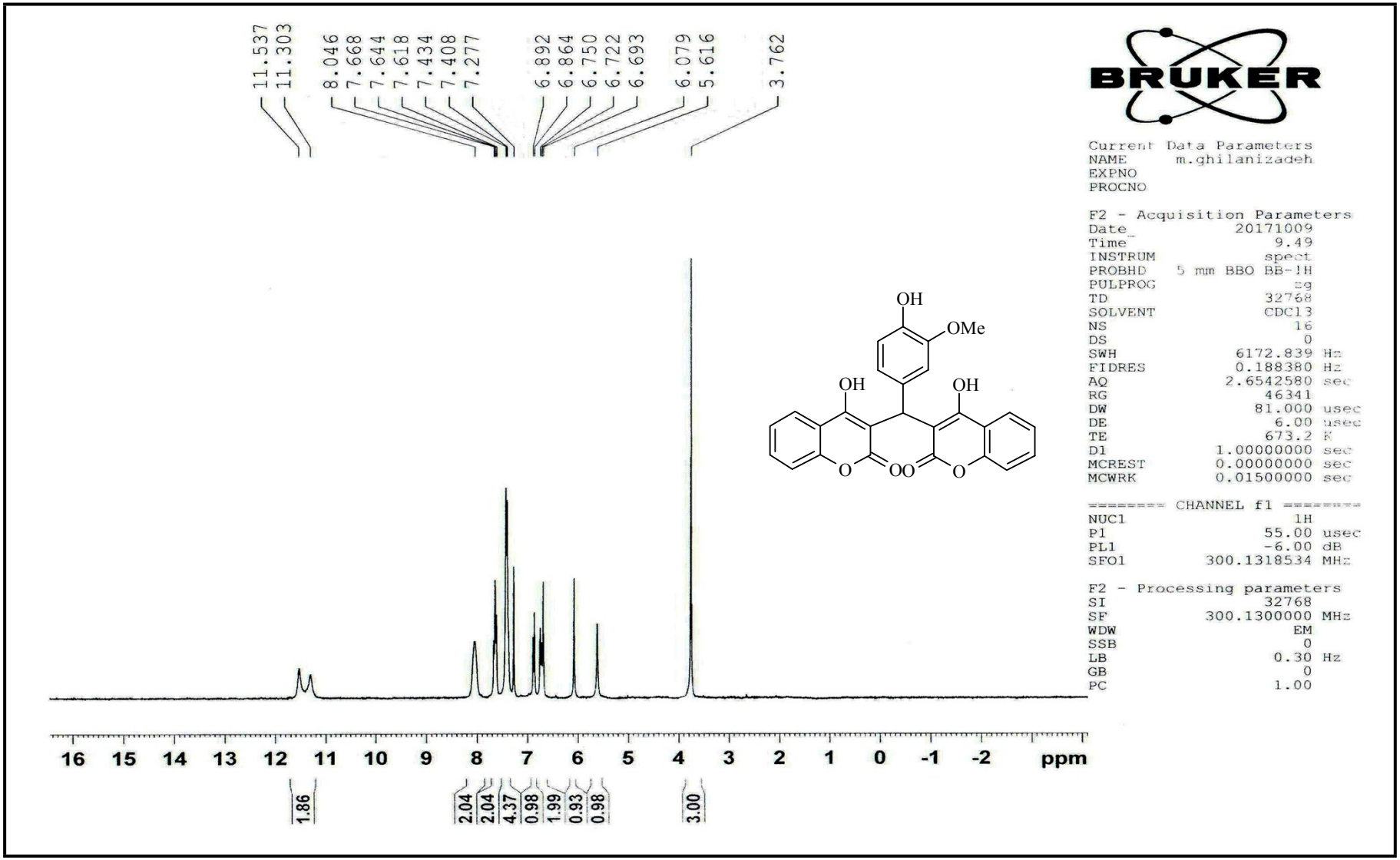

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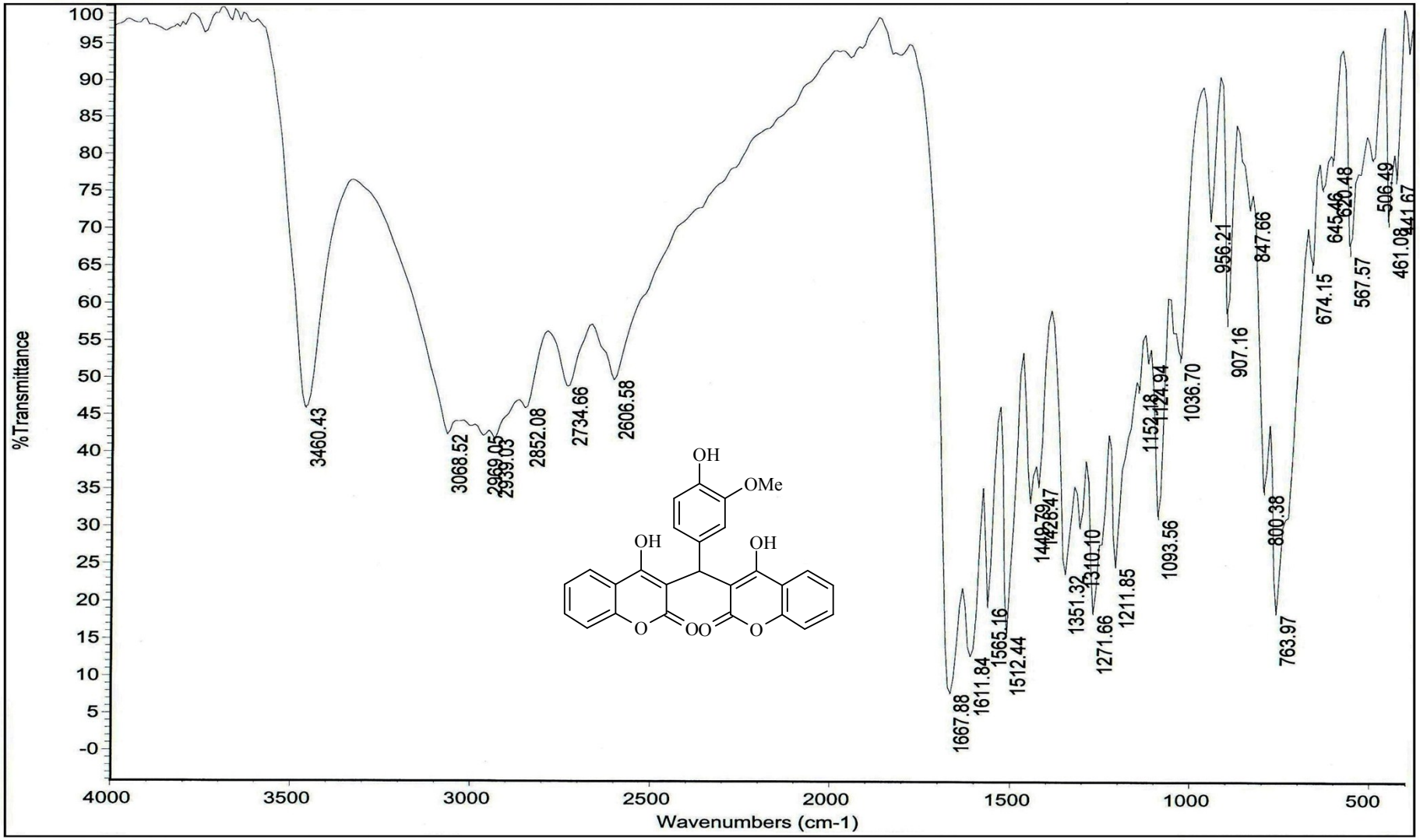

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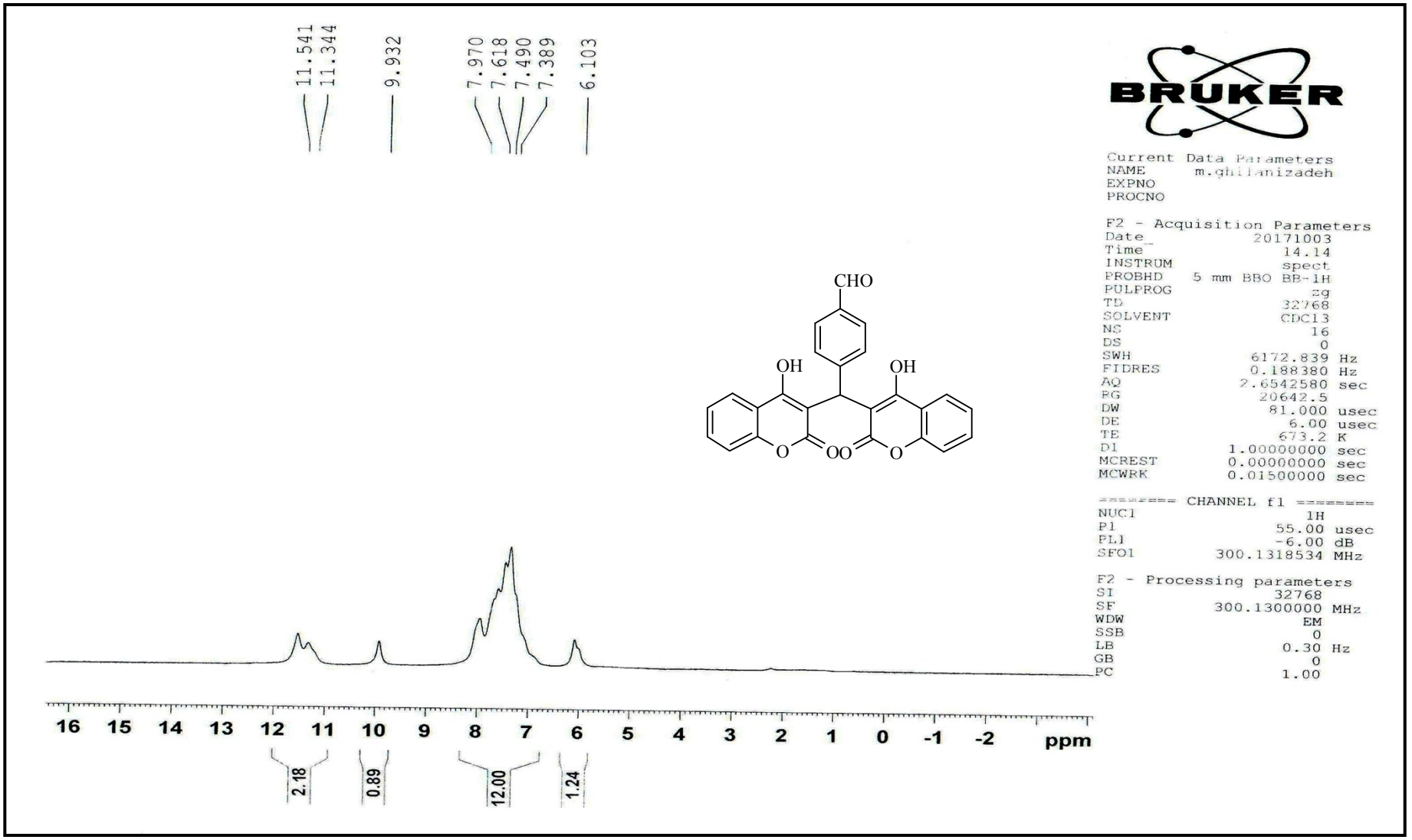

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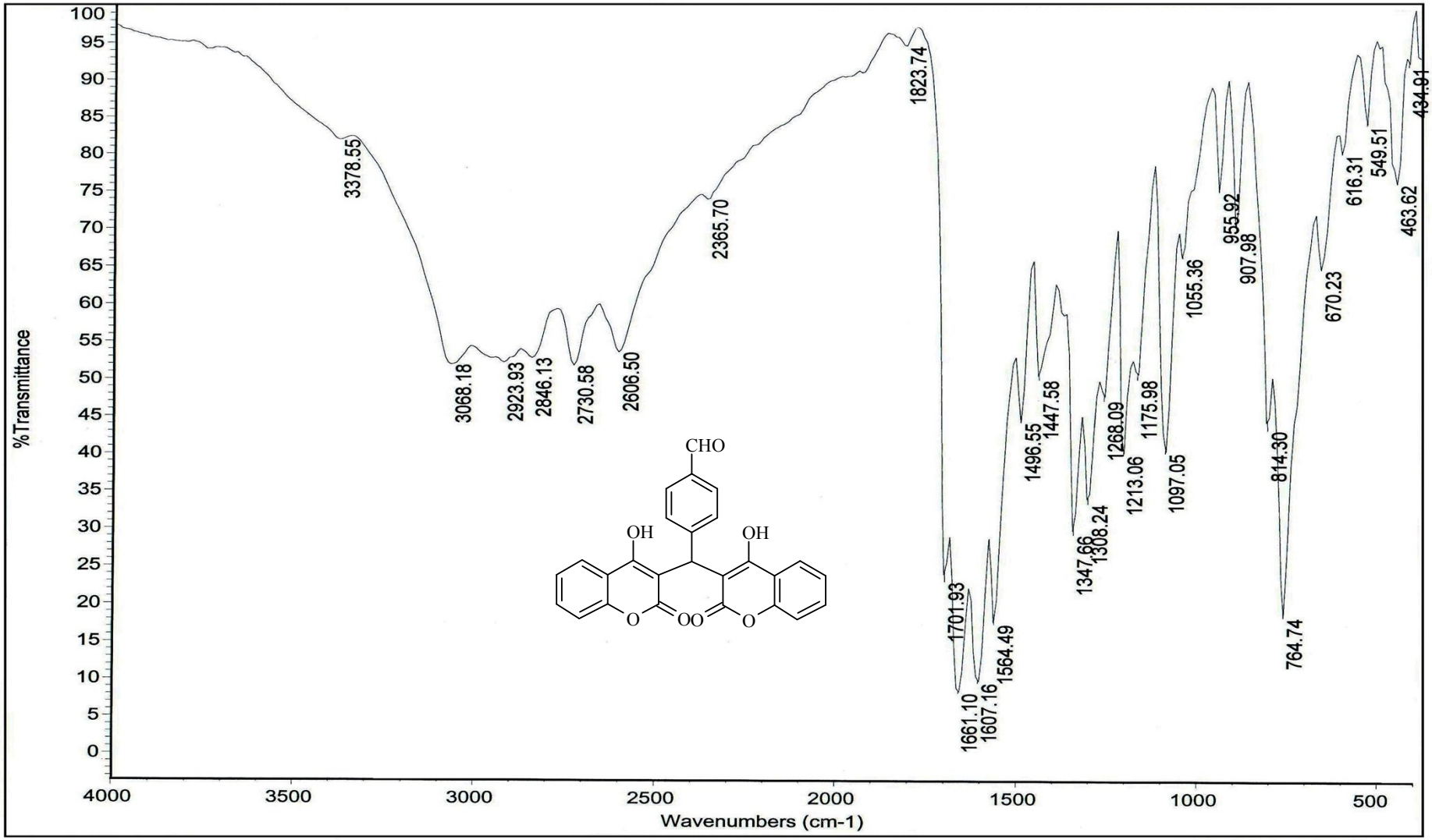

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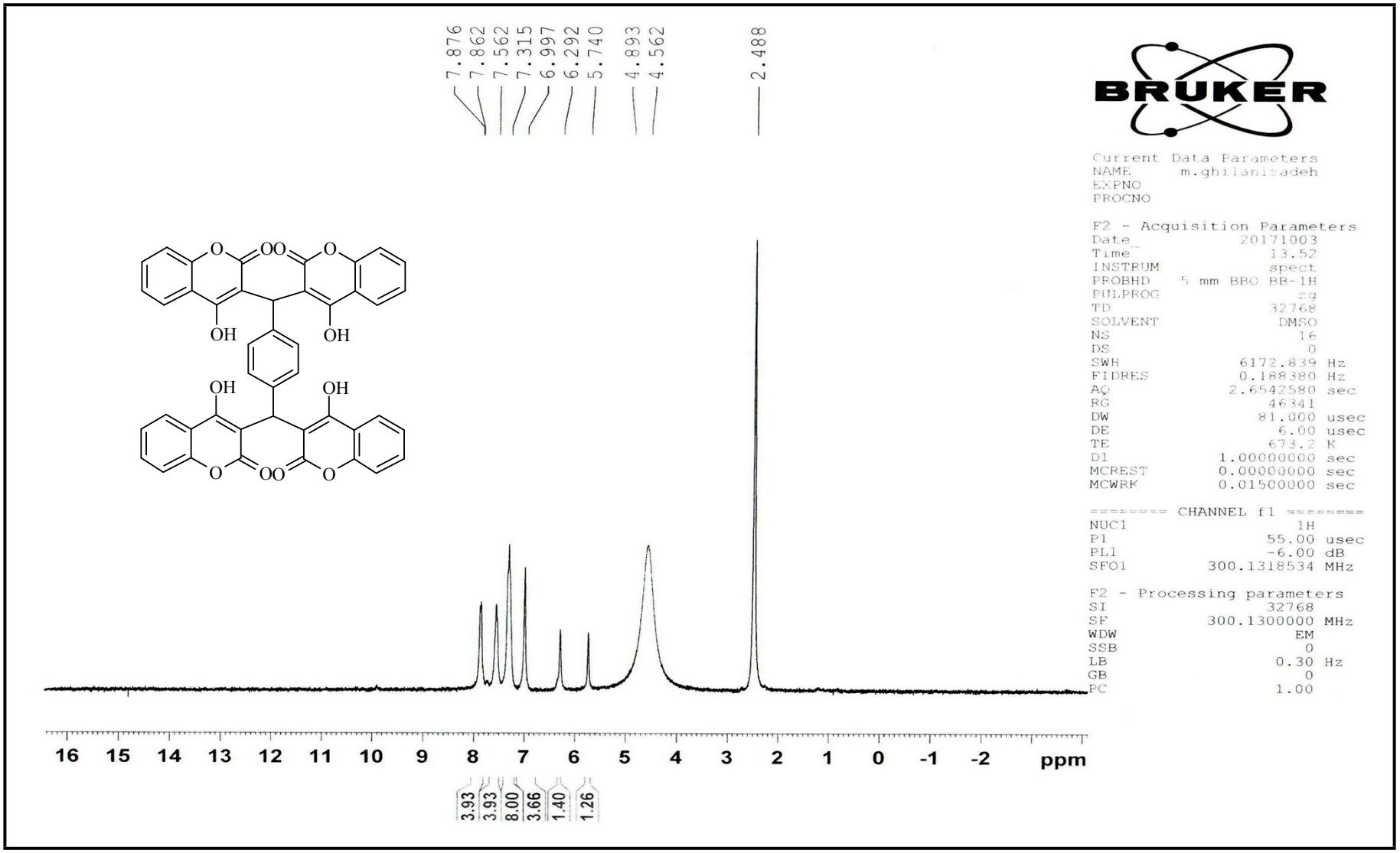

FT-IR (Table 2, entry 14)