

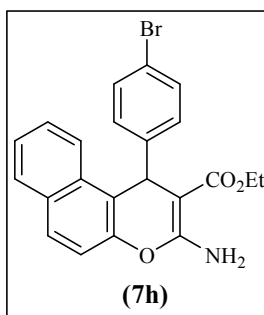
Supplementary Information

Nano polypropylenimine dendrimer (DAB-PPI-G₁): as a novel nano basic-polymer catalyst for one-pot synthesis of 2-amino-2-chromene derivatives

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Ethyl-3-amino-1-(4-bromo phenyl)-1H-benzo[f]chromene-2-carboxylate (7h):

White solid, m.p 204-206°C; IR (KBr, cm⁻¹): 3328, 3463, 3082, 2977, 1670, 1635, 1504, 1222, 1072; ¹H NMR (300 MHz, CDCl₃) δ ppm: 1.19 (t, 3H, CH₃), 4.67 (m, 2H, CH₂), 5.35 (s, 1H, CH), 6.13 (br, 2H, NH₂, D₂O exchangeable), 7.19-7.76 (m, 10H); ¹³C NMR (75 MHz, CDCl₃) δ ppm: 14.6, 36.7, 59.7, 79.8, 116.7, 118.5, 119.8, 123.3, 124.9, 127.0, 128.6, 129.0, 130.0, 130.8, 131.2, 131.3, 145.5, 147.0, 159.9, 169.0; *Anal.* Calcd for C₂₂H₁₈BrNO₃: C, 62.25; H, 4.27; N, 3.30. Found: C, 62.13; H, 4.35; N, 3.18.

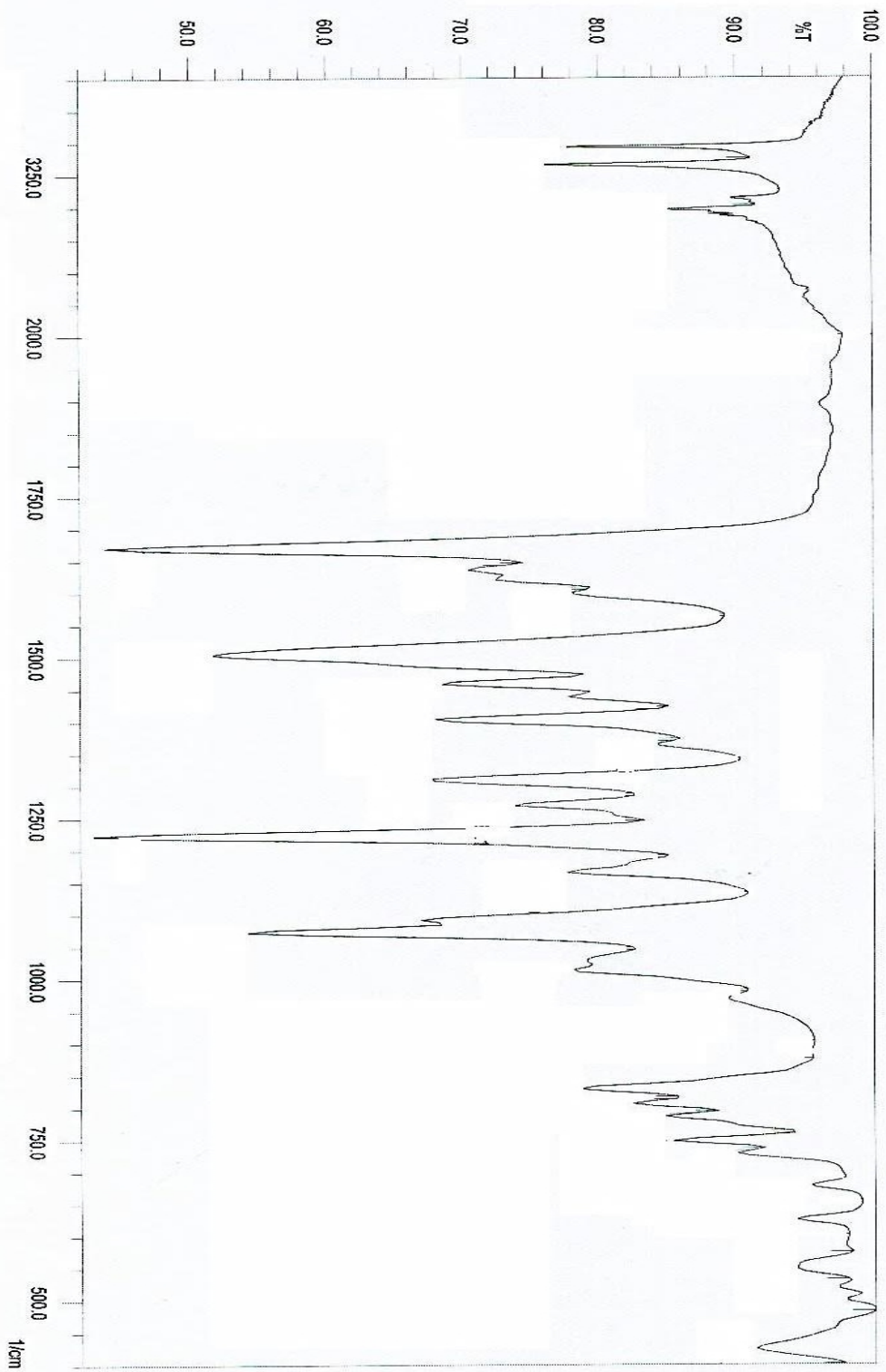


Figure S1. FT-IR spectrum of 7h

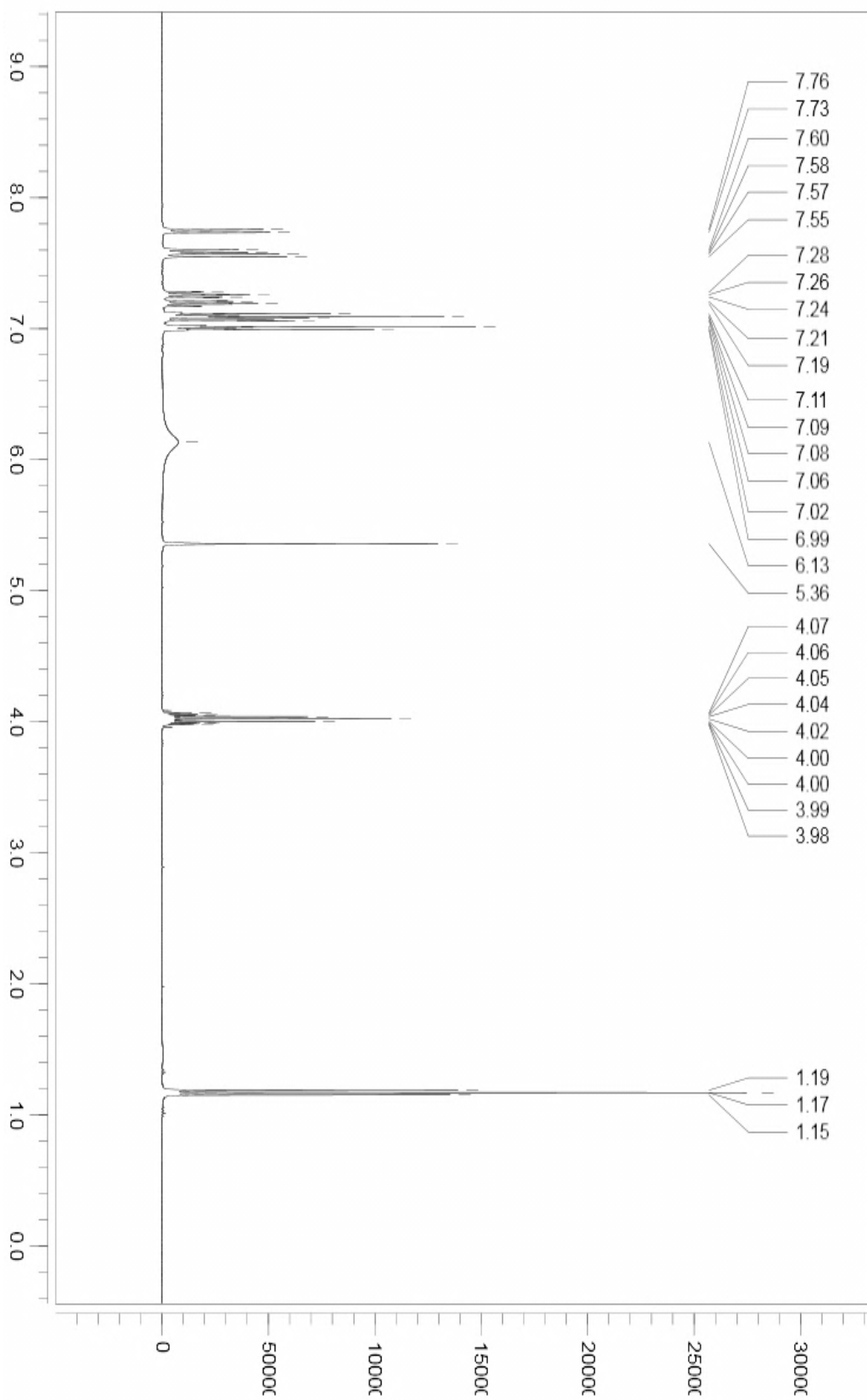


Figure S2. ¹H-NMR spectrum of **7h**

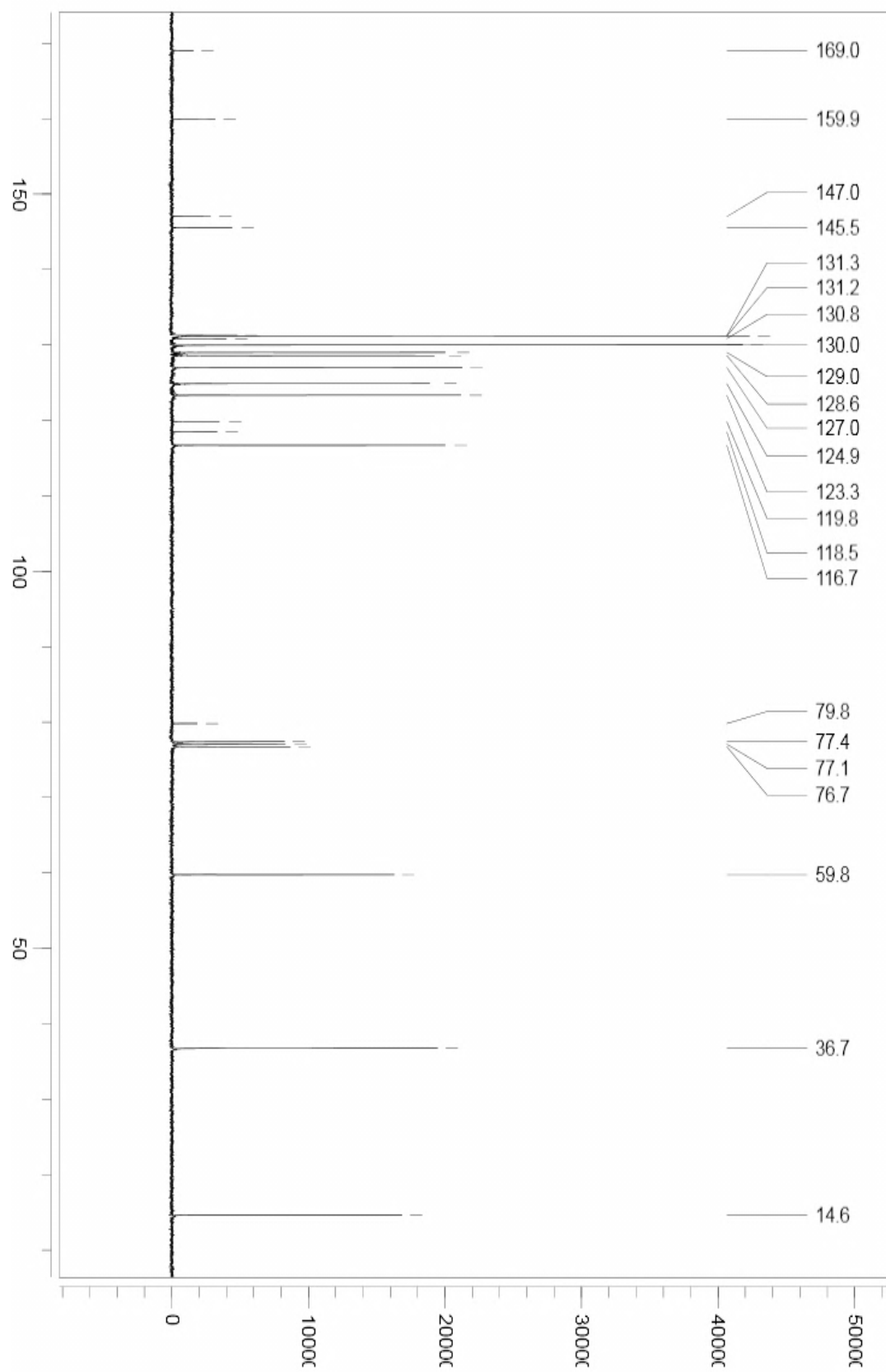
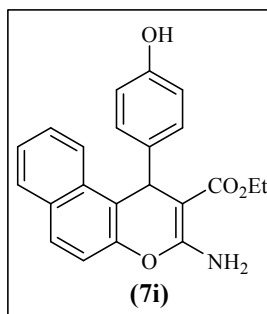


Figure S3. ^{13}C -NMR spectrum of **7h**



Ethyl-3-amino-1-(4-hydroxy phenyl)-1H-benzo[f]chromene-2-carboxylate (8i):

White solid, m.p 129-130°C; IR (KBr, cm^{-1}): 3332, 3463, 3062, 2981, 1662, 1593, 1512, 1222, 1076; 1222; ^1H NMR (300 MHz, CDCl_3) δ ppm: 1.39 (t, 3H, CH_3), 4.24 (m, 2H, CH_2), 5.62 (s, 1H, CH), 6.33 (br, 2H, NH_2 , D_2O exchangeable), 7.05-7.89 (m, 10H), 10.21 (s, 1H, OH); ^{13}C NMR (75 MHz, CDCl_3) δ ppm: 14.6, 36.7, 59.7, 79.9, 116.7, 118.5, 123.3, 124.8, 127.0, 128.2, 128.6, 129.0, 129.5, 130.9, 131.3, 131.7, 145.0, 147.0, 159.9, 169.0; *Anal.* Calcd for $\text{C}_{22}\text{H}_{19}\text{NO}_4$: C, 73.10; H, 5.30; N, 3.87. Found: C, 72.95; H, 5.46; N, 3.79.

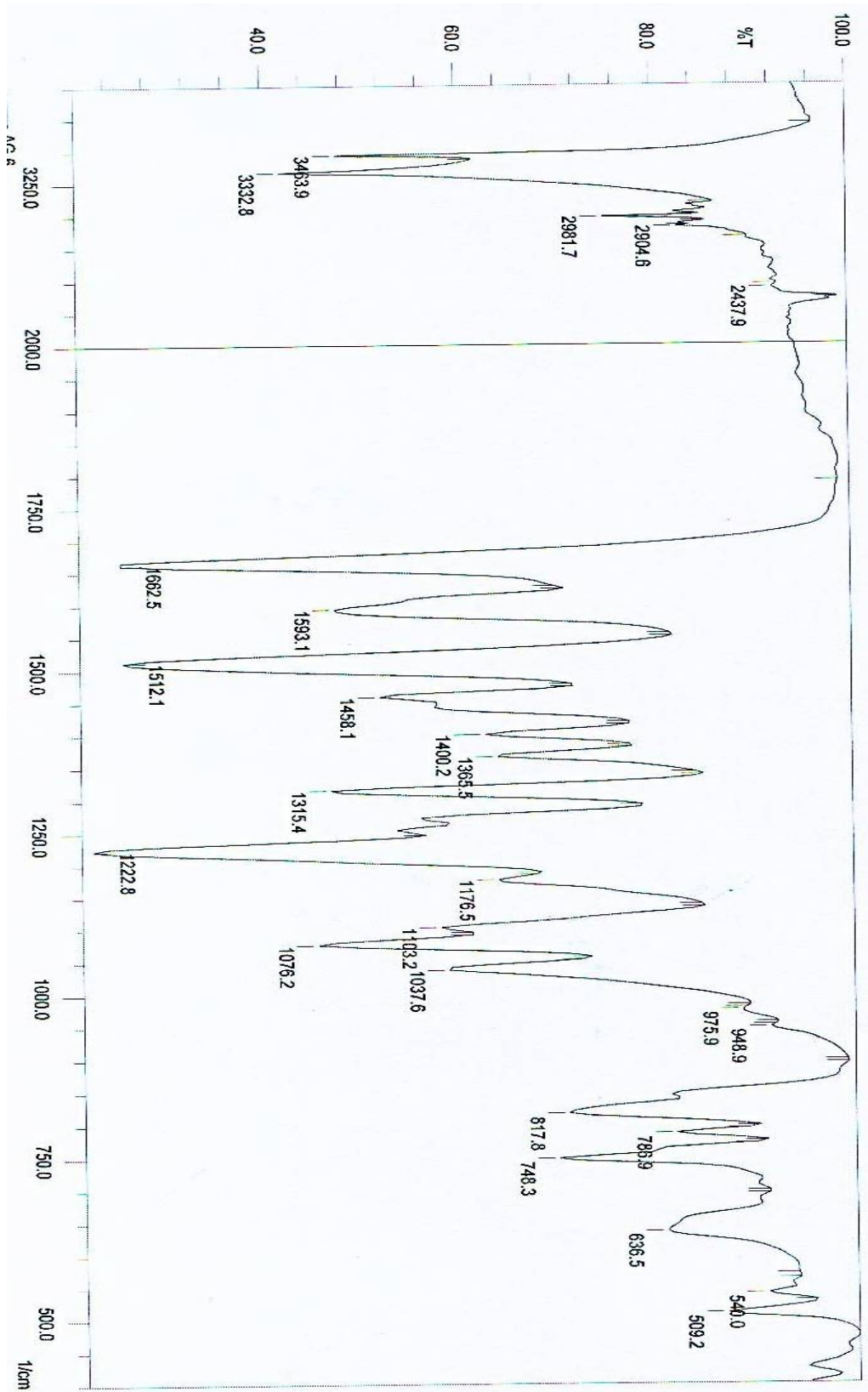


Figure S4. FT-IR spectrum of 7i

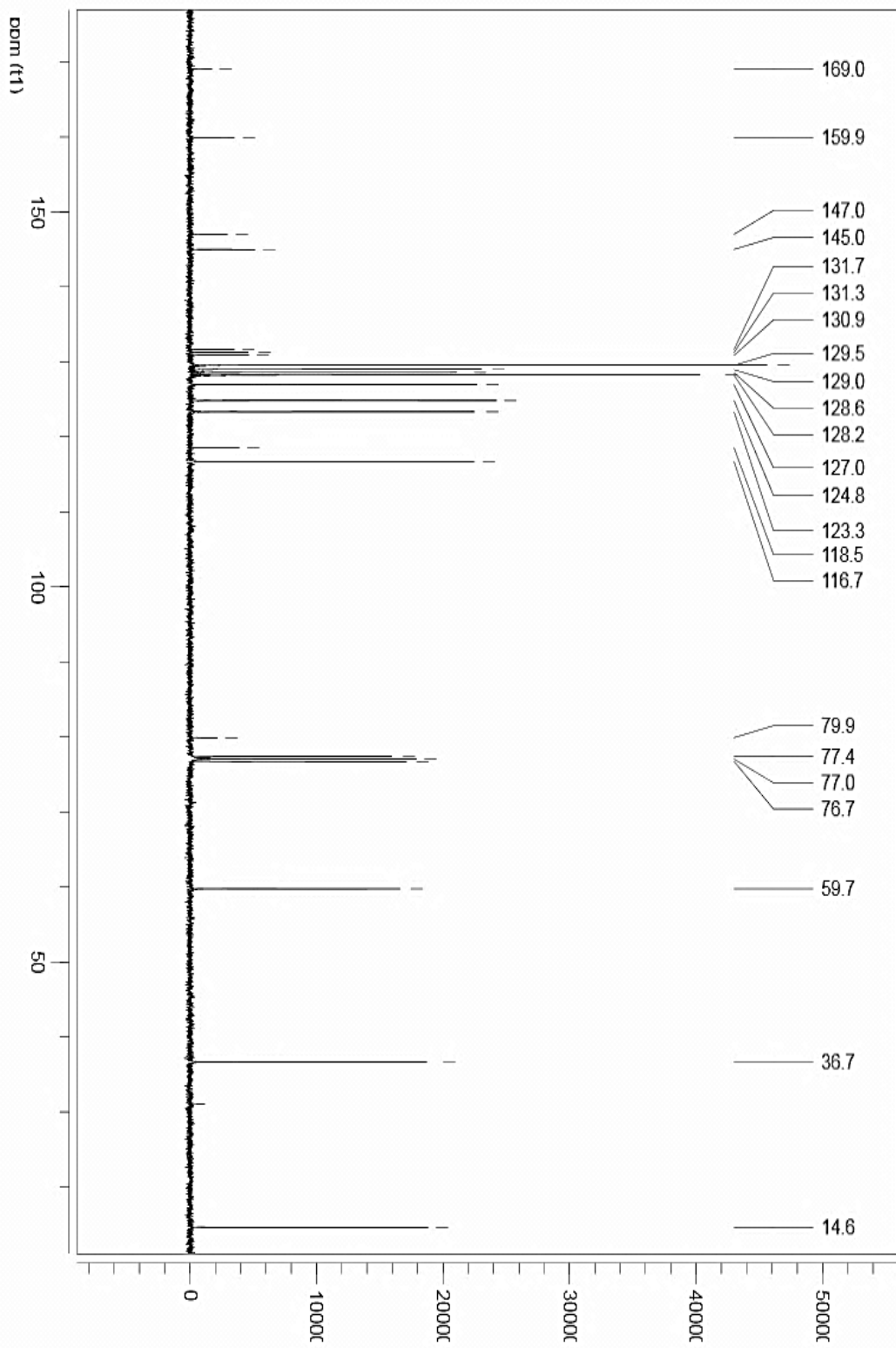
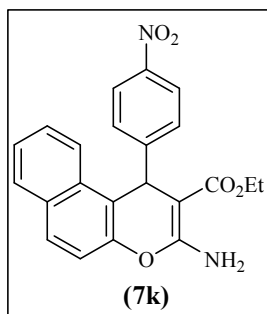


Figure S5. ^{13}C -NMR spectrum of **7i**



Ethyl-3-amino-1-(4-nitro phenyl)-1H-benzo[f]chromene-2-carboxylate (7k):

Yellow solid, m.p 180-182 °C. IR (KBr, cm^{-1}): 3301, 3448, 3070, 2990, 1678, 1639, 1515, 1390, 1224, 1072; ^1H NMR (300 MHz, CDCl_3) δ ppm: 1.39 (t, 3H, CH_3), 4.25 (m, 2H, CH_2), 5.71 (s, 1H, CH), 6.44 (br, 2H, NH_2 , D_2O exchangeable); 7.08-8.06 (m, 10H); ^{13}C NMR (75 MHz, CDCl_3) δ ppm: 14.6, 37.2, 59.9, 78.9, 116.7, 117.5, 123.0, 123.6, 125.1, 127.2, 128.8, 129.0, 129.5, 130.7, 131.3, 146.2, 147.1, 153.8, 160.0, 168.7; *Anal.* Calcd for $\text{C}_{22}\text{H}_{18}\text{N}_2\text{O}_5$: C, 67.66; H, 4.65; N, 7.18. Found: C, 67.57; H, 4.81; N, 7.02.

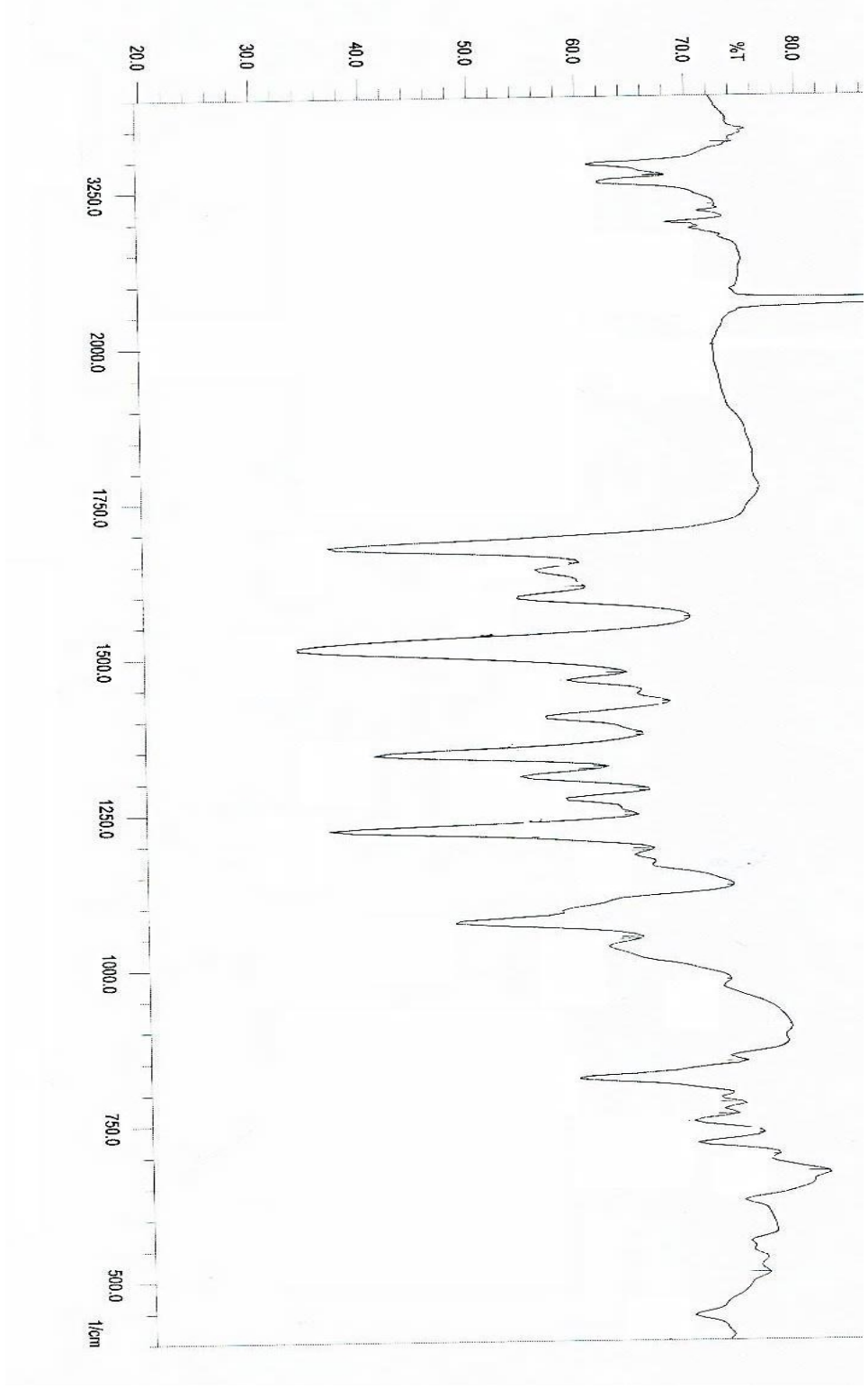


Figure S6. FT-IR spectrum of 7k

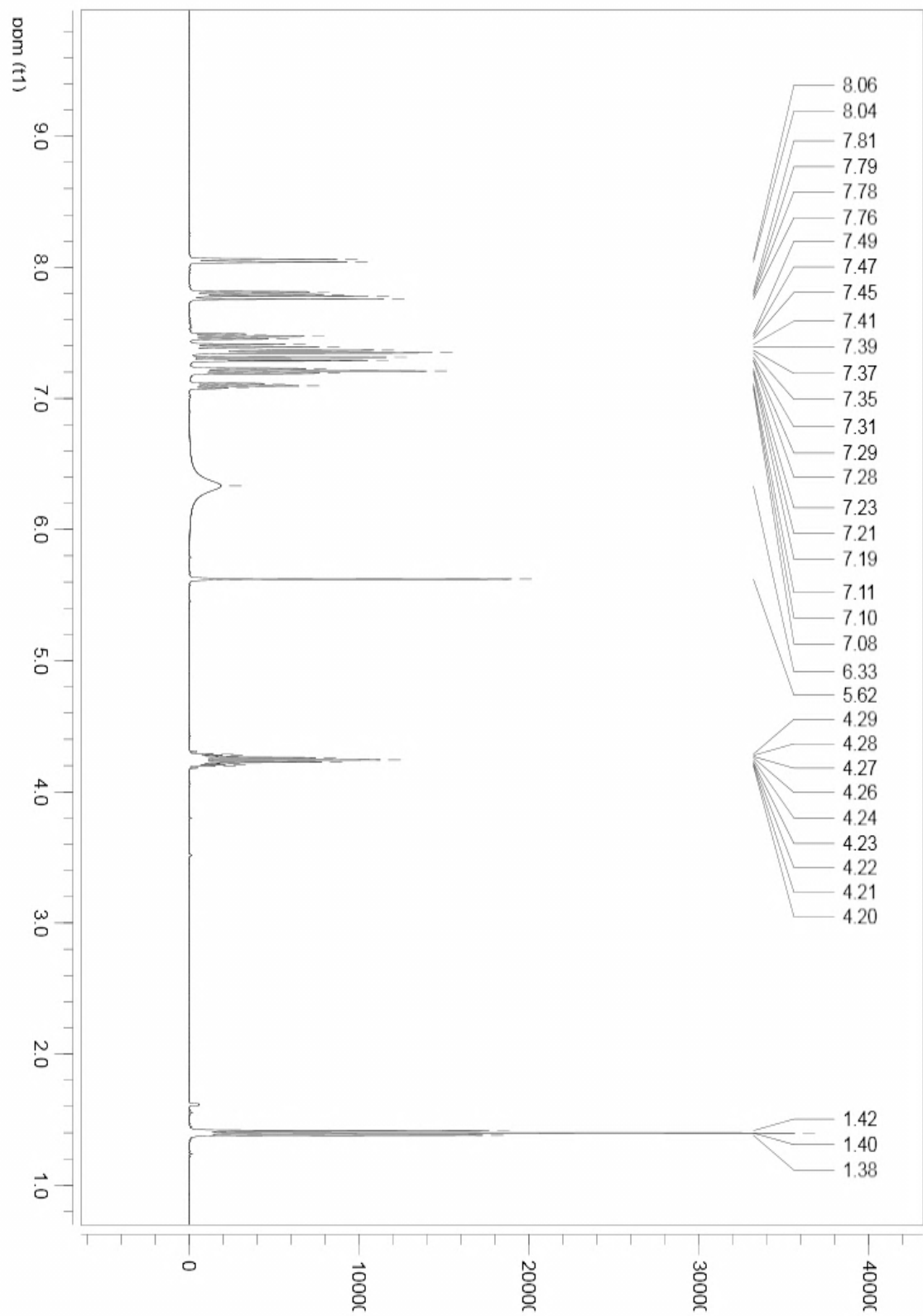


Figure S7. $^1\text{H-NMR}$ spectrum of 7k

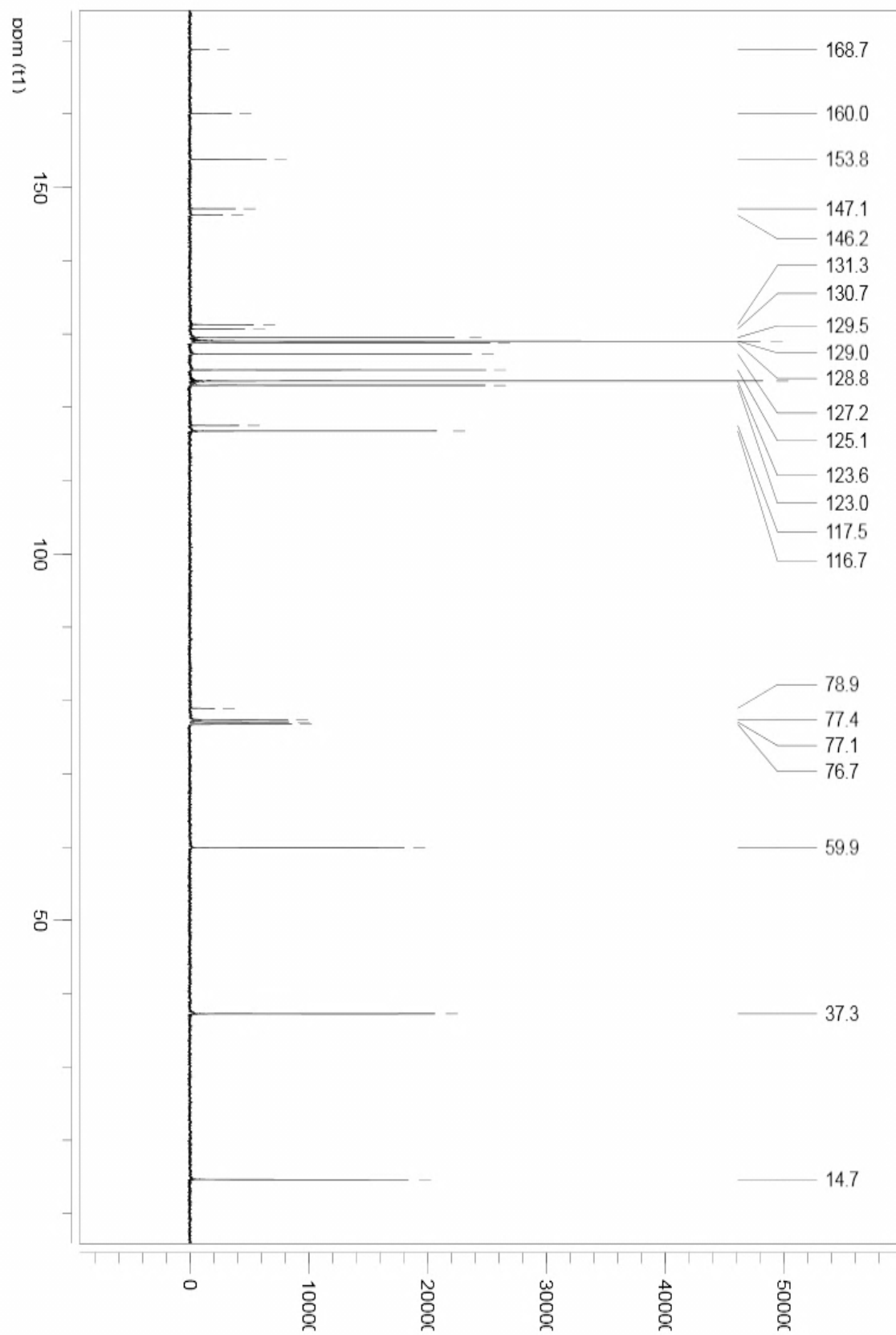


Figure S8. ^{13}C -NMR spectrum of **7i**