

Fe-MCM-22 Catalyzed Multicomponent Synthesis of Dihydropyrano [2, 3-c] Pyrazole Derivatives

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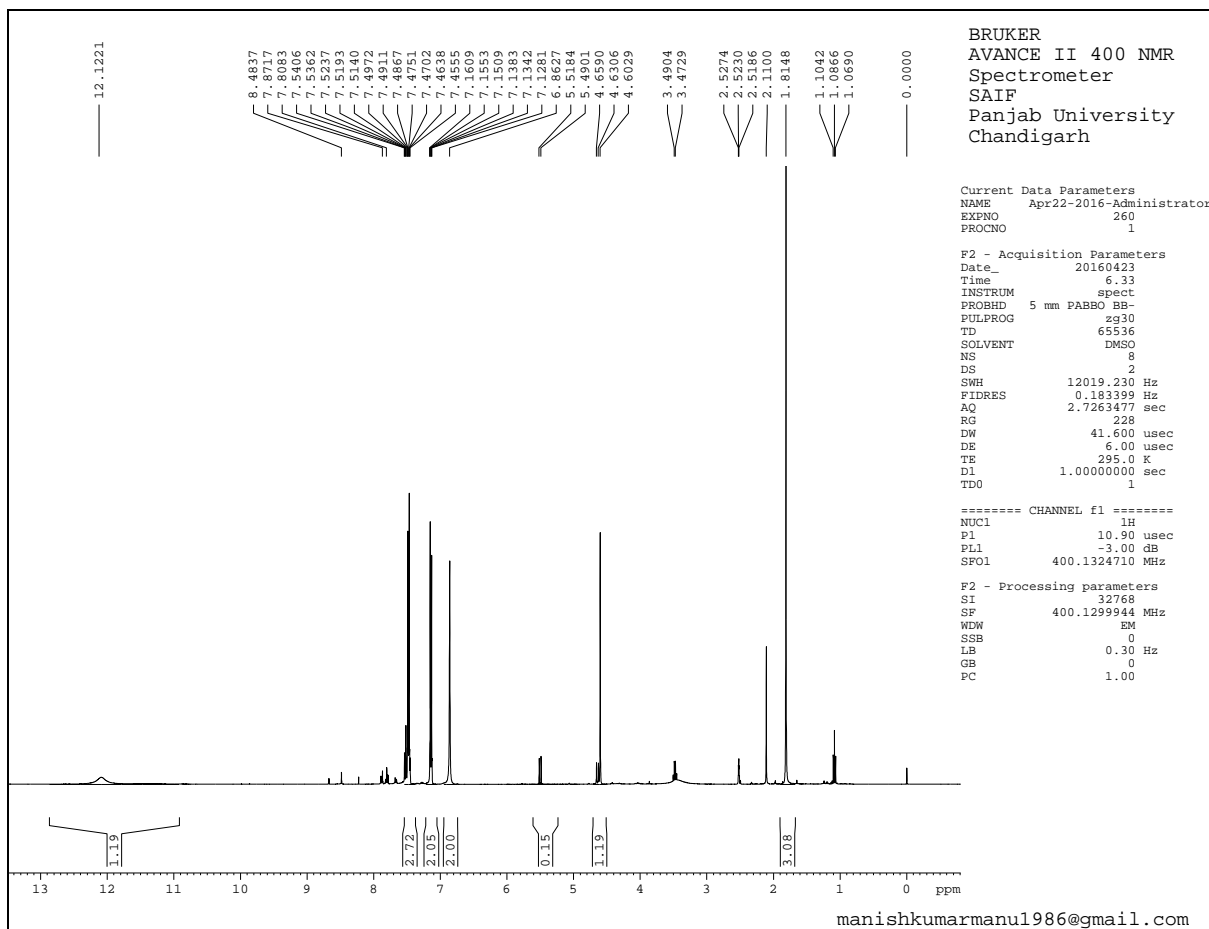
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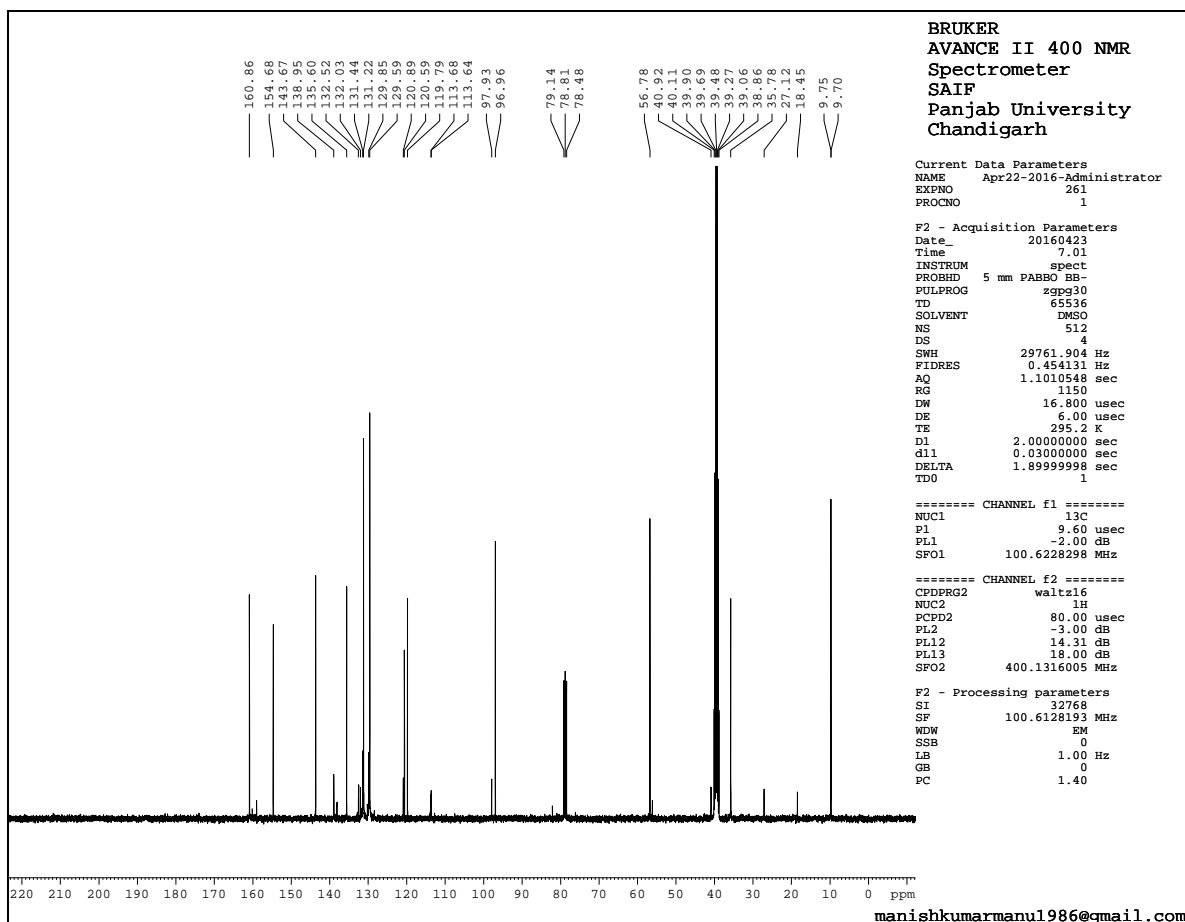
Supplementary data of representative compound

6-Amino-4-(4-bromo-phenyl)-3-methyl-1, 4-dihydropyrano [2, 3-c] pyrazole-5-carbonitrile (5m)

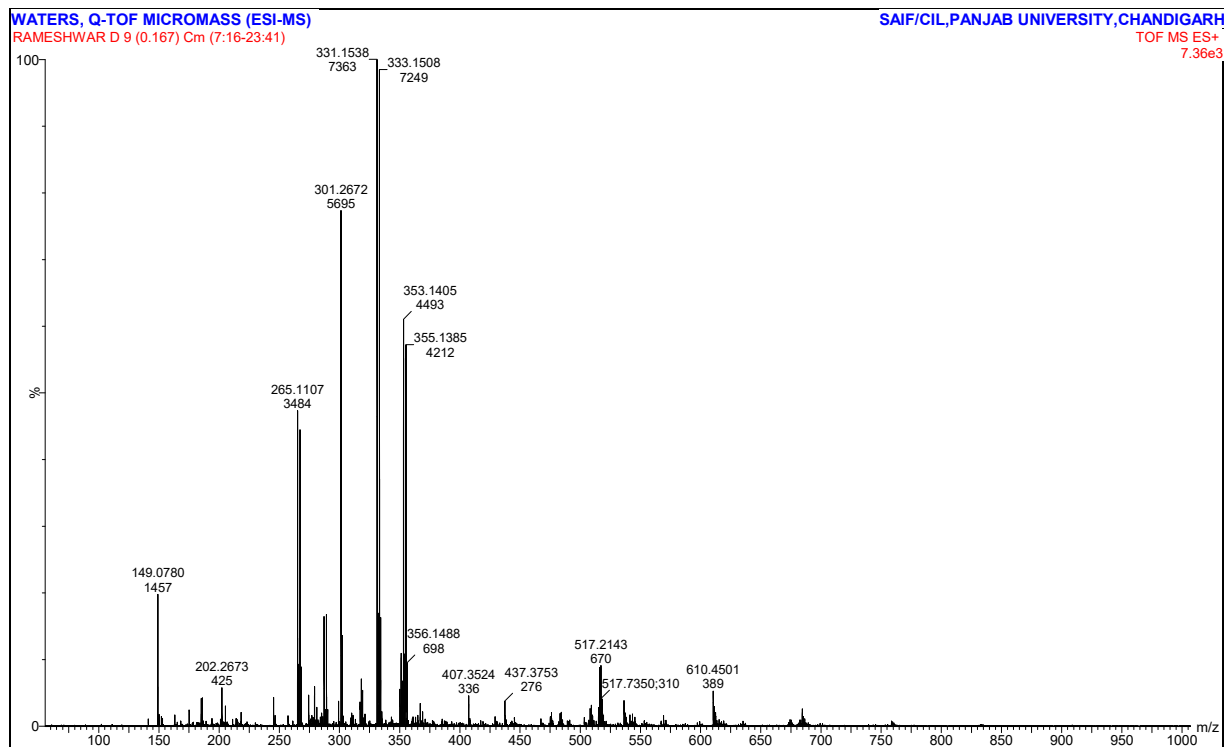
<p>¹H NMR (400 MHz, DMSO-d₆) δ(ppm)= 1.81(3H, s), 4.65(1H, s), 6.86(2H, s, -NH₂), 7.13 (2H, d, J = 8.1 Hz), 7.48 (2H, d, J = 8.4 Hz), 12.12 (1H, s, -NH); ¹³C NMR (100 MHz, DMSO-d₆): d 9.7, 35.7, 56.7, 97.3, 119.7, 120.8, 129.6, 131.2, 135.6, 143.6,154.6, 160.8 HRMS of [C₁₄H₁₁BrN₄O 1] (m/z): 331.15 (100%)</p>	<p>(5m)</p>
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¹H NMR Spectrum of 6-Amino-4-(4-bromo-phenyl)-3-methyl-1, 4-dihydropyranopyrazole-5-carbonitrile (5m)



¹³C NMR Spectrum of 6-Amino-4-(4-bromo-phenyl)-3-methyl-1,4-dihydropyrido [2,3-c] pyrazole-5-carbonitrile (5m)



LC-MS Spectrum of 6-Amino-4-(4-bromo-phenyl)-3-methyl-1, 4-dihydropyrido [2, 3-c] pyrazole-5-carbonitrile (5m)