Supporting Information
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Supporting Information

**Selectfluor™ mediated Tandem Cyclization of enaminones for the synthesis of 3-Fluoro-Chromones**

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General Information:

All the chemicals were commercially available and procured from companies like Aldrich, Spectrochem (India), S. D. Fine (India), combi-block, fluorochem, matrix and Avra (India) and have been carried forward without further purification. Solvents used in the present study are dried before prior use whenever required. Precoated TLC silica gel plates (Kieselgel 60 F254, Merck) were used for monitoring reactions. Purification was performed by column chromatography using silica gel (Particle size 60-120 mesh, Merck). Melting points were determined in open capillary tubes on cintex melting point apparatus and are uncorrected. IR (KBr) spectra were recorded on Perkin-Elmer FT/IR-4000 using ATR ($\nu_{max}$ in cm$^{-1}$) in the frequency range of 600-4000 cm$^{-1}$. 1H NMR and 13C NMR spectra were recorded in CDCl$_3$/DMSO-$d_6$ on a Bruker DRX-400 (400 MHz FT NMR). Chemical shifts are presented in $\delta$ ppm employing TMS as internal reference. Splitting patterns were reported as s, singlet; d, doublet; t, triplet; q, quartet; m, multiplet; br, broad. High-resolution mass spectra (HRMS) were recorded with an Agilent Technologies 6510 Q-TOF spectrometer.
Experimental Procedure for the Preparation 3-fluoro-4H-chromen-4-one (3a):

To a stirred solution of compound 2a (191mg, 1 mmol) in DCE (5 ml) was added selectfluor\textsuperscript{TM} (708 mg, 2 mmol) at 0 °C and the reaction mixture was stirred at RT for 24 h. The progress of the reaction was monitored by TLC (30% Ethyl acetate & Petether) showed completion of the reaction. After completion of the reaction; the reaction mixture was poured in to ice cold water and stirred for 10 mins, reaction mixture and extracted with ethyl acetate. Combined organic layers were washed with water, brine and dried over Na\textsubscript{2}SO\textsubscript{4} and evaporated the solvents to afford the crude compound. The crude compound was purified by flash column chromatography using silica gel to give the pure compound 3a (135 mg, 82%) as off white solid.

m.p. 158-162 °C.; IR (KBr, cm\textsuperscript{-1}): 3084, 2967, 1814, 1587, 1483, 1395, 1194, 955, 753. \textsuperscript{1}H NMR (500 MHz, DMSO): δ = 8.96 (d, J= 4 Hz, 1H), 8.16 (d, J= 8 Hz, 1H), 7.87 (t, 1H), 7.75 (d, J= 8.5 Hz, 1H), 7.55 (t, 1H); \textsuperscript{13}C NMR (125 MHz, DMSO): 169.4 (d, J= 15.5 Hz), 155.3, 149.6 (d, J= 24.2 Hz), 147.7, 145.1(d, J= 40.6 Hz, ), 134.5, 125.5, 124.2, 118.7.; \textsuperscript{19}F NMR -165.7; MS (EI): m/z 165 (M+1,100).

3-fluoro-6-methyl-4H-chromen-4-one (3b):

Pale yellow solid.; Yield (75%); m.p. 86-90 °C.; IR (KBr, cm\textsuperscript{-1}): 3704, 1706, 1593, 1487, 1197, 833, 750, 642.; \textsuperscript{1}H NMR (400 MHz, CDCl\textsubscript{3}): δ = 8.14 (d, J=3.6 Hz, 1H), 8.08 (s, 1H), 7.53-7.51 (dd, J= 8.8 Hz, 1H), 7.42 (d, J=8.8 Hz, 1H), 2.47 (s, 3H).; \textsuperscript{13}C NMR (100 MHz, CDCl\textsubscript{3}) = 170.5 (d, J= 15.2 Hz), 154.1, 150.5(d, J= 246.9 Hz), 148.0, 142.9(d, J= 39.8 Hz, ), 135.3, 125.1(d, J= 3.3 Hz, ), 124.5(d, J= 7.6 Hz, ), 118.0, 20.8.; \textsuperscript{19}F NMR -166.2.; MS (EI): m/z 179 (M+1,100).

3,6-difluoro-4H-chromen-4-one (3c):

Pale yellow solid.; Yield (71%); m.p. 162-166 °C.; IR (KBr, cm\textsuperscript{-1}): 3079, 1939, 1714, 1584, 1484, 1262, 889, 781.; \textsuperscript{1}H NMR (400 MHz, CDCl\textsubscript{3}): δ = 8.17 (d, J=2.8 Hz, 1H), 7.92-7.95 (dd, J=7.6, 1H), 7.52-7.55 (m, 1H), 7.42-7.47 (m, 1H), ; \textsuperscript{13}C NMR (100 MHz, CDCl\textsubscript{3})
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=169.7(d, J= 15.9 Hz), 160.7, 158.2, 152.0(d, J= 184.2 Hz), 147.7,
143.2(d, J= 39.7 Hz), 122.6(d, J= 25.5 Hz), 120.6 (d, J= 8.2 Hz),
110.1(d, J= 23.3 Hz),.; 19F NMR -166.2, -114.2.; MS (EI): m/z 183
(M+1,100),

6-bromo-3-fluoro-4H-chromen-4-one (3d):

Brown solid.; Yield (69%); m.p. 180-184 °C.; IR (KBr, cm\(^{-1}\)): 3079,
2926, 1794, 1671, 1480, 1318, 1217, 1111, 987, 816.; 1H NMR (400
MHz, CDCl\(_3\)): \(\delta = 8.43\) (d, J=2.4 Hz, 1H), 8.16 (d, J=2.4 Hz, 1H),
7.78-7.81 (dd, J= 9.6 Hz, 1H), 7.43 (d, J=8.8 Hz, 1H); 13C NMR (100
MHz, CDCl\(_3\)) = 154.7, 150.7, 148.2, 143.5 (d, J= 39.5 Hz), 143.1,
137.3, 128.7(d, J= 4 Hz), 120.4, 119.1.; 19F NMR -164.8.; MS (EI):
m/z 243 (M+2,100),

3-fluoro-4H-benzo[h]chromen-4-one (3e):

Pale yellow solid.; Yield (62%); m.p. 155-159 °C.; IR (KBr, cm\(^{-1}\)): 2921,
1709, 1600, 1476, 1262, 1174, 1025, 756.; 1H NMR (400 MHz,
CDCl\(_3\)): \(\delta = 8.48\) (d, J=8 Hz, 1H), 8.34 (d, J= 3.2 Hz, 1H),
8.19 (d, J= 8.8 Hz, 1H), 7.95 (d, J=8.8 Hz, 1H), 7.68-7.79 (m, 3H); 13C NMR
(100 MHz, CDCl\(_3\)) =173.0, 153.7, 151.9 (d, J= 249.0 Hz), 149.5,
142.5(d, J= 40.1 Hz), 135.9, 128.3, 127.7, 125.9, 123.3 (d, J= 6.3 Hz),
123.1, 122.4, 120.5.; 19F NMR -164.8.; MS (EI): m/z 215 (M+1,100),

3-fluoro-7-methyl-4H-chromen-4-one (3f):

Pale yellow solid.; Yield (68%); m.p. 165-169 °C.; IR (KBr, cm\(^{-1}\)): 3079,
2927, 1713, 1592, 1485, 1378, 1526, 995, 893, 786.; 1H NMR (400 MHz,
CDCl\(_3\)): \(\delta = 8.90\) (d, J=4.4 Hz, 1H), 8.03 (d, J=4.4 Hz, 1H),
7.56 (s, 1H), 7.38 (d, J=7.6 Hz, 1H), 2.52 (s, 3H); 13C NMR (100
MHz, CDCl\(_3\)) =170.4 (d, J= 15.4 Hz), 155.9, 150.5(d, J= 247.2 Hz),
148.1, 145.6, 142.7 (d, J= 39.8 Hz), 126.8, 125.7 (d, J= 3.4 Hz),
122.5(d, J= 7.4 Hz), 117.9.; 19F NMR -166.2.; MS (EI): m/z 179
(M+1,100),
**6,8-dichloro-3-fluoro-4H-chromen-4-one (3g):**

Offwhite solid.; Yield (58%); m.p. 168-172 °C.; IR (KBr, cm\(^{-1}\)): 3455, 2893, 1738, 1592, 1484, 1436, 1302, 1239, 807, 694.; 1H NMR (400 MHz, CDCl\(_3\)): \(\delta = 8.25\) (d, J=3.2 Hz, 1H), 8.18 (d, J=2.4 Hz, 1H), 7.77 (d, J=2.4 Hz, 1H); 13C NMR (100 MHz, CDCl\(_3\)) =169.0 (d, J=15.8 Hz), 150.2 (d, J=201.6 Hz), 148.2, 143.6 (d, J=40.3 Hz), 134.5, 131.5, 126.7 (d, J=8.7 Hz), 124.9, 124.2 (d, J=3.2 Hz); 19F NMR -163.9; MS (EI): \(m/z\) 233 (M+1,100).

**3-fluoro-6-(3-methoxyphenyl)-4H-chromen-4-one (3h):**

Pale yellow solid.; Yield (62%); m.p. 124-128 °C.; IR (KBr, cm\(^{-1}\)): 3048, 2928, 1655, 1607, 1470, 1319, 1213, 1049, 782.; 1H NMR (400 MHz, CDCl\(_3\)) :  \(\delta = 8.43\) (d, J=2.4 Hz, 1H), 7.87-7.92 (m, 2H), 7.52 (d, J=11.2 Hz, 1H), 7.36-7.40 (t, 1H), 7.17 (bs, 1H), 6.94 (d, J=5.6 Hz, 2H), 3.87 (s, 3H); 13C NMR (100 MHz, CDCl\(_3\)) = 177.8, 160.2, 156.1(d, J= 68.8 Hz), 155.4, 140.7 (d, J=239.8 Hz), 138.3, 132.8, 130.2 (d, J=8.7 Hz), 130.1, 125.1, 123.8, 119.8, 118.8, 113.6 (d, J=45.8 Hz), 112.9, 55.5; 19F NMR -165.6; MS (EI): \(m/z\) 271 (M+1,100).

**6-(3,4-difluorophenyl)-3-fluoro-4H-chromen-4-one (3i):**

Offwhite solid.; Yield (64%); m.p. 178-182 °C.; IR (KBr, cm\(^{-1}\)): 3048, 2928, 1655, 1607, 1470, 1319, 1213, 1049, 782.; 1H NMR (400 MHz, CDCl\(_3\)) :  \(\delta = 8.43\) (s, 1H), 8.19 (d, J=2.8 Hz, 1H), 7.89 (d, J=8.8 Hz, 1H), 7.61(d, J=8.8 Hz, 1H), 7.43-7.47 (m, 1H), 7.36 9bs, 1H), 7.24-7.30 (m, 1H); 13C NMR (100 MHz, CDCl\(_3\)) = 170.6 (d, J=15.1 Hz), 155.5, 151.9 (d, J=12.7 Hz), 150.8, 148.3(d, J=22.1 Hz), 143.4(d, J=39.6 Hz), 136.6, 132.8, 125.2 (d, J=7.1 Hz), 123.9(d, J=3.1 Hz), 123.5, 123.4, 119.3, 118.2 (d, J=17.3 Hz), 116.5(d, J=18.2 Hz); 19F NMR -165.3, -138.5, -136.5.; MS (EI): \(m/z\) 277 (M+1,100).

**3-fluoro-6-(4-methoxyphenyl)-4H-chromen-4-one (3j):**

Offwhite solid.; Yield (67%); m.p. 155-159 °C.; IR (KBr, cm\(^{-1}\)): 3059, 2924, 1650, 1473, 1251, 1177, 1027, 812.; 1H NMR (400 MHz, CDCl\(_3\)) :  \(\delta = 8.44\) (d, J=2.4 Hz, 1H), 8.17 (d, J=3.2 Hz, 1H), 7.89-7.92
(dd, J= 8.8 Hz, 1H), 7.54-7.60 (m, 3H), 7.01 (d, J=8.8 Hz, 2H), 3.85 (s, 3H);  
$^{13}$C NMR (100 MHz, CDCl$_3$) = 170.8 (d, J= 15 Hz), 159.9, 155.0, 150.8 (d, J= 247.4 Hz), 148.3, 143.2(d, J= 39.5 Hz), 142.8, 138.3, 132.8, 131.4, 128.4, 125.1(d, J= 7.9 Hz), 123.0 (d, J= 3.2 Hz), 118.9, 114.6, 55.5.; $^{19}$F NMR -165.8.; MS (EI): m/z 271 (M+1,100),

3-(3-fluoro-4-oxo-4H-chromen-6-yl)benzonitrile (3k):

Offwhite solid.; Yield (55%); m.p 238-242 °C.; IR (KBr, cm$^{-1}$): 3080, 2225, 1716, 1659, 1470, 1181, 1110, 992, 790.; 1H NMR (400 MHz, CDCl$_3$): δ = 8.49 (d, J=2 Hz, 1H), 8.21 (d, J=3.2 Hz, 1H), 7.91-7.93 (m, 3H), 7.59-7.71 (m, 3H); $^{13}$C NMR (100 MHz, CDCl$_3$) =170.3 (d, J= 15.6 Hz), 155.6, 150.7 (d, J= 249.0 Hz), 148.2, 143.3 (d, J= 39.8 Hz), 140.1, 136.2, 132.7, 131.5 (d, J= 3.2 Hz), 131.1, 130.2, 129.9, 125.1(d, J= 8 Hz), 119.4, 118.3, 113.4; $^{19}$F NMR -165.0.; MS (EI): m/z 266 (M+1,100),

6-(2,4-dimethoxyphenyl)-3-fluoro-4H-chromen-4-one (3l):

Offwhite solid.; Yield (67%); m.p 122-126 °C.; IR (KBr, cm$^{-1}$): 3078, 2934, 1657, 1565, 1463, 1311, 1210, 1112, 1032, 828, 777.; 1H NMR (400 MHz, CDCl$_3$): δ = 8.37 (d, J=2 Hz, 1H), 8.15 (d, J=3.6 Hz, 1H), 7.88-7.91 (dd, J= 8.8 Hz, 1H), 7.51 (d, J=8.8 Hz, 1H), 7.28 (t, 1H), 6.57-6.60 (m, 2H), 3.86 (s, 3H), 3.81 (s, 3H); $^{13}$C NMR (100 MHz, CDCl$_3$) =170.7, 161.1, 157.5, 154.8, 150.8 (d, J= 247.4 Hz), 148.3, 143.1(d, J= 59.7 Hz), 142.7, 136.1(d, J= 18.2 Hz), 131.5, 125.9(d, J= 3.2 Hz), 124.8(d, J= 7.9 Hz), 124.7, 121.3, 117.8, 55.7, 55.6.; $^{19}$F NMR -166.1.; MS (EI): m/z 301 (M+1,100),

3-fluoro-6-(4-methoxy-2-methylphenyl)-4H-chromen-4-one (3m):

Offwhite solid.; Yield (66%); m.p 162-166 °C.; IR (KBr, cm$^{-1}$): 3015, 1716, 1609, 1478, 1269, 1110, 755.; 1H NMR (400 MHz, CDCl$_3$): δ = 7.86 (d, J=2 Hz, 1H), 7.54-7.56 (dd, J= 6.8 Hz, 1H), 7.06-7.12 (q, 2H), 6.78-6.81 (m, 2H), 5.76 (s, 1H), 3.84 (s, 3H), 2.26 (s, 3H); $^{13}$C NMR (100 MHz, CDCl$_3$) =180.8 (t, J= 19.4 Hz), 159.3, 155.8, 139.3 (d, J= 216.6 Hz), 137.2(d, J= 36 Hz), 136.8, 132.2, 131.1(d, J= 25.4 Hz),
130.9, 128.0, 126.4 (d, J= 26.6 Hz), 118.6 (d, J= 11.8 Hz), 116.1, 111.5, 105.6, 55.4, 20.8.; 19F NMR -165.7.; MS (EI): m/z 285 (M+1,100),

3-fluoro-4H-pyranof3,2-bpyridin-4-one (3n):

![3n](image)

Offwhite solid.; Yield (42%); m.p 211-215 °C.; IR (KBr, cm\(^{-1}\)): 3453, 2658, 1739, 1591, 1474, 1302, 1239, 1104, 982, 693.; 1H NMR (400 MHz, CDCl\(_3\)): \(\delta = 8.60 (d, J=2.8 Hz, 1H), 7.54-7.57 (m, 1H), 7.47-7.51 (m, 1H), 5.82-5.83 (t, 1H);\) \(^{13}\)C NMR (100 MHz, DMSO-d\(_6\)) = 180.1 (t, J= 24.5 Hz), 155.8, 145.6, 134.3 (d, J= 3.1 Hz), 131.7, 128.0, 111.1, 108.7 (d, J= 12.7 Hz); 19F NMR -164.8.; MS (EI): m/z 166 (M+1,100),

7-bromo-3-fluoro-4H-chromen-4-one (3o):

![3o](image)

Brown solid.; Yield (68%); m.p 161-165 °C.; IR (KBr, cm\(^{-1}\)): 3705, 3292, 1813, 1594, 1486, 1201, 690.; 1H NMR (400 MHz, CDCl\(_3\)): \(\delta = 8.12-8.17 (dd, J=17.2 Hz, 2H), 7.72 (d, J= 2 Hz, 1H), 7.56-7.58 (dd, J= 8 Hz, 1H);\) \(^{13}\)C NMR (100 MHz, CDCl\(_3\)) = 170.3 (d, J= 15.8 Hz), 155.8, 150.8 (d, J= 249.8 Hz), 148.3, 142.9 (d, J= 40.3 Hz), 129.2 (d, J= 43.4 Hz), 128.7, 127.4 (d, J= 4 Hz), 121.6.; MS (EI): m/z 243 (M+1,100),

3-fluoro-7-methoxy-4H-chromen-4-one (3p):

![3p](image)

Brown solid.; Yield (71%); m.p 111-115 °C.; IR (KBr, cm\(^{-1}\)): 3374, 3010, 1711, 1616, 1449, 1260, 1088, 841.; 1H NMR (400 MHz, CDCl\(_3\)): \(\delta = 7.90 (d, J=9.6 Hz, 1H), 6.70-6.73 (dd, J=8.8 Hz, 1H), 6.49 (d, J= 2 Hz, 1H), 5.67-5.69 (m, 1H), 3.88 (s, 3H);\) \(^{13}\)C NMR (100 MHz, CDCl\(_3\)) = 179.3, 168.0, 159.6, 129.8, 111.8, 110.2, 107.1 (d, J= 10.3 Hz), 102.3, 94.5, 56.1.; 19F NMR -165.0.; MS (EI): m/z 195 (M+1,100),

6-ethyl-3-fluoro-4H-chromen-4-one (3q):

![3q](image)

Pale yellow solid.; Yield (68%); m.p 48-52 °C.; IR (KBr, cm\(^{-1}\)): 3772, 3711, 3417, 3079, 1713, 1592, 1378, 1256, 995, 786, 695.; 1H NMR (400 MHz, CDCl\(_3\)): \(\delta = 7.90 (d, J=9.6 Hz, 1H), 6.70-6.73 (dd, J=8.8 Hz, 1H), 6.49 (d, J= 2 Hz, 1H), 5.67-5.69 (m, 1H), 2.74-2.80 (q, 2H), 1.25 (t, 3H);\) \(^{13}\)C NMR (100 MHz, CDCl\(_3\)) = 170.8 (d, J= 15.0 Hz),

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154.4, 150.7 (d, J = 247.4 Hz), 148.2, 143.1 (d, J = 39.6 Hz), 134.5, 141.1, 124.8 (d, J = 7.9 Hz), 118.2, 34.2, 18.0; $^{19}$F NMR -166.2; MS (EI): m/z 193 (M+1,100),

**3-fluoro-6-(1H-pyrazol-1-yl)-4H-chromen-4-one (3r):**

Offwhite solid; Yield (52%); m.p 130-134 °C.; IR (KBr, cm$^{-1}$): 3048, 2926, 1655, 1470, 1319, 1213, 1049, 782; 1H NMR (400 MHz, CDCl$_3$): $\delta = 8.4$ (s, 1H), 8.30 (d, J = 6.8 Hz, 1H), 8.20 (d, J = 2.8 Hz, 1H), 8.09 (s, 1H), 7.76 (s, 1H), 7.65 (d, J = 8.8 Hz, 1H), 6.53 (s, 1H); $^{13}$C NMR (100 MHz, CDCl$_3$) = 170.2 (d, J = 15.8 Hz), 153.9, 150.6 (d, J = 248.2 Hz), 148.1, 143.5 (d, J = 40.3 Hz), 142.0, 137.6, 127.2, 126.0, 120.2 (d, J = 15.8 Hz), 113.8 (d, J = 3.1 Hz), 108.7; $^{19}$F NMR -166.1; MS (EI): m/z 231 (M+1,100),

**3-fluoro-7-(quinolin-3-yl)-4H-chromen-4-one (3s):**

Offwhite solid; Yield (58%); m.p 246-250 °C.; IR (KBr, cm$^{-1}$): 3069, 1667, 1617, 1446, 1348, 1281, 1206, 964, 900, 778; 1H NMR (400 MHz, CDCl$_3$): $\delta = 9.23$ (d, J = 8.4 Hz, 1H), 8.42-8.46 (m, 2H), 8.22 (d, J = 3.2 Hz, 1H), 8.19 (d, J = 8.4 Hz, 1H), 7.95 (d, J = 8 Hz, 1H), 7.86 (d, J = 1.6 Hz, 1H), 7.78-7.83 (m, 2H), 7.63-7.67 (t, 1H); $^{13}$C NMR (100 MHz, CDCl$_3$) = 153.3, 149.2, 148.4 (d, J = 32.4 Hz), 148.1, 144.1, 143.4 (d, J = 39.5 Hz), 143.0, 134.4, 131.5, 130.6, 129.5, 128.3, 127.7, 127.2, 124.6, 124.2, 116.8; $^{19}$F NMR -165.1; MS (EI): m/z 292 (M+1,100),

**3-fluoro-6-(thiophen-2-yl)-4H-chromen-4-one (3t):**

Pale yellow solid; Yield (54%); m.p 123-126 °C.; IR (KBr, cm$^{-1}$): 3089, 1652, 1479, 1270, 1206, 1168, 1110, 821, 706; 1H NMR (400 MHz, CDCl$_3$): $\delta = 8.49$ (s, 1H), 8.16 (d, J = 3.2 Hz, 1H), 7.95 (d, J = 8.8 Hz, 1H), 7.54 (d, J = 8.8 Hz, 1H), 7.43 (d, J = 3.6 Hz, 1H), 7.36 (d, J = 5.6 Hz, 1H), 7.13 (d, J = 3.2 Hz, 1H); $^{13}$C NMR (100 MHz, CDCl$_3$) = 170.3 (d, J = 15.8 Hz), 154.9, 150.6 (d, J = 248.2 Hz), 148.1, 143.1 (d, J = 39.5 Hz), 142.7, 141.8, 132.0 (d, J = 24.5 Hz), 128.3, 126.1, 124.4, 122.0 (d, J = 4 Hz), 119.0; $^{19}$F NMR -165.5; MS (EI): m/z 247 (M+1,100),
3-fluoro-7-(thiophen-2-yl)-4H-chromen-4-one (3u):
Pale yellow solid; (52%); m.p. 198-201 °C.; IR (KBr, cm⁻¹): 3419, 2356, 1655, 1603, 1428, 1195, 952, 826, 670; 1H NMR (400 MHz, CDCl₃): δ = 8.19 (d, J=8.8 Hz, 1H), 8.14 (d, J=3.6 Hz, 1H), 7.67-7.69 (t, 2H), 7.50 (d, J= 4 Hz, 1H), 7.43 (t, 1H), 7.14-7.16 (dd, J= 5.6 Hz, 1H); 13C NMR (100 MHz, CDCl₃) = 170.1 (d, J= 15.8 Hz), 156.2, 150.7 (d, J= 248.2 Hz), 148.2, 143.1 (d, J= 40.3 Hz), 141.5, 140.2, 128.6, 127.7, 126.6 (d, J= 3.2 Hz), 125.8 (d, J= 15.8 Hz), 123.0, 114.3; 19F NMR -165.5; MS (EI): m/z 247 (M+1,100).

7-fluoro-2,2-dimethyl-3,4-dihydro-2H,6H-pyrano[3,2-g]chromen-6-one (3v):
Offwhite solid; (51%); m.p. 123-127 °C.; IR (KBr, cm⁻¹):2978, 1655, 1620, 1472, 1278, 1199, 1087, 883, 847; 1H NMR (400 MHz, CDCl₃): δ = 8.01-8.03 (t, 2H), 6.81 (s, 1H), 2.89-2.92 (t, 2H), 1.85-1.89 (t, 2H), 1.38 (s, 6H); 13C NMR (100 MHz, CDCl₃) = 170.2 (d, J= 15.8 Hz), 159.6, 155.8, 150.2 (d, J= 245.9 Hz), 147.7, 142.4 (d, J= 40.3 Hz), 126.4 (d, J= 3.1 Hz), 120.7, 117.8 (d, J= 7.1 Hz), 104.4, 32.2, 26.9, 26.9, 21.9; 19F NMR -167.5; MS (EI): m/z 249 (M+1,100).
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511905A8564 #271 RT: 3.04 AV: 1 NL: 1.02E4
F: ITMS + c ESI Full ms [50.00-1500.00]

Relative Abundance

215.08

59.82 82.60 407.62 727.50 916.40

m/z

Sample Name: GWK-VK-F-159
No. of Scans: GWK-VK-F-159
Date/Time: 6/16/2016 9:52:21 PM
User: GVKBIQ
3r

CVK BIOscience Private Limited
Discovery Chemistry Analytical Services
3u

Sample Name: GW-VK-F-183-2
No. of Scans: 79
Date/Time: 7/11/2019 12:56:20 PM
User: GVKBIO