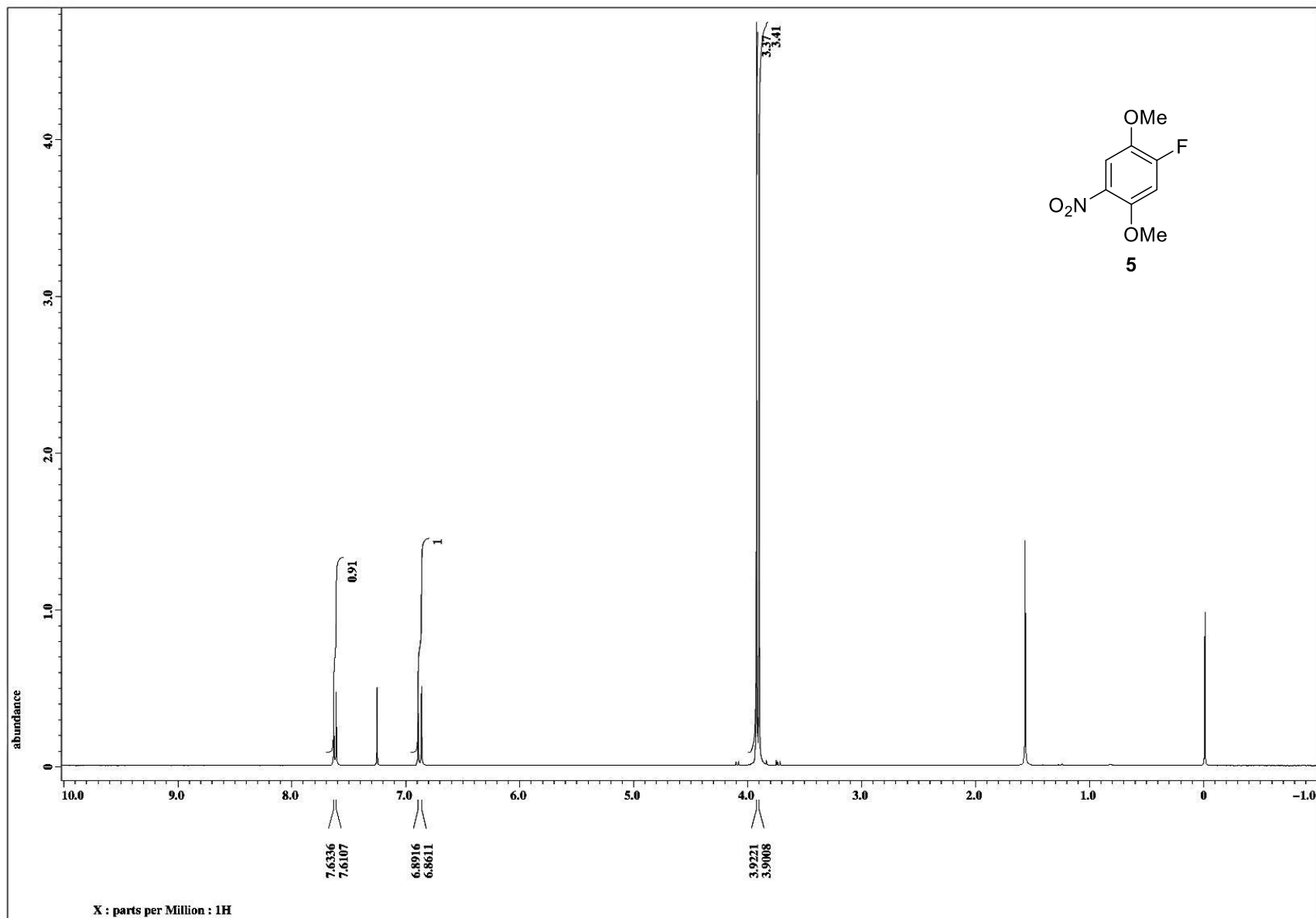


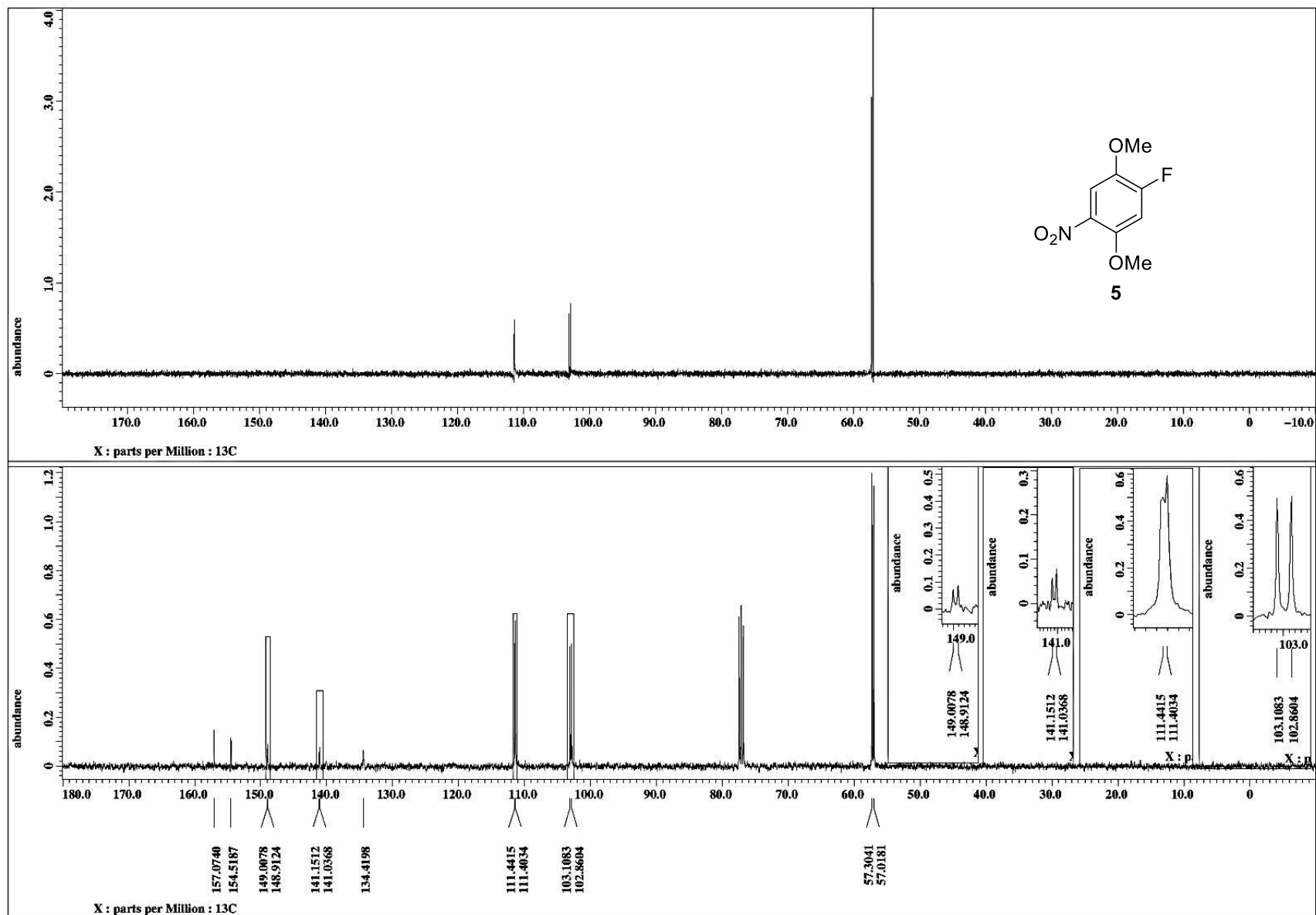
**SUPPLEMENTARY MATERIAL for**  
***1-Fluoro-2,5-dimethoxy-4-nitrobenzene***

**Martin Sweeney, Patrick McArdle and Fawaz Aldabbagh\***

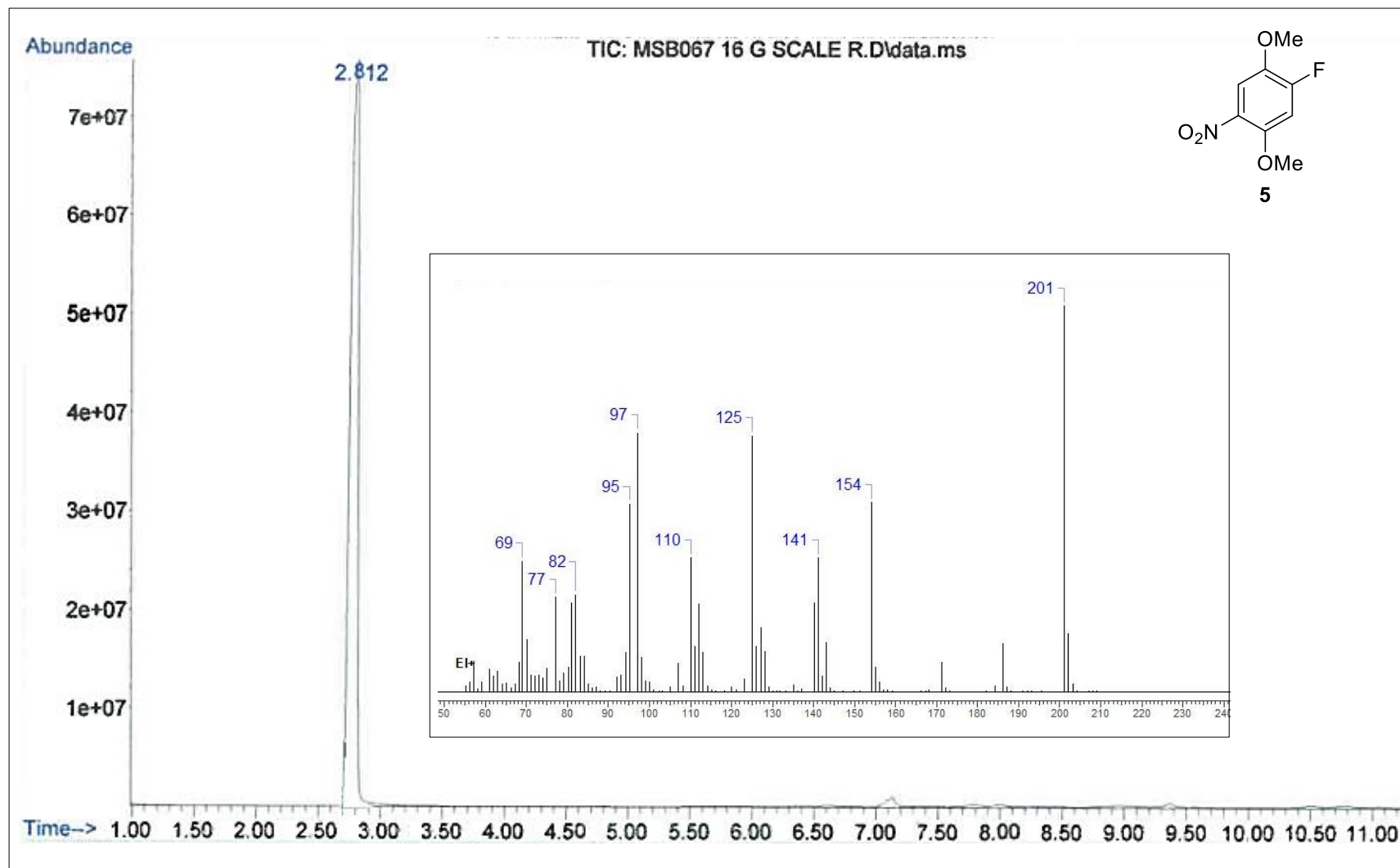
<sup>1</sup>H NMR (400 MHz) of 1-fluoro-2,5-dimethoxy-4-nitrobenzene in CDCl<sub>3</sub> (5)



$^{13}\text{C}$  NMR (100 MHz) of 1-fluoro-2,5-dimethoxy-4-nitrobenzene in  $\text{CDCl}_3$  (5)



GC-MS chromatogram with EI-MS inset spectrum of 1-fluoro-2,5-dimethoxy-4-nitrobenzene (5)



## Crystal data and structure refinement for 1-fluoro-2,5-dimethoxy-4-nitrobenzene (5)

|                                   |                                                           |                                                                               |
|-----------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------|
| Identification code               | ms_6_1                                                    |                                                                               |
| Empirical formula                 | C <sub>8</sub> H <sub>8</sub> F NO <sub>4</sub>           |                                                                               |
| Formula weight                    | 201.15                                                    |                                                                               |
| Temperature                       | 298.4(4) K                                                |                                                                               |
| Wavelength                        | 0.71073 Å                                                 |                                                                               |
| Crystal system                    | Monoclinic                                                |                                                                               |
| Space group                       | Cc                                                        |                                                                               |
| Unit cell dimensions              | a = 7.9538(6) Å<br>b = 13.5379(11) Å<br>c = 16.0790(13) Å | $\alpha = 90^\circ$ .<br>$\beta = 89.983(6)^\circ$ .<br>$\gamma = 90^\circ$ . |
| Volume                            | 1731.4(2) Å <sup>3</sup>                                  |                                                                               |
| Z                                 | 8                                                         |                                                                               |
| Density (calculated)              | 1.543 Mg/m <sup>3</sup>                                   |                                                                               |
| Absorption coefficient            | 0.138 mm <sup>-1</sup>                                    |                                                                               |
| F(000)                            | 832                                                       |                                                                               |
| Crystal size                      | 0.50 x 0.40 x 0.20 mm <sup>3</sup>                        |                                                                               |
| Theta range for data collection   | 3.905 to 29.220°                                          |                                                                               |
| Index ranges                      | -10 ≤ h ≤ 9, -18 ≤ k ≤ 17, -20 ≤ l ≤ 20                   |                                                                               |
| Reflections collected             | 6792                                                      |                                                                               |
| Independent reflections           | 3164 [R(int) = 0.0214]                                    |                                                                               |
| Completeness to theta = 25.242°   | 99.6 %                                                    |                                                                               |
| Absorption correction             | Semi-empirical from equivalents                           |                                                                               |
| Max. and min. transmission        | 1.00000 and 0.92979                                       |                                                                               |
| Refinement method                 | Full-matrix least-squares on F <sup>2</sup>               |                                                                               |
| Data / restraints / parameters    | 3164 / 2 / 258                                            |                                                                               |
| Goodness-of-fit on F <sup>2</sup> | 1.059                                                     |                                                                               |
| Final R indices [I > 2σ(I)]       | R1 = 0.0755, wR2 = 0.1838                                 |                                                                               |
| R indices (all data)              | R1 = 0.0903, wR2 = 0.2067                                 |                                                                               |
| Absolute structure parameter      | 1(2)                                                      |                                                                               |
| Extinction coefficient            | n/a                                                       |                                                                               |
| Largest diff. peak and hole       | 0.725 and -0.227 e.Å <sup>-3</sup>                        |                                                                               |

