

## Supplementary Material

### The effect of N-methylation on photophysical properties of imidazole-based fluorescent molecules

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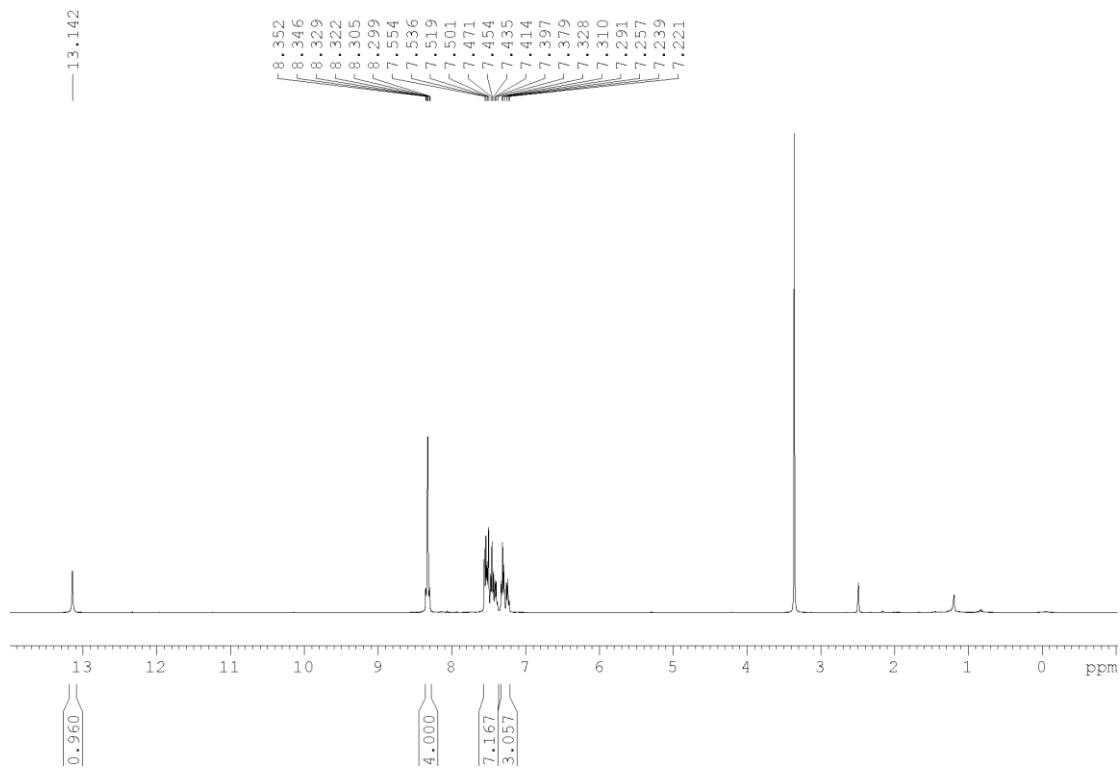


Figure S1.  $^1\text{H}$  NMR spectrum of compound **1** in  $\text{DMSO-}d_6$ .

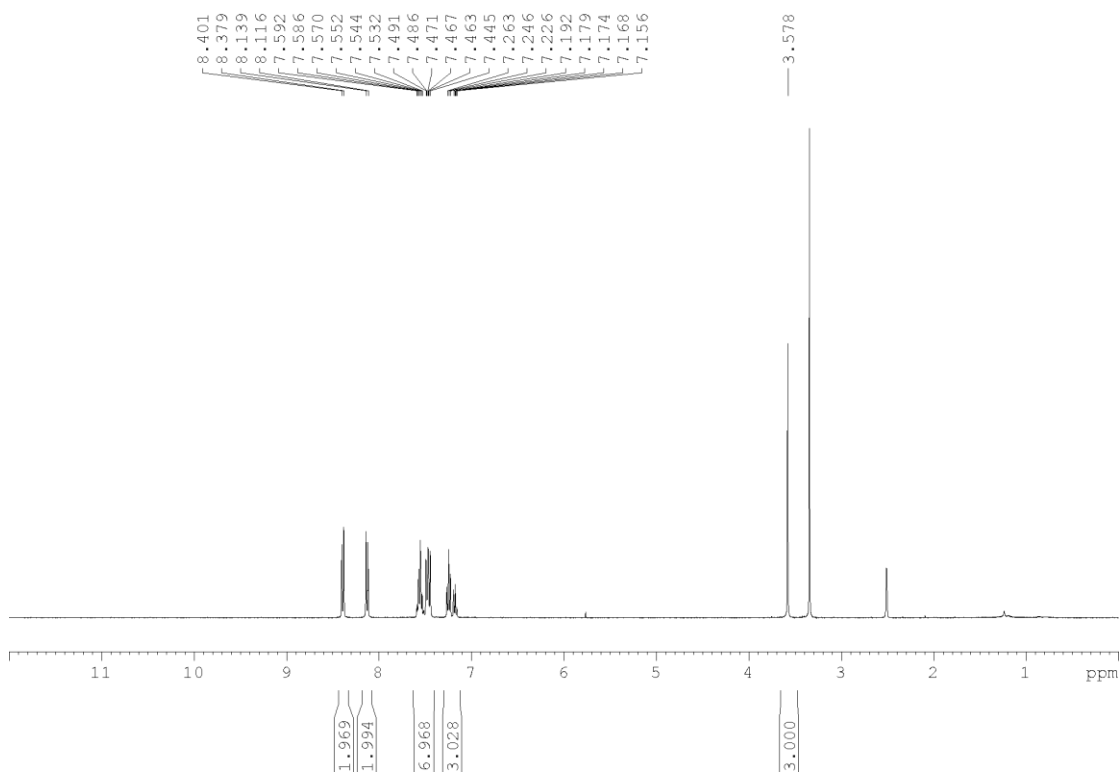


Figure S2.  $^1\text{H}$  NMR spectrum of compound **2** in  $\text{DMSO-}d_6$ .

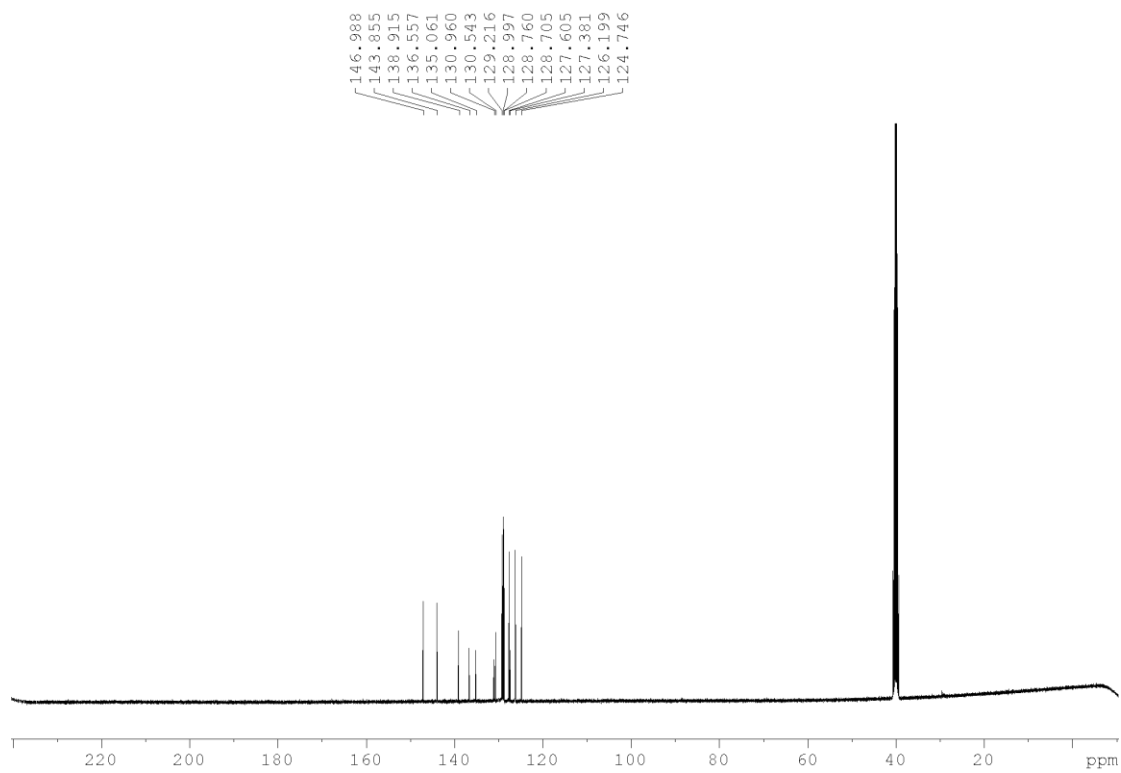


Figure S3.  $^{13}\text{C}$  NMR spectrum of compound **1** in  $\text{DMSO-}d_6$ .

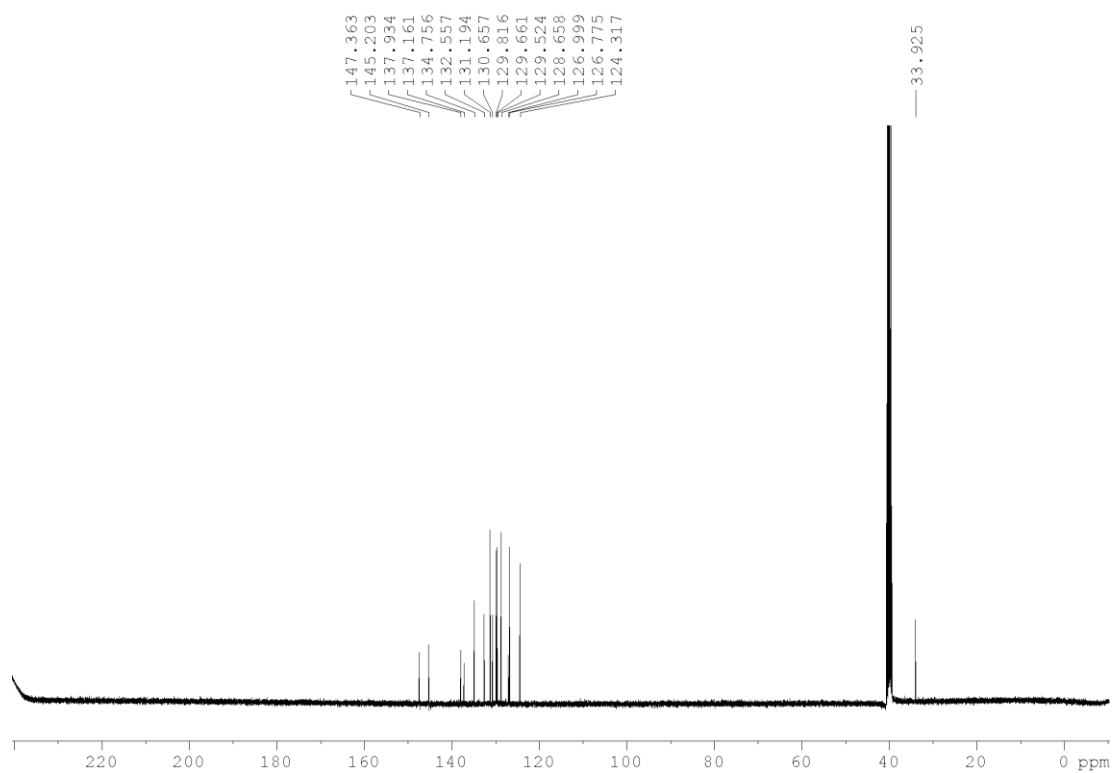
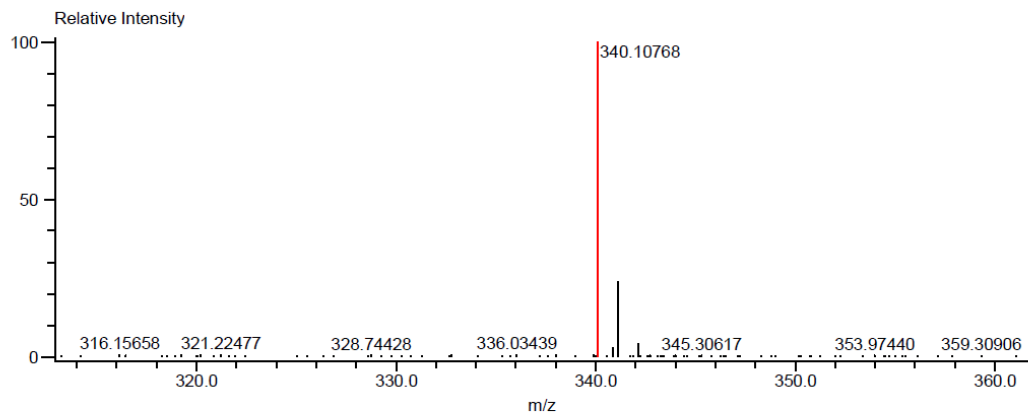


Figure S4.  $^{13}\text{C}$  NMR spectrum of compound **2** in  $\text{DMSO-}d_6$ .

Data:DN-  
Comment:  
Description:  
Ionization Mode:ESI-  
History:Average(MS[1] 0.24..0.25)

Acquired:3/7/2023 4:34:33 PM  
Operator:AccuTOF  
m/z Calibration File:20220901-TFANa\_...  
Created:3/7/2023 5:33:37 PM  
Created by:AccuTOF

Charge number:1 Tolerance:300.00[ppm], 300.00 .. 300.... Unsaturation Number:-200.5 .. 200.0 (...)  
Element:<sup>12</sup>C:21 .. 21, <sup>1</sup>H:0 .. 15, <sup>35</sup>Cl:0 .. 1, <sup>14</sup>N:3 .. 3, <sup>23</sup>Na:0 .. 1, <sup>16</sup>O:2 .. 2



Mass	Intensity	Calc. Mass	Mass Difference [mDa]	Mass Difference [ppm]	Possible Formula
340.10768	207484.75	340.10860	-0.92	-2.71	<sup>12</sup> C <sub>21</sub> <sup>1</sup> H <sub>14</sub> <sup>14</sup> N <sub>3</sub> <sup>16</sup> O <sub>2</sub>

Figure S5. HR-Mass spectrum of compound 1.

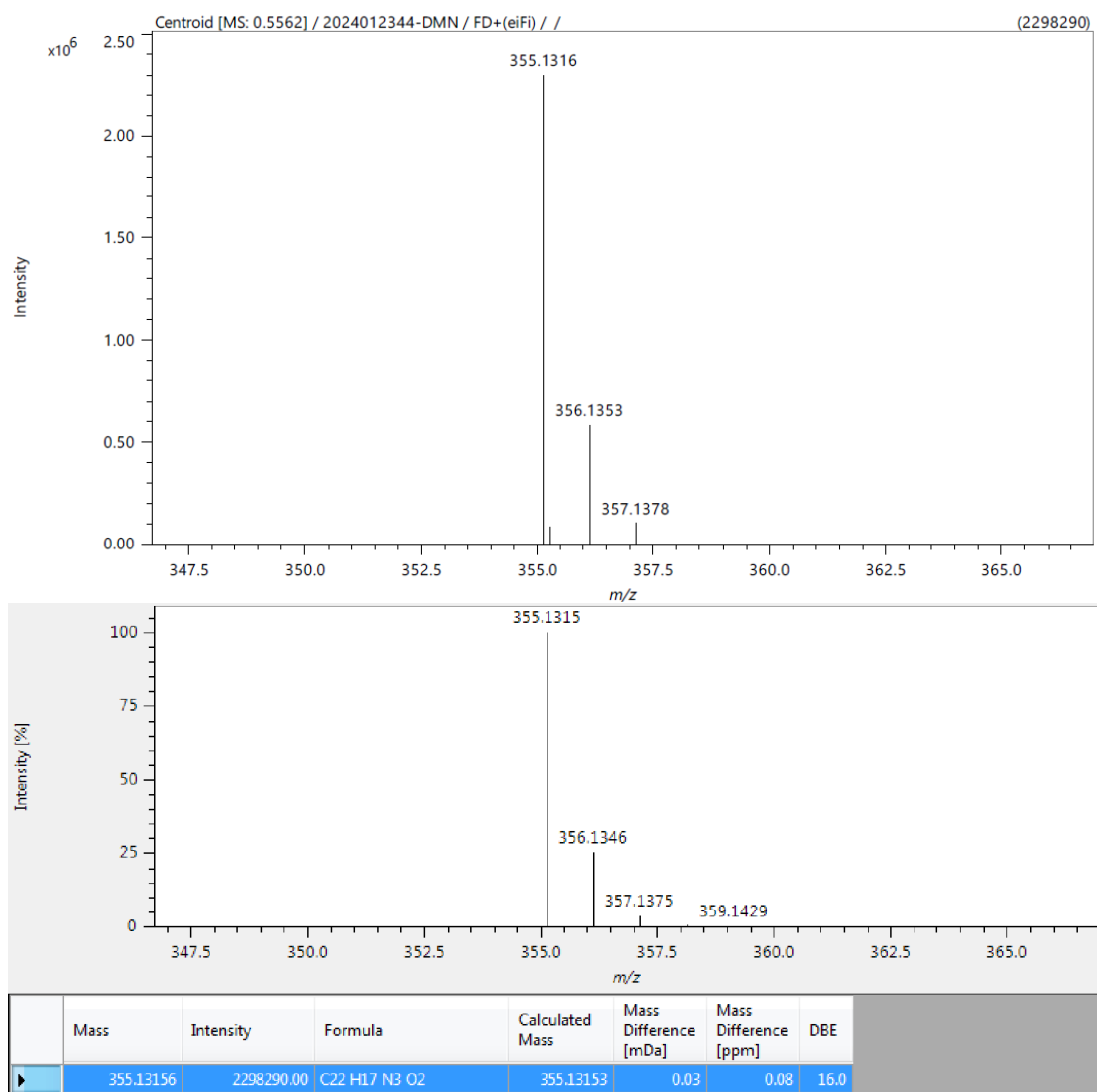


Figure S6. HR-Mass spectrum of compound 2.