

# Supplementary Information

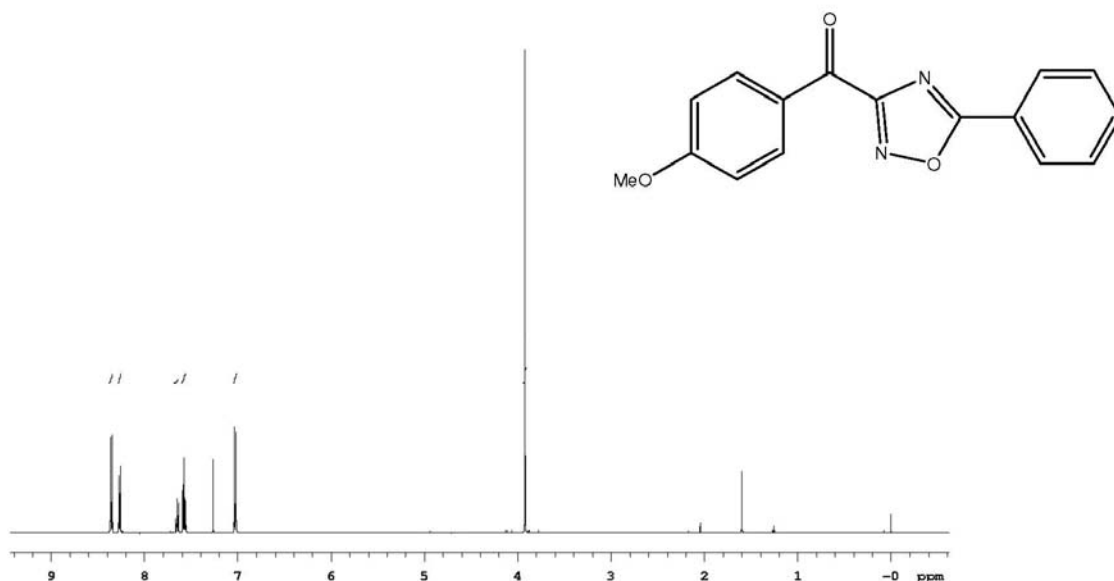
## Lanthanide Nitrates as Lewis Acids in the One-Pot Synthesis of 1,2,4-Oxadiazole Derivatives

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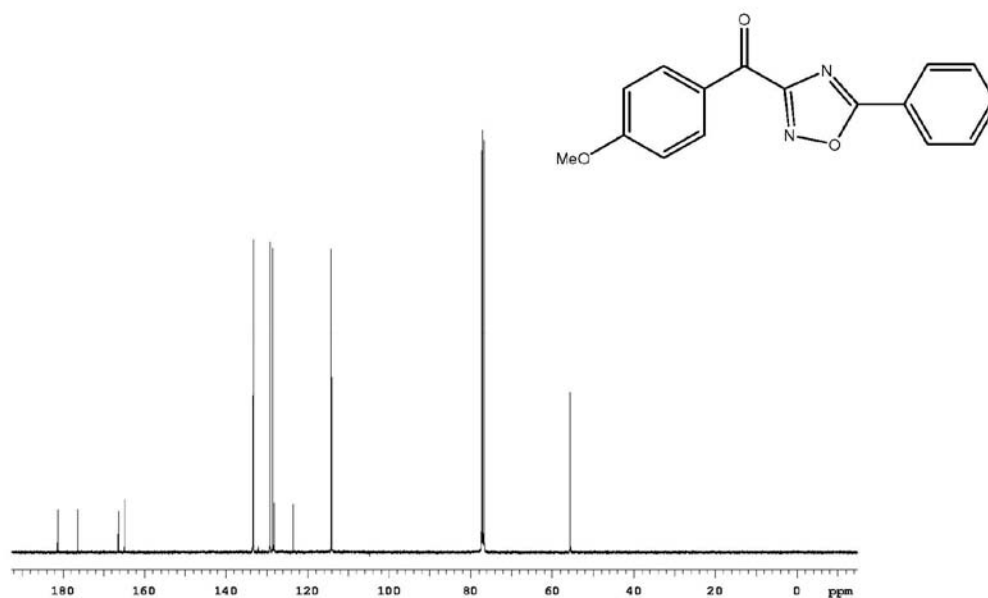
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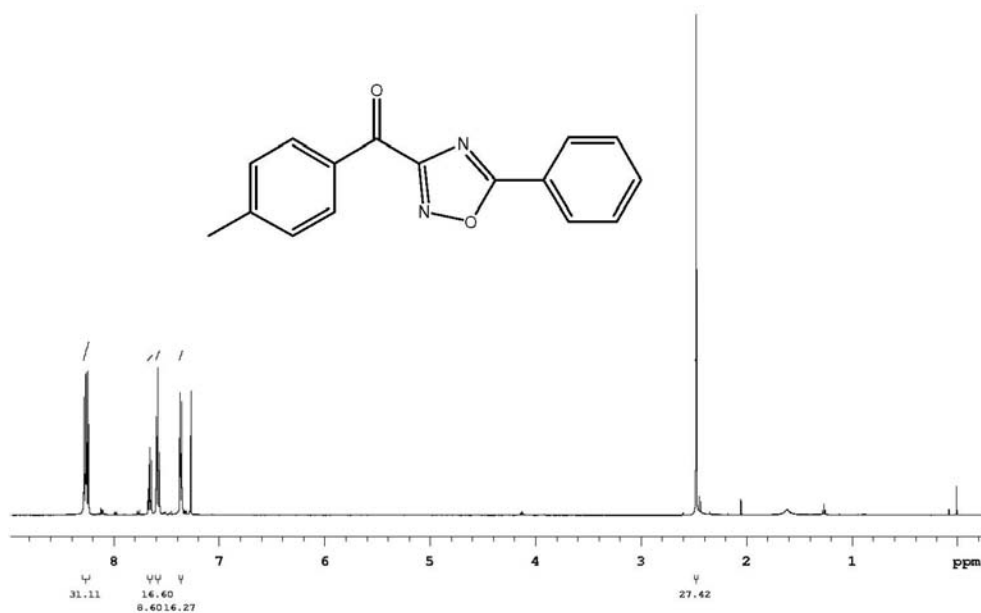
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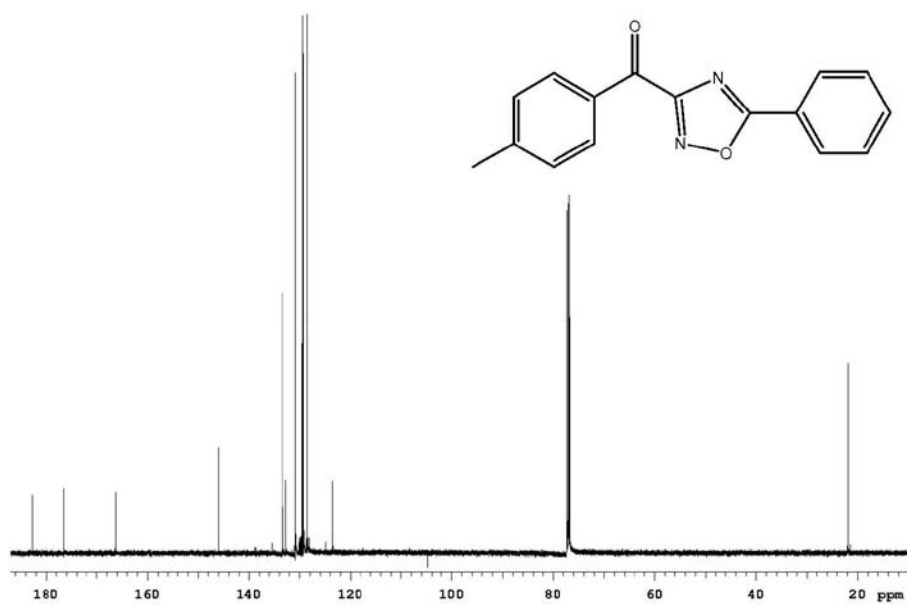
**Figure S1.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methoxybenzoyl)-5-phenyl-1,2,4-oxadiazole (**6**).



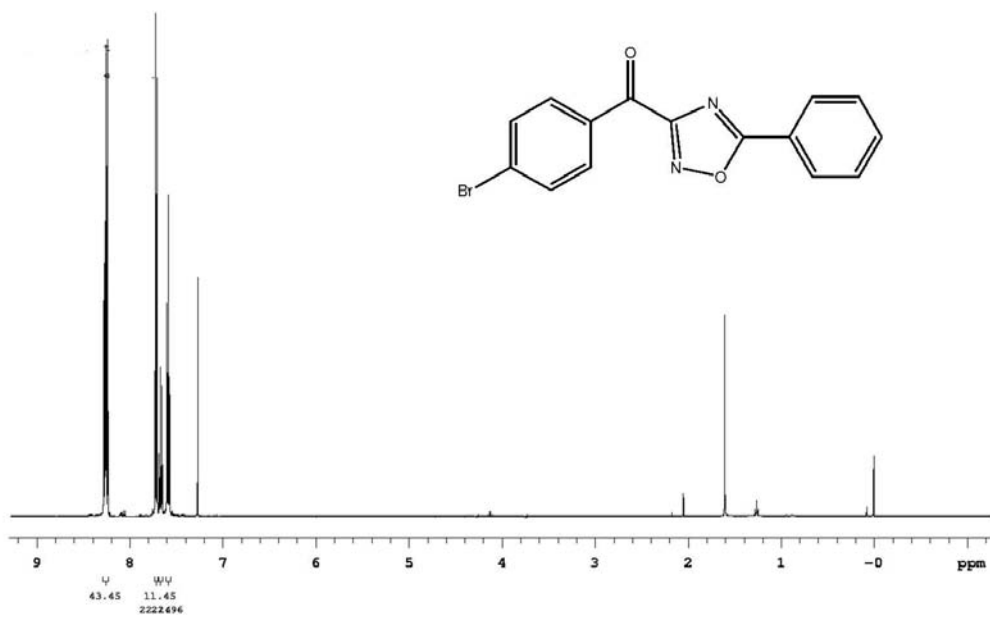
**Figure S2.** <sup>13</sup>C NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methoxybenzoyl)-5-phenyl-1,2,4-oxadiazole (**6**).



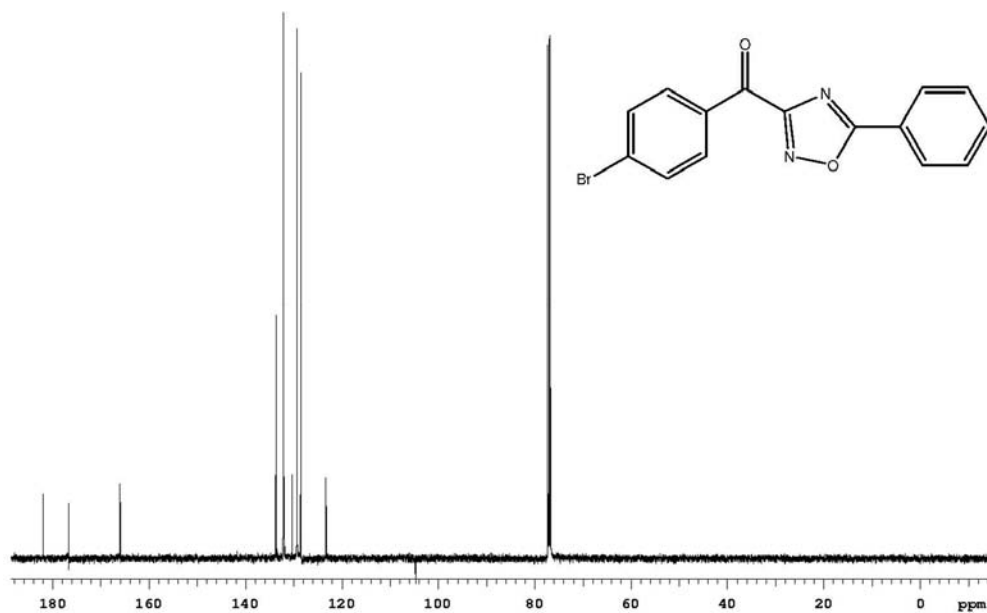
**Figure S3.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methylbenzoyl)-5-phenyl-1,2,4-oxadiazole (**5**).



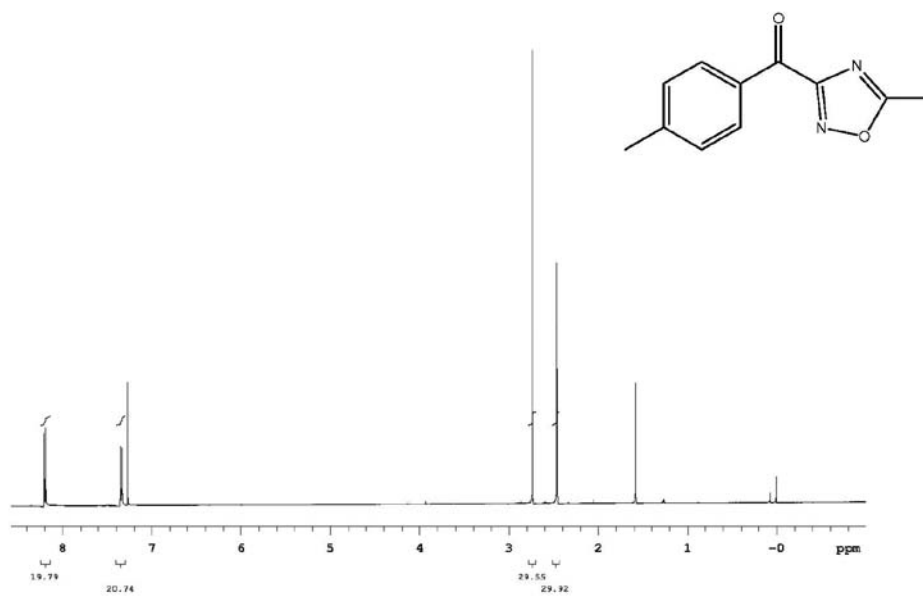
**Figure S4.** <sup>13</sup>C NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methylbenzoyl)-5-phenyl-1,2,4-oxadiazole (5).



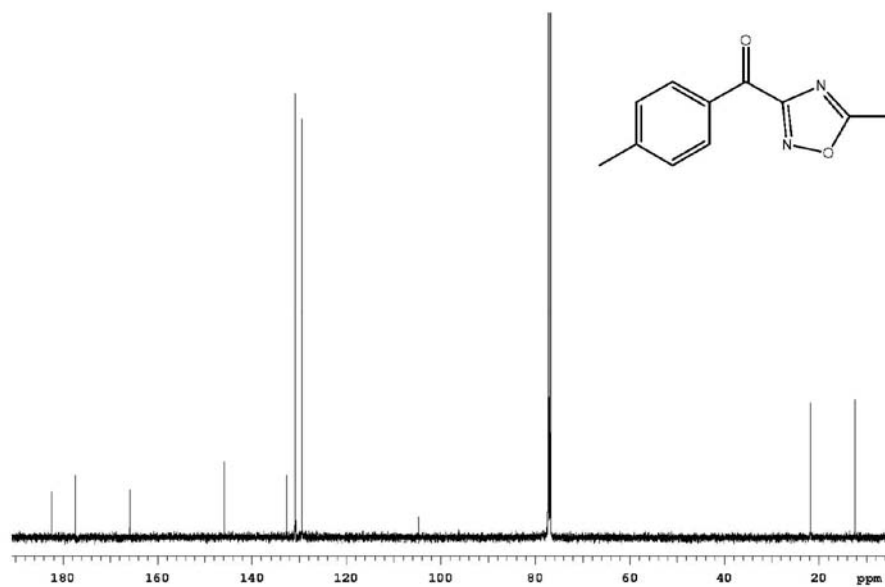
**Figure S5.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-bromobenzoyl)-5-phenyl-1,2,4-oxadiazole (3).



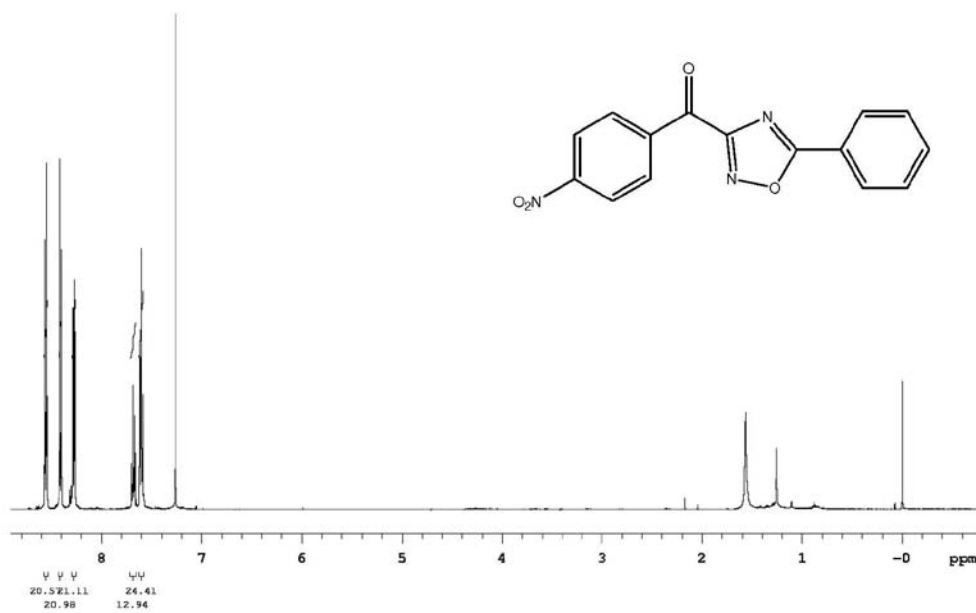
**Figure S6.** <sup>13</sup>C NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-bromobenzoyl)-5-phenyl-1,2,4-oxadiazole (**3**).



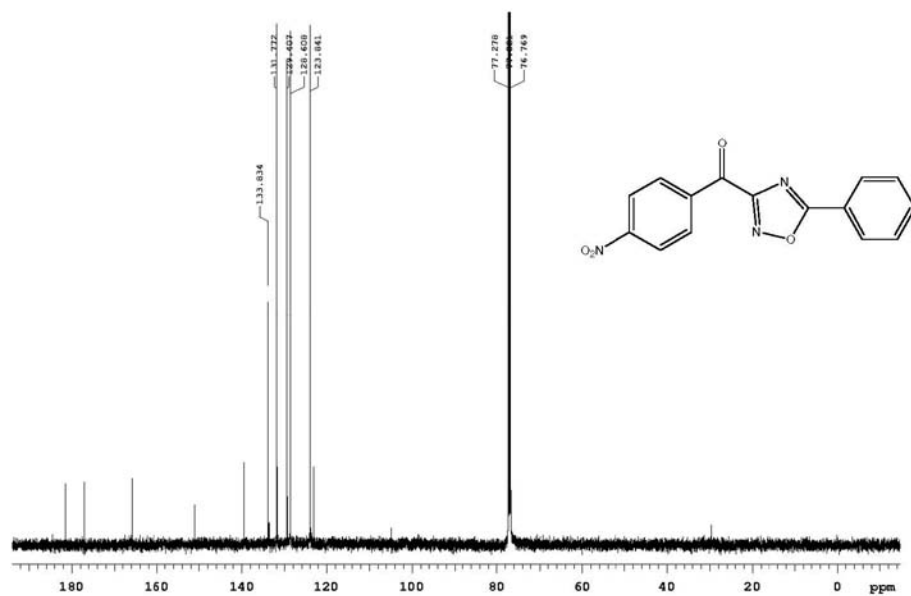
**Figure S7.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methylbenzoyl)-5-methyl-1,2,4-oxadiazole (**10**).



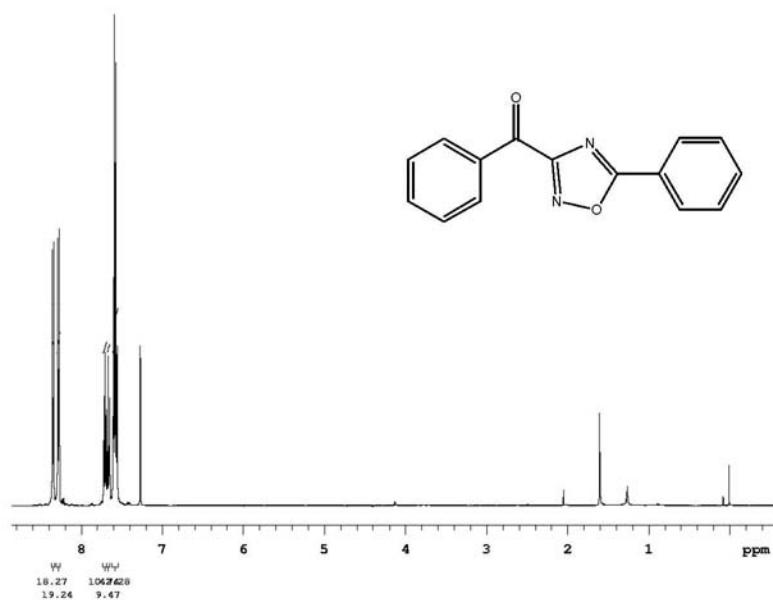
**Figure S8.** <sup>13</sup>C NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-methylbenzoyl)-5-methyl-1,2,4-oxadiazole (**10**).



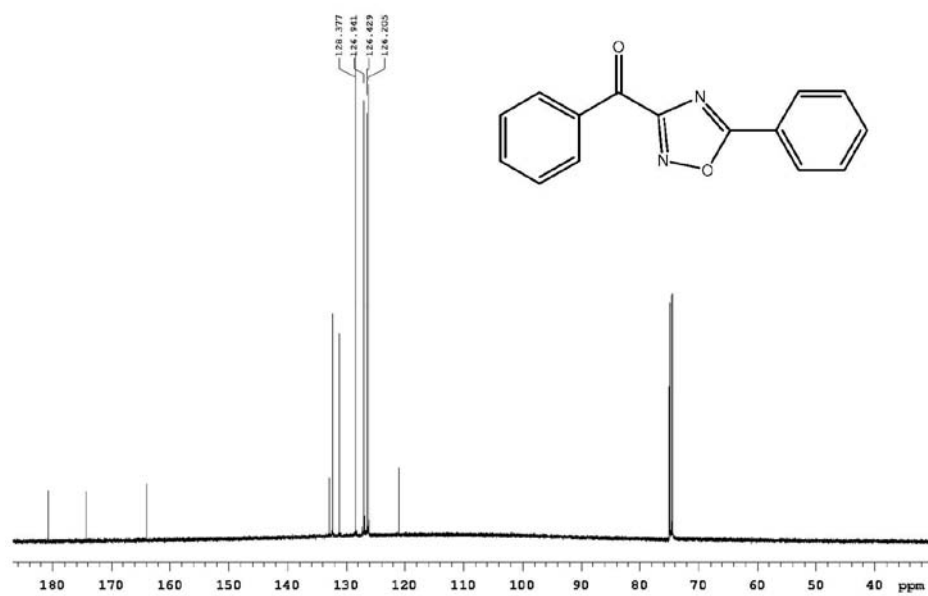
**Figure S9.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-nitrobenzoyl)-5-phenyl-1,2,4-oxadiazole (**7**).



**Figure S10.** <sup>13</sup>C NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-(4-nitrobenzoyl)-5-phenyl-1,2,4-oxadiazole (7).



**Figure S11.** <sup>1</sup>H NMR spectrum (300 MHz, CDCl<sub>3</sub>) of 3-benzoyl-5-phenyl-1,2,4-oxadiazole (4).



**Figure S12.**  $^{13}\text{C}$  NMR spectrum (300 MHz,  $\text{CDCl}_3$ ) of 3-benzoyl-5-phenyl-1,2,4-oxadiazole (**4**).

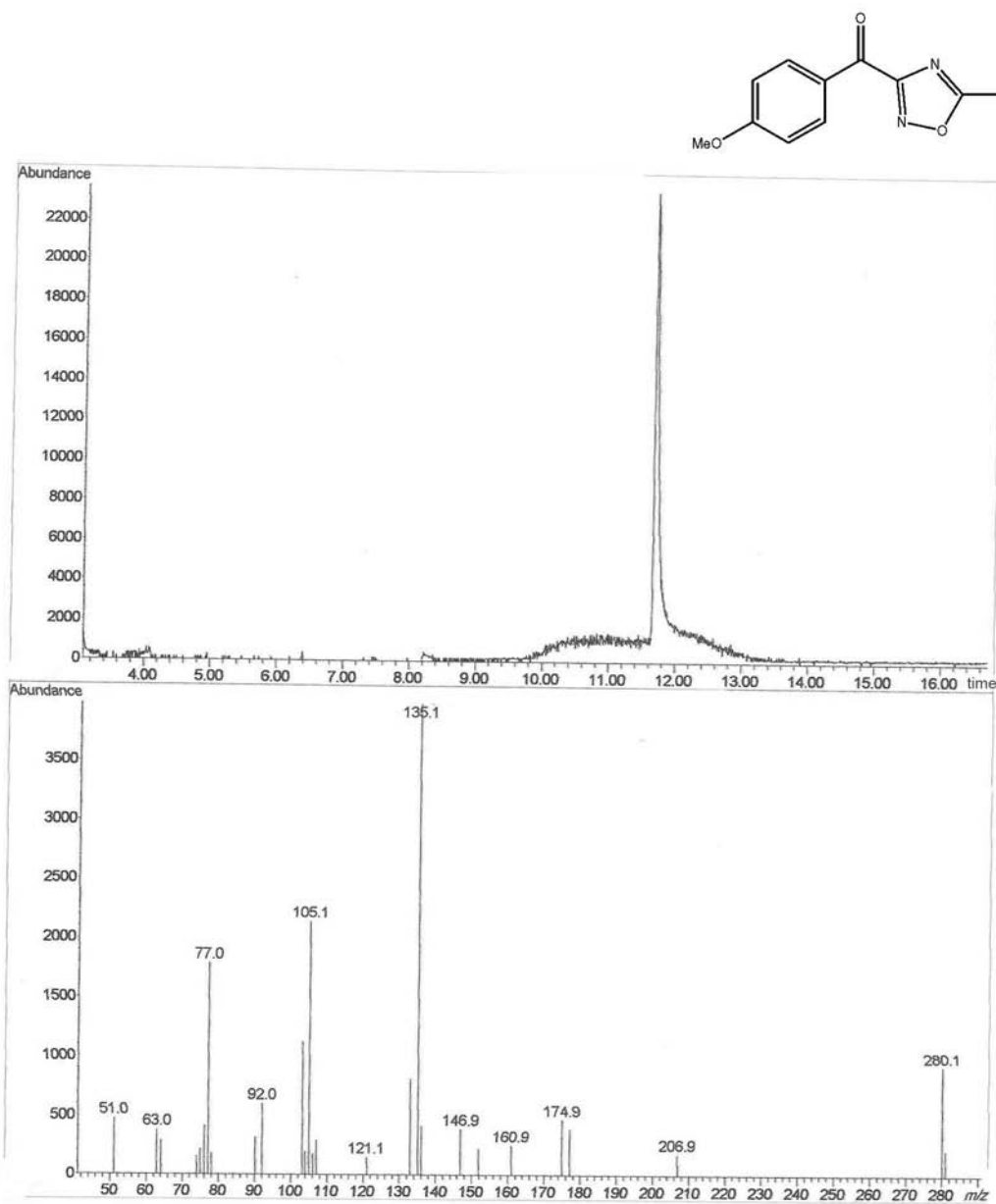
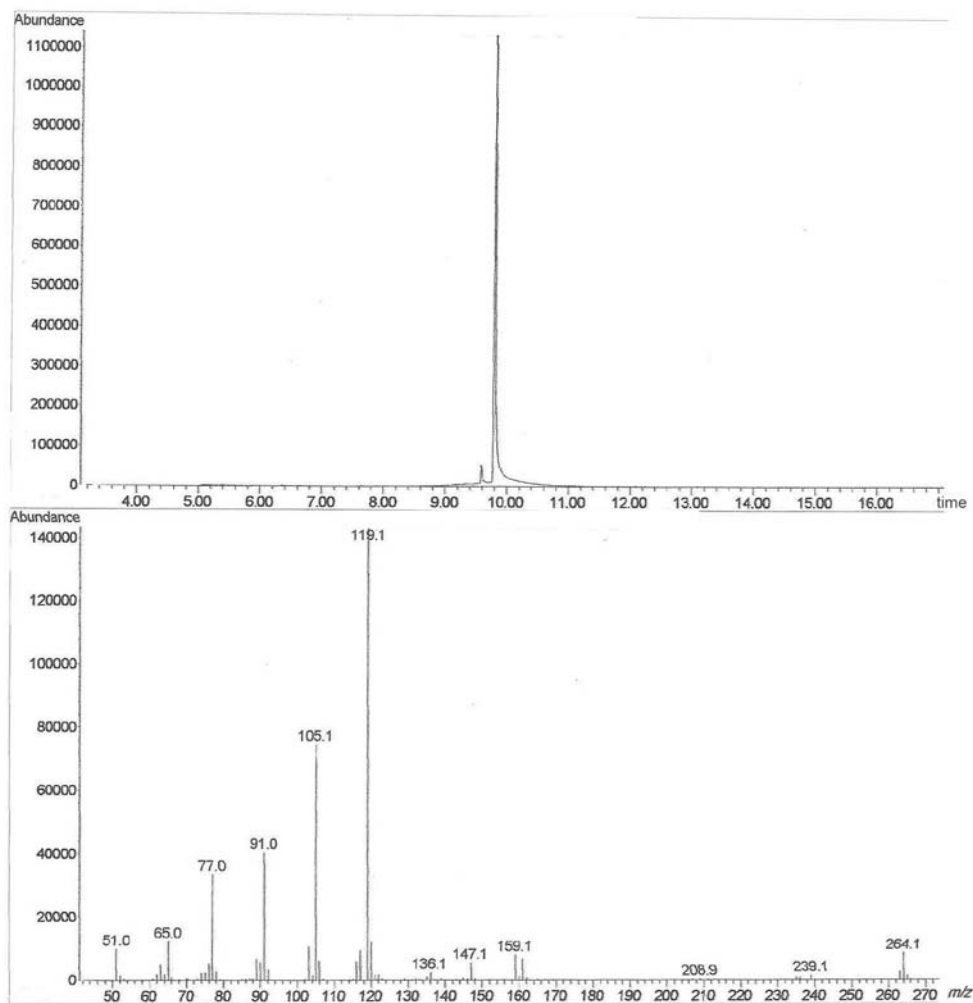
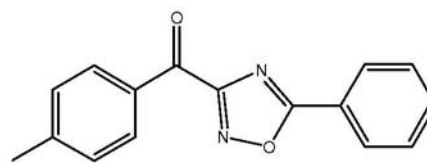
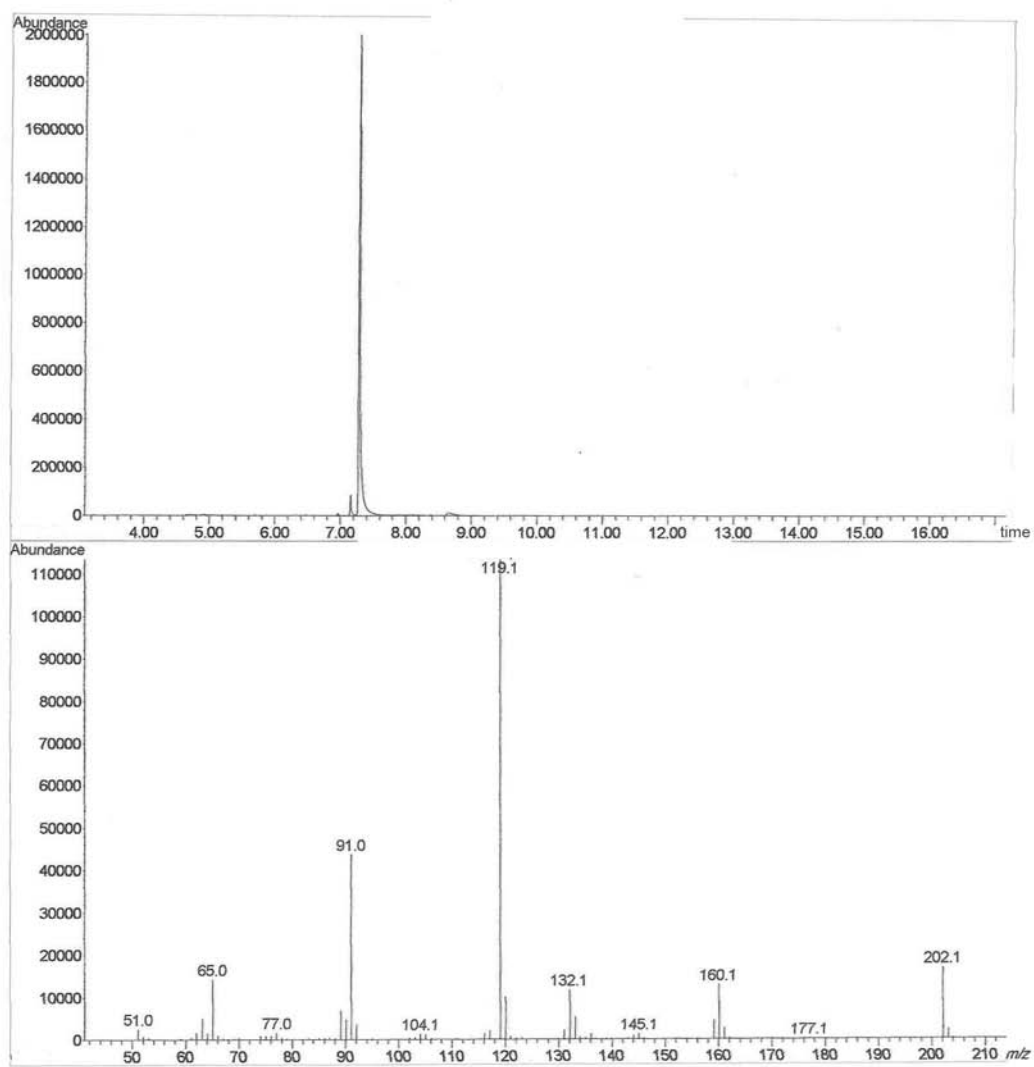
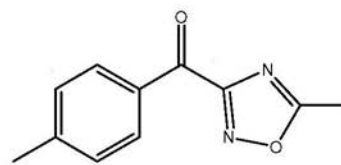


Figure S13. Mass spectrum of 3-(4-methoxybenzoyl)-5-phenyl-1,2,4-oxadiazole (6).

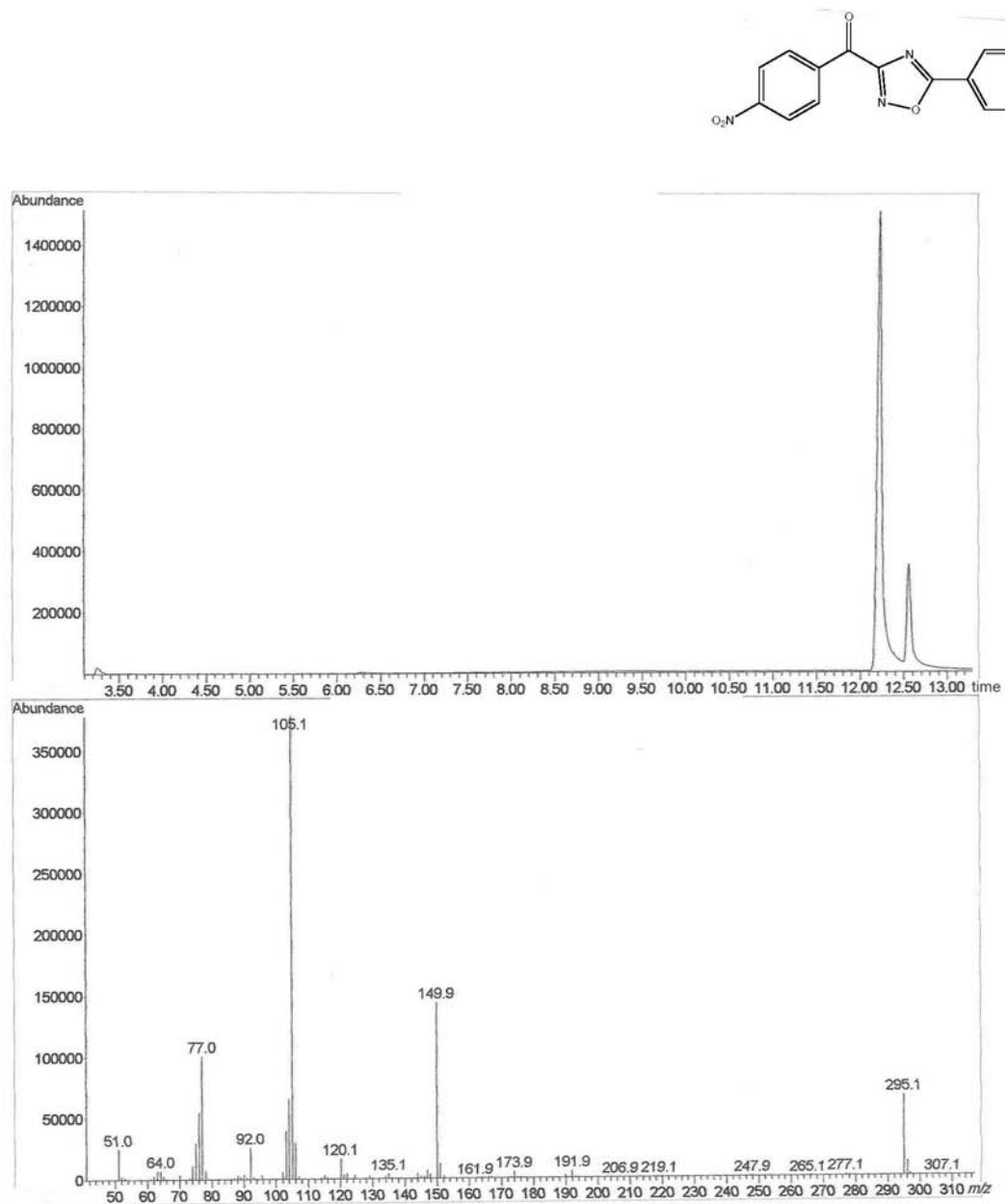




**Figure S14.** Mass spectrum of 3-(4-methylbenzoyl)-5-phenyl-1,2,4-oxadiazole (5).



**Figure S15.** Mass spectrum of 3-(4-methoxybenzoyl)-5-methyl-1,2,4-oxadiazole (**6**).



**Figure S16.** Mass spectrum of 3-(4-nitrobenzoyl)-5-phenyl-1,2,4-oxadiazole (7).