

## Supplementary Material

### Synthesis of indole-based chromophores with a tricyanofuranyl acceptor and the study of the effect of the quinoxalinone core in the $\pi$ -electron bridge on the linear and nonlinear optical properties

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and Marina Yu. Balakina<sup>a,b</sup>

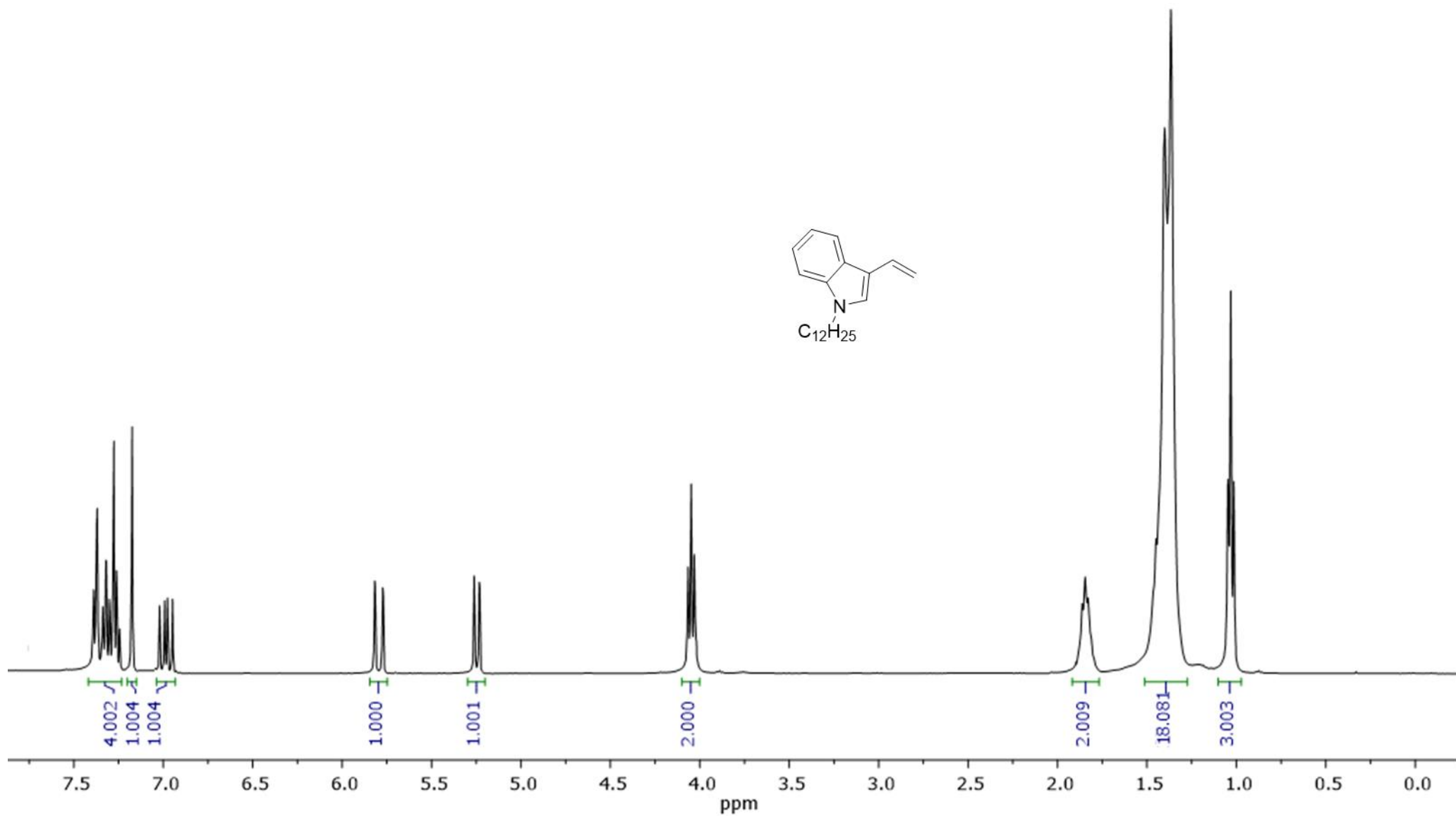
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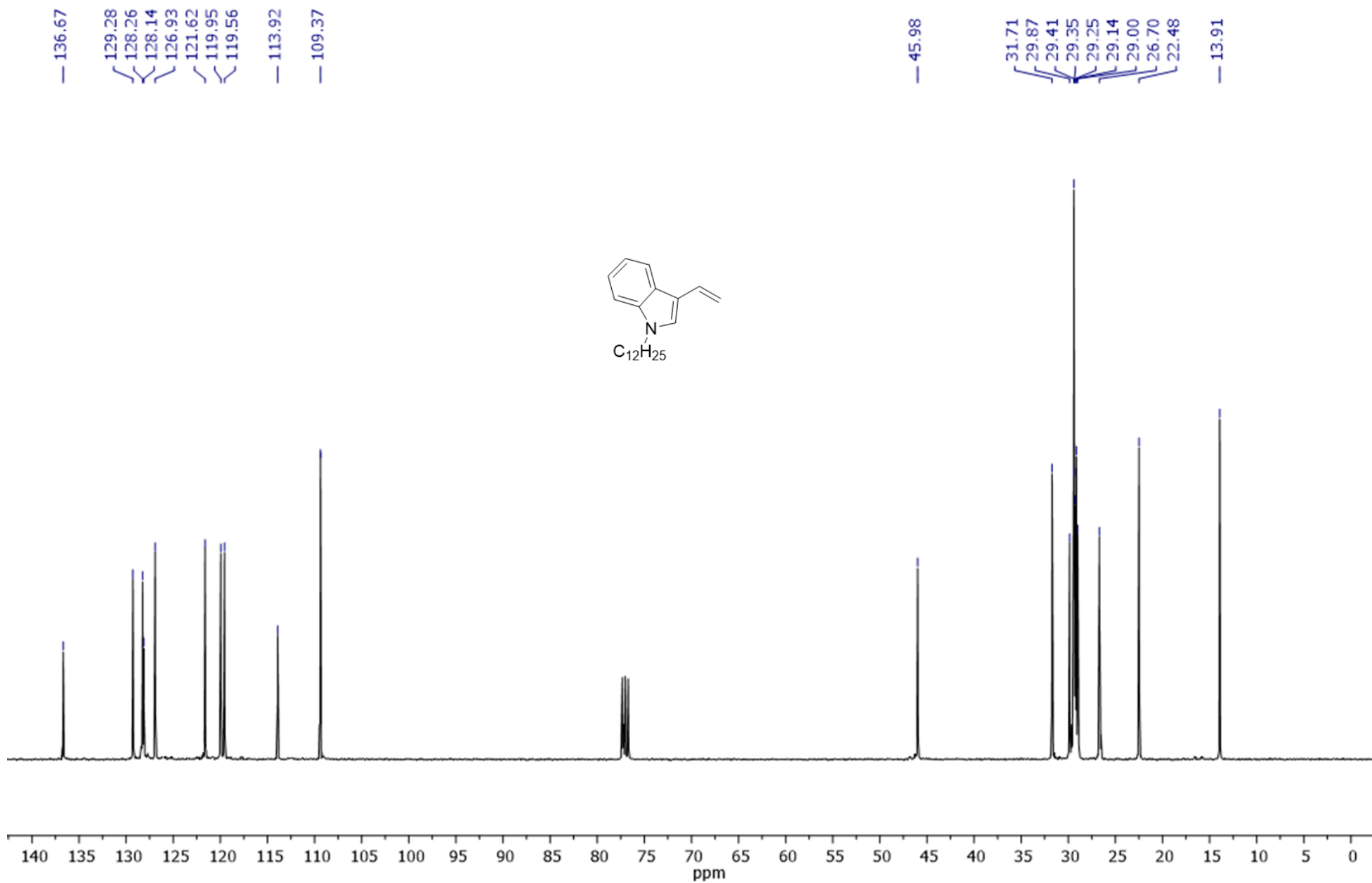
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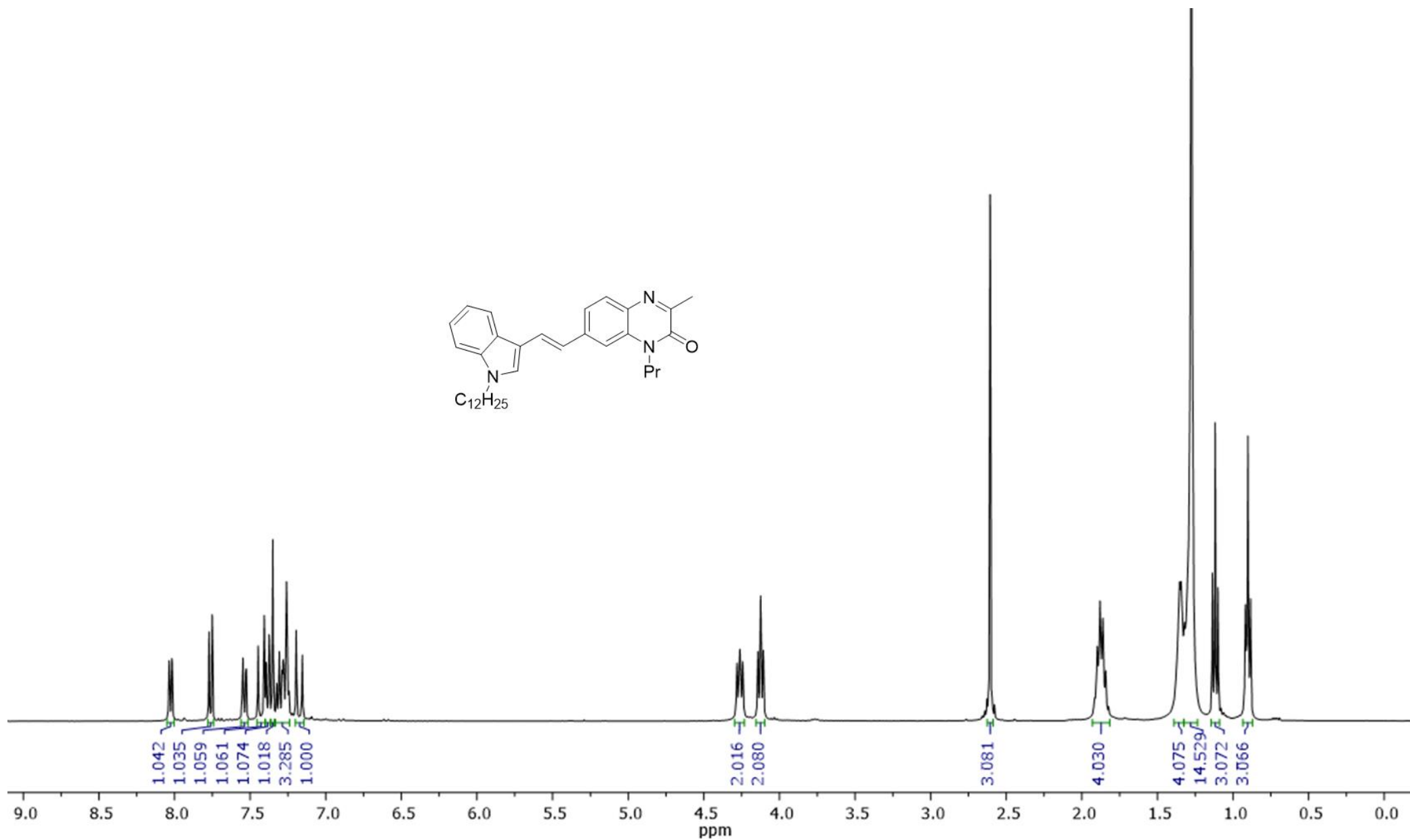
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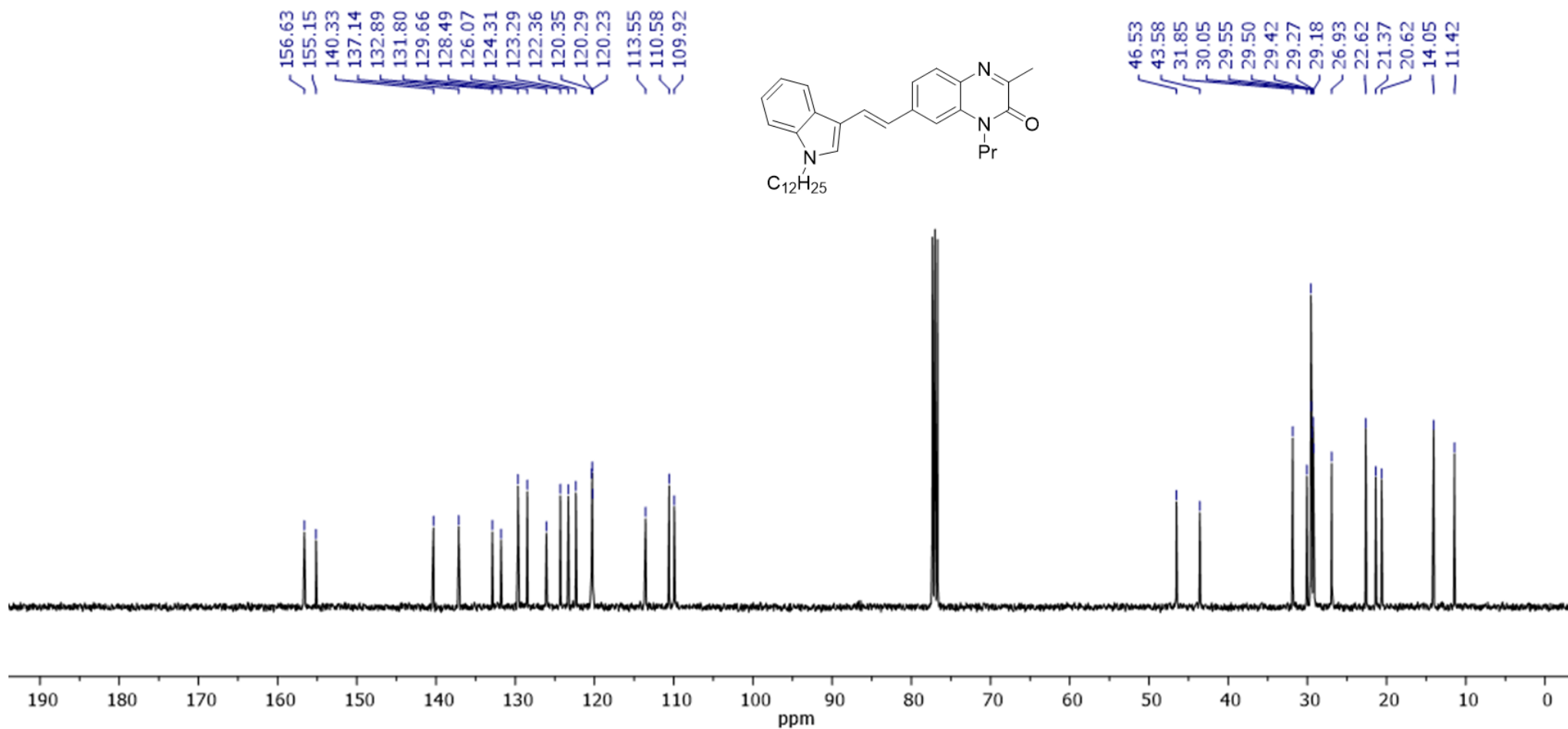


$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) of 1-dodecyl-3-vinyl-1H-indole (**4**)

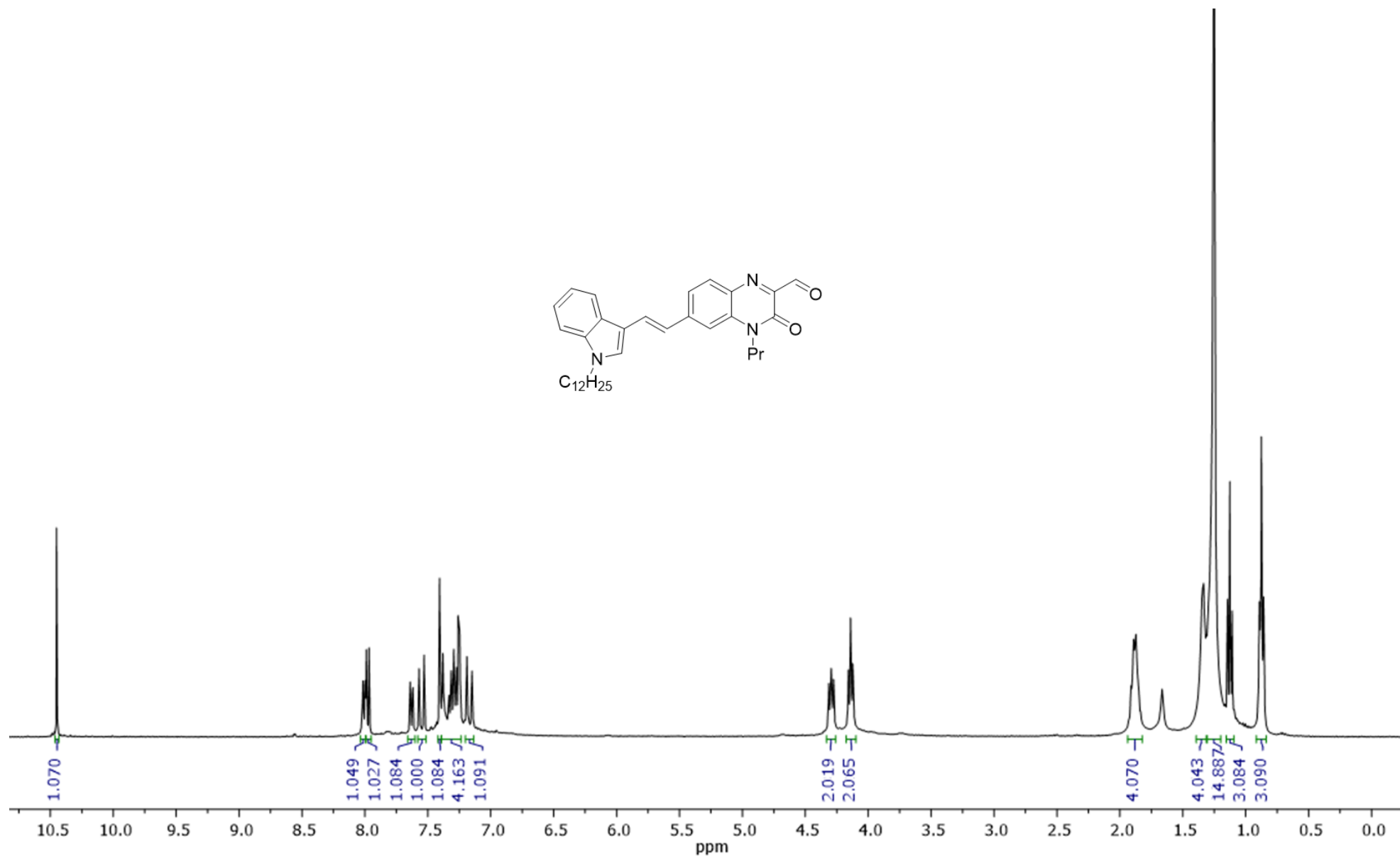
 $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of 1-dodecyl-3-vinyl-1H-indole (4)



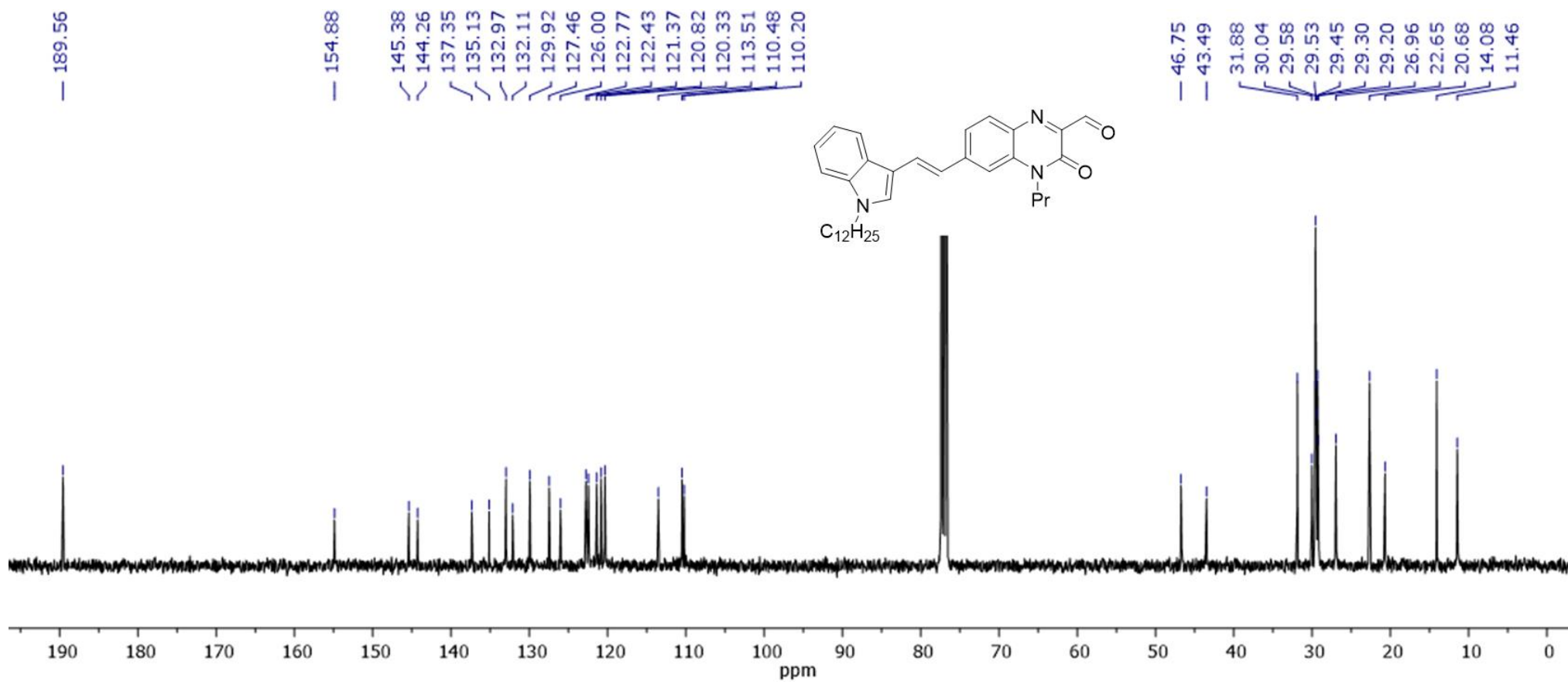
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) of (E)-7-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-methyl-1-propylquinoxalin-2(1H)-one (**6**)



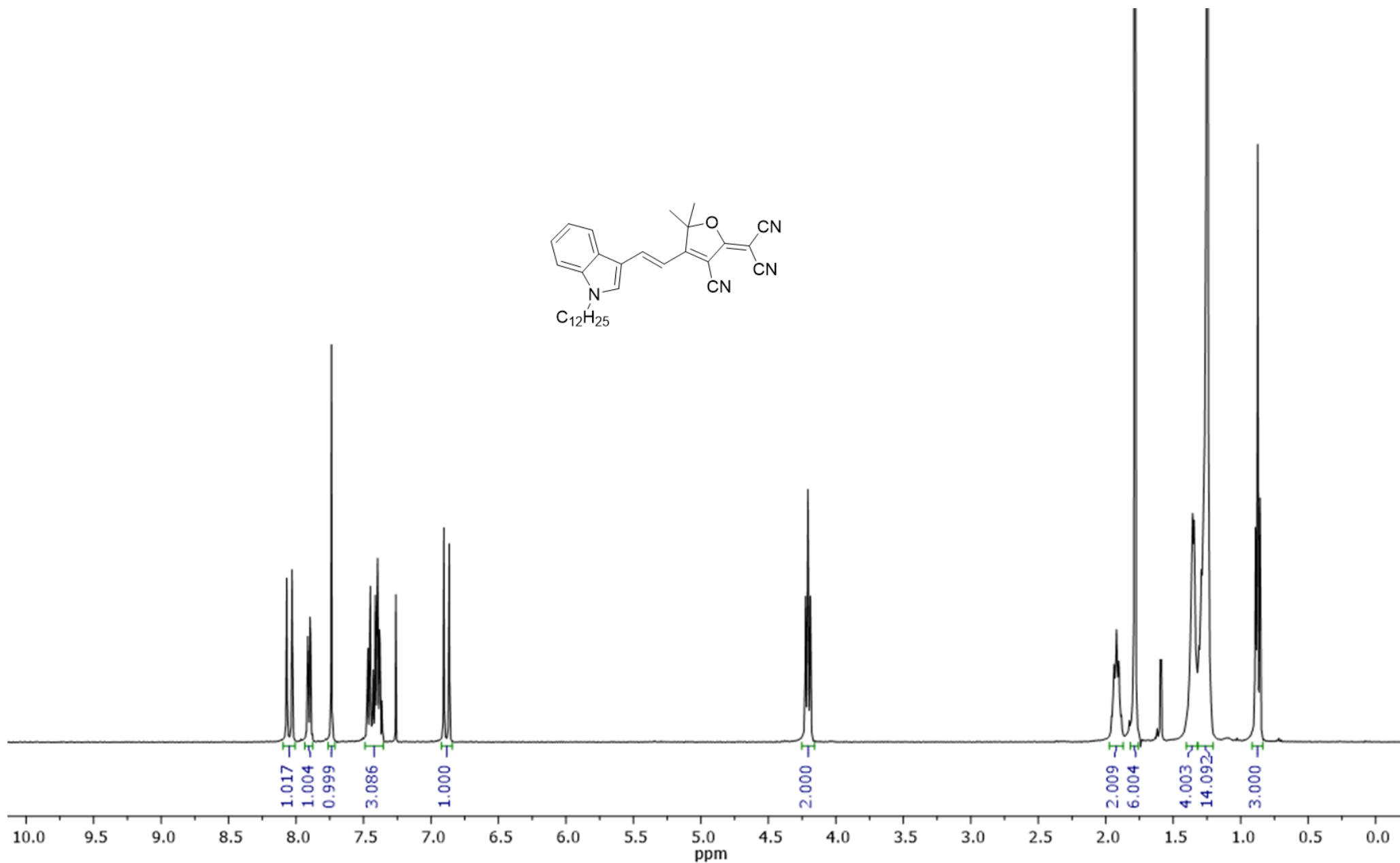
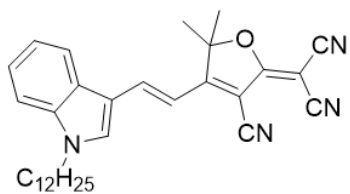
$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of (*E*)-7-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-methyl-1-propylquinoxalin-2(1H)-one (**6**)



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of (*E*)-6-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-oxo-4-propyl-3,4-dihydroquinoxaline-2-carbaldehyde (7)

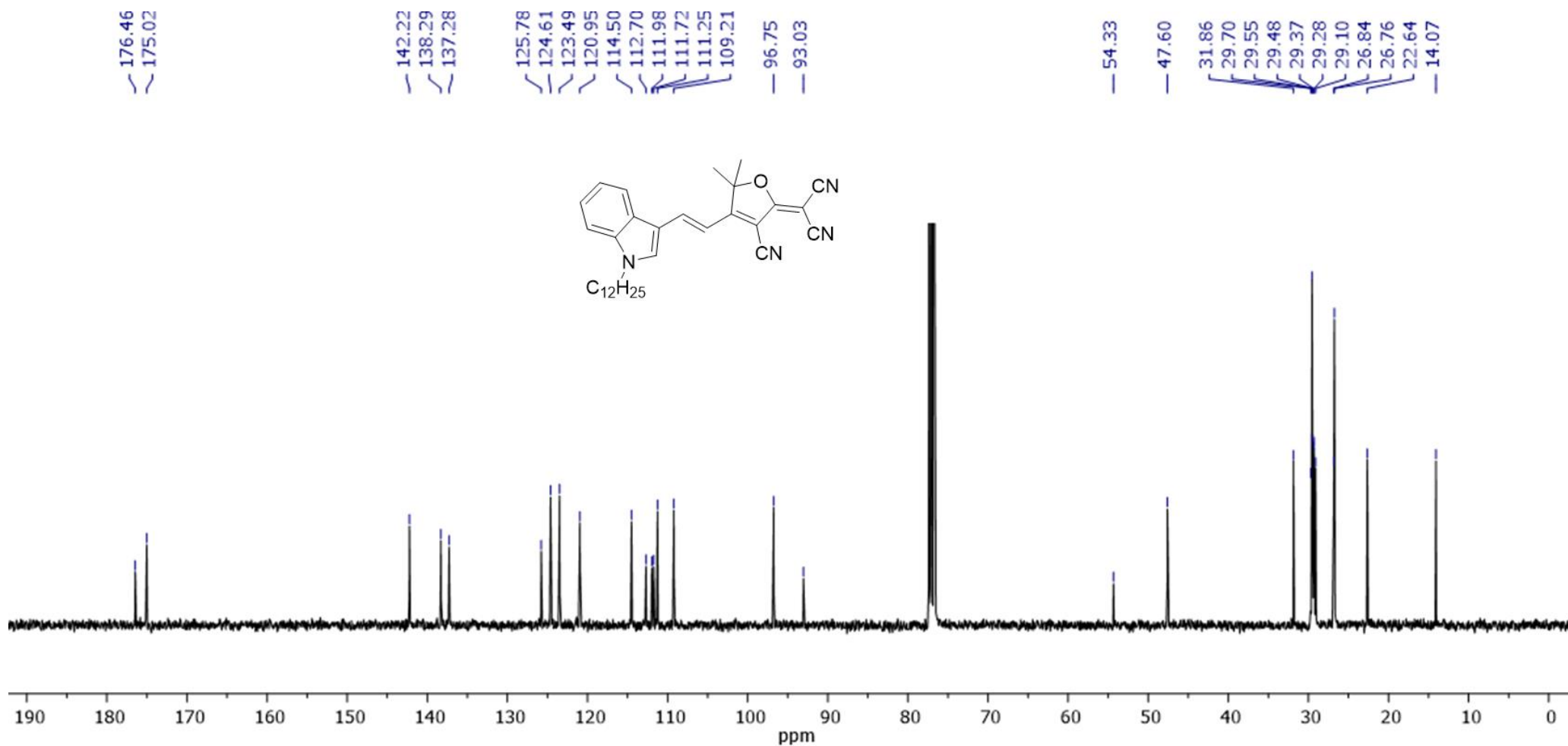


$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of (*E*)-6-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-oxo-4-propyl-3,4-dihydroquinoxaline-2-carbaldehyde (**7**)

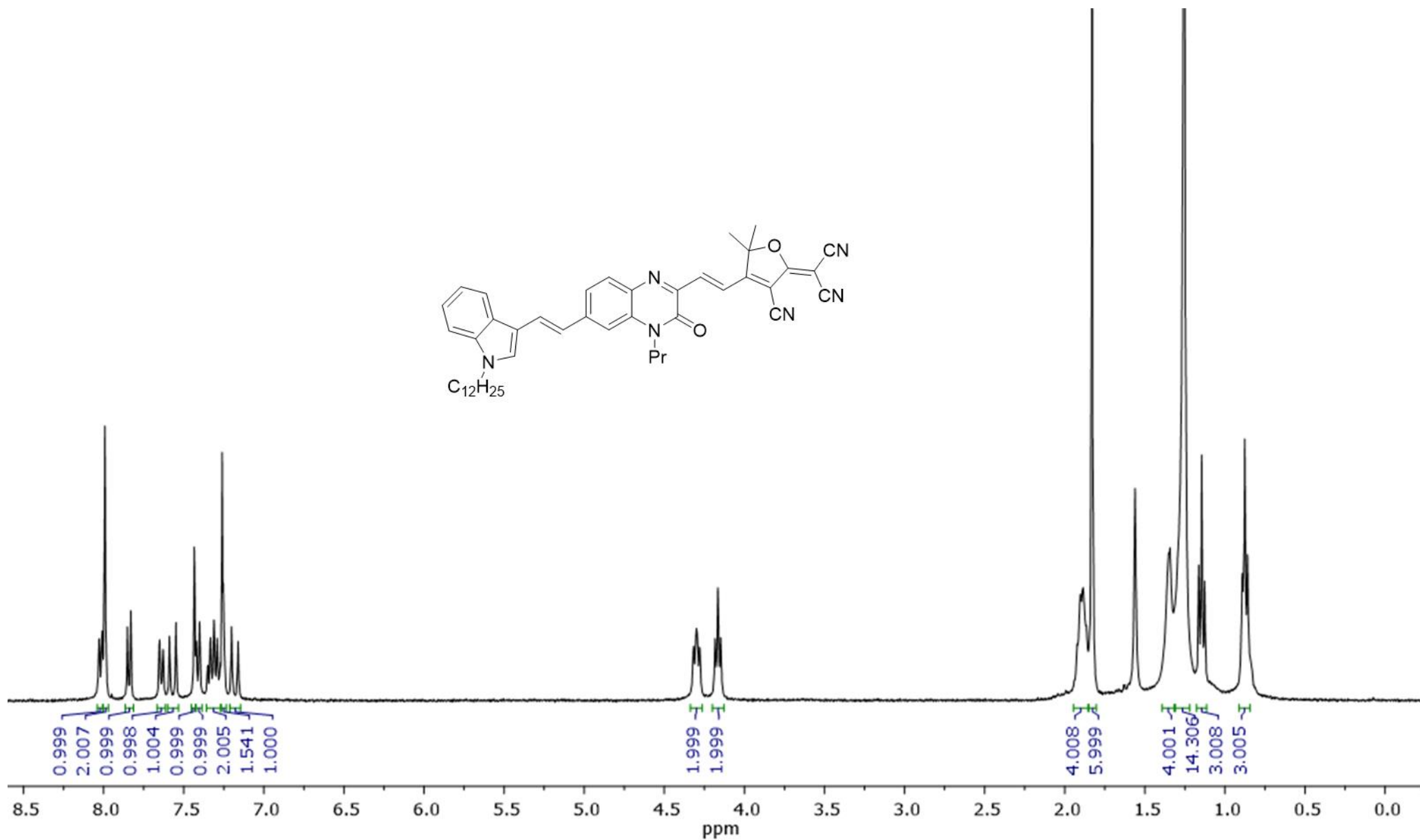


<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of (E)-2-(3-cyano-4-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-5,5-dimethylfuran-2(5H)-ylidene)malononitrile (**Ind-V-TCF**)

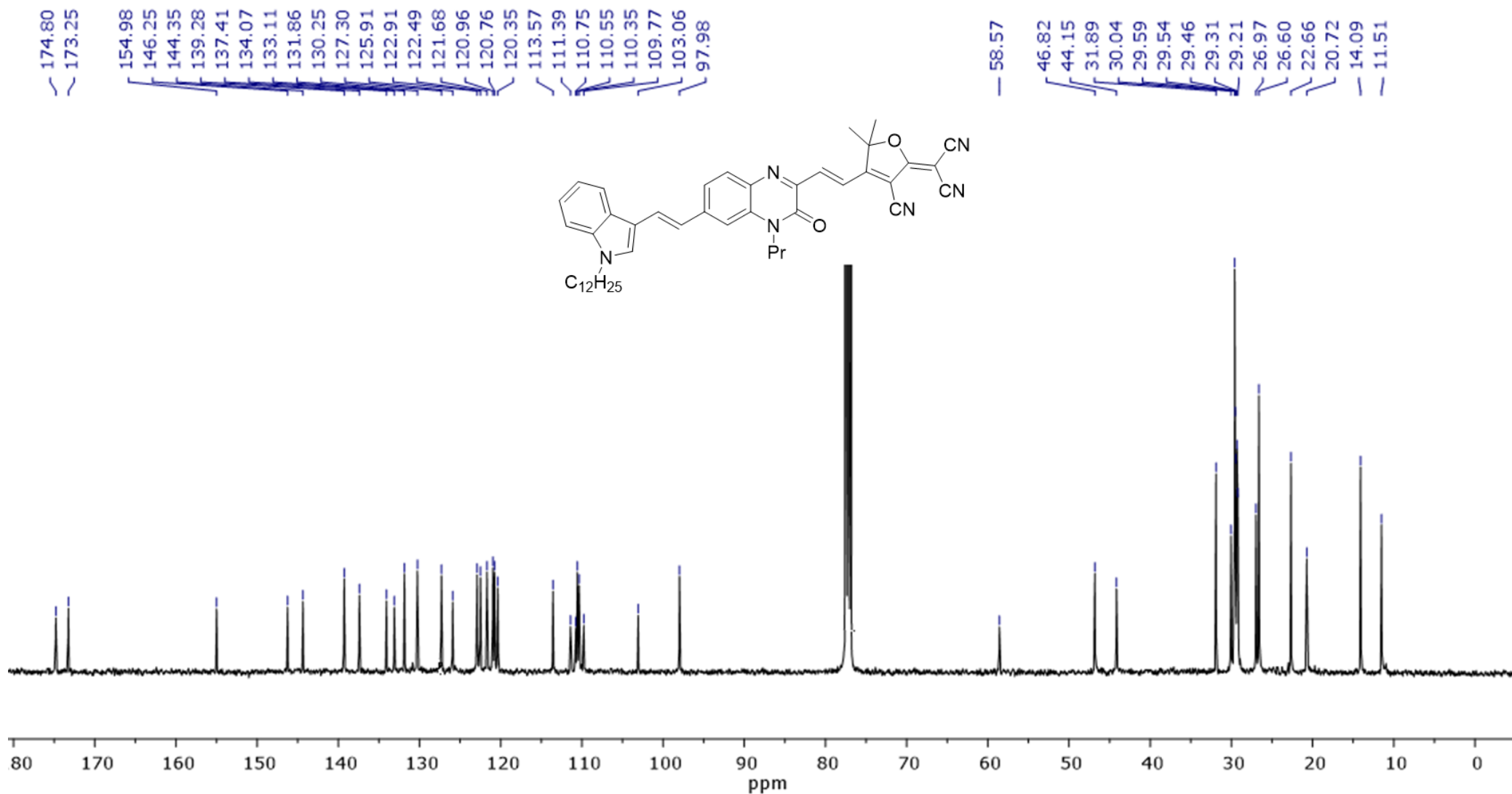




$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of *(E)*-2-(3-cyano-4-(2-(1-dodecyl-1H-indol-3-yl)vinyl)-5,5-dimethylfuran-2(5H)-ylidene)malononitrile (**Ind-V-TCF**)



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) of 2-(3-cyano-4-((E)-2-(6-((E)-2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-oxo-4-propyl-3,4-dihydroquinoxalin-2-yl)vinyl)-5,5-dimethylfuran-2(5H)-ylidene)malononitrile (**Ind-VQ<sub>on</sub>V-TCF**)



$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of 2-(3-cyano-4-((E)-2-(6-((E)-2-(1-dodecyl-1H-indol-3-yl)vinyl)-3-oxo-4-propyl-3,4-dihydroquinoxalin-2-yl)vinyl)-5,5-dimethylfuran-2(5H)-ylidene)malononitrile (**Ind-VQ<sub>on</sub>V-TCF**)