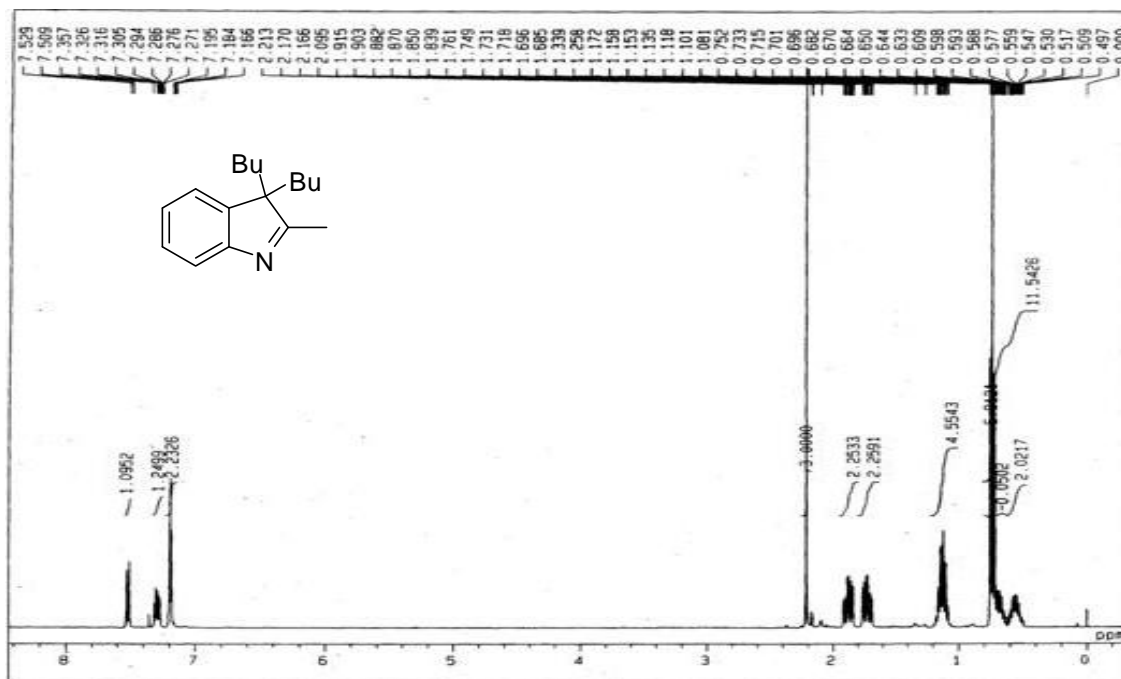
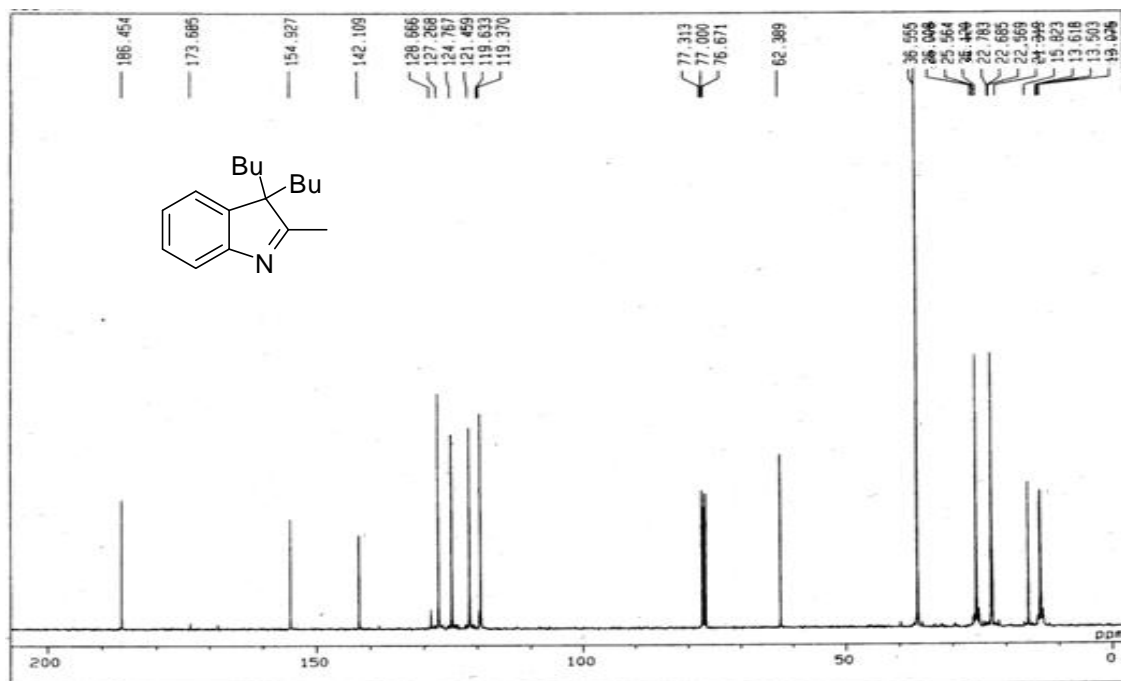


3,3-dibutyl-2-methylindolenine (2b)

$^1\text{H NMR}$

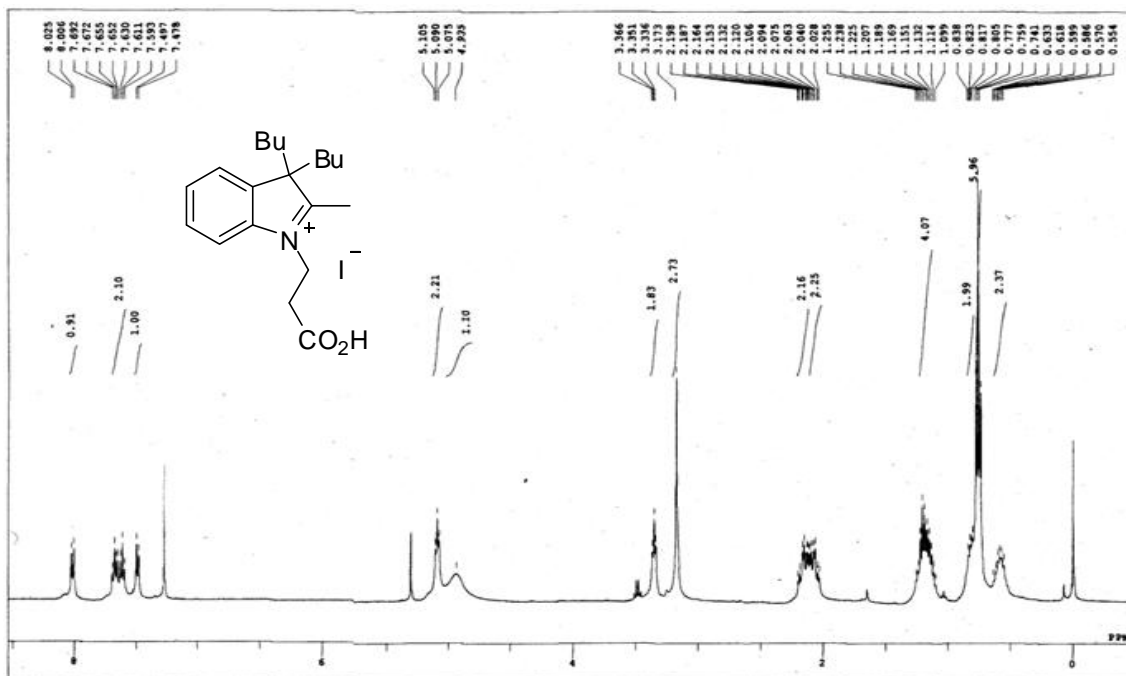


$^{13}\text{C NMR}$

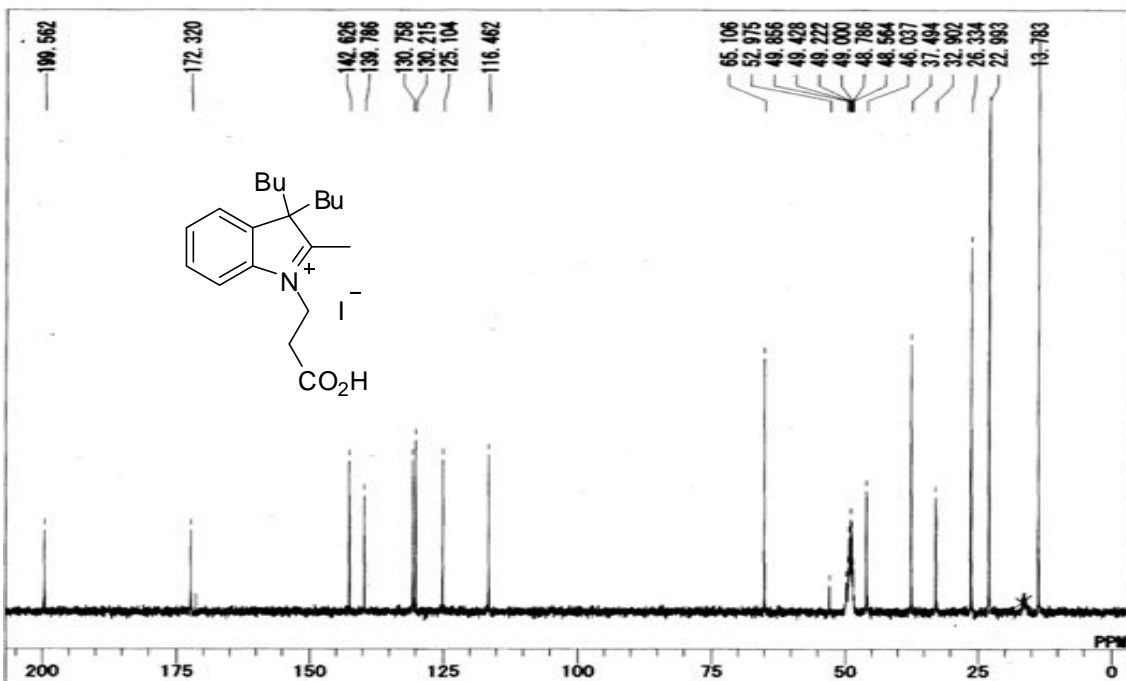


1-carboxyethyl-3,3-dibutyl-2-methylindolenium iodide (3b)

¹H NMR

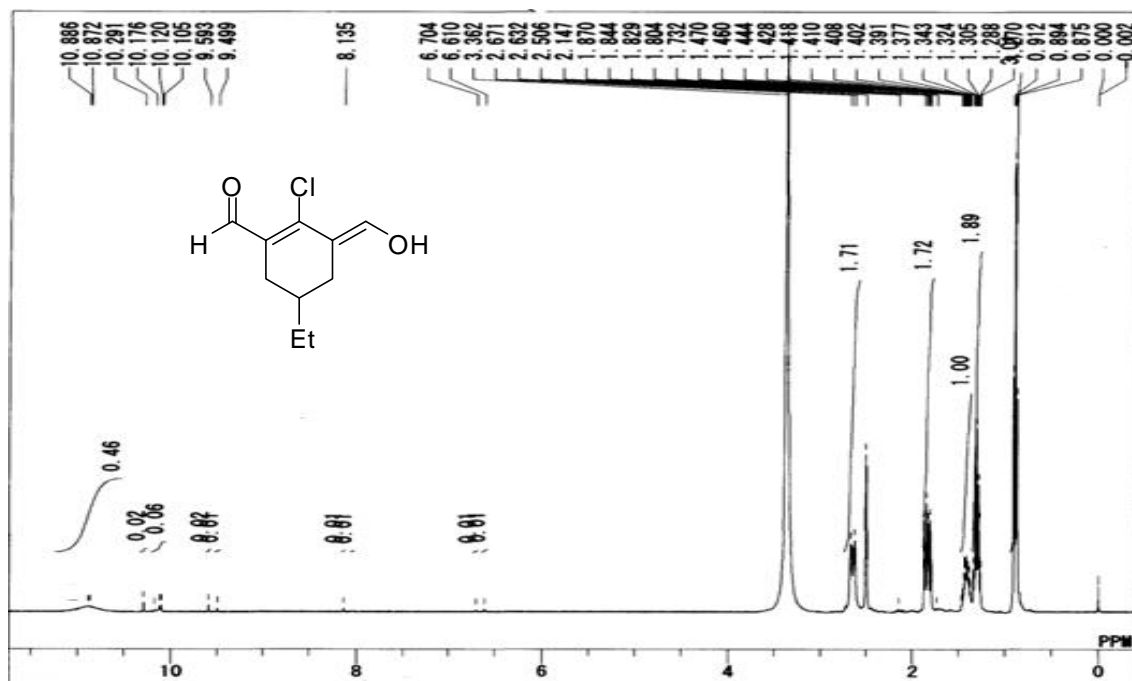


¹³C NMR

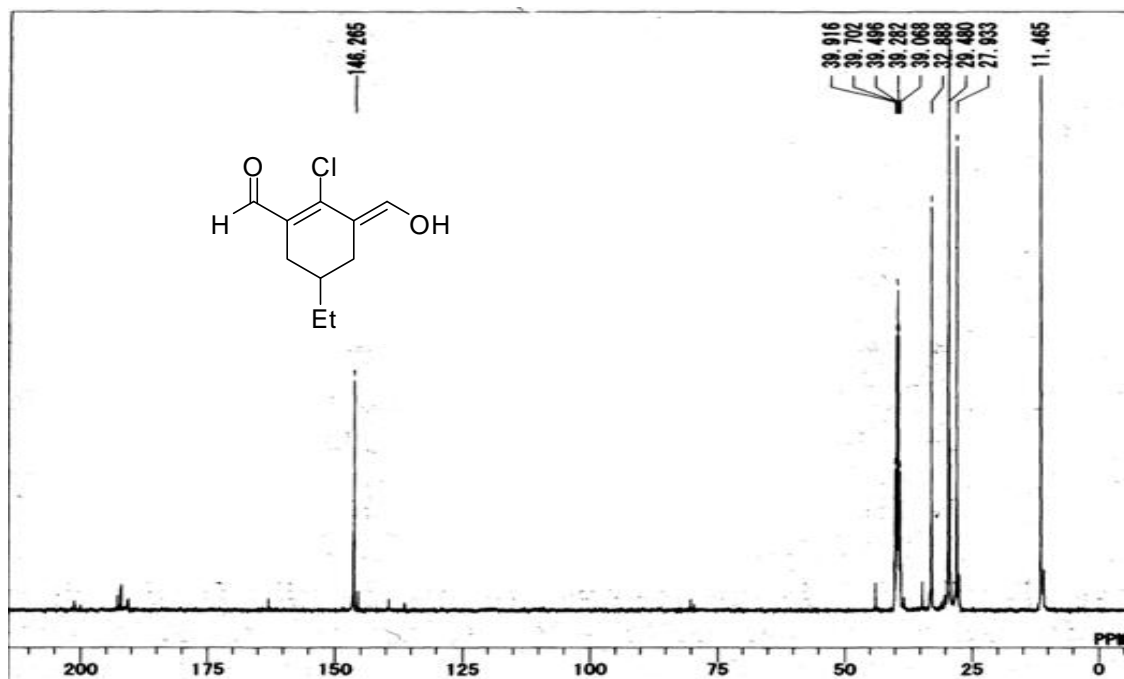


2-chloro-4-ethyl-1-formyl-3-hydroxymethylenecyclohexene (4)

$^1\text{H NMR}$

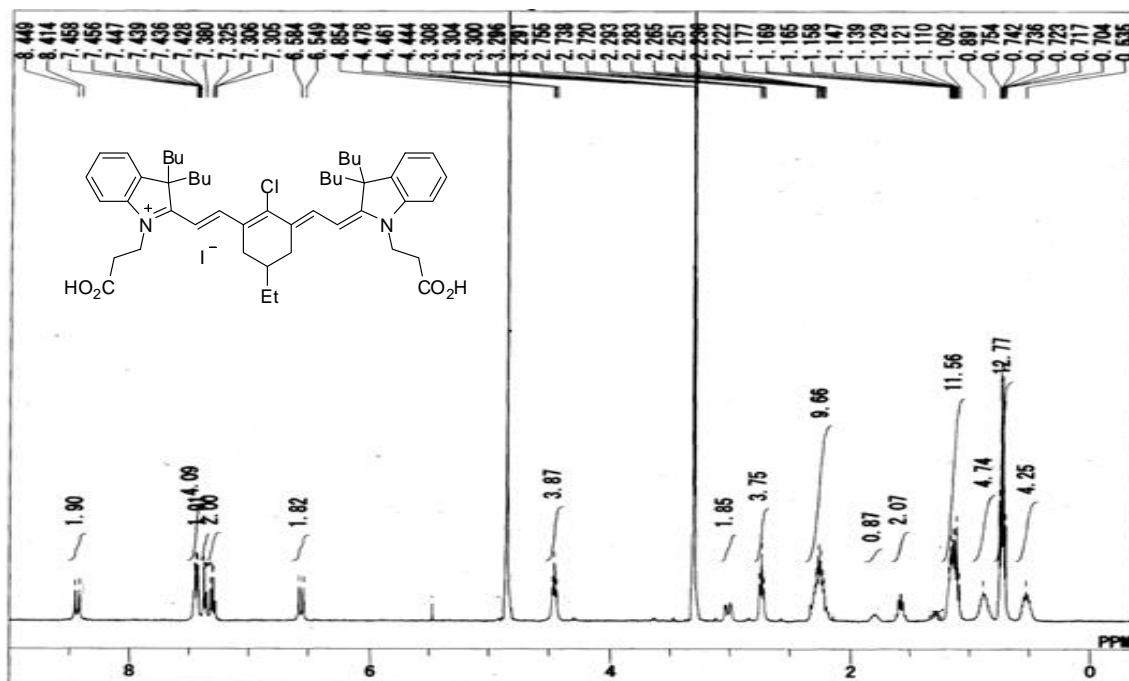


$^{13}\text{C NMR}$

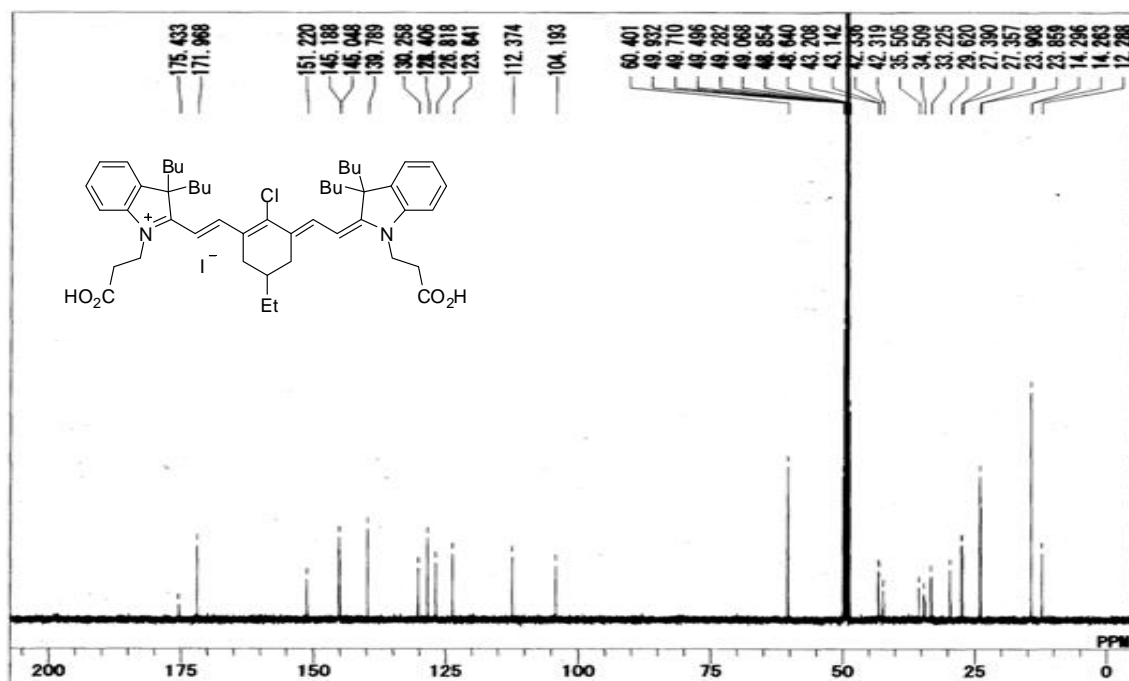


3,3-dibutyl-1-(2-carboxyethyl)-2-((E)-2-((E)-2-chloro-3-((E)-2-(3,3-dibutyl-1-(2-carboxyethyl)indol-2-ylidene)ethylidene)-5-ethylcyclohex-1-enyl)vinyl)-3H-indolium iodide (KFH-3)

¹H NMR

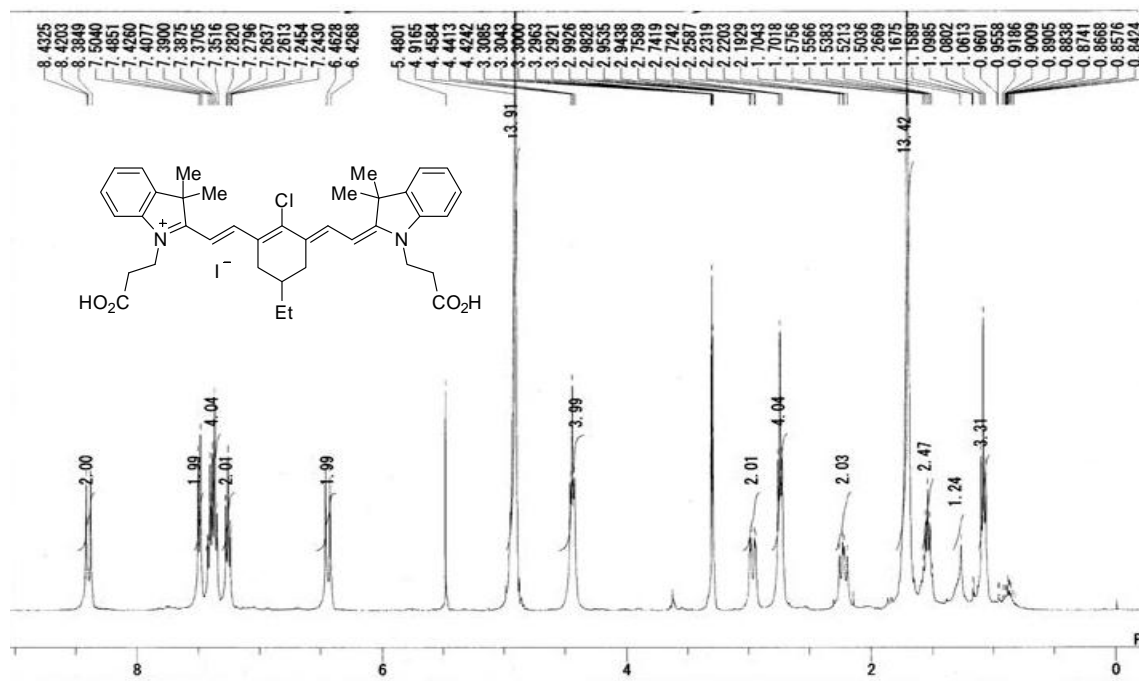


¹³C NMR



**1-(2-Carboxyethyl)-2-((E)-2-((E)-3-((E)-2-(1-(2-carboxyethyl)-3,3-dimethylindolin-2-ylidene)et
hydylidene)-2-chloro-5-ethylcyclohex-1-enyl)vinyl)-3,3-dimethyl-3H-indolium iodide (KFH-2)**

¹H NMR



¹³C NMR

