

## Supporting Information

### **DCID-mediated Esterification of Carboxylic Acids with Alcohols under Mild Condition**

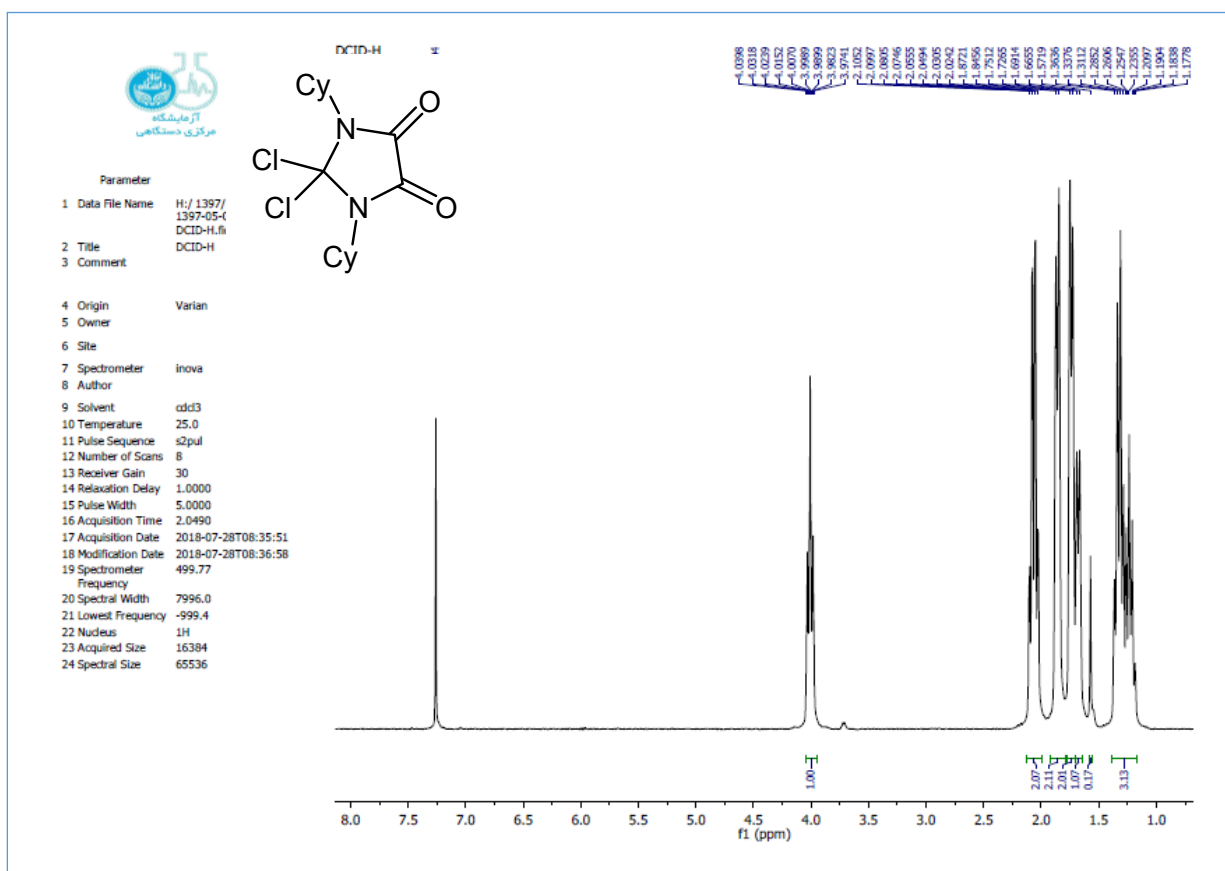
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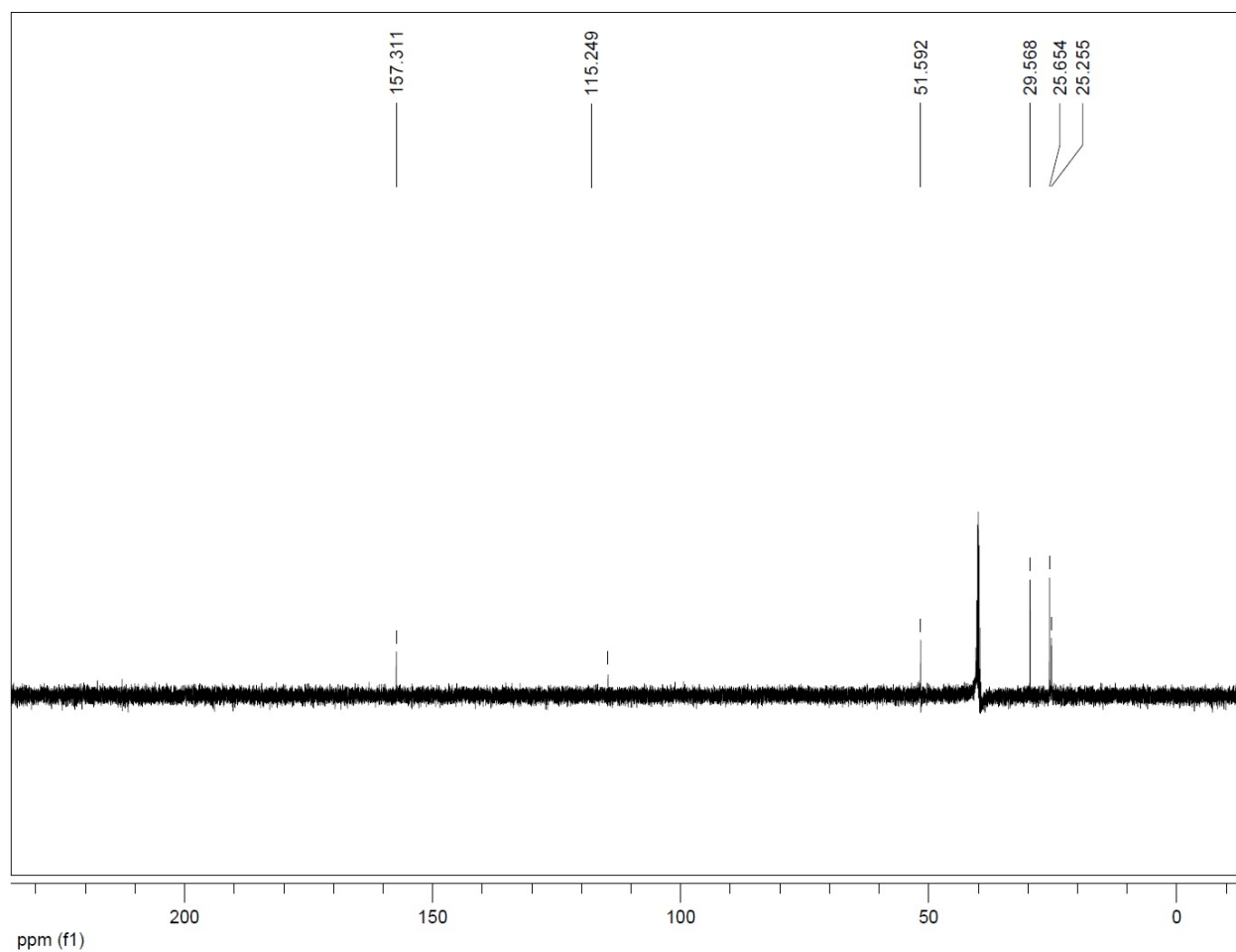
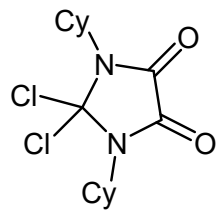
<sup>b</sup>*Chemistry & Chemical Engineering Research Center of Iran, P.O. Box 14335-186, Tehran, Iran*

## Dichloroimidazolidinedione (DCID) 2:



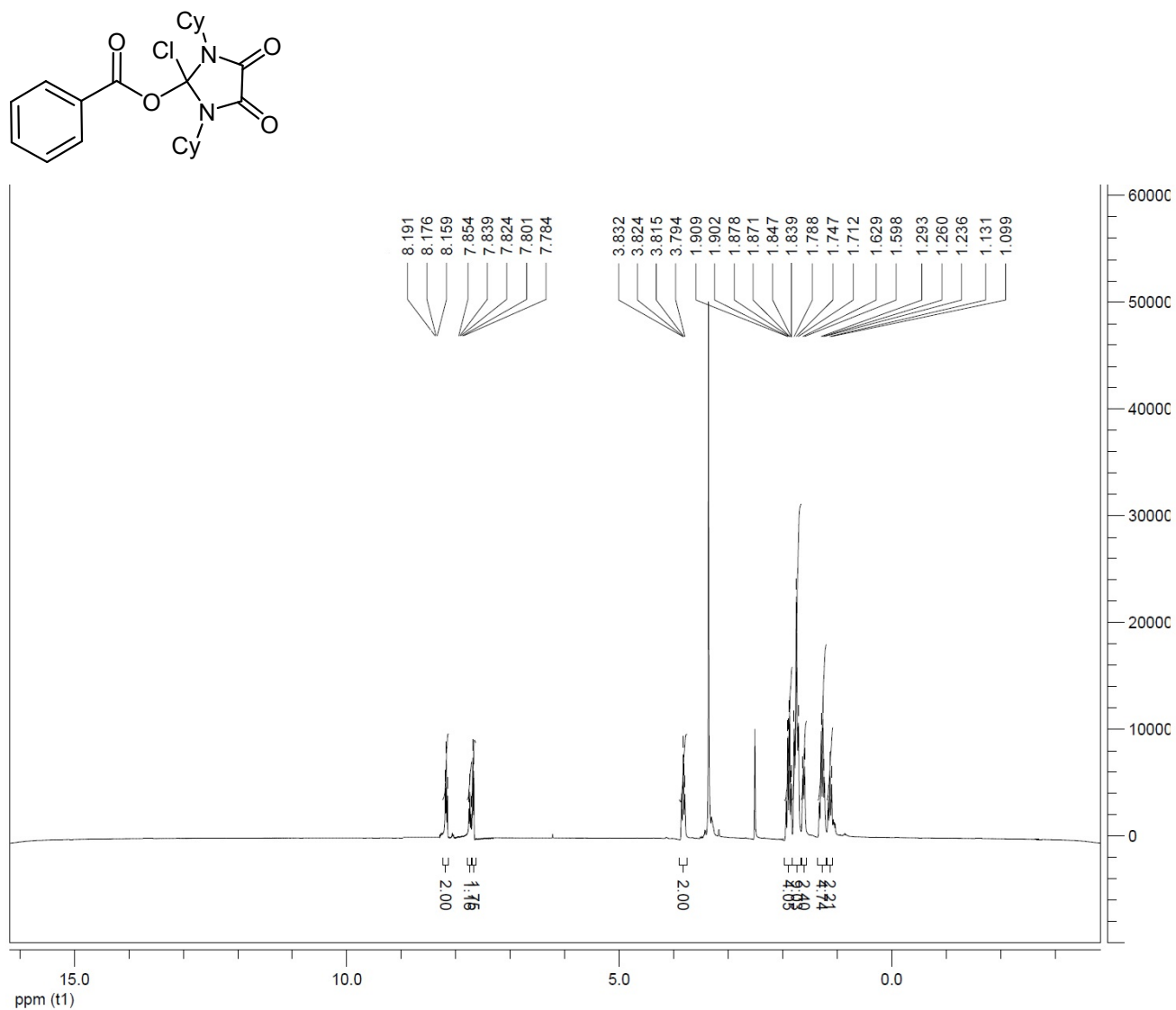
**Fig. S1.** <sup>1</sup>H-NMR spectra (500 MHz, CDCl<sub>3</sub>) of DCID (2)

**Dichloroimidazolidinedione (DCID) (2):**



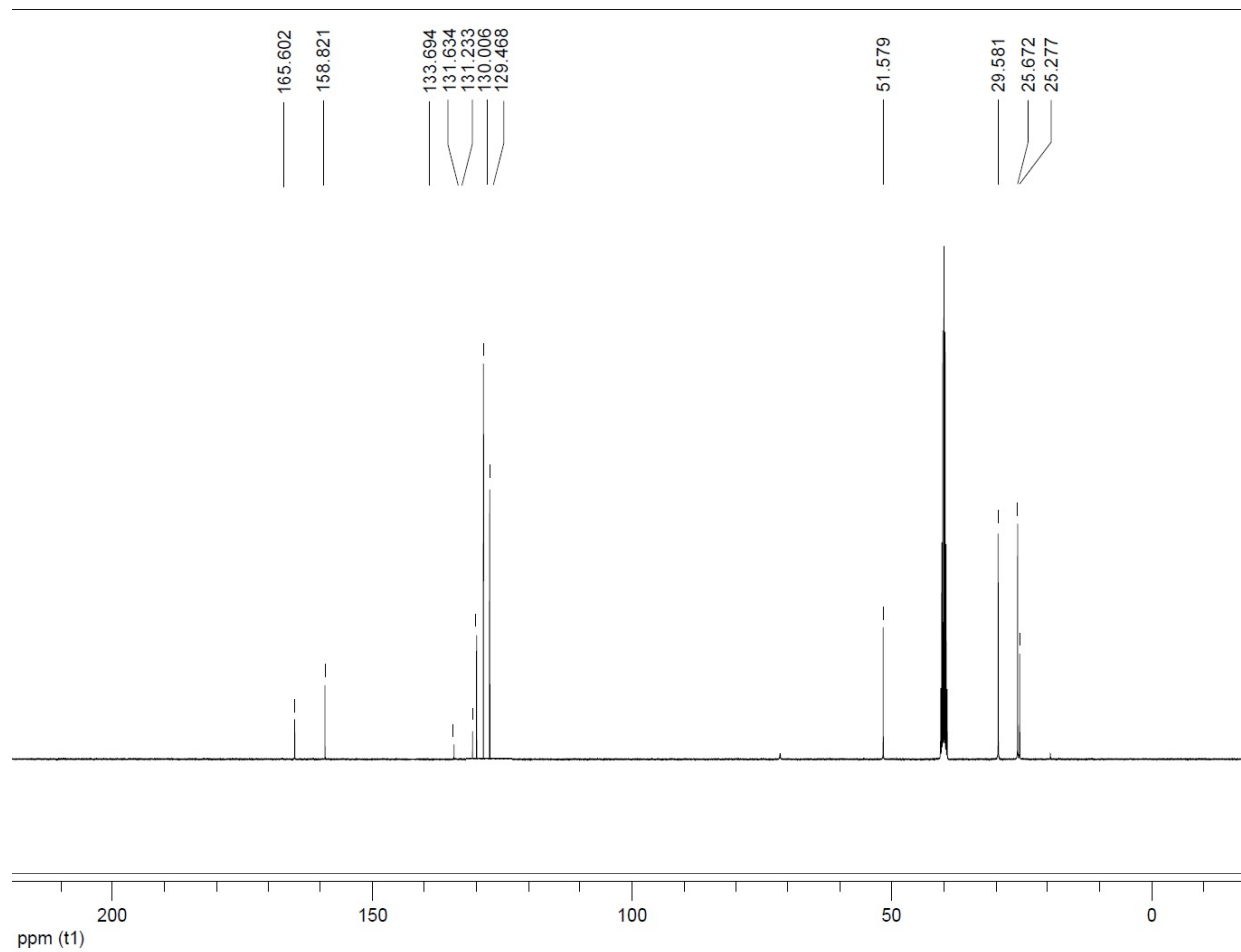
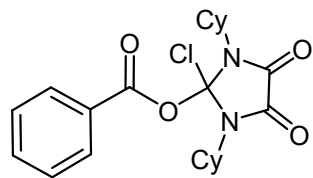
**Fig. S2.**  $^{13}\text{C}$ -NMR spectra (100 MHz,  $\text{DMSO-d}_6$ ) of DCID

**2-chloro-1,3-dicyclohexyl-4,5-dioxoimidazolidin-2-yl benzoate (3a):**



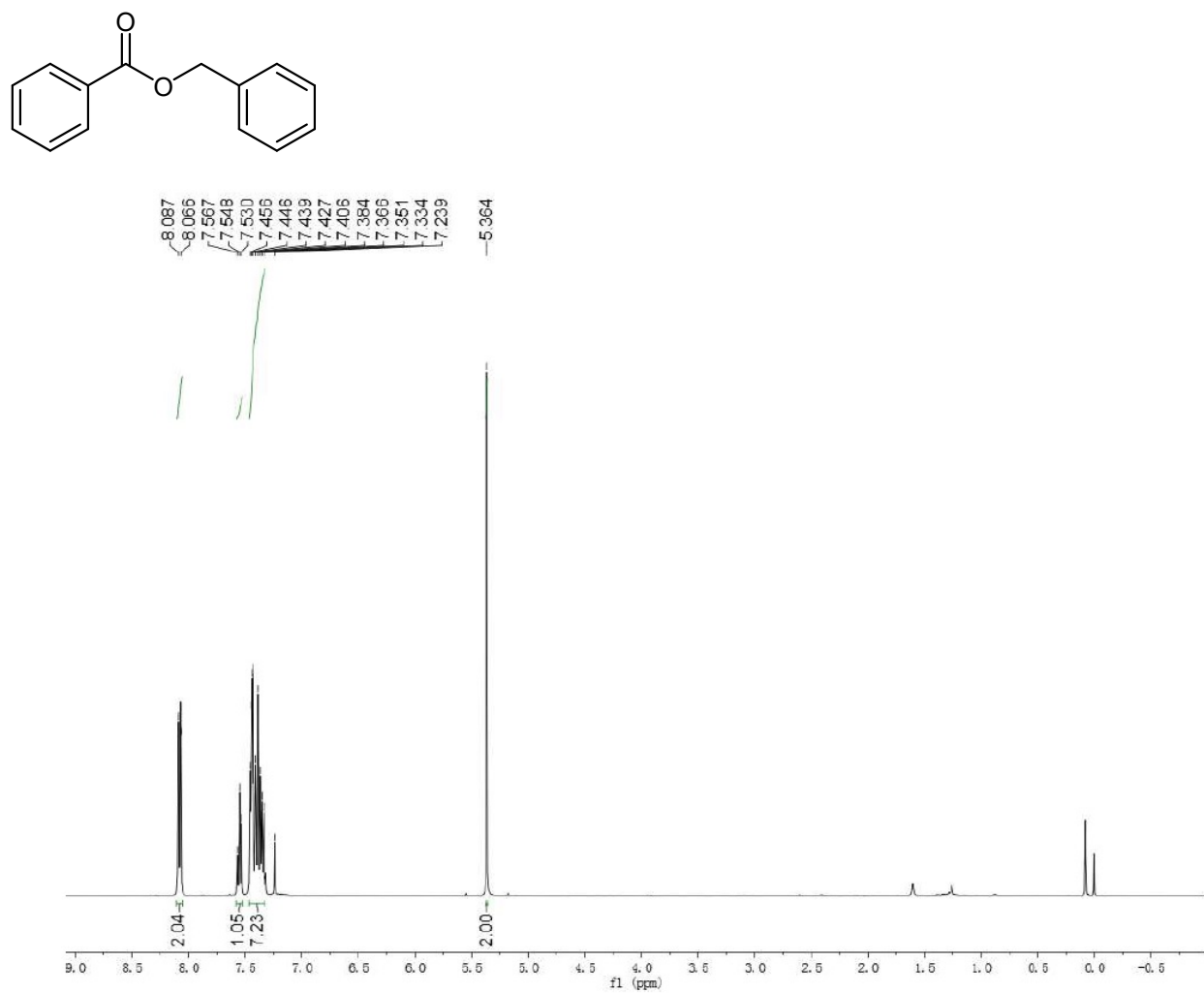
**Fig. S3.** <sup>1</sup>H-NMR spectra (400 MHz, DMSO-d<sub>6</sub>) of 2-chloro-1,3-dicyclohexyl-4,5-dioxoimidazolidin-2-yl benzoate

**2-chloro-1,3-dicyclohexyl-4,5-dioxoimidazolidin-2-yl benzoate (3a):**



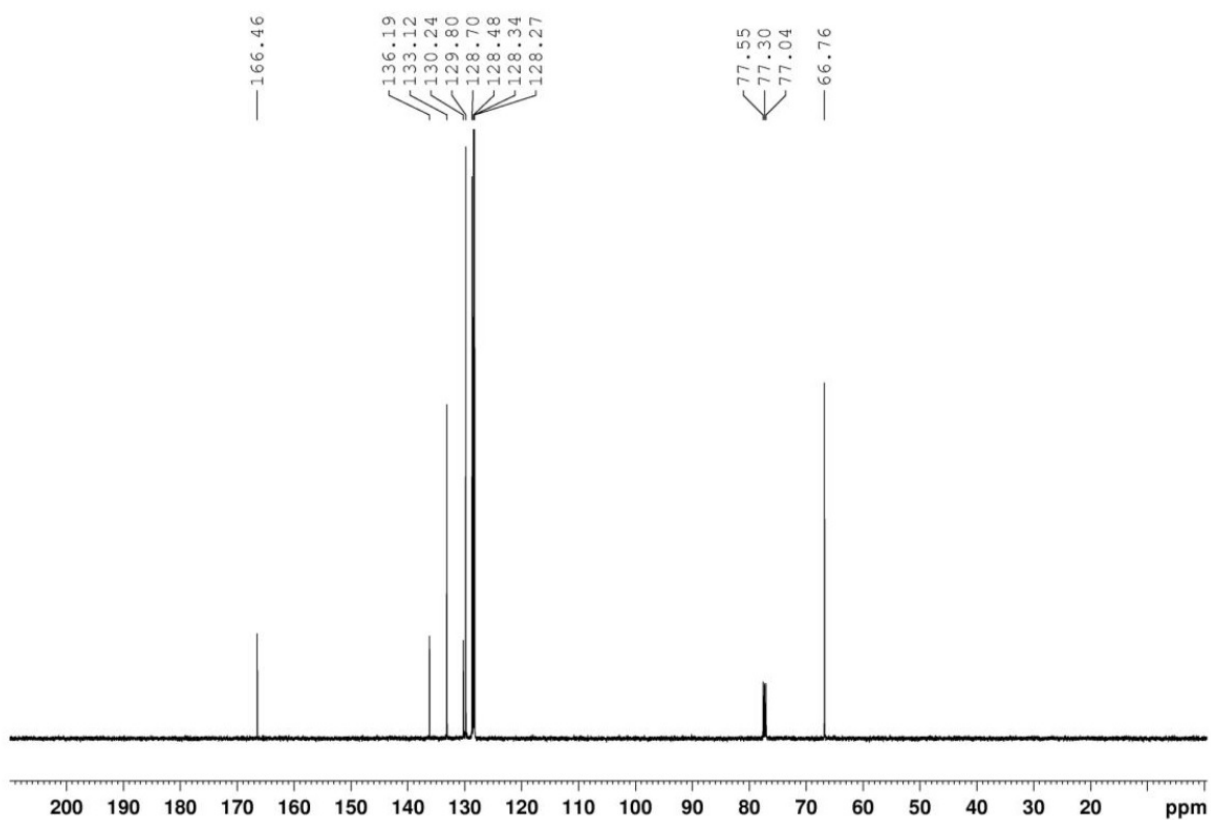
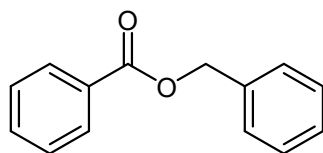
**Fig. S4.**  $^{13}\text{C}$ -NMR spectra (100 MHz,  $\text{DMSO-d}_6$ ) of 2-chloro-1,3-dicyclohexyl-4,5-dioxoimidazolidin-2-yl benzoate

**Benzyl benzoate (5a):**



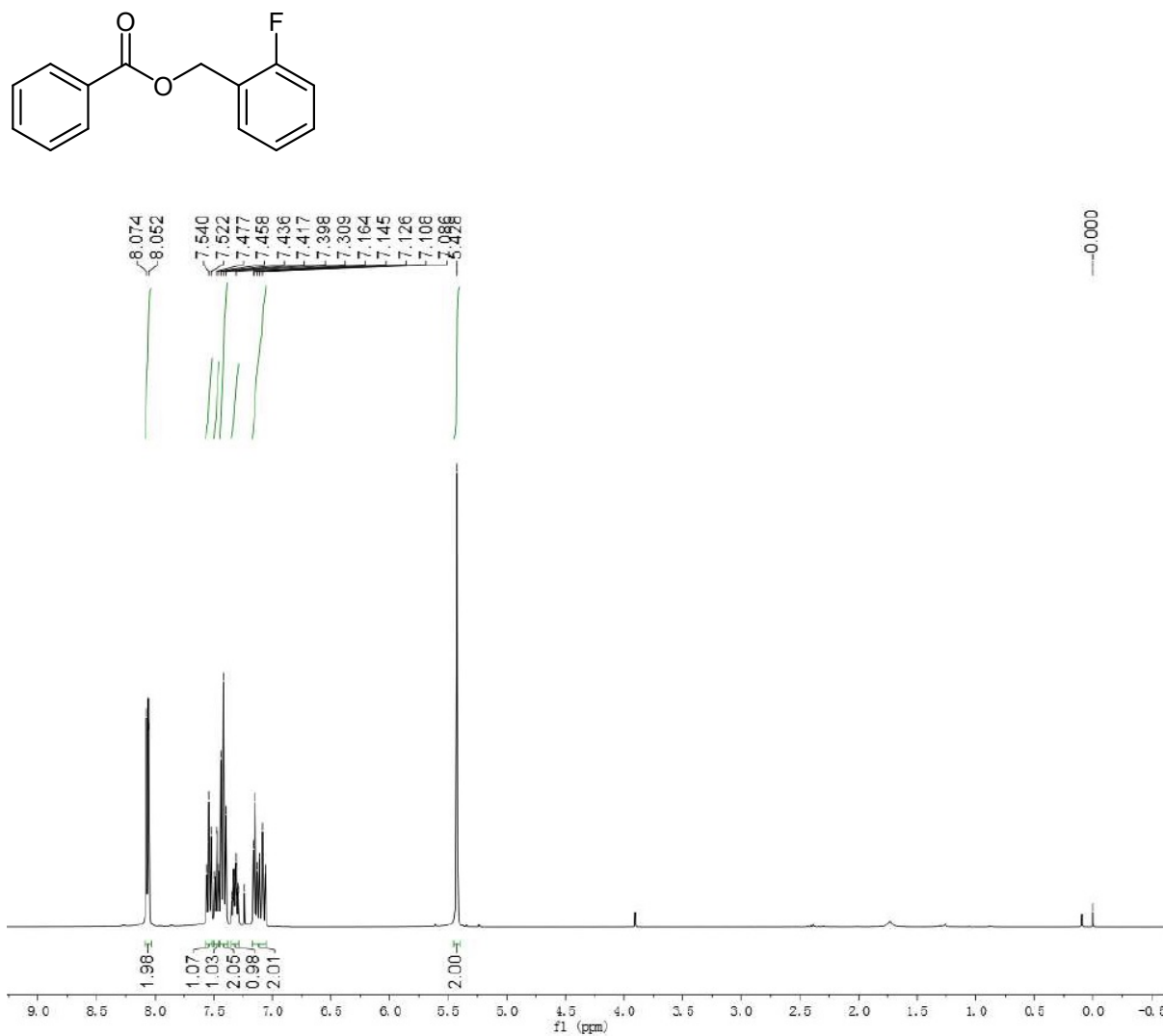
**Fig. S5.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of benzyl benzoate

**Benzyl benzoate (5a):**



**Fig. S6.**  $^{13}\text{C}$ -NMR spectra (100 MHz,  $\text{CDCl}_3$ ) of benzyl benzoate

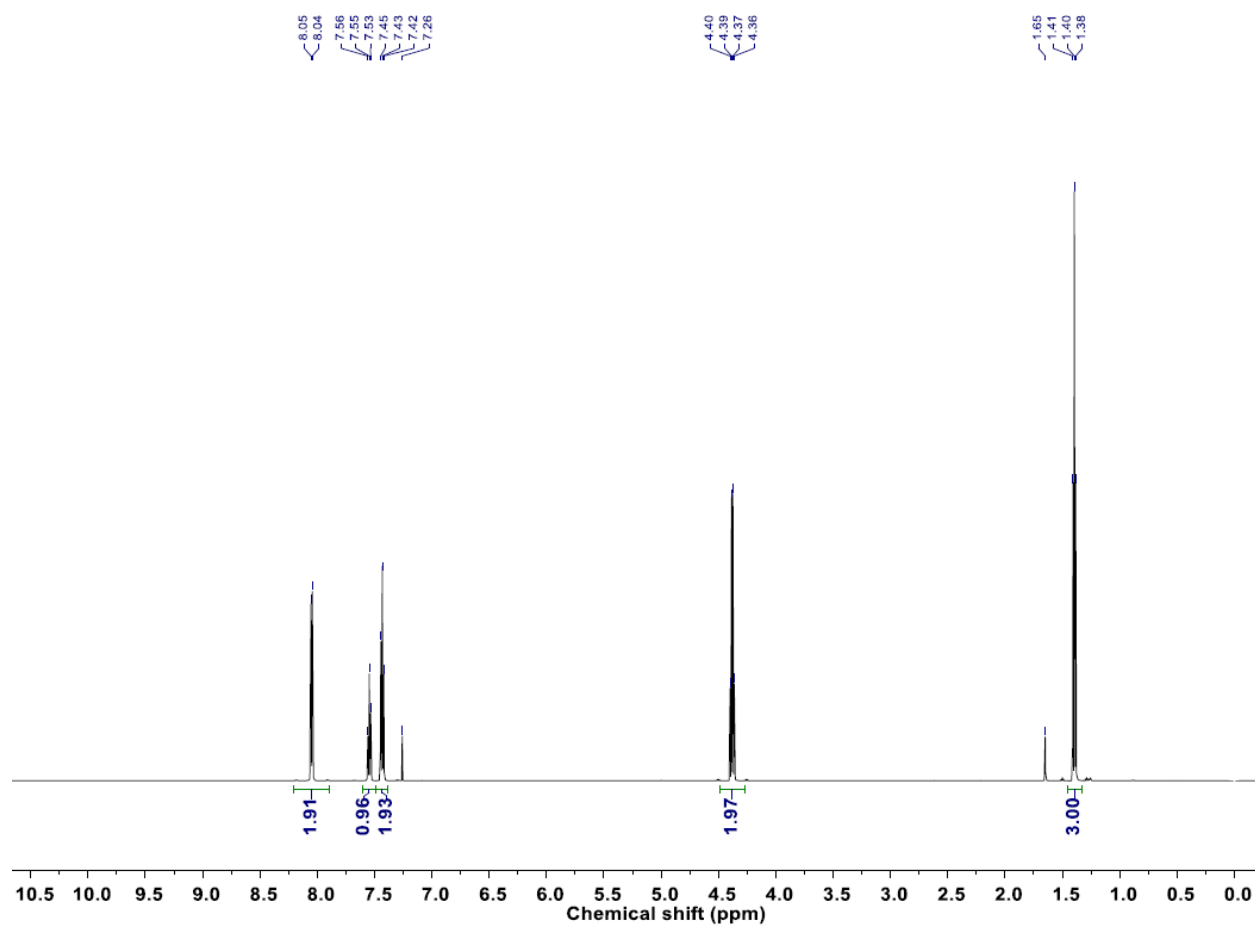
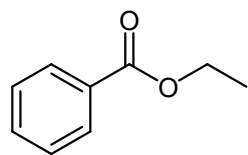
**2-Fluorobenzyl benzoate (5d):**



**Fig. S7.** <sup>1</sup>H-NMR spectra of (400 MHz, CDCl<sub>3</sub>) 2-Fluorobenzyl benzoate

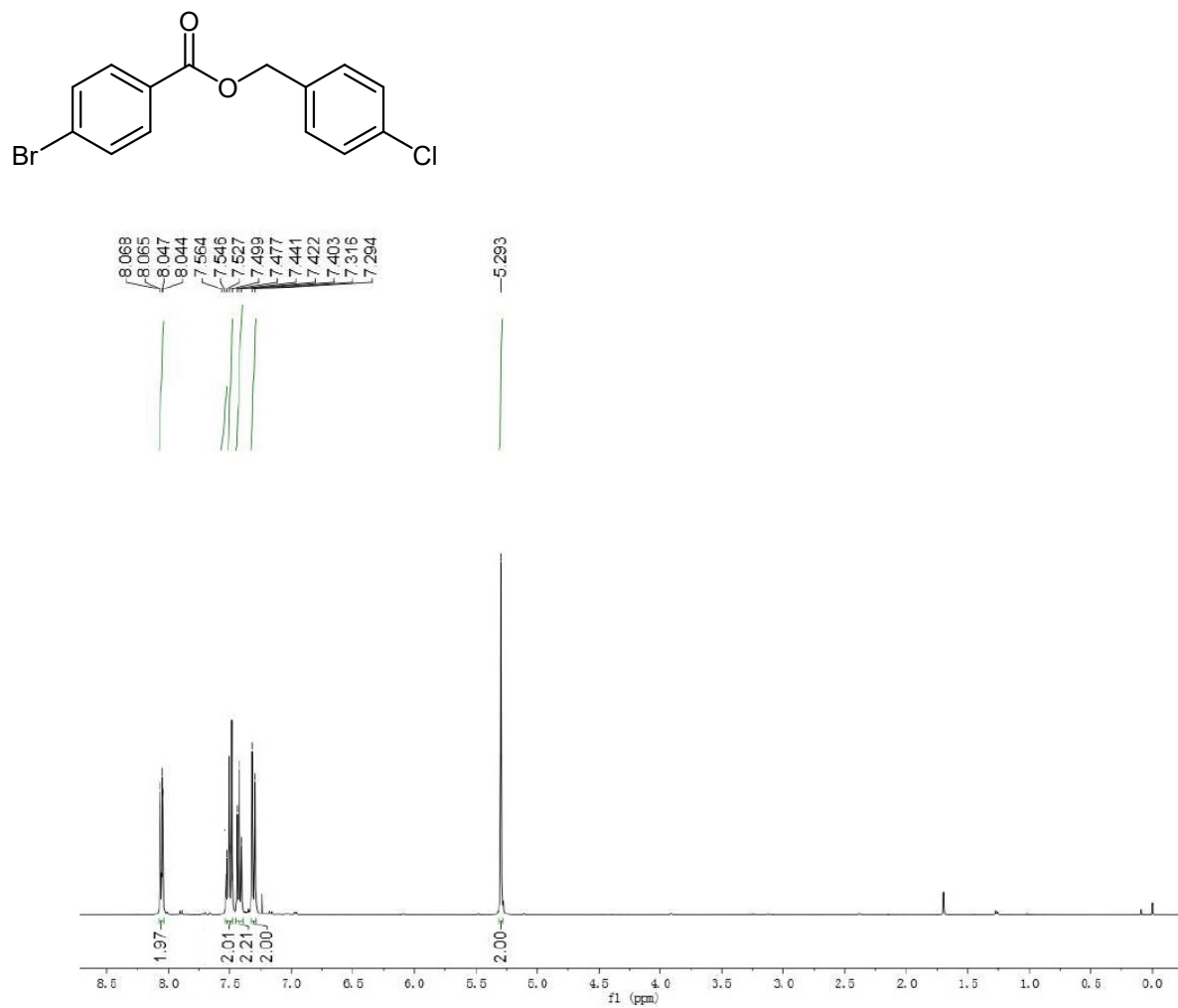


**Ethyl benzoate (5f):**



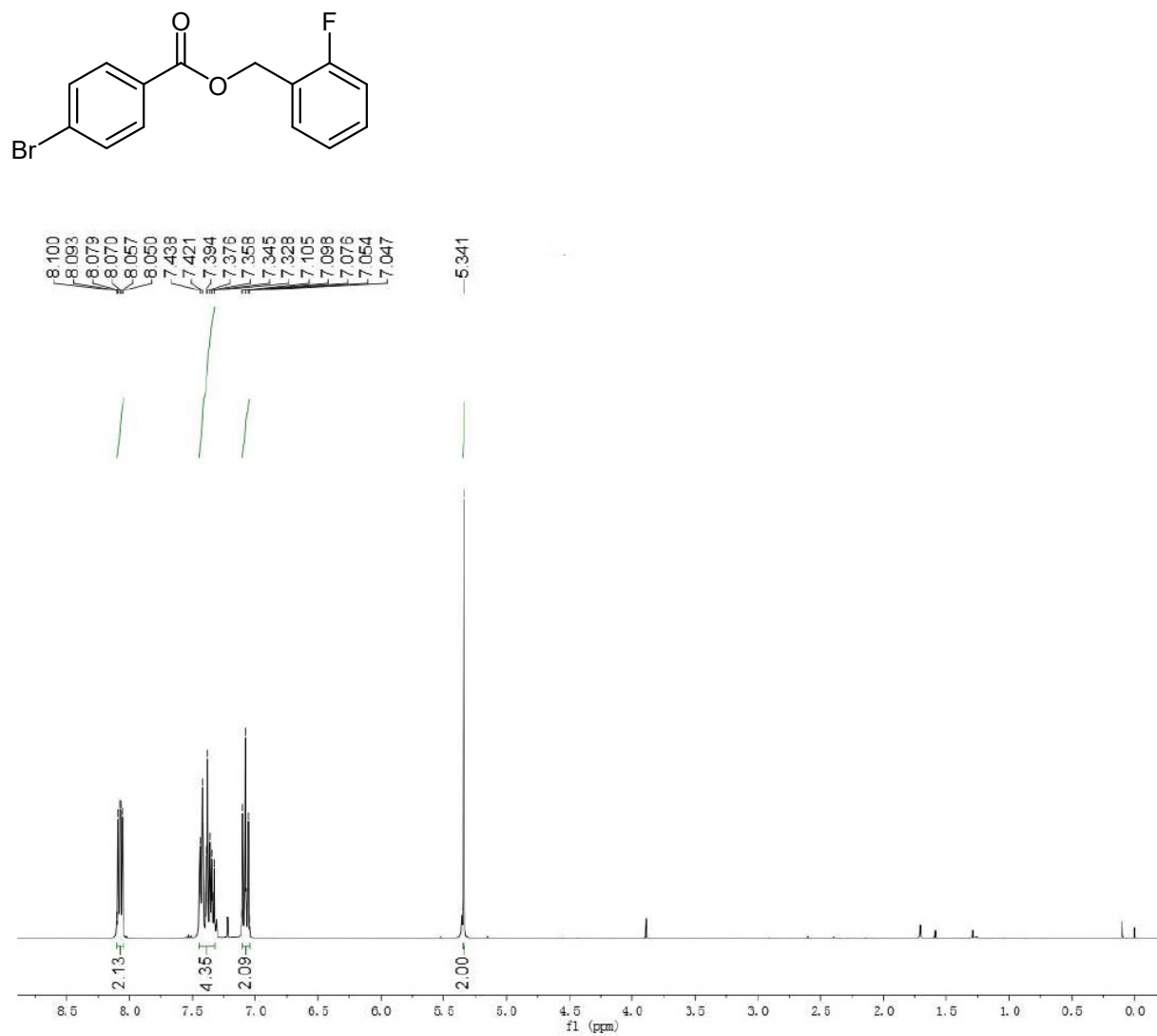
**Fig. S8.** <sup>1</sup>H-NMR spectra (500 MHz, CDCl<sub>3</sub>) of Benzyl benzoate

**4-Chlorobenzyl 4-bromobenzoate (5i):**



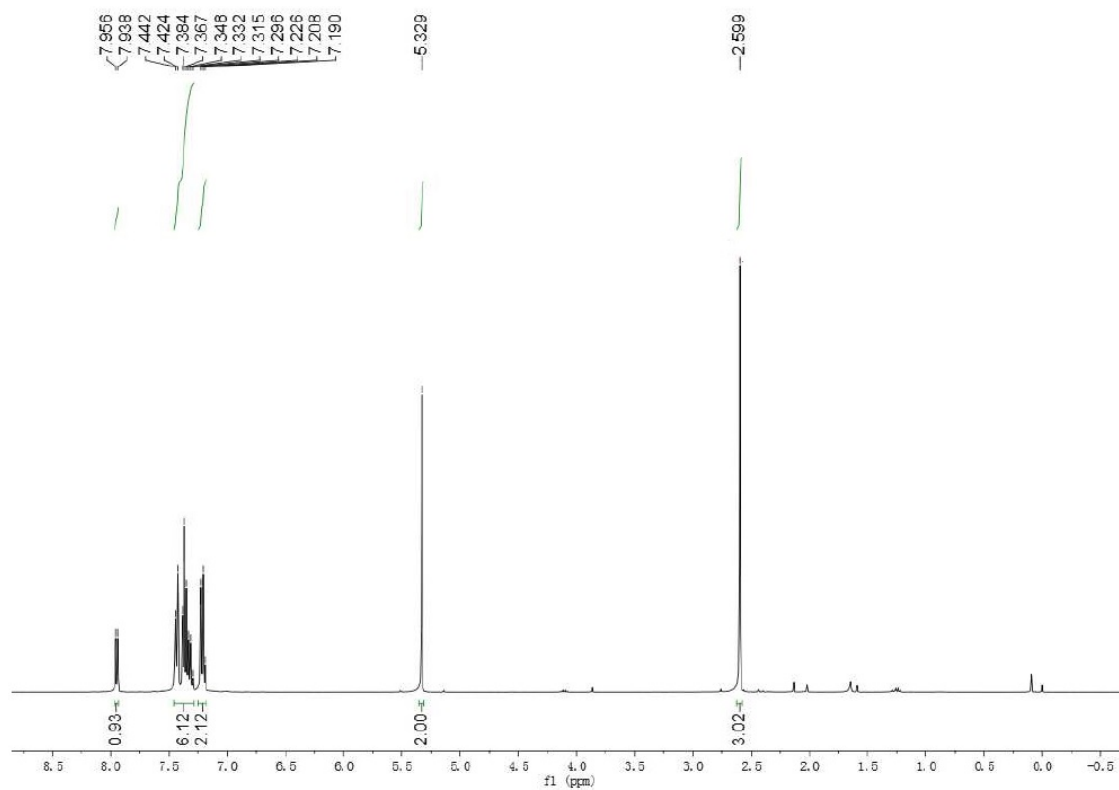
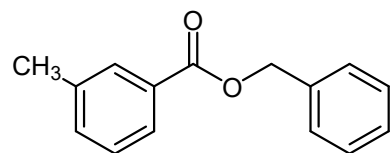
**Fig. S9.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of 4-Chlorobenzyl 4-bromobenzoate

**2-Fluorobenzyl 4-bromobenzoate (5j):**



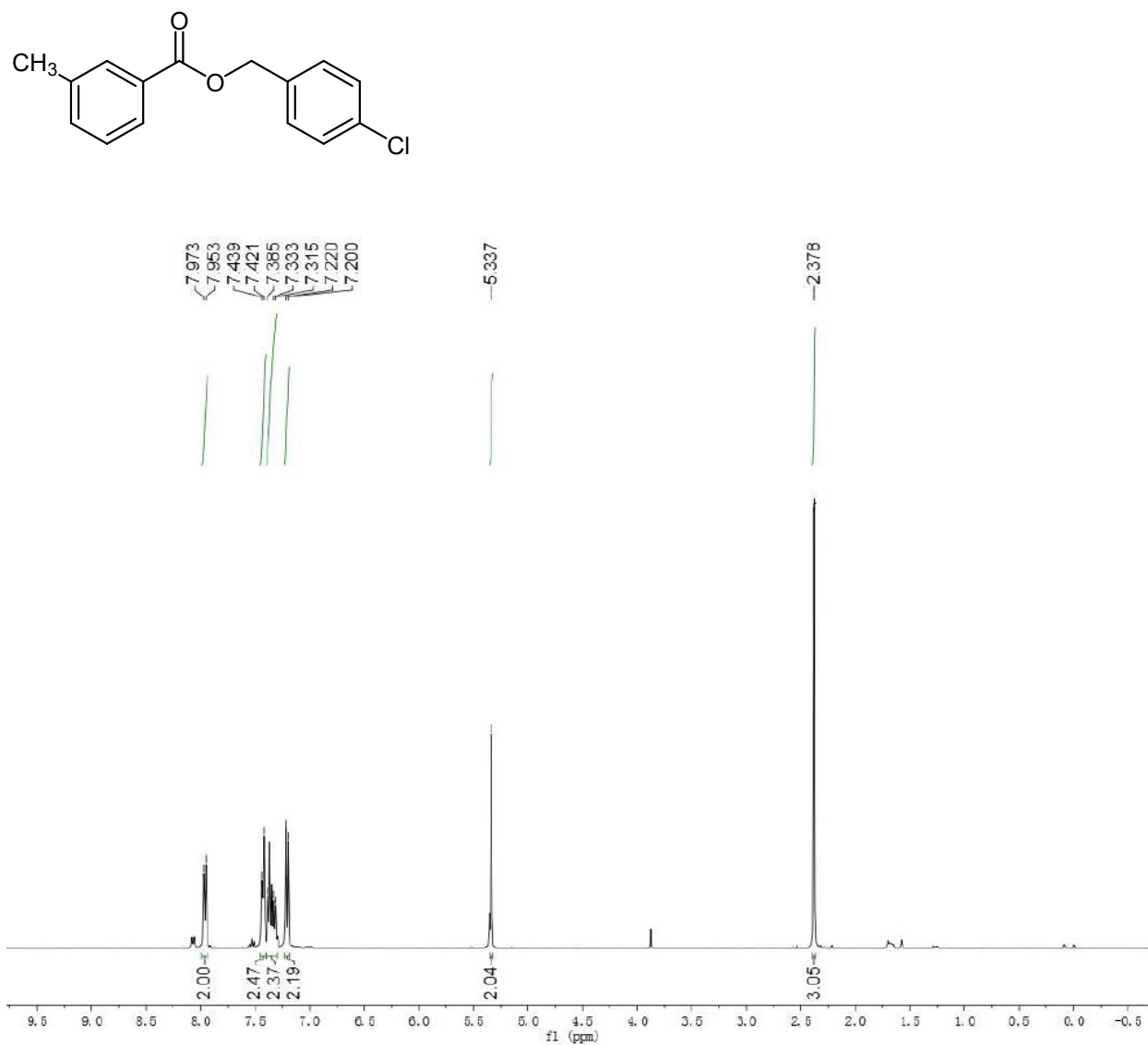
**Fig. S10.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of 2-Fluorobenzyl 4-bromobenzoate

**Benzyl 3-methylbenzoate (5k):**



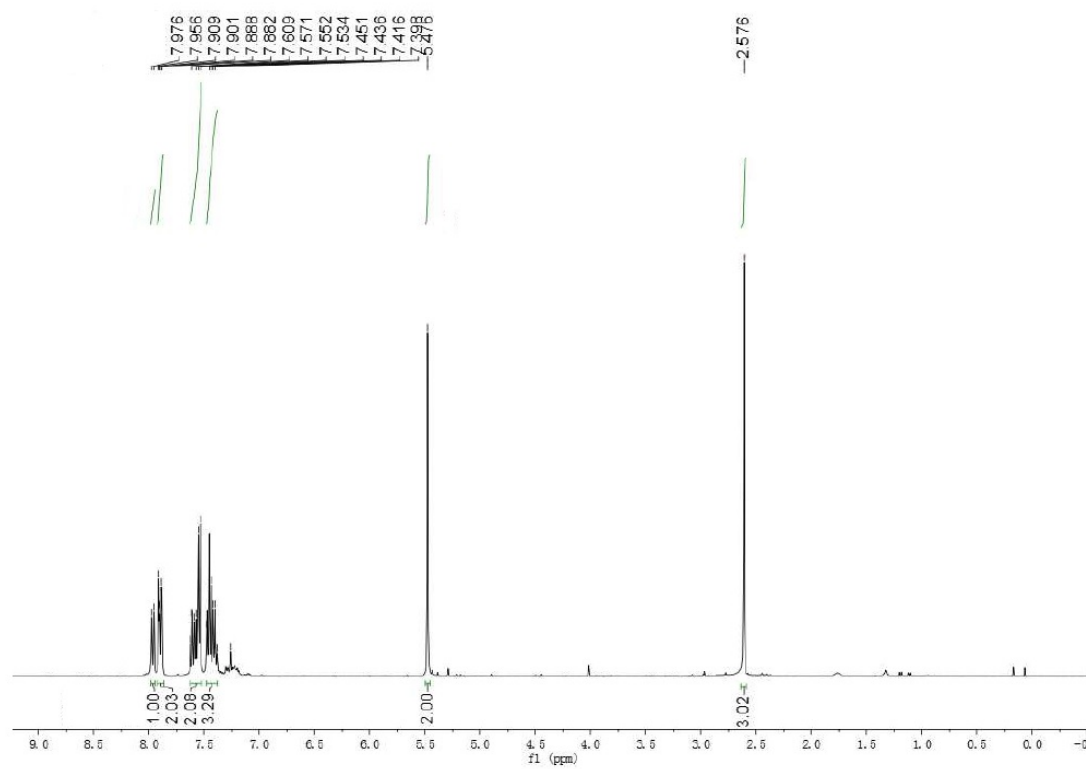
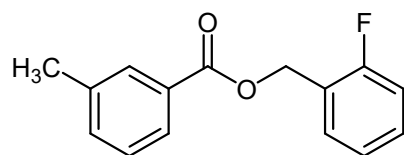
**Fig. S11.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of Benzyl 3-methylbenzoate

**4-Chlorobenzyl 3-methylbenzoate (5m):**



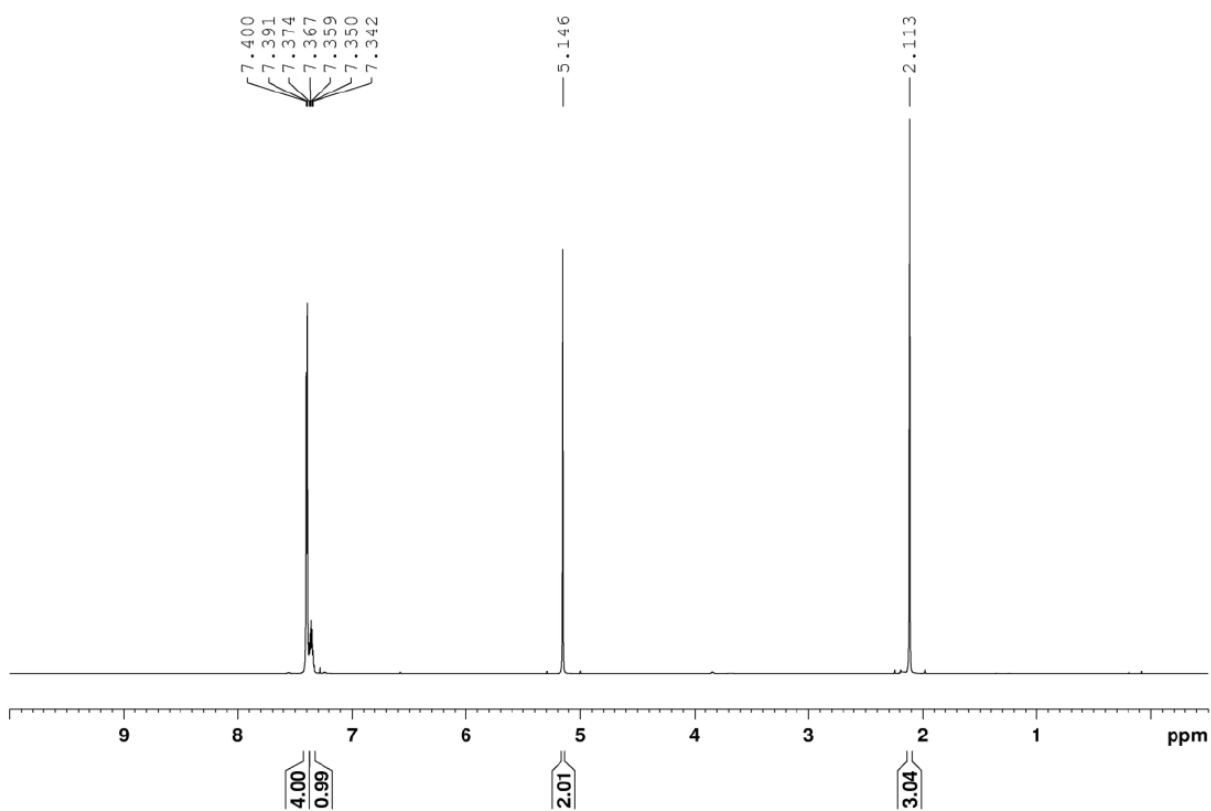
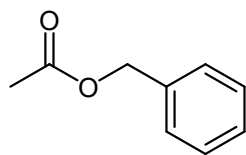
**Fig. S12.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of 4-Chlorobenzyl 3-methylbenzoate

**2-Fluorobenzyl 3-methylbenzoate (5n)**



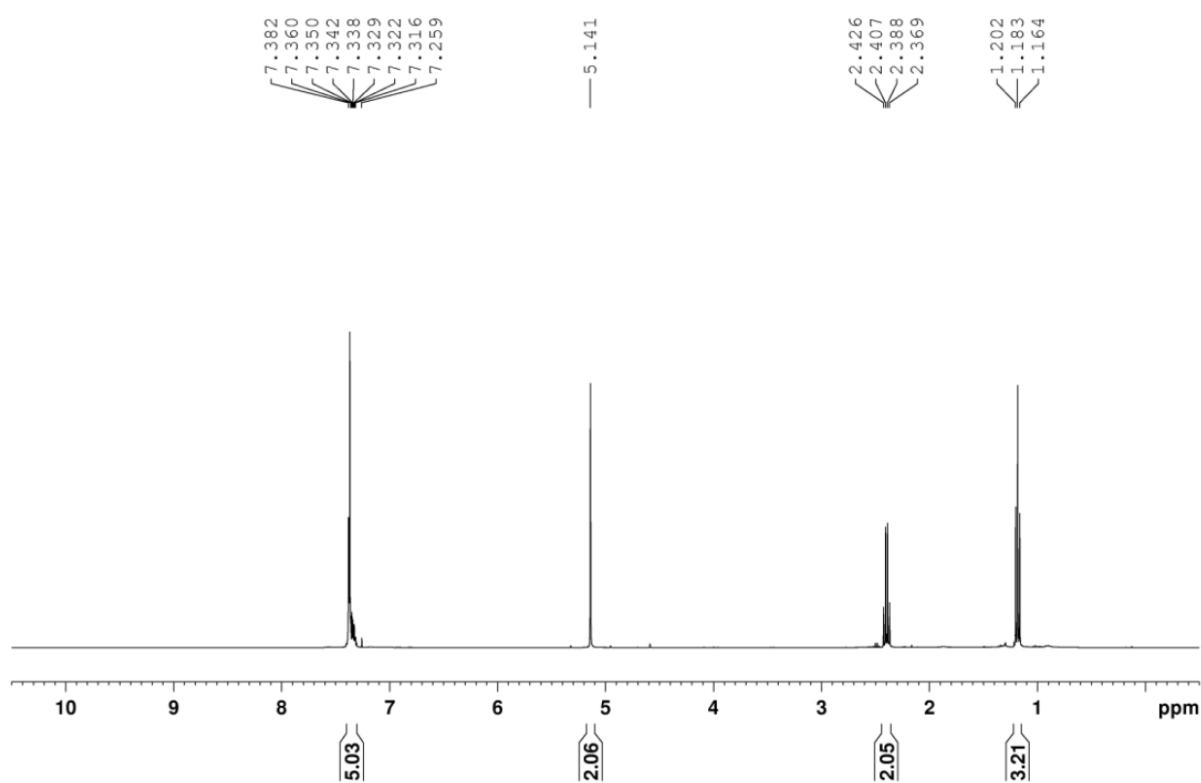
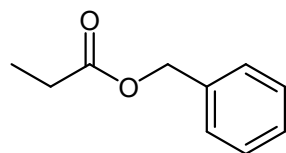
**Fig. S13.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of 2-Fluorobenzyl 3-methylbenzoate

**Benzyl acetate (5s)**



**Fig. S14.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of benzyl acetate

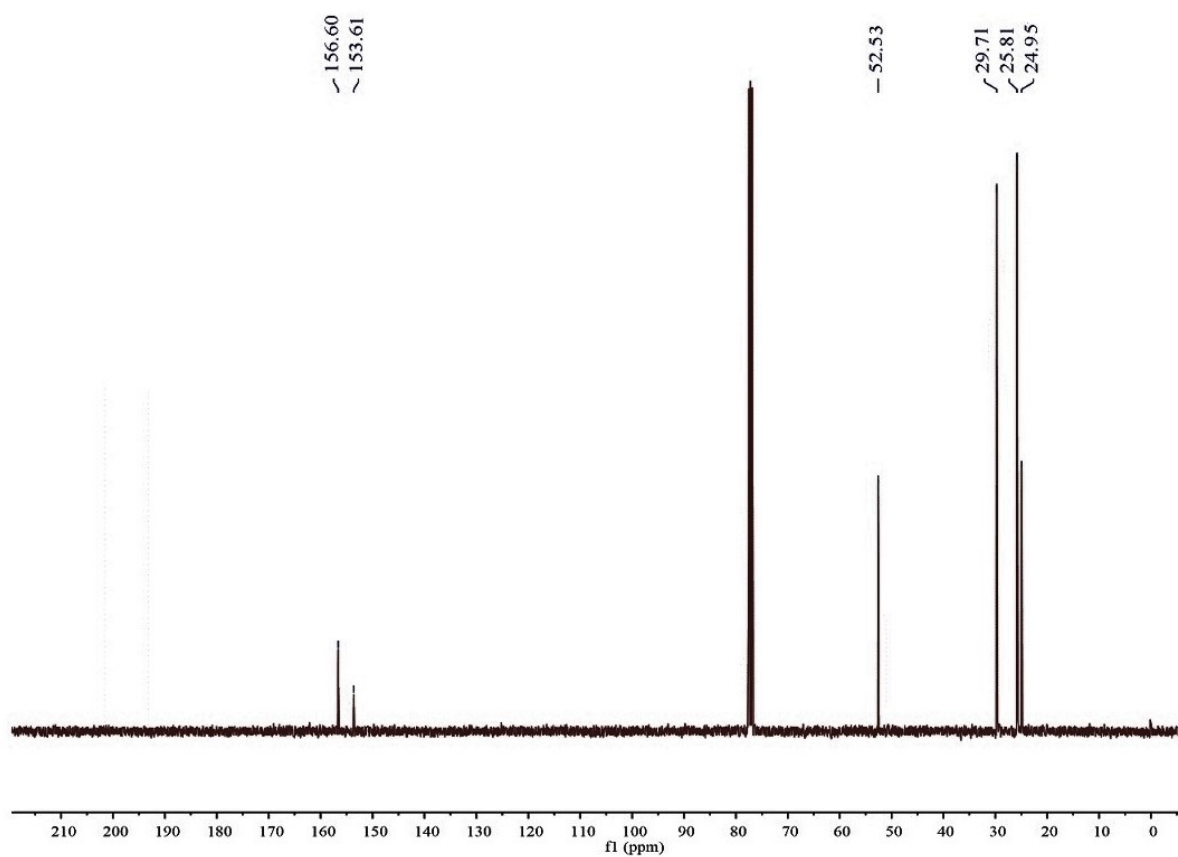
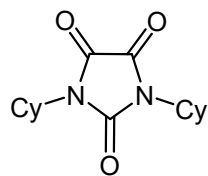
Benzyl propionate (5t)



**Fig. S15.** <sup>1</sup>H-NMR spectra (400 MHz, CDCl<sub>3</sub>) of benzyl propionate



1,3-Dicyclohexylimidazolidine-2,4,5-trione (DCIT) :



**Fig. S16.**  $^1\text{H}$ -NMR spectra (400 MHz,  $\text{CDCl}_3$ ) of DCIT 7

1,3-Dicyclohexylimidazolidine-2,4,5-trione (DCIT):

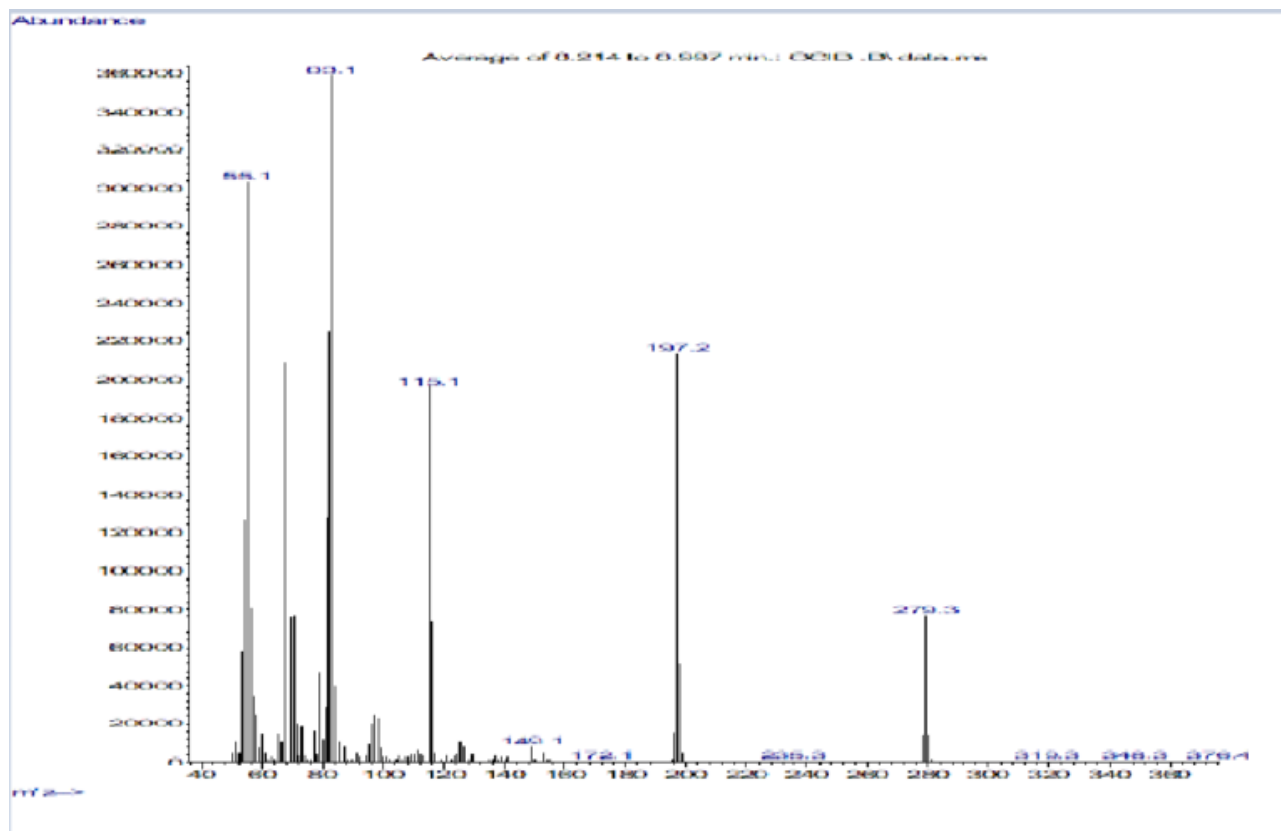
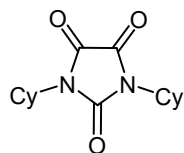


Fig. S17. Mass spectra of DCIT 7