Supporting Information

for

High-speed C–H chlorination of ethylene carbonate using a new photoflow setup

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GC analysis and NMR spectra of the crude reaction mixture for the chlorination of compound 1
Table of contents

General information ........................................................................................................... S2
Reference ............................................................................................................................. S2
GC Chart ............................................................................................................................. S2
Copies of NMR spectra ...................................................................................................... S3
**General information**

GC analysis was performed on a Shimadzu GC-2014 instrument equipped with an FID detector using a J&W Scientific (Hongkong, China) DB-1 column under the following conditions: initial oven temperature was held at 40 °C for 5 min, the first ramp was 5 °C/min to 250 °C, which was held for 10 min. Yields were determined by using the percentage peak area method with compensation for the relative sensitivities of each component. \(^1\)H NMR spectra were recorded with a JEOL JMN-ECS400 (400 MHz) and referenced to the solvent peak at 7.26 ppm. \(^13\)C NMR spectra were recorded with a JEOL JMN-ECS400 (100 MHz) and referenced to the solvent peak at 77.0 ppm. Product 2 is a known compound [1] and the dichlorinated product 2' is commercially available from Sigma–Aldrich Co. Inc. These compounds were identified by \(^1\)H NMR and \(^13\)C NMR analysis and comparison with the reported data.

**Reference**


![Figure S1: GC analysis data of the crude product mixture from the C–H chlorination reaction of ethylene carbonate (1).](image)
**Figure S2:** $^1$H NMR spectrum of the crude reaction mixture from the C–H chlorination of ethylene carbonate (1) [1].

**Figure S3:** $^{13}$C NMR spectrum of the crude reaction mixture from the C–H chlorination of ethylene carbonate (1) [1].