Electronic Supplementary Material (ESI) for Green Chemistry.

Supplementary information

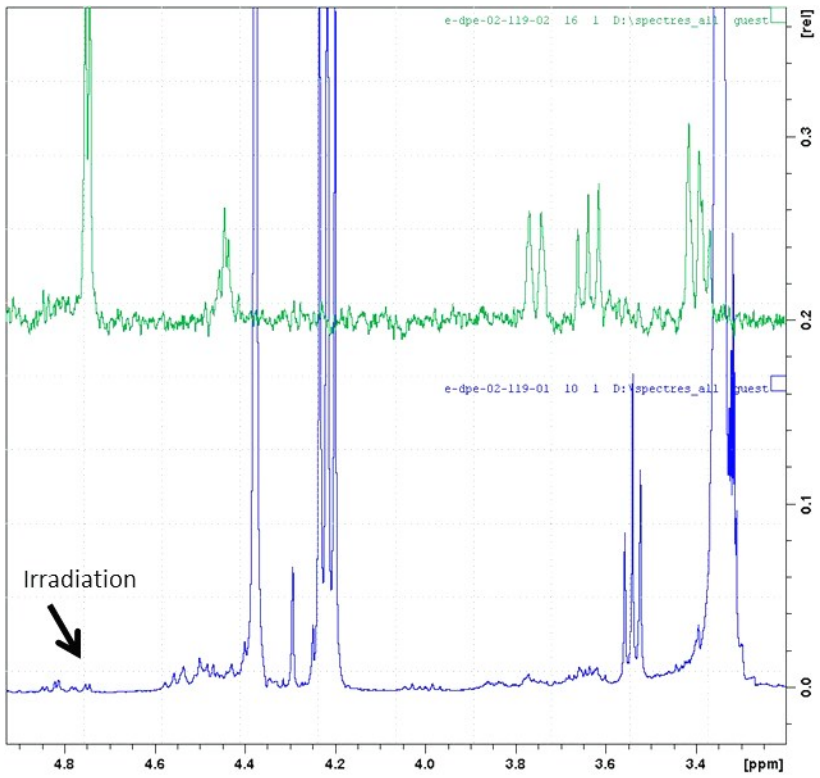

Fig.1 1D TOCSY spectrum of the reaction mixture obtained after mixing equimolar amount of *O*-tetradecyl glucoside 3 (0.5 equiv.) and myristic alcohol **2** (0.5 equiv.); in blue, ^{1}H NMR spectrum of the crude reaction mixture; in red, 1D TOCSY sub-spectrum after selective irradiation of the signal at 4.74 ppm with a mixing time of 200 ms (black arrow).

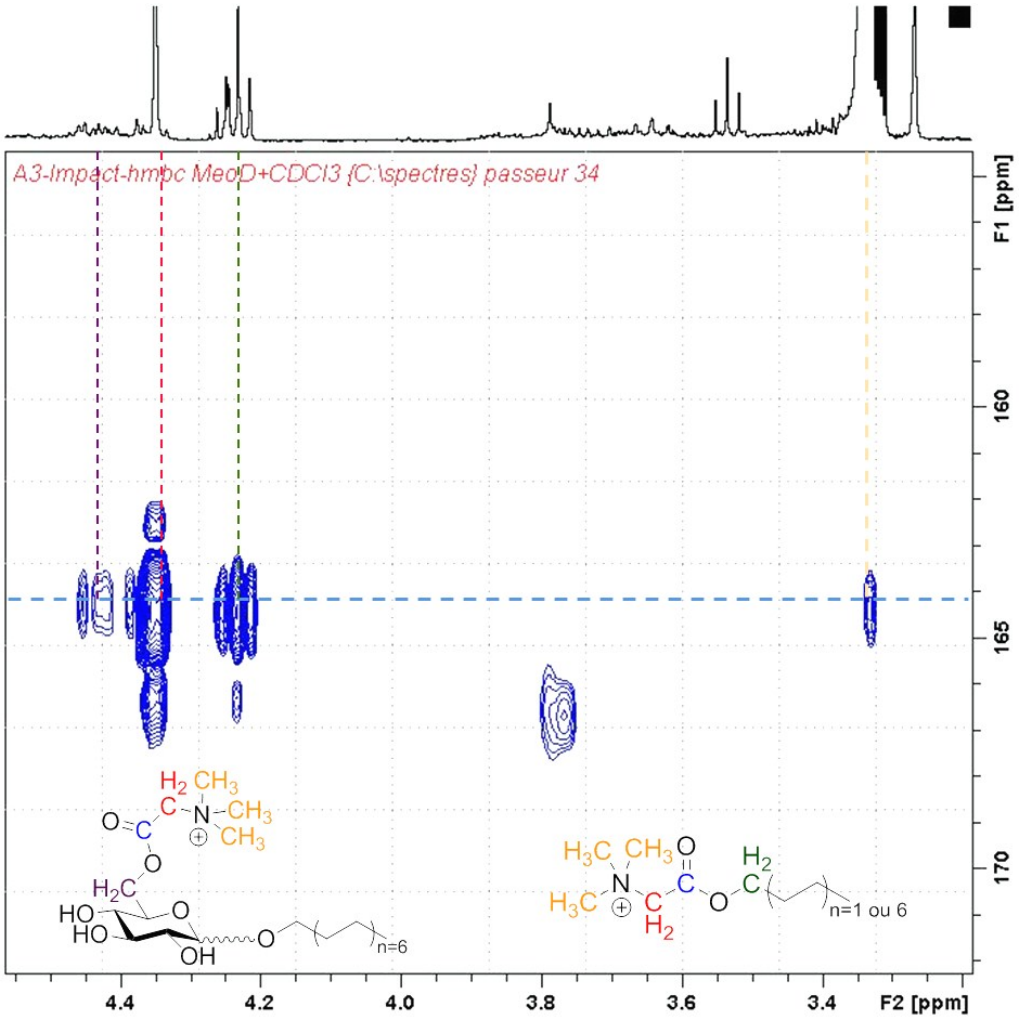

Fig.2 2D HMBC Spectrum of the reaction mixture obtained after mixing equimolar amount of *O*-tetradecyl glucoside 3 (0.5 equiv.) and myristic alcohol **2** (0.5 equiv.); This spectrum shows the coupling between the GB carbonyl function and the trimethylammonium group as well as the methylene groups of the various cationic species. The delay for evolution of long range coupling is set to 65 ms.

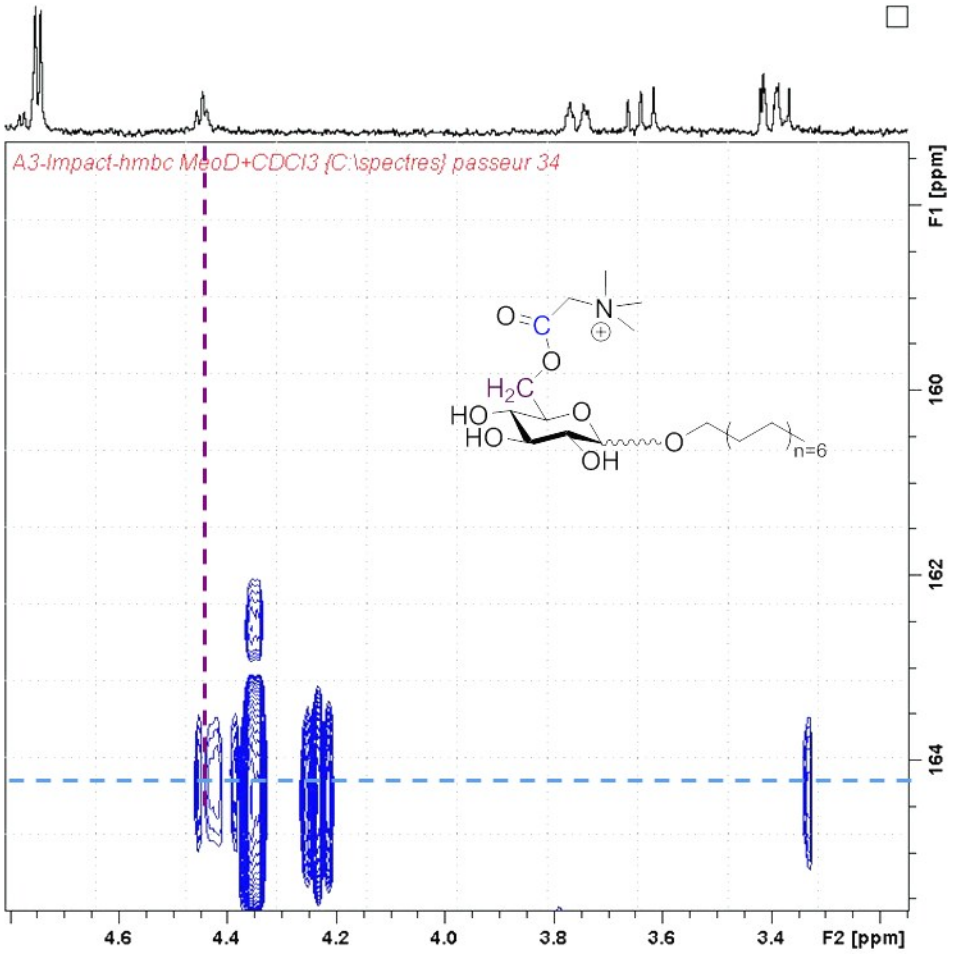

Fig.3 Projection of the 1D TOCSY sub-spectrum on HMBC spectrum proving that the chemical linkage between GB and glucoside **3** operated at the position 6 of the carbohydrate residue. The delay for evolution of long range coupling is set to 65 ms.

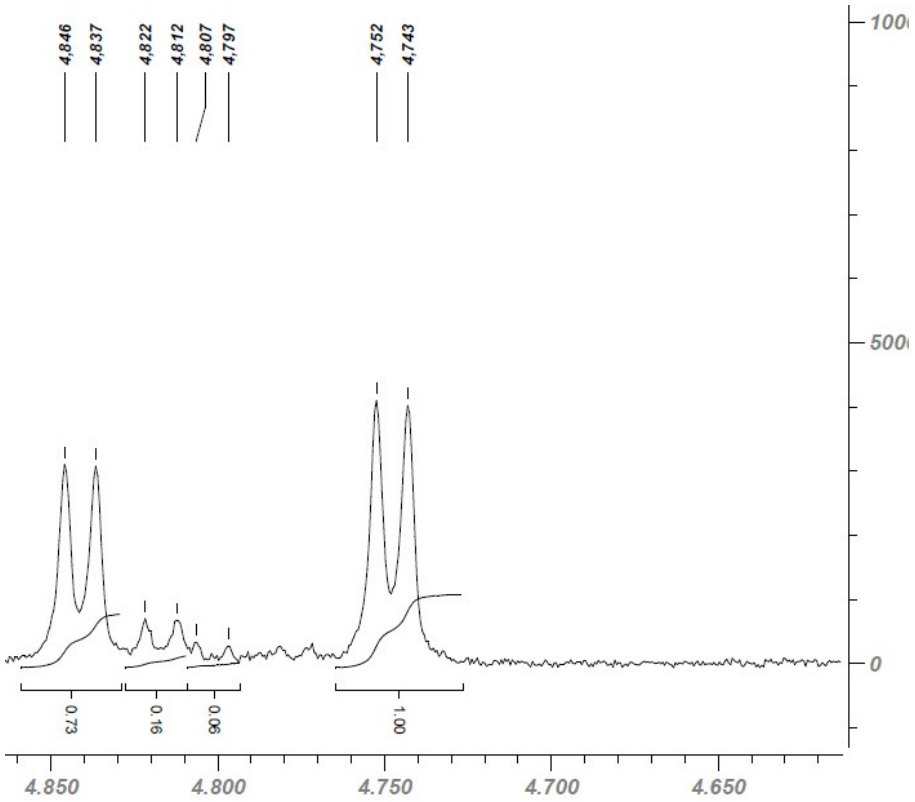

Fig.4 ^{1}H NMR signals observed around the signal of the α-anomeric proton of glucoside **3** after purification by silica gel chromatography. Only cationized versions of glucoside **3** were present in the sample isolated after purification.

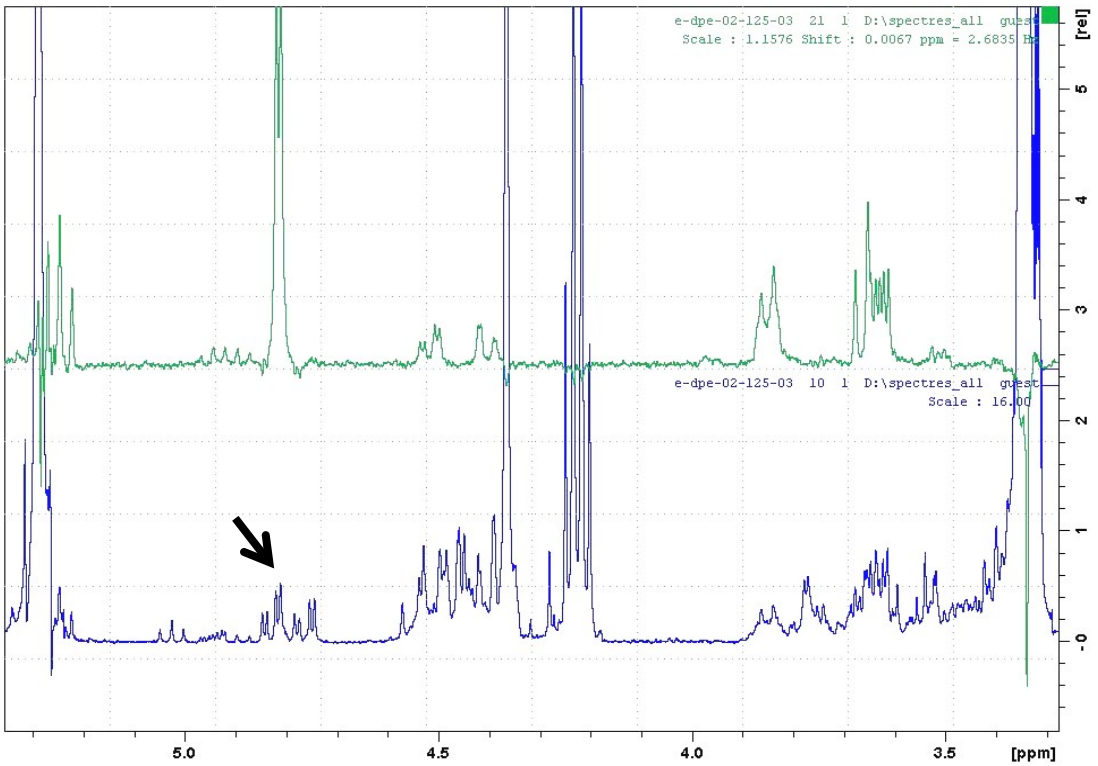

Fig.5 1D TOCSY spectrum of the reaction mixture obtained after mixing equimolar amount of *O*-tetradecyl glucoside **3** (0.5 equiv.) and myristic alcohol **2** (0.5 equiv.) and using an excess of GB butyl ester **1** (3 equiv.); in blue, ^{1}H NMR spectrum of the crude reaction mixture; in red, 1D TOCSY sub-spectrum after selective irradiation of the signal at 4.81 ppm with a mixing time of 200 ms (black arrow).

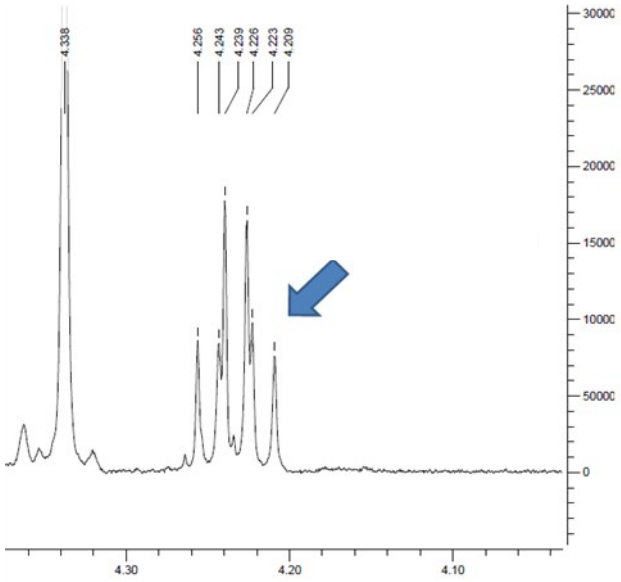

Fig.6 ^{1}H NMR signals (blue arrow) of the β-anomeric protons of glucoside **3** and methylene groups of the butyl and myristic chains directly linked to glycine betaine.

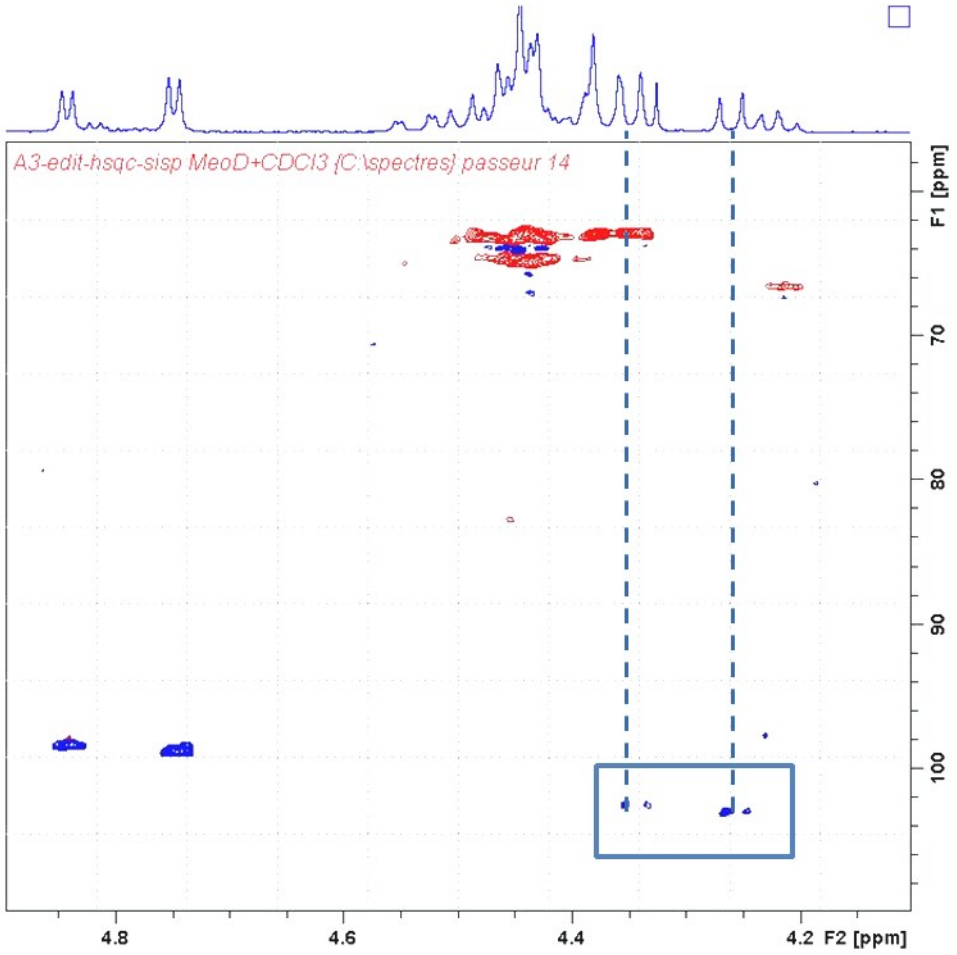

Fig.7 signals corresponding to the anomeric protons of cationized β-D-glucosides observed by 2D-HSQC experiment.