

Electronic supplementary information (ESI)

Anionic polycondensation and equilibrium driven monomer formation of cyclic aliphatic carbonates

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This ESI contains 9 figures in 10 pages.

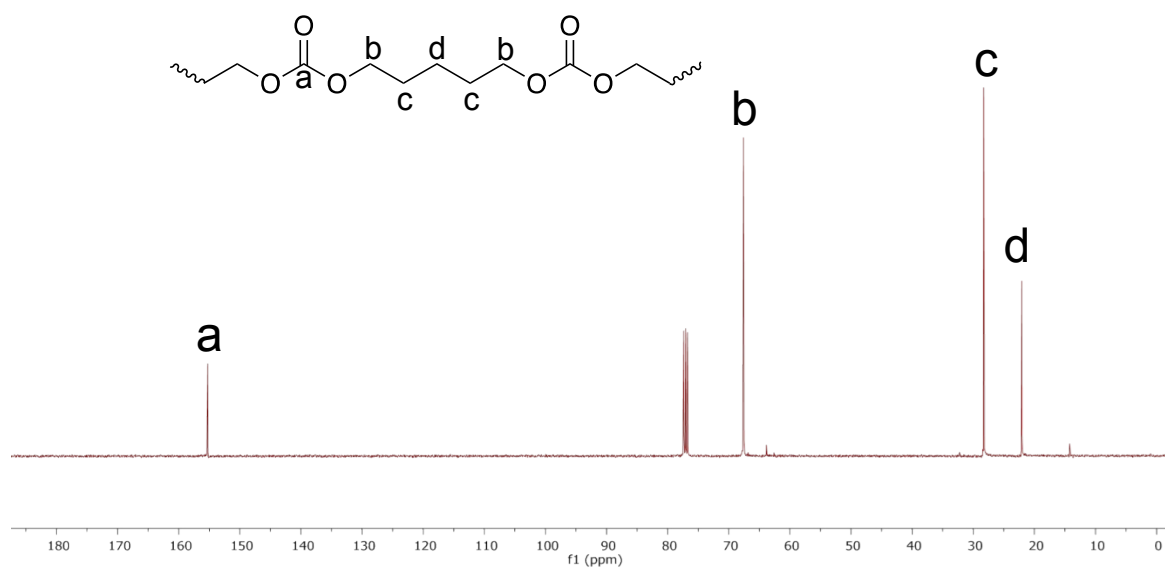


Figure S1 ^{13}C -NMR of the condensation product between 1,5-pentandiol and diethyl carbonate. The peak at 155.2 ppm represents the carbonate moiety in the condensation product.

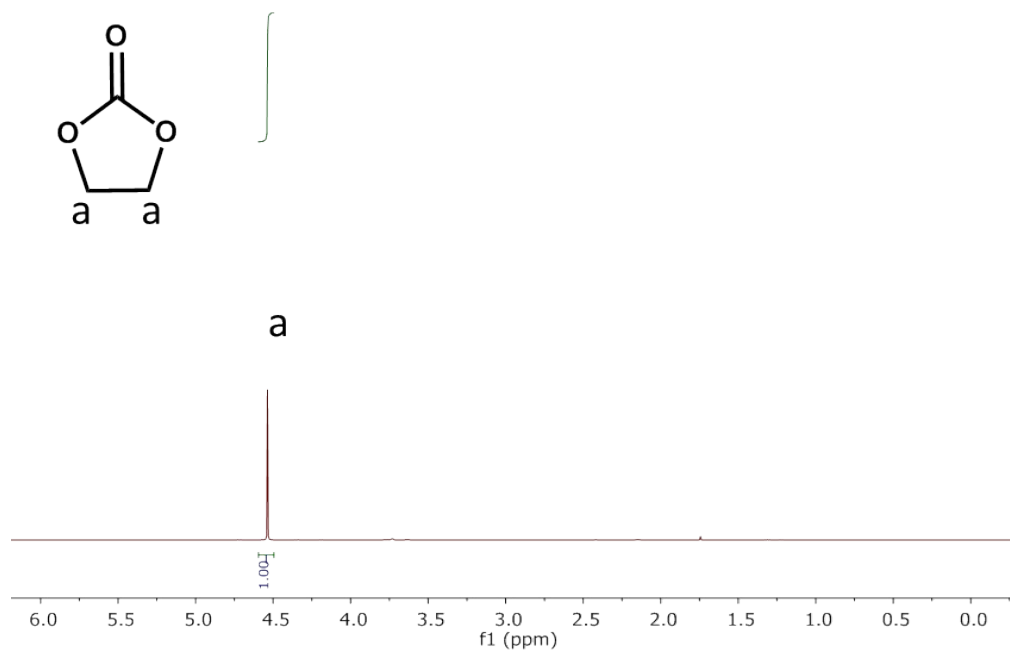


Figure S2 ¹H-NMR of 1,3-dioxolan-2-one. (5CC-1B)¹

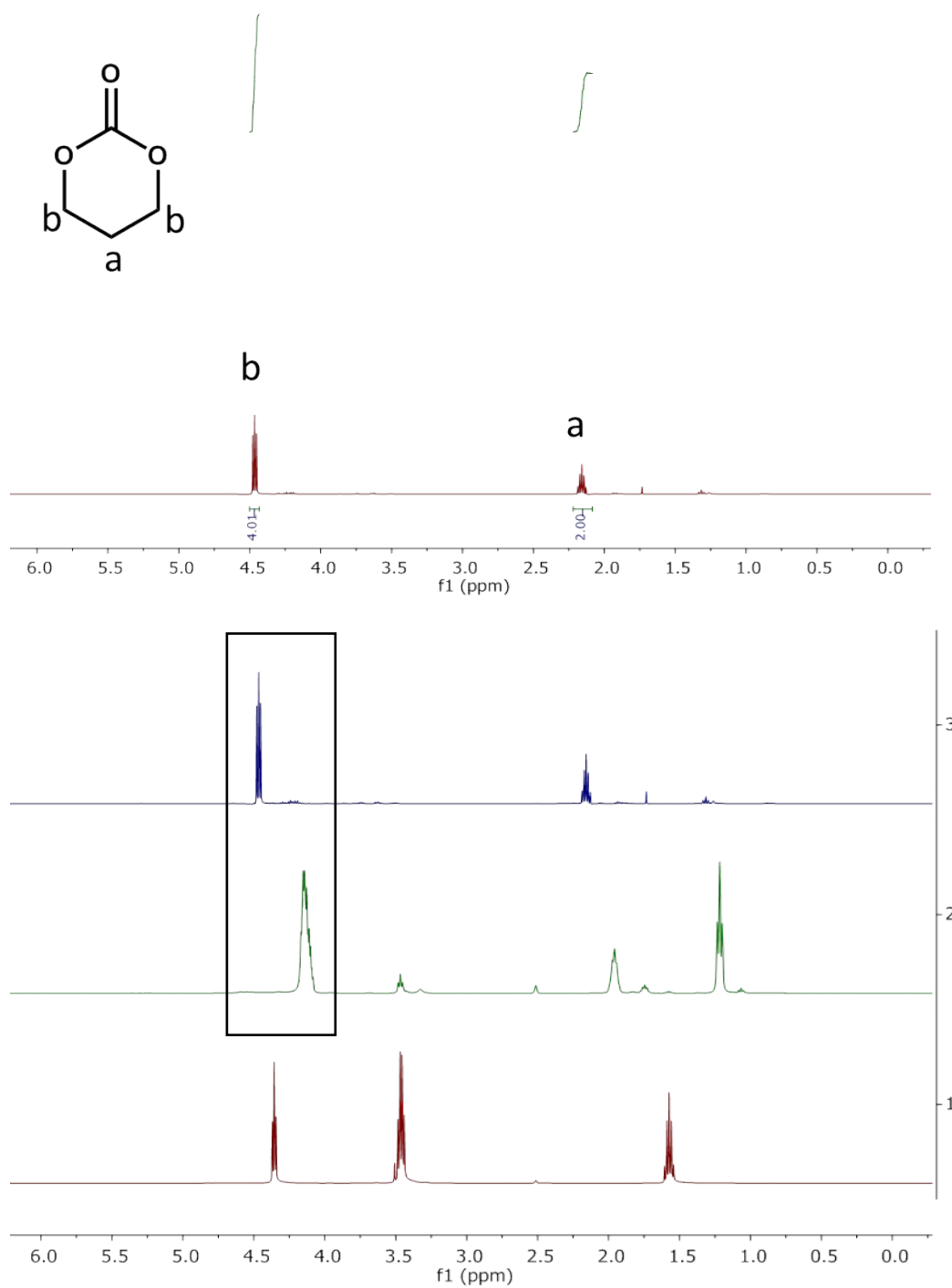


Figure S3 Upper, ¹H-NMR of 1,3-dioxan-2-one (6CC-1B).² Lower, ¹H-NMR compilation of 1) 1,3-propanediol, 2) oligomers prior to cRCD and 3) 1,3-dioxan-2-one.

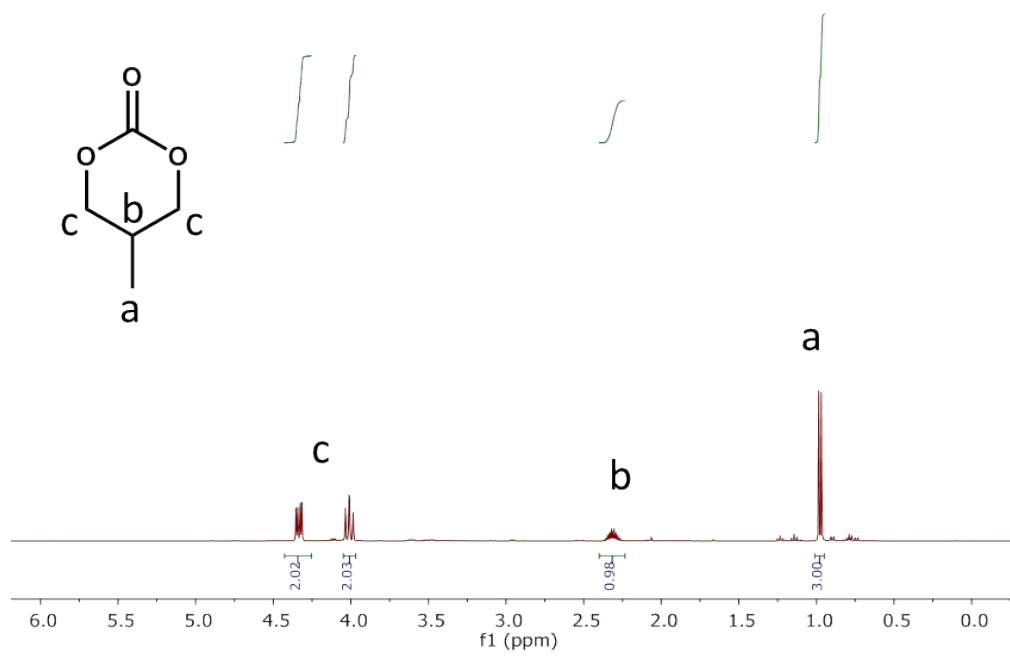


Figure S4 ¹H-NMR of 5-methyl-1,3-dioxan-2-one (6CC-2B).³

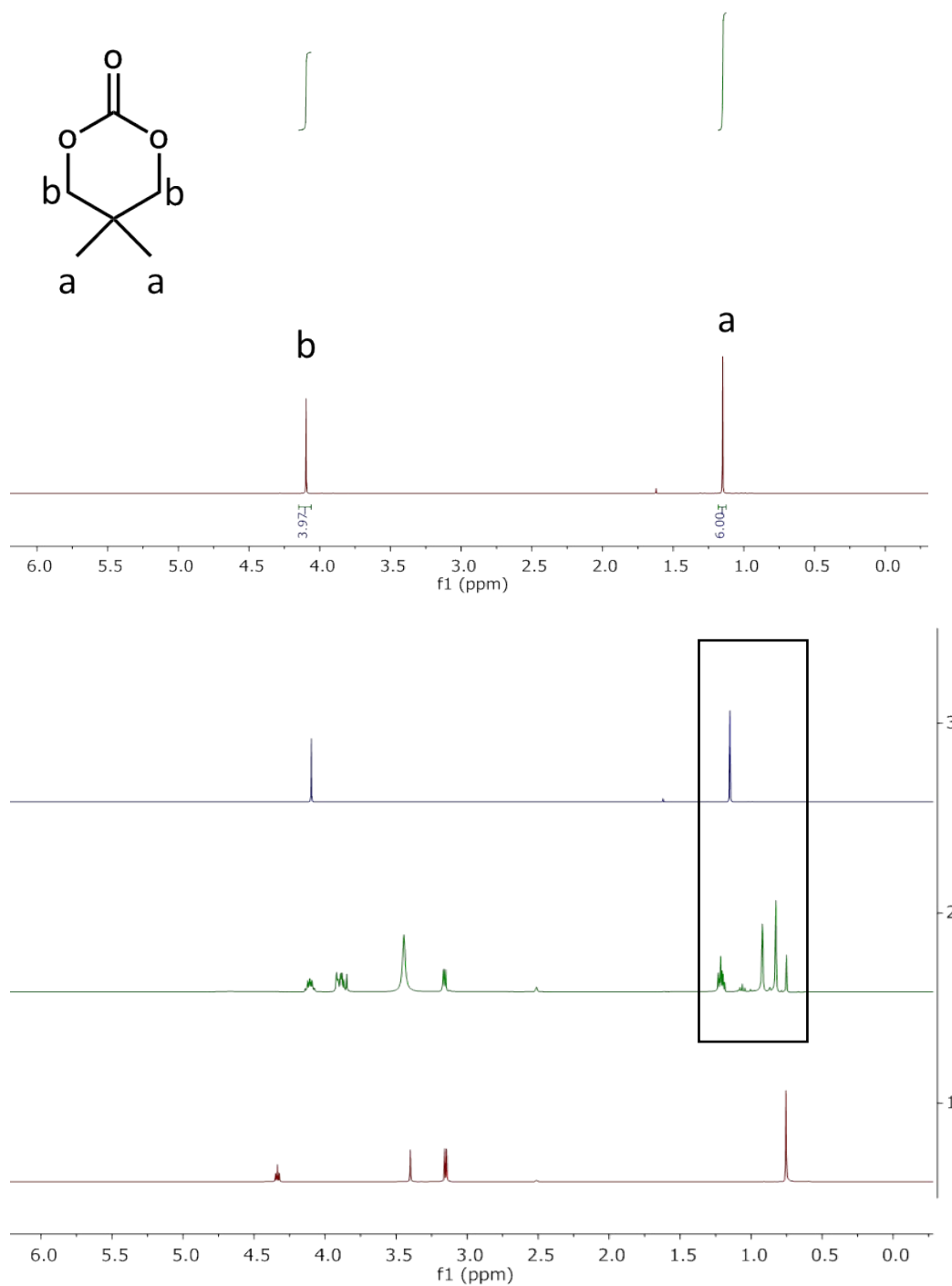


Figure S5 ¹H-NMR of 5,5-dimethyl-1,3-dioxan-2-one (6CC-3B).² Lower, ¹H-NMR compilation of 1) 2,2-dimethyl-1,3-propanediol, 2) oligomers prior to cRCD and 3) 5,5-dimethyl-1,3-dioxan-2-one.

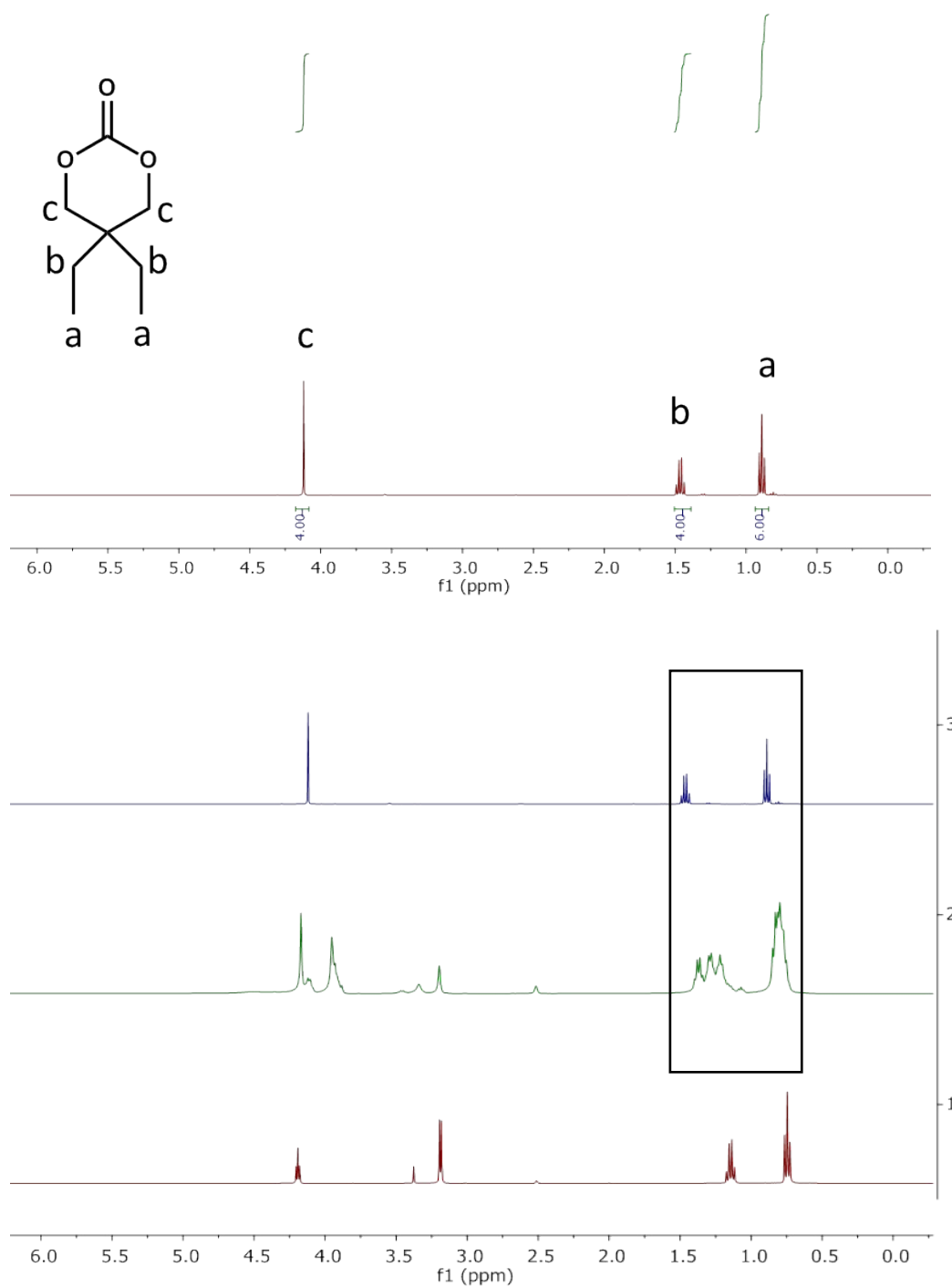


Figure S6 ¹H-NMR of 5,5-diethyl-1,3-dioxan-2-one (6CC-4B).⁴ Lower, ¹H-NMR compilation of 1) 2,2-diethyl-1,3-propanediol, 2) oligomers prior to cRCD and 3) 5,5-diethyl-1,3-dioxan-2-one.

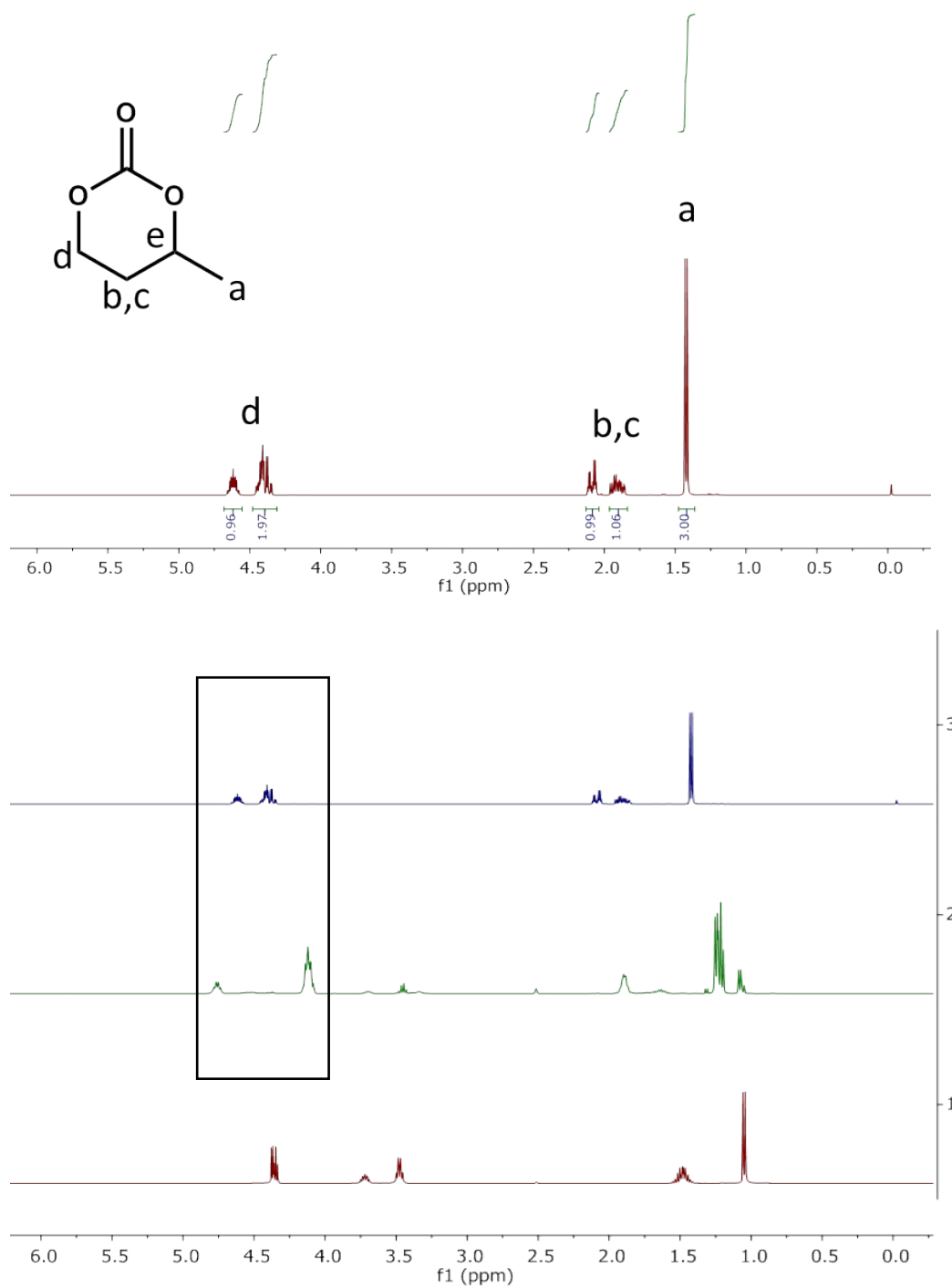


Figure S7 ¹H-NMR of 4-methyl-1,3-dioxan-2-one (6CC-5B).⁵ Lower, ¹H-NMR compilation of 1) (±)-1,3-butanediol, 2) oligomers prior to cRCD and 3) 4-methyl-1,3-dioxan-2-one.

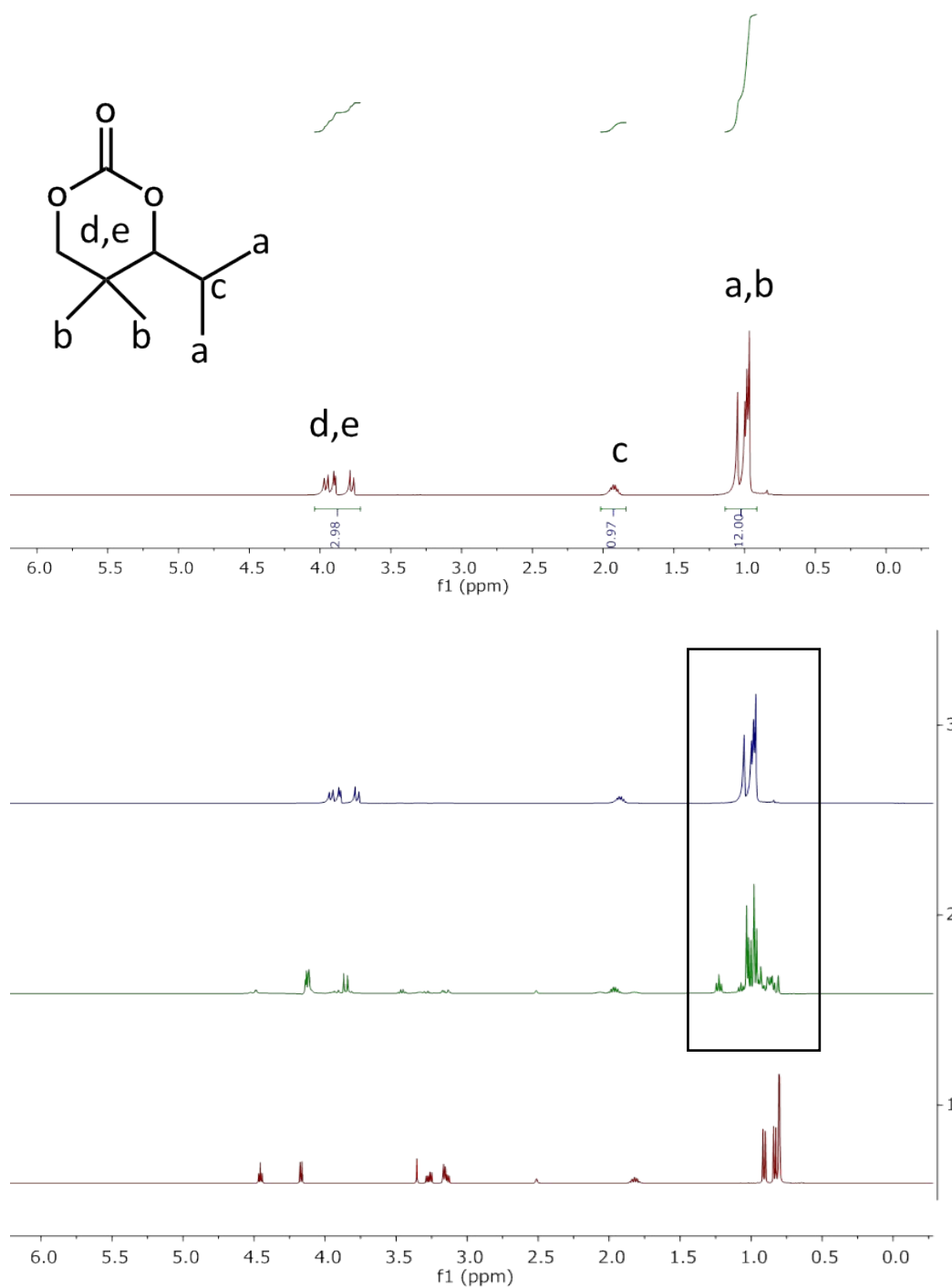


Figure S8 ¹H-NMR of 4-isopropyl-5,5-dimethyl-1,3-dioxan-2-one (6CC-7B).⁶ Lower, ¹H-NMR compilation of 1) 2,2,4-trimethyl-1,3-pentandiol, 2) oligomers prior to cRCD and 3) 4-isopropyl-5,5-dimethyl-1,3-dioxan-2-one.

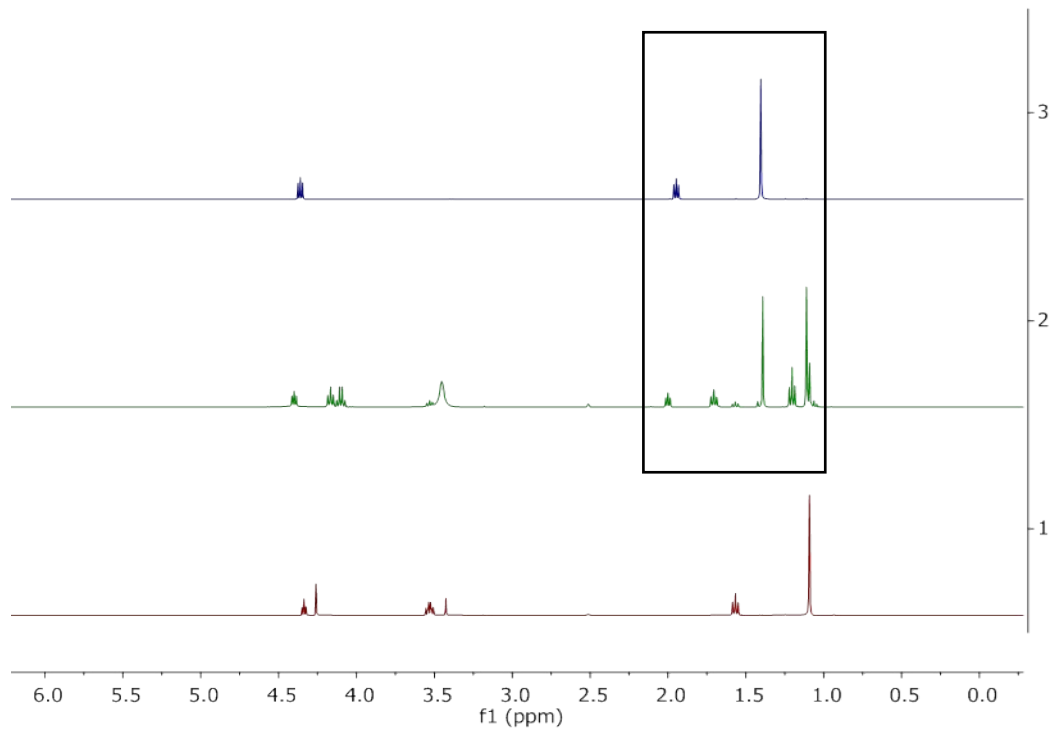
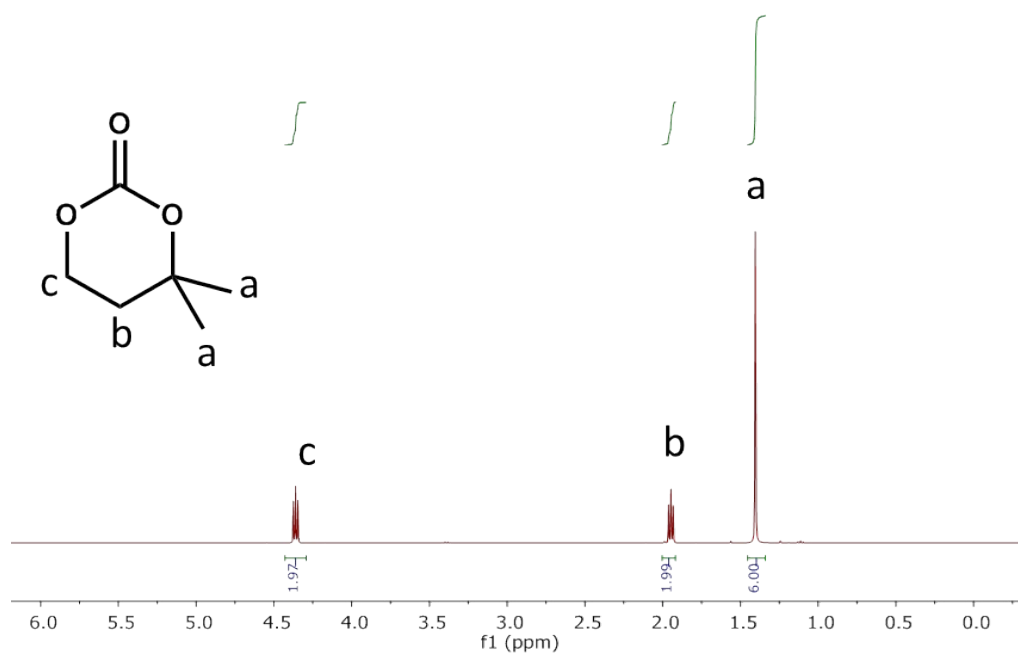


Figure S9 ¹H-NMR of 4,4-dimethyl-1,3-dioxan-2-one (6CC-6B).³ Lower, ¹H-NMR compilation of 1) 3-methyl-1,3-butanediol, 2) oligomers prior to cRCD and 3) 4,4-dimethyl-1,3-dioxan-2-one.

References

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