

Supporting Information for

[4+4]-Cycloaddition of Isoprene for the Production of High-Performance Bio-Based Jet Fuel

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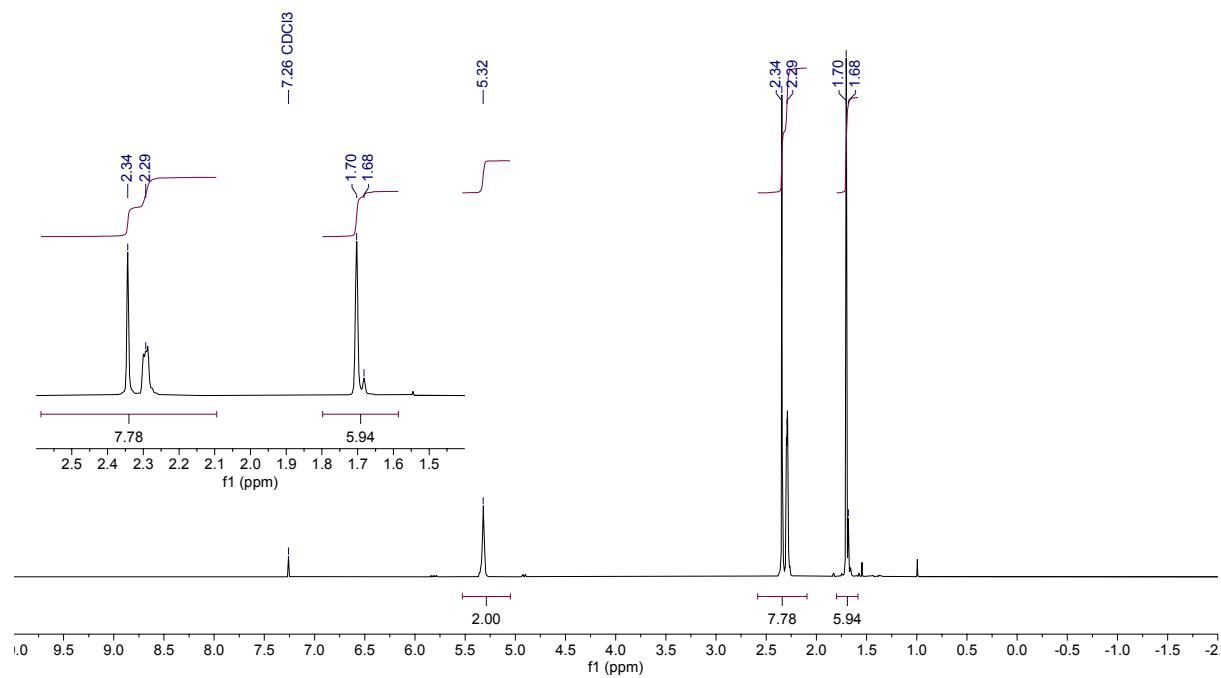


Figure S1. ^1H NMR (500 MHz, CDCl_3) spectrum of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a:2b**).

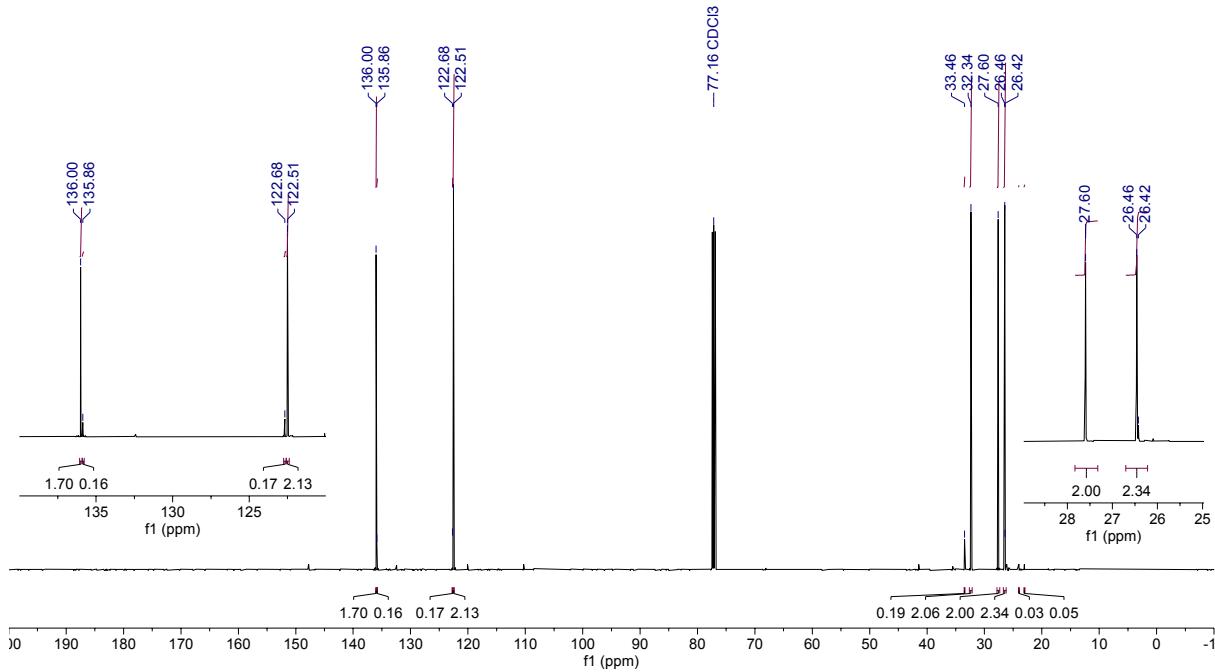


Figure S2. $\text{q}^{13}\text{C}\{^1\text{H}\}$ NMR (126 MHz, CDCl_3) spectrum of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a:2b**).

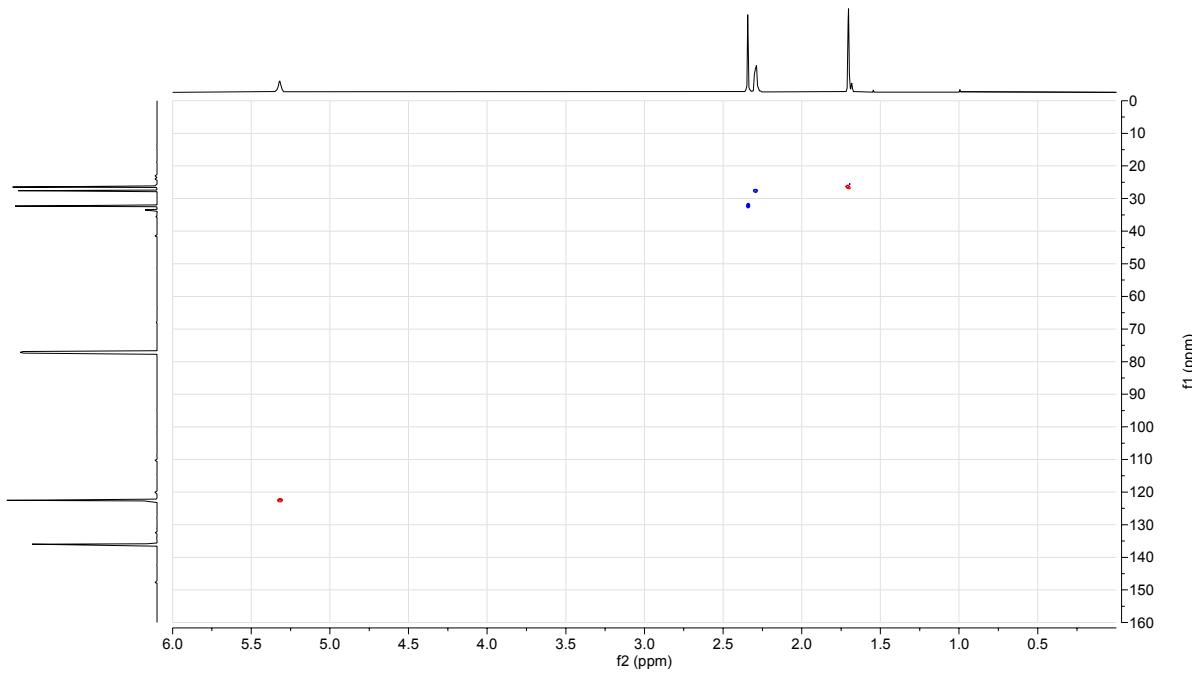


Figure S3. ^1H - ^{13}C HSQC (500 MHz, CDCl_3) spectrum of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a**:**2b**).

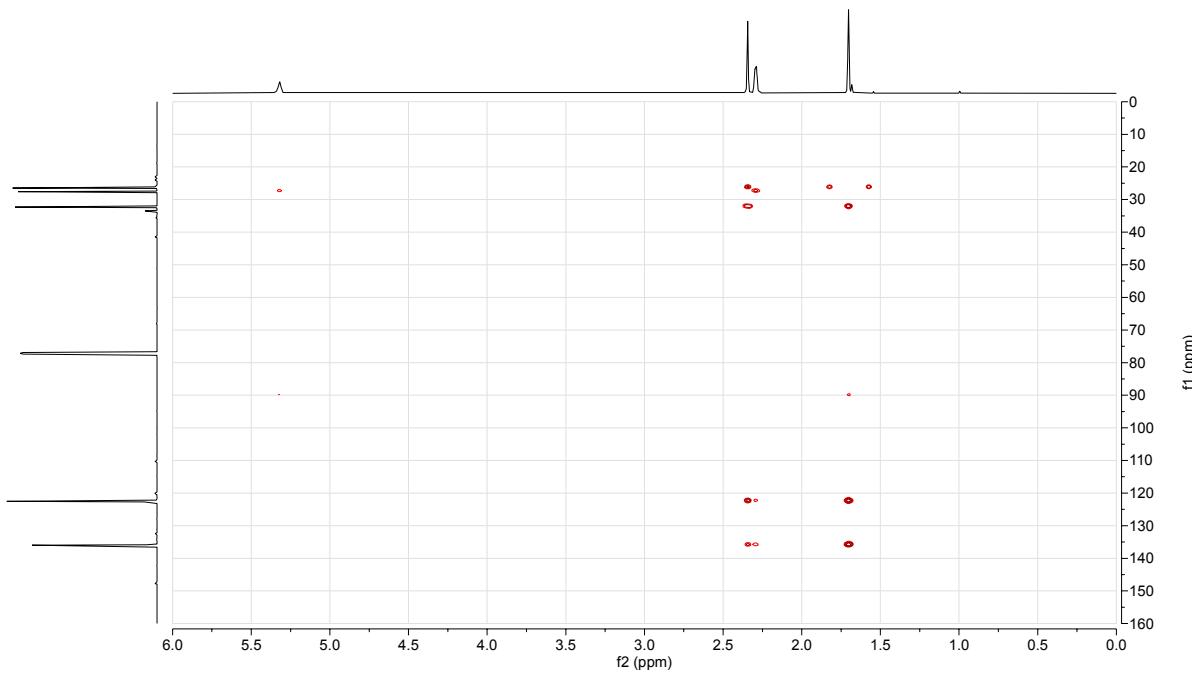


Figure S4. ^1H - ^{13}C HMBC (500 MHz, CDCl_3) spectrum of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a**:**2b**).

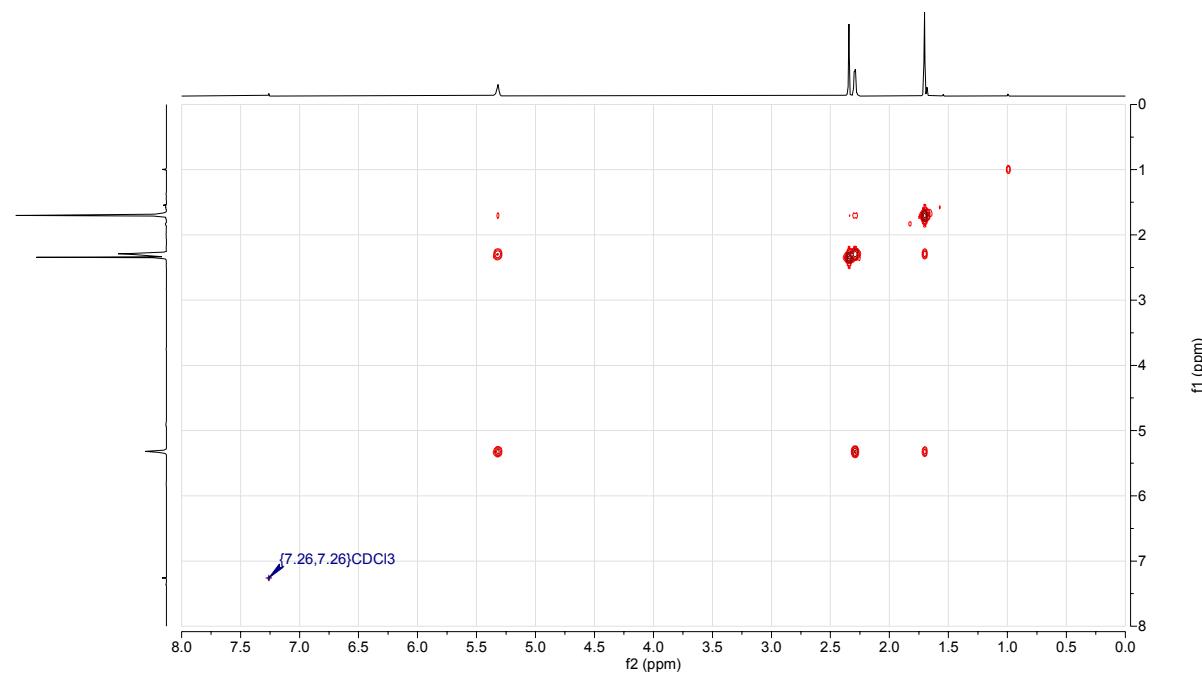


Figure S5. ^1H - ^1H COSY (500 MHz, CDCl_3) spectrum of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a**:**2b**).

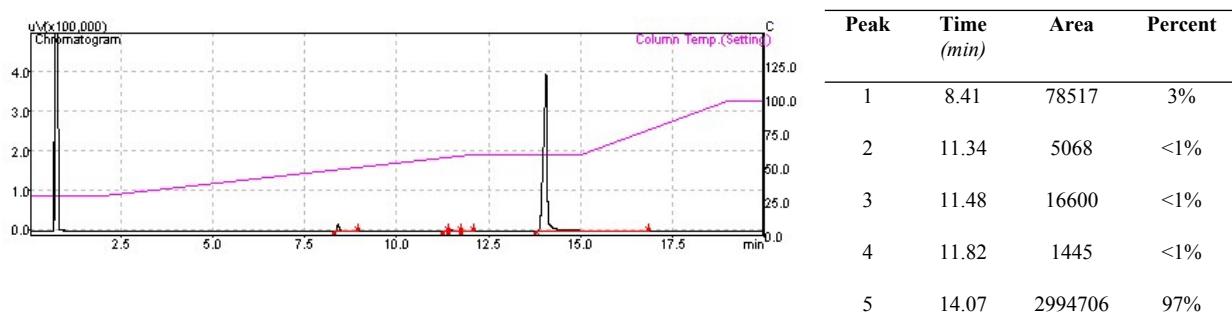


Figure S6. GC-FID trace of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a**:**2b**, using analytical method “30TO60TO100_20MIN”).

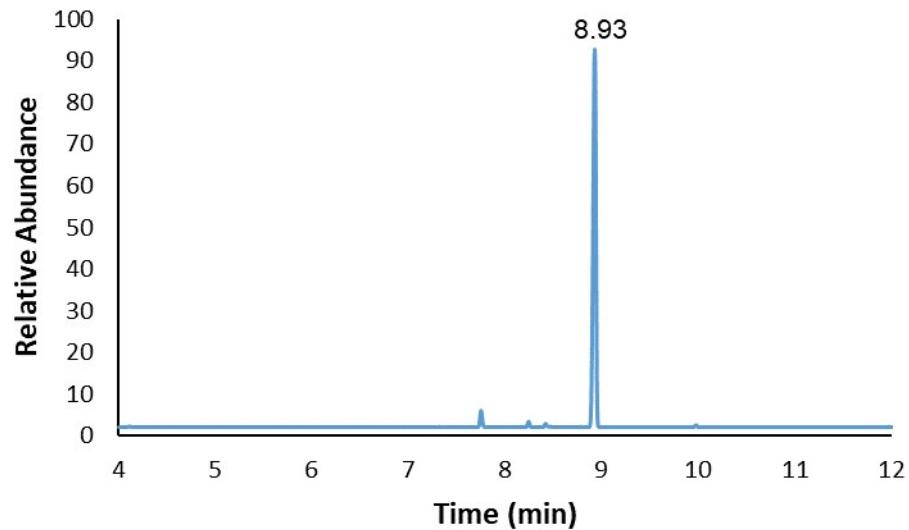


Figure S7. GC-MS (EI) trace of 1,6-dimethyl-1,5-cyclooctadiene (10:1 **2a**:**2b**).

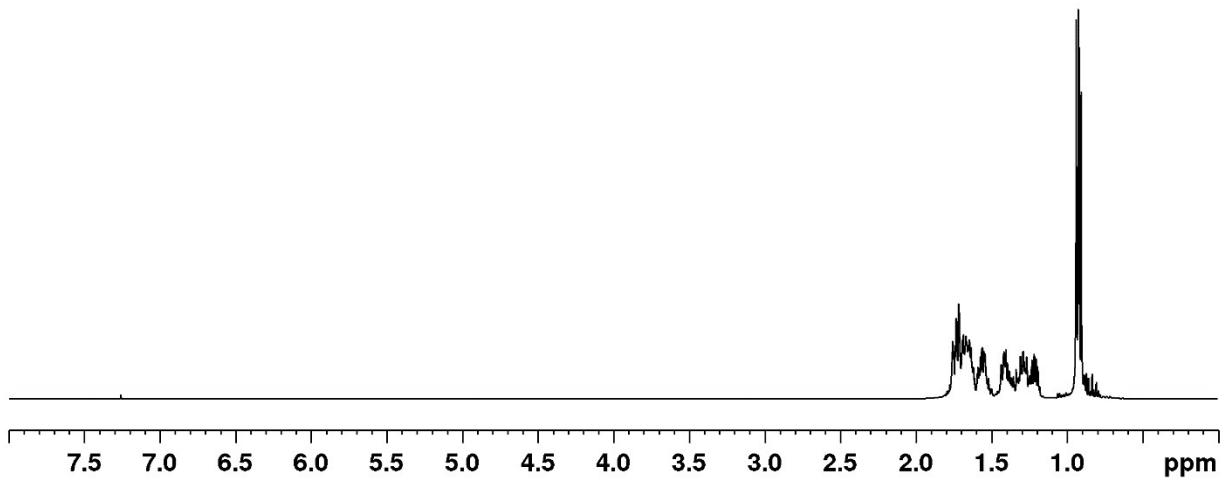


Figure S8. ¹H NMR (300 MHz, CDCl₃) spectrum of 1,4-dimethylcyclooctane (10:1 **3a**:**3b**).

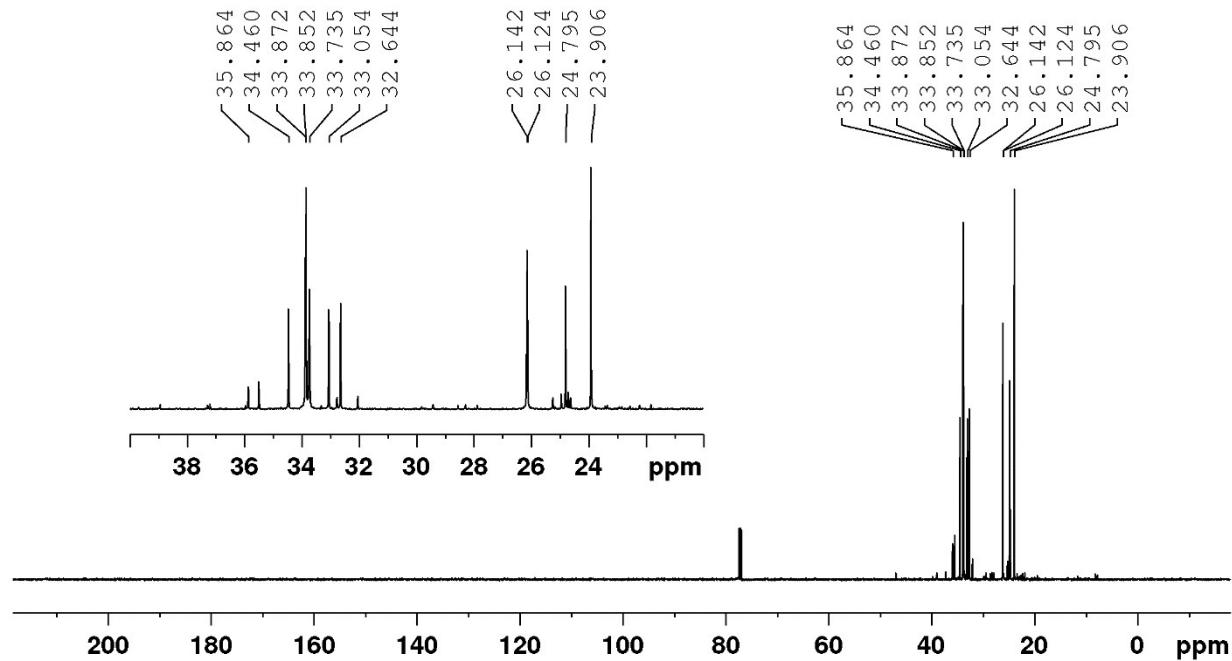


Figure S9. $^{13}\text{C}\{^1\text{H}\}$ NMR (126 MHz, CDCl_3) spectrum of 1,4-dimethylcyclooctane (10:1 **3a**:**3b**).

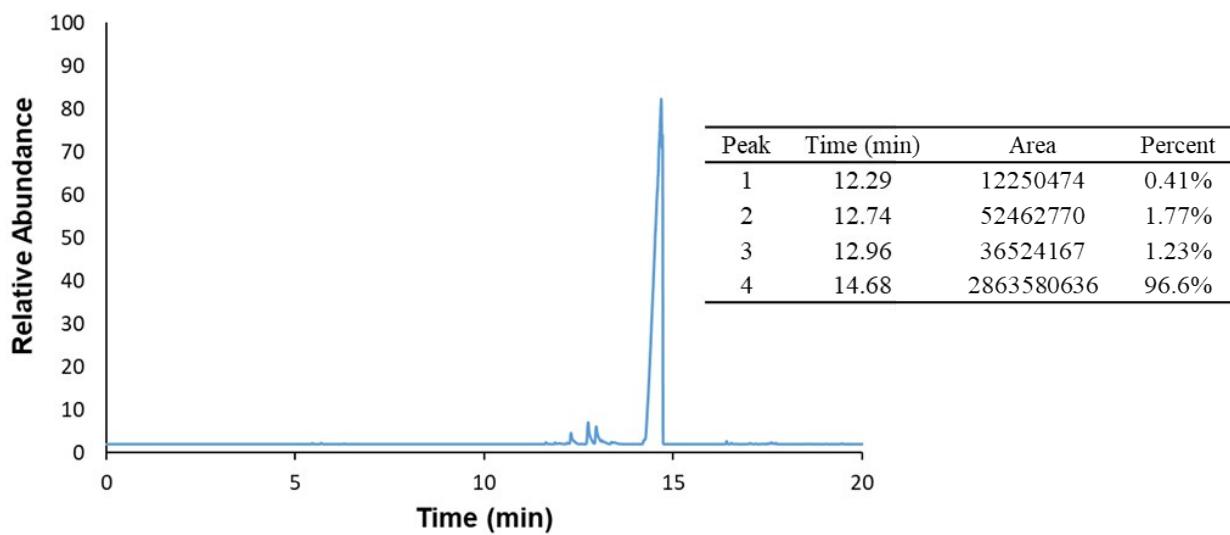


Figure S10. FID-GC trace of 1,4-dimethylcyclooctane (10:1 3a:3b)

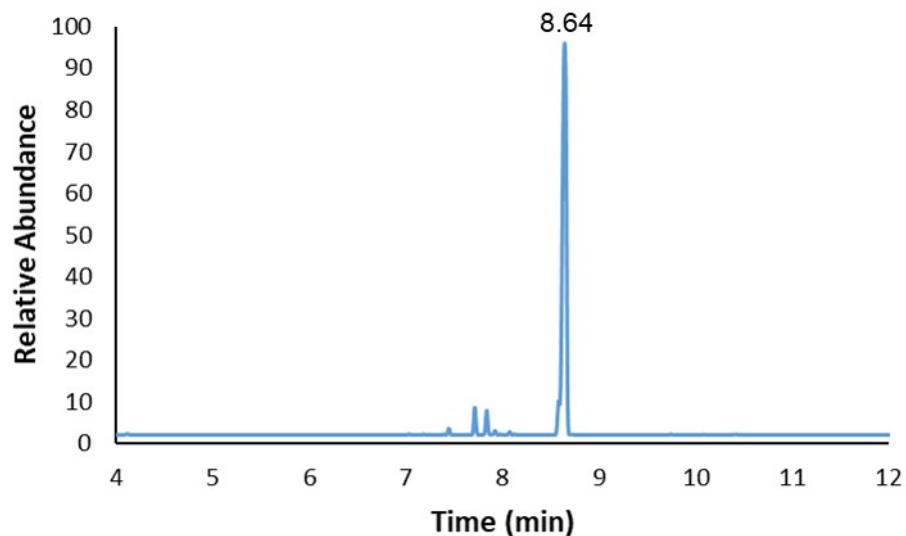


Figure S11. GC-MS (EI) trace of 1,4-dimethylcyclooctane (10:1 3a:3b).