Fig. Effect of the derivatization reaction time on observed $^{12}$C:$^{13}$C ratio. (A) Derivatization was carried out on six different $^{12}$C/$^{13}$C SCFA standard mixed solutions with a $^{12}$C:$^{13}$C concentration ratio of 0.5, 0.8, 1, 1.25, 2 and 5. Aliquots were sampled over time. Dashed line represents a slope = 1. Error bars represent standard deviation, averaged data for the three SCFAs. (B) Regression line equations and $r^2$ corresponding to plots in (A). (C) MS Signal intensity is plotted over time for the 3 standard isotopologue pairs present in an equimolar ratio in the sample; expressed in arbitrary units (a.u.).