Figure 1: (A) BARDS spectra for the reaction of a fixed amount of potassium carbonate reacting with an increasing excess of HCl. (B) BARDS spectra for the reaction of a fixed amount of HCl with increasing amounts of potassium carbonate. (C) Comparison of BARDS spectra for potassium carbonate reaction with a mono-protic and diprotic acid. (D) Log gas volume plots for the reaction of acid and carbonate at different stoichiometric ratios. (E) pH measurements taken during the course of the BARDS experiments.