Supplementary Information

Example ^{1}H NMR spectra and peak assignment for each carbonyl compound. The carbonyl-H_2O_2 mixtures at equilibrium are shown.

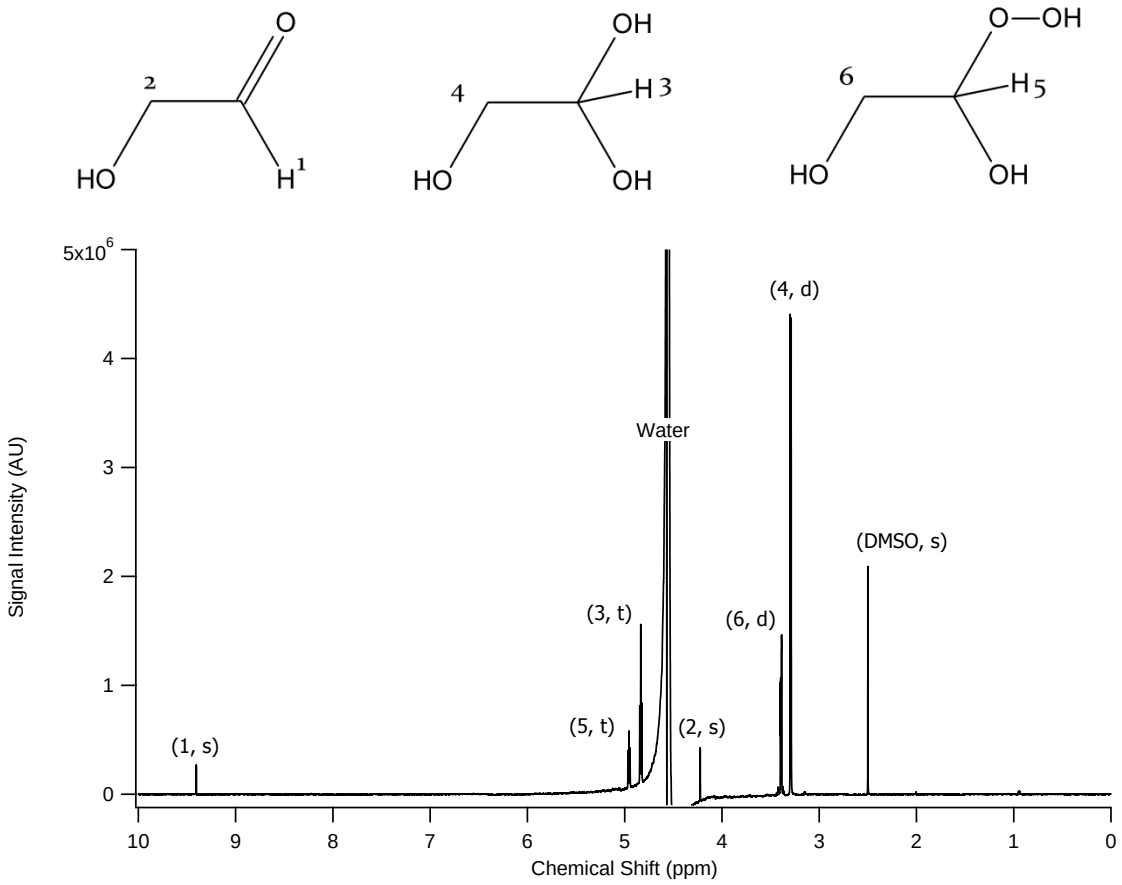

Figure S1. Glycolaldehyde (10 mM) and H_2O_2 (17.7 mM)

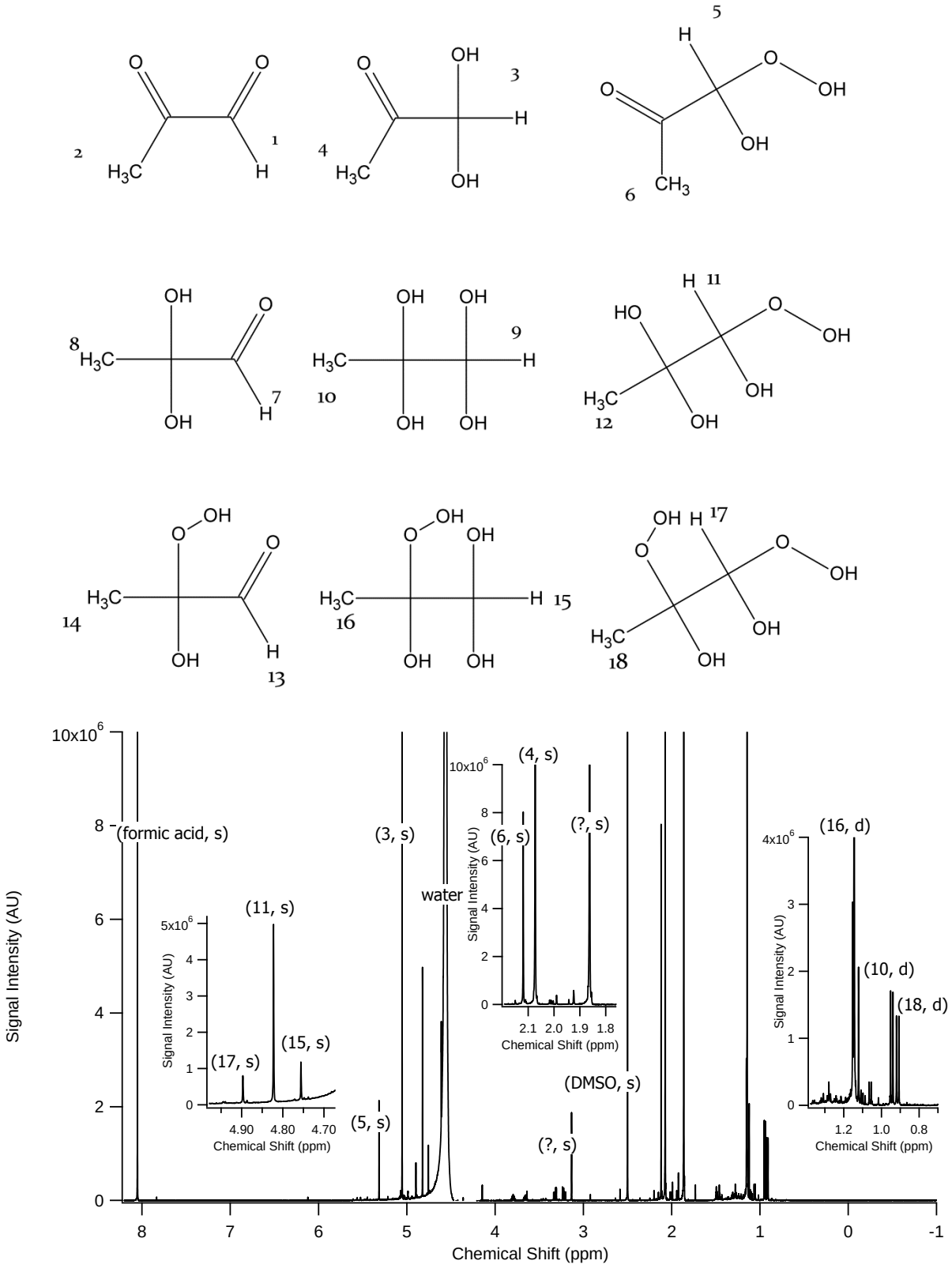

Figure S2. Methylglyoxal (10 mM) and H_2O_2 (17.7 mM)

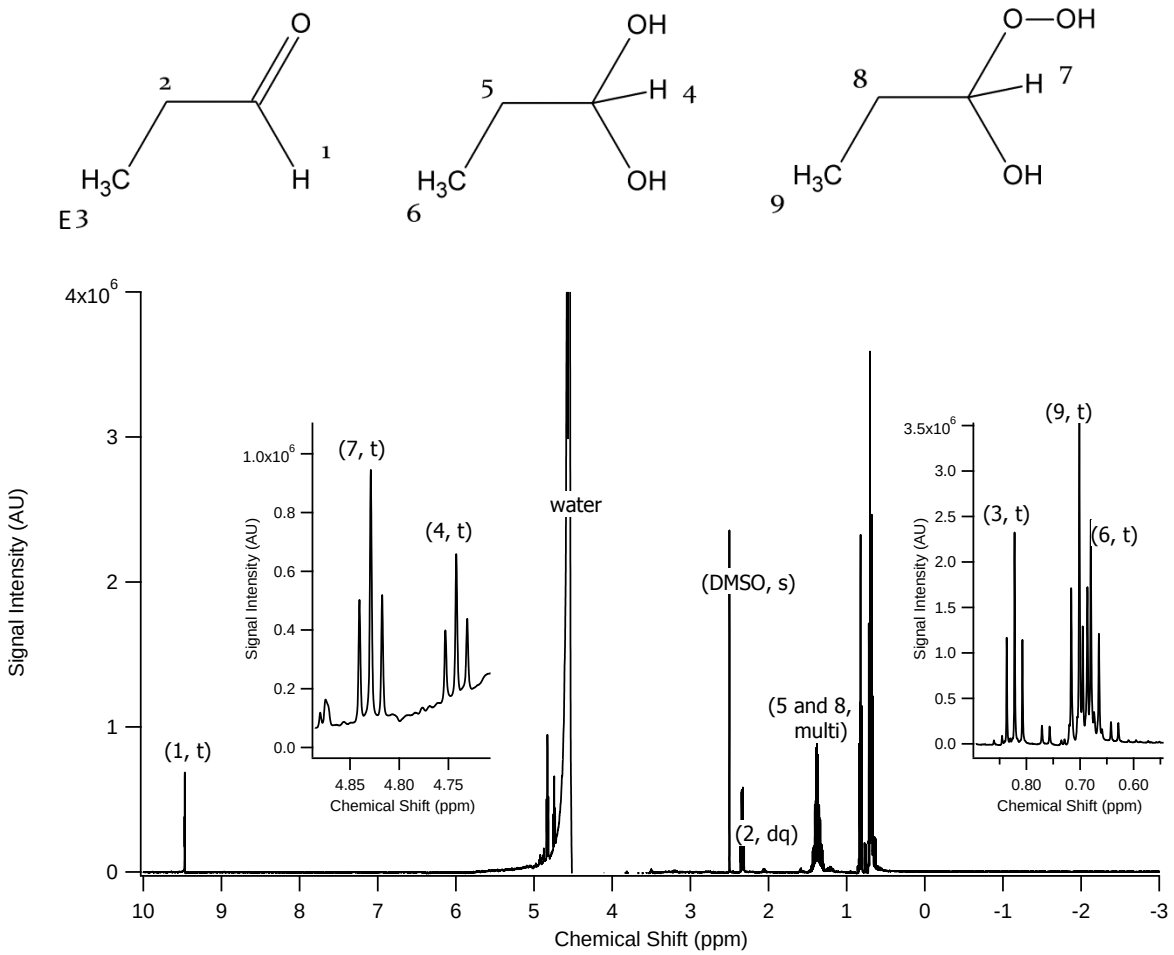

Figure S3. Propionaldehyde (10 mM) and H_2O_2 (17.7 mM)

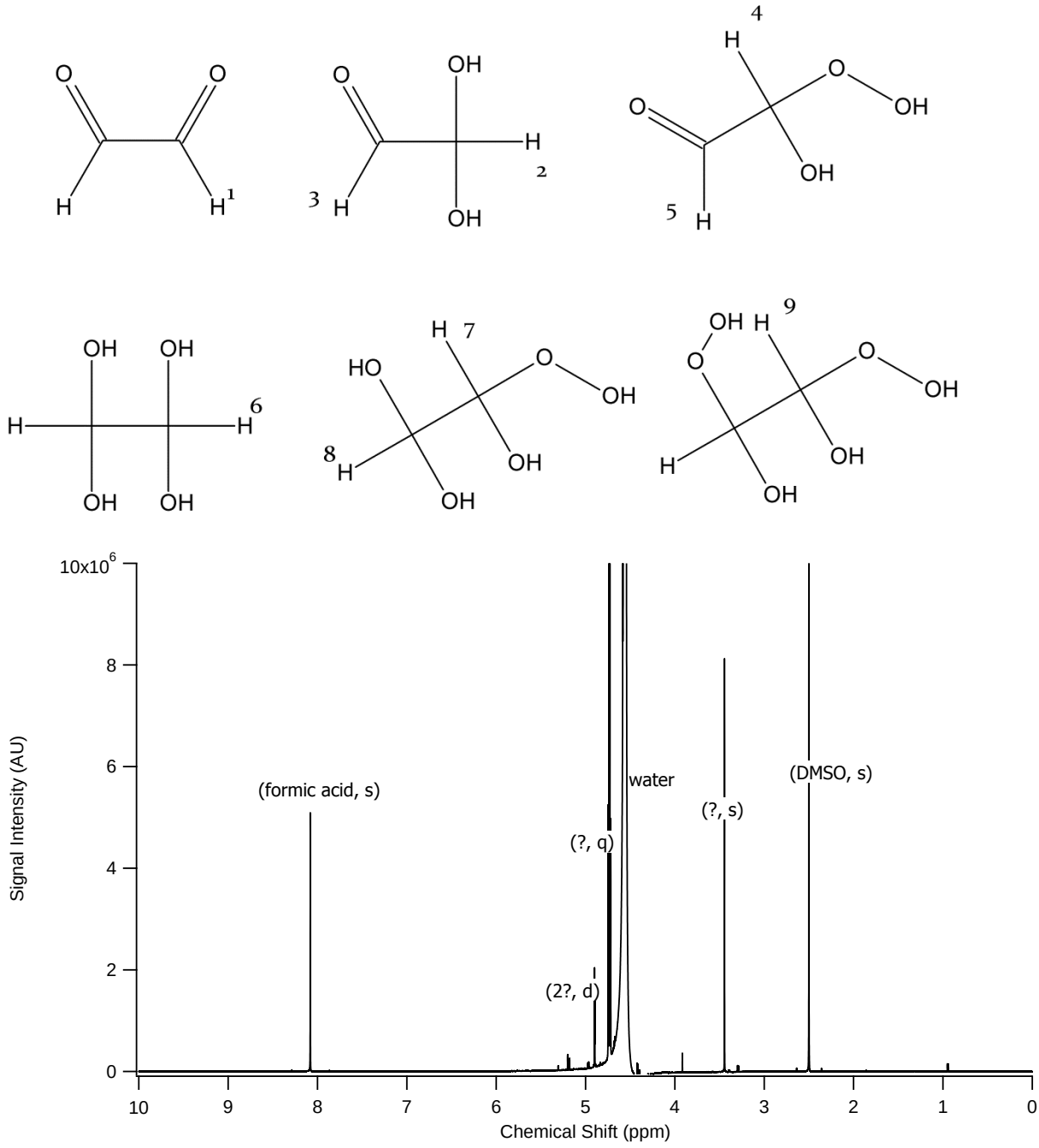

Figure S4. Glyoxal (10 mM) and H_2O_2 (17.7 mM)

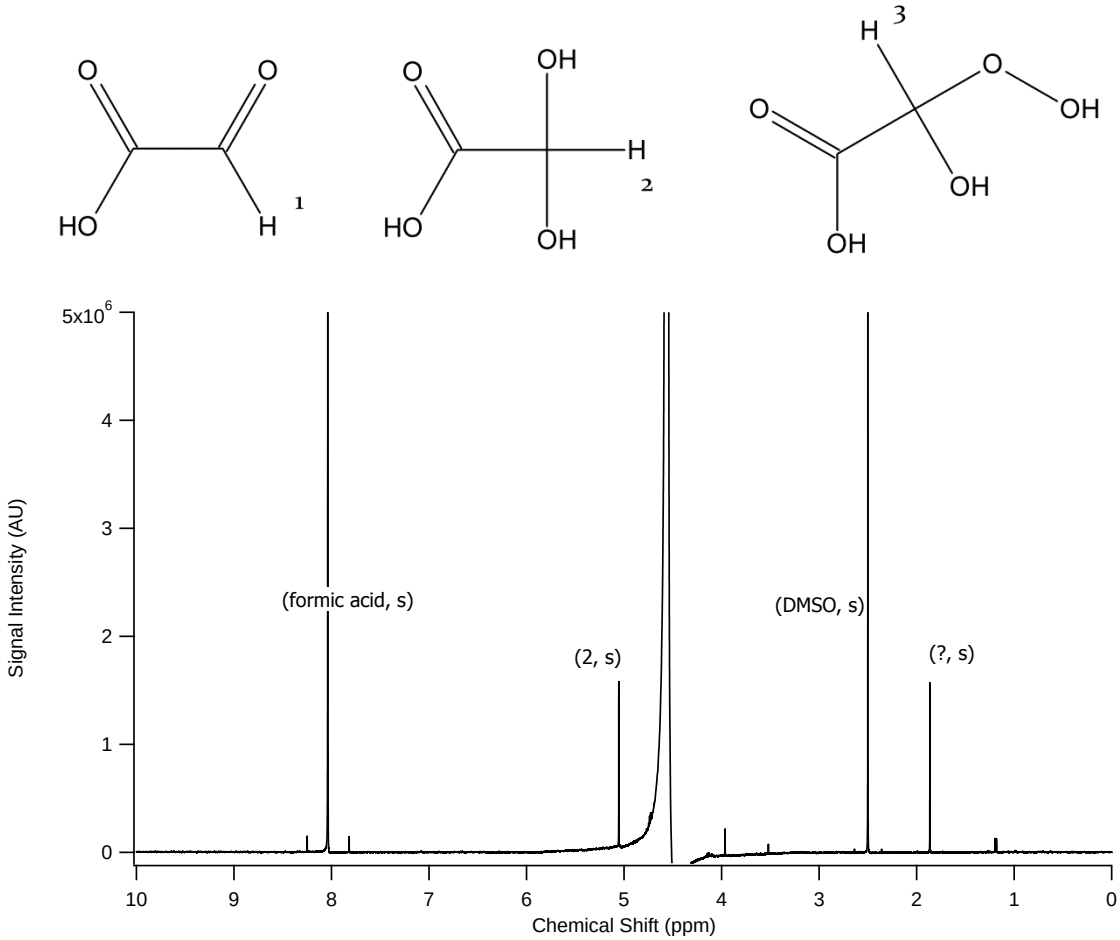

Figure S5. Glyoxylic acid (10 mM) and H_2O_2 (17.7 mM)

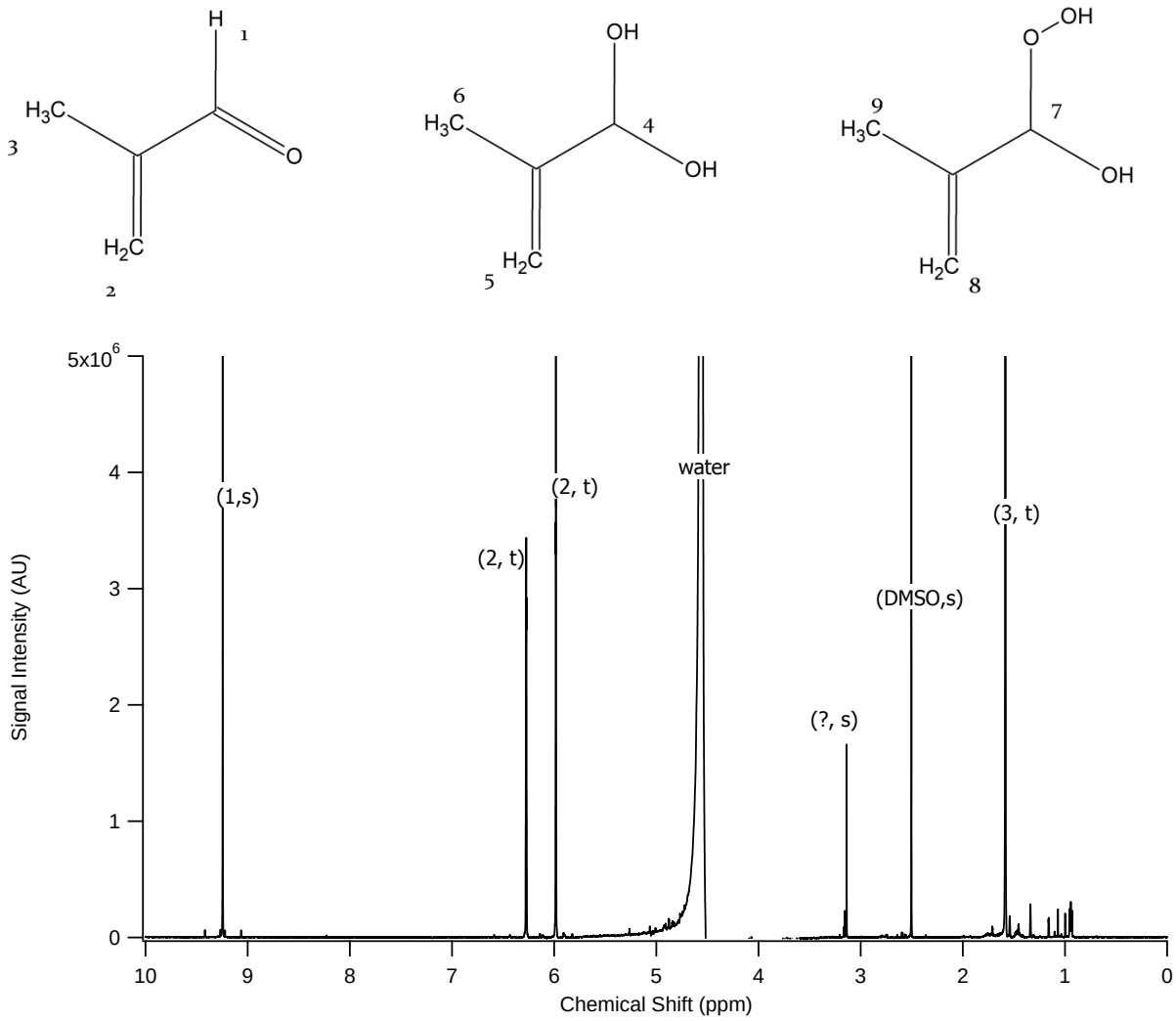

Figure S6. Methacrolein (10 mM) and H_2O_2 (100 mM)

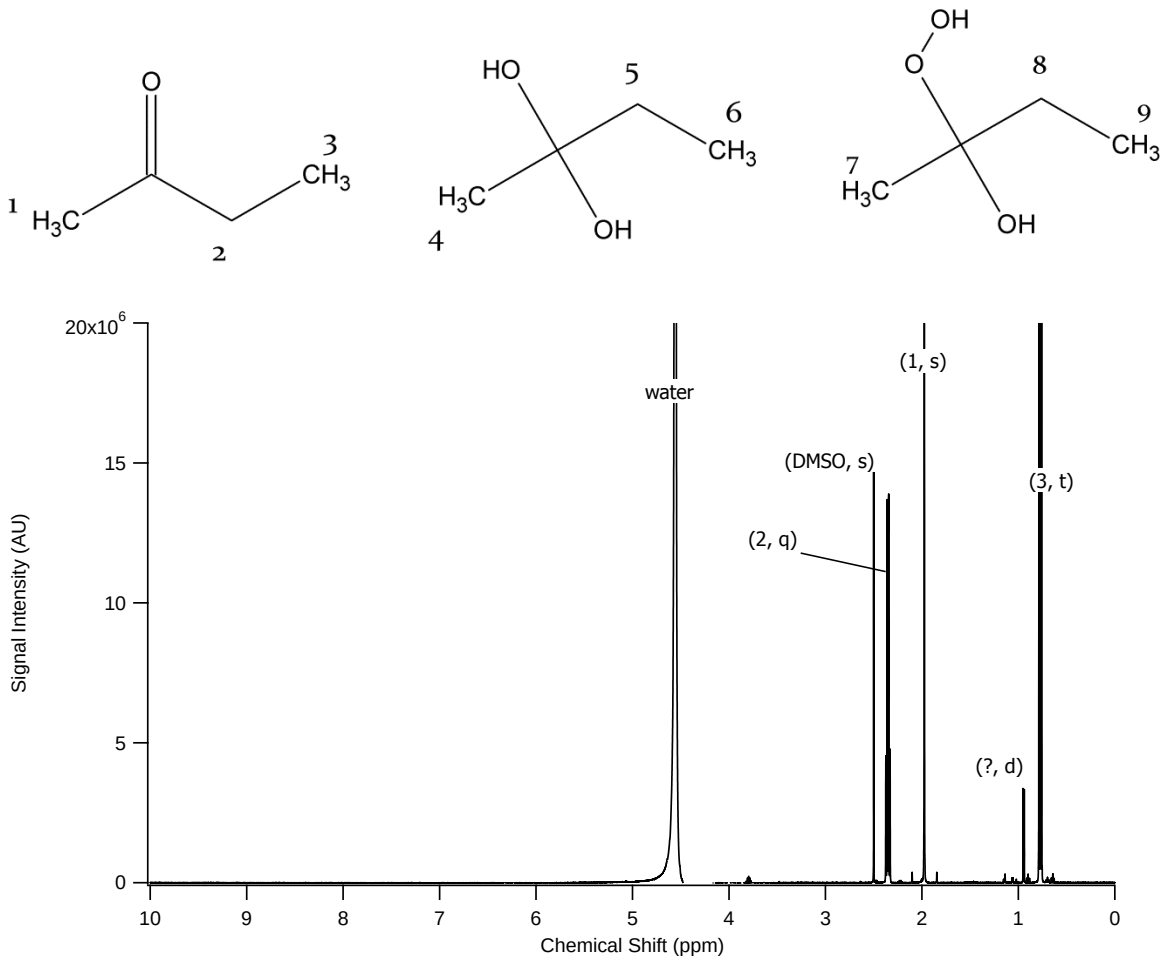

Figure S7. Methylethyl ketone(10 mM) and H_2O_2 (100 mM)

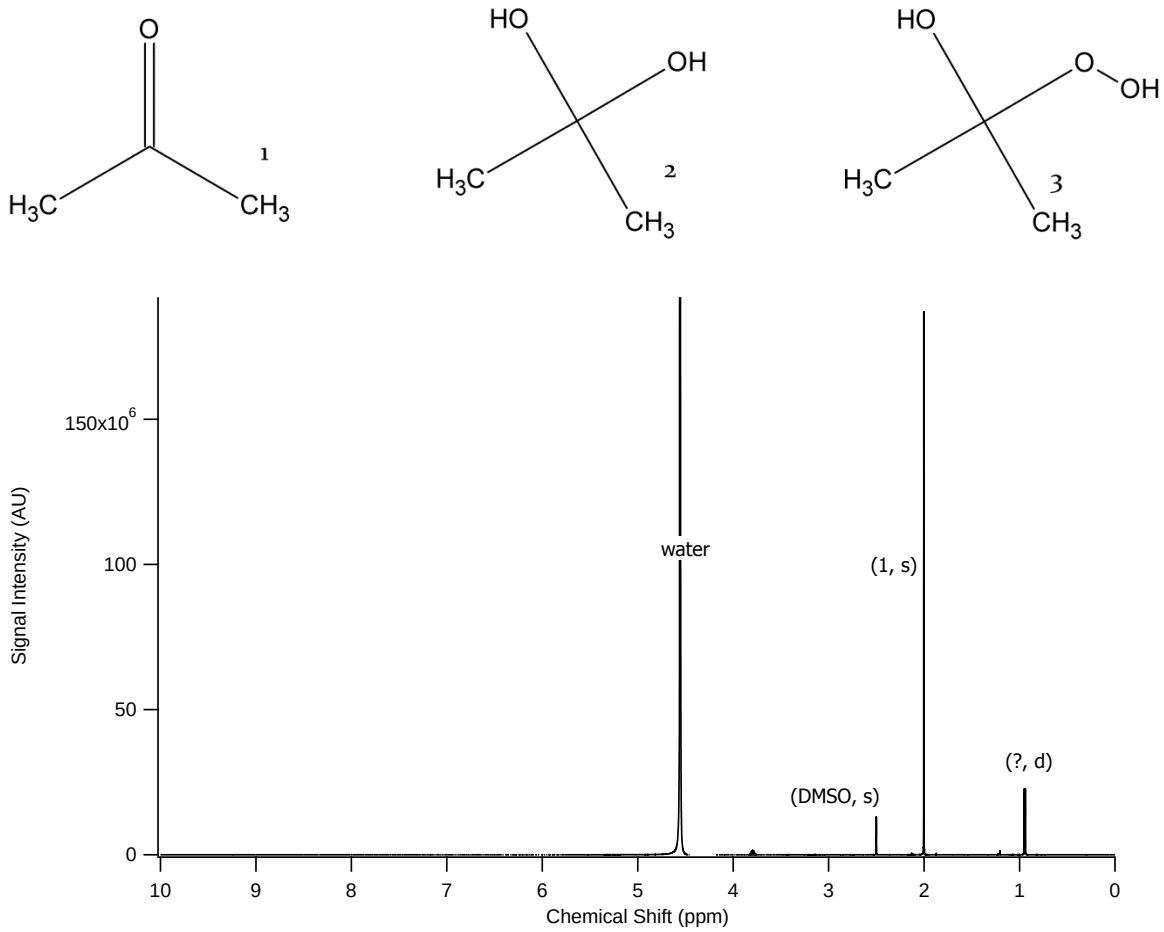

Figure S8. Acetone (10 mM) and H_2O_2 (100 mM)