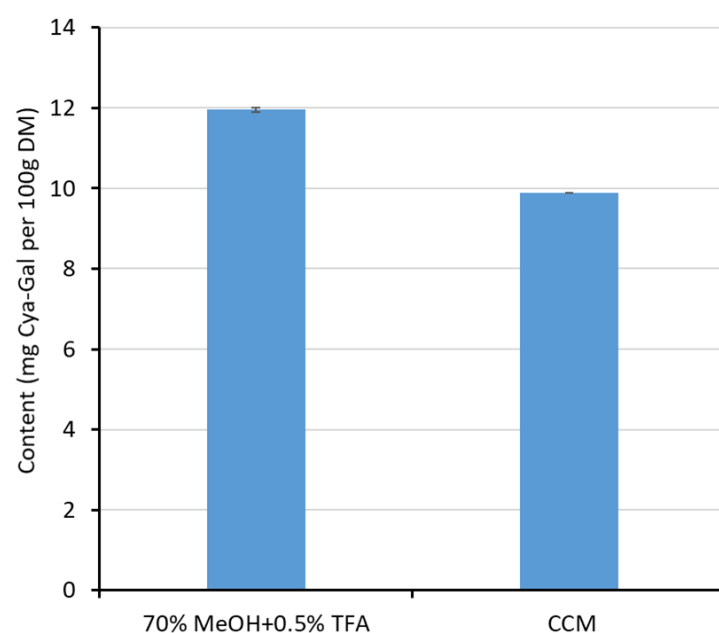
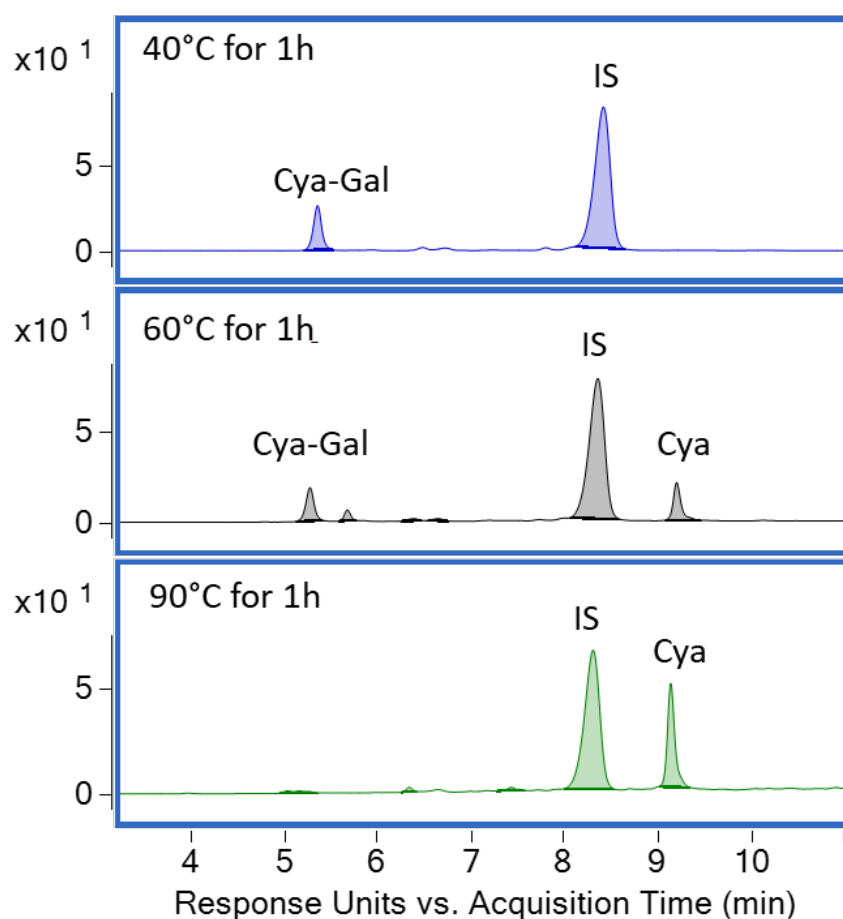


Supplementary Figure 1. ¹H NMR spectra of glycosylated quercetin standards (Q-Rut: quercetin-3-O-β-rutinoside; Q-Glc: quercetin-3-O-β-glucopyranoside; Q-Ara: quercetin-3-O-α-arabinofuranoside; Q-Rha: quercetin-3-O-β-rhamnopyranoside; Q: quercetin) and purified glycosylated quercetin fractions from apple pomace extract (Peak 1: Q-Gal; Peak 1': Q-Rut; Peak 2: Q-Glc, and Peak 7: Q-Rha shown in Fig. 1 and Table 1).



Supplementary Figure 2. Comparison of DES extraction and conventional methanol extraction for anthocyanins from apple pomace. 'mg Cya-Gal per 100g DM' is for 'mg cyanidin-3-galactoside equivalents per 100g dry mass'. '70% MeOH+0.5% TFA' is for '70% (v/v) methanol in water with 0.5% (v/v) trifluoroacetic acid'. 'CCM' is for 'choline chloride–maleic acid ((molar ratio between choline chloride and acid is 1:2) with 20% (v/v) water.



Supplementary Figure 3. UHPLC chromatogram (525nm) of anthocyanin in apple pomace extracted with CCM at 40 °C, 60 °C and 90 °C for 1 h. IS, internal standard: malvidin-3-glucoside; Cya, cyanidin; Cya-Gal, cyanidin-galactoside.