## Supporting information for:

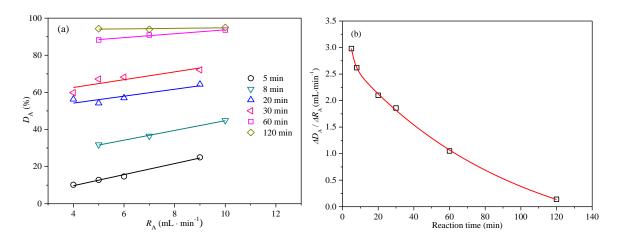
## Effects of Composition and Sequence of Ethylene-Vinyl Acetate Copolymers on Their Alcoholysis and Oxygen Barrier Property of Alcoholyzed Copolymers

Xiaoxian Xue,  $^{\dagger}$  Li Tian,  $^{\dagger}$  Song Hong,  $^{\sharp}$  Shu Zhang,  $^{*,\,\dagger}$  and Yixian Wu $^{*,\dagger}$ 

† State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing 100029, China

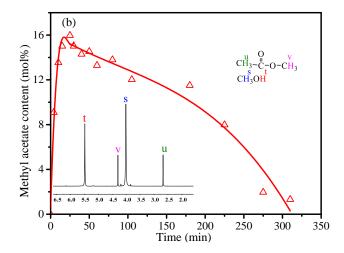
‡ Center for Instrumental Analysis, Beijing University of Chemical Technology, Beijing, 100029, China

Corresponding author. Email: wuyx@mail.buct.edu.cn (Y.X. Wu)



**Figure S1.** (a) Effect of removal rate  $(R_A)$  of distilled methanol/methyl acetate mixture on  $D_A$  of alcoholyzed EVA copolymer (EVA-385); (b) Effect of reaction time on  $D_A/R_A$ . EVA-371: E =

37.1 mol%,  $M_n = 18 \text{ kg} \cdot \text{mol}^{-1}$ , PDI = 2.7, concentration of EVA in methanol: 25 wt%,  $n_{\text{NaOCH3}} = 0.05$ , reaction temperature: 65 °C.



**Figure S2.** Dependence of methyl acetate content in the distilled mixtures on reaction time during alcoholysis of EVA-371. Representative <sup>1</sup>H NMR spectrum of distilled mixture (methanol and methyl acetate) from the alcoholysis reaction was inserted into the figure. Reaction conditions were the same as those in Figure S1.