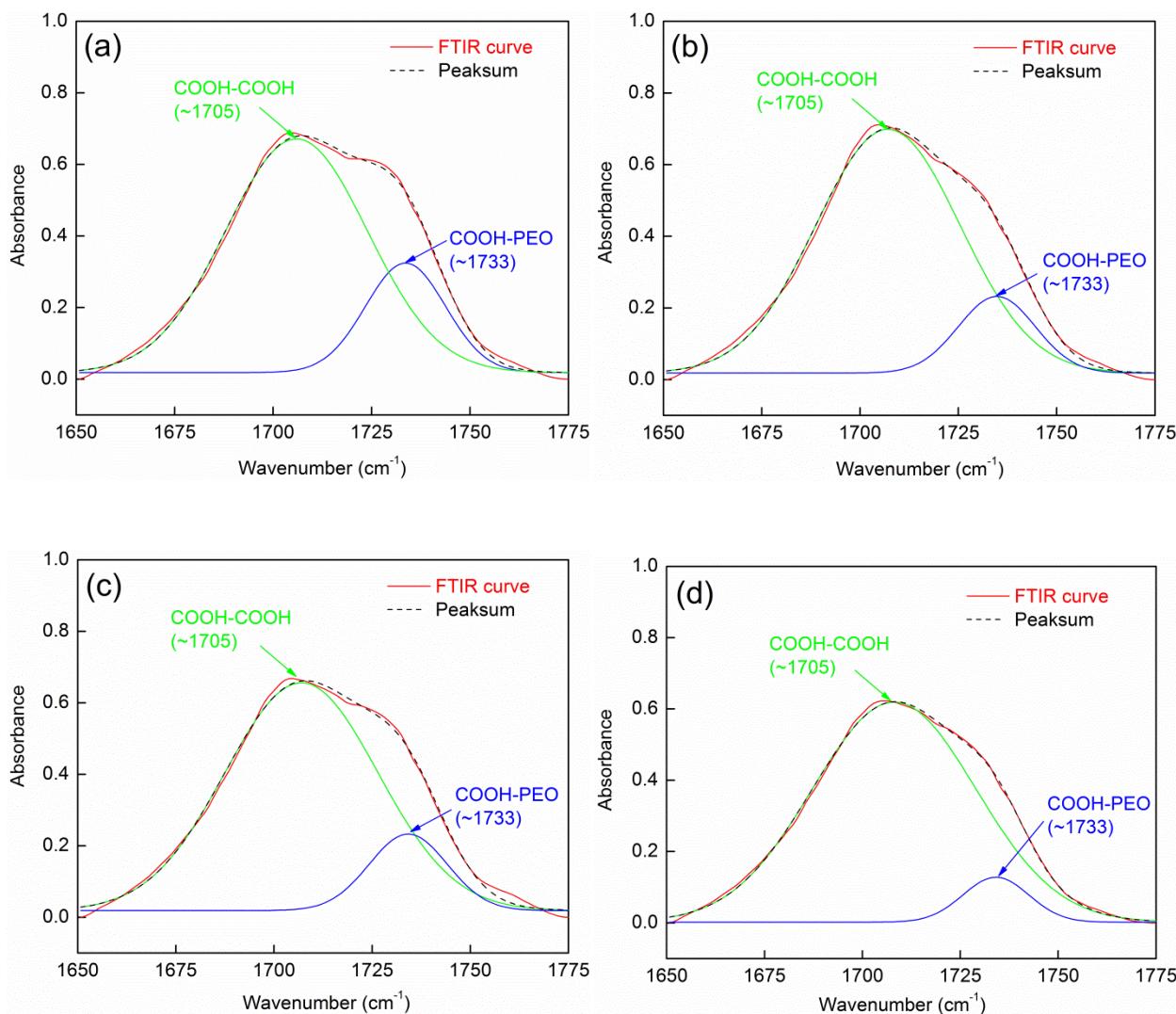


Supporting Information:

Structural tailoring of hydrogen-bonded poly(acrylic acid)/poly(ethylene oxide) multilayer thin films for reduced gas permeability

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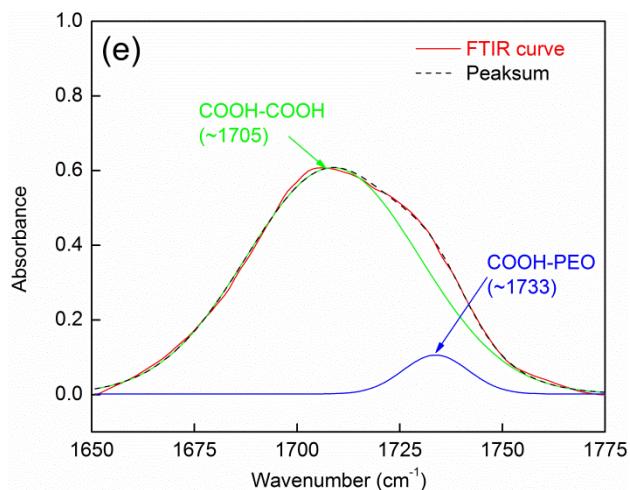


Figure S1. FTIR spectra (red solid curve) of the carboxylic acid region of (PAA/PEO) multilayers assembled at pH 3 (a), 2.75 (b), 2.5 (c), 2.25 (d), 2(e). The contributions from intramolecular hydrogen bonding (green curve, $\sim 1705 \text{ cm}^{-1}$) and intermolecular hydrogen bonding (blue curve, $\sim 1733 \text{ cm}^{-1}$) were calculated assuming the summation of two Gaussian peaks. The peak summation was presented as black dashed curve.