

## Supplementary Materials

# Separation of Acetate Produced from C1 Gas Fermentation Using an Electrodialysis-Based Bioelectrochemical System

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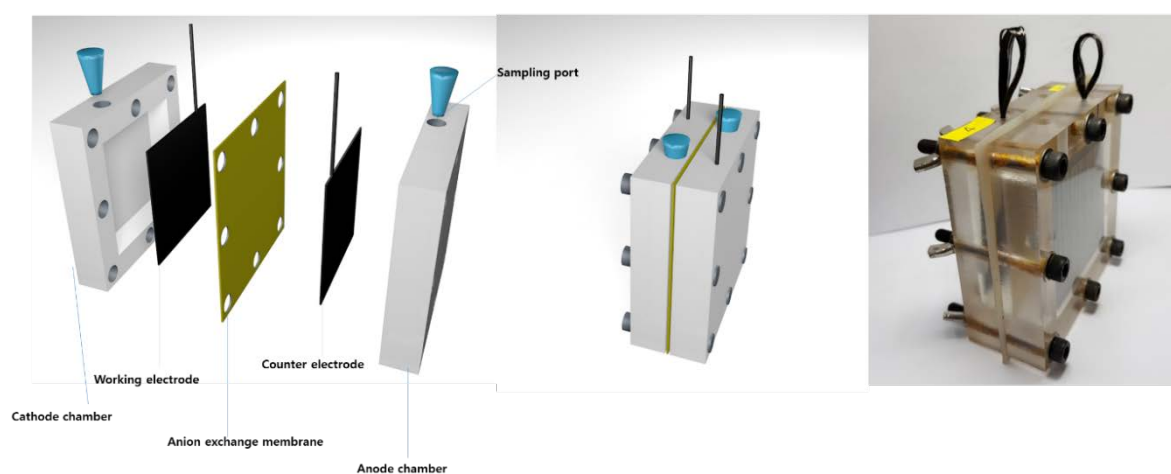
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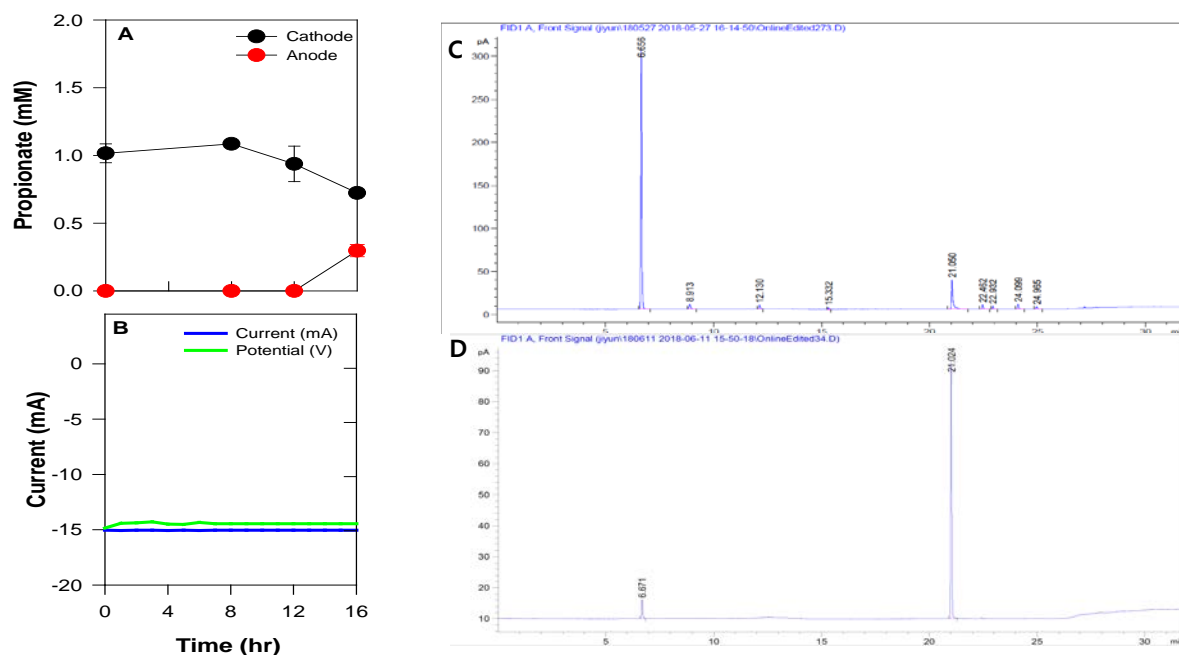
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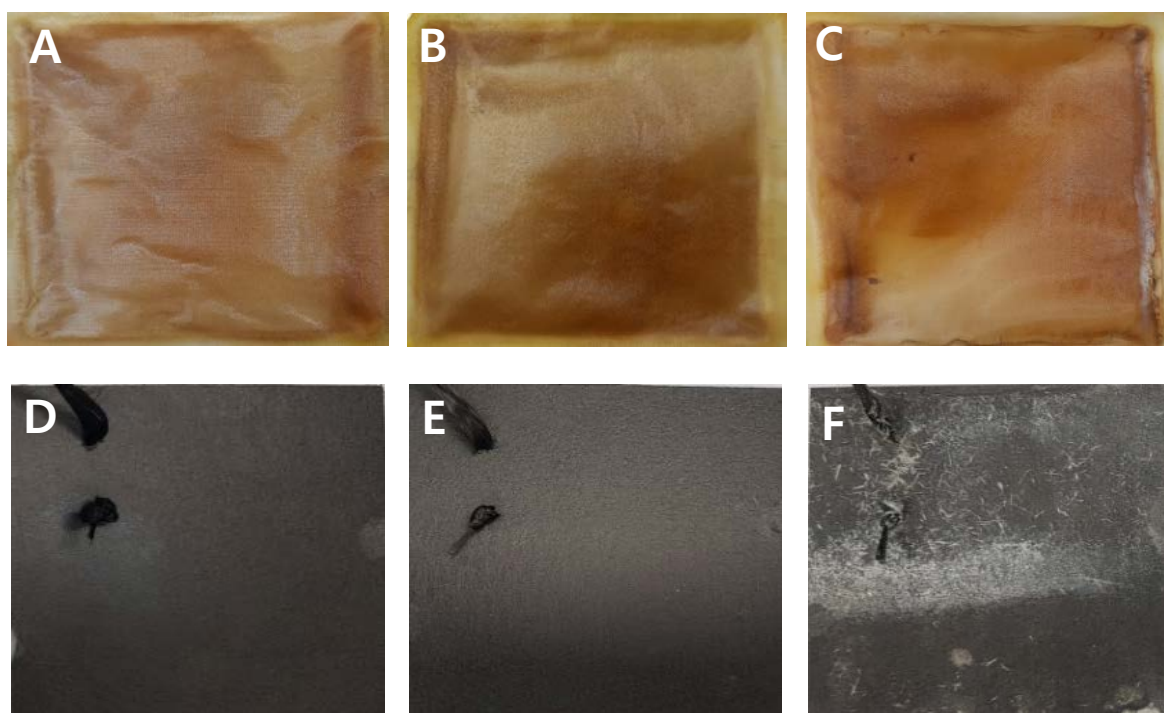
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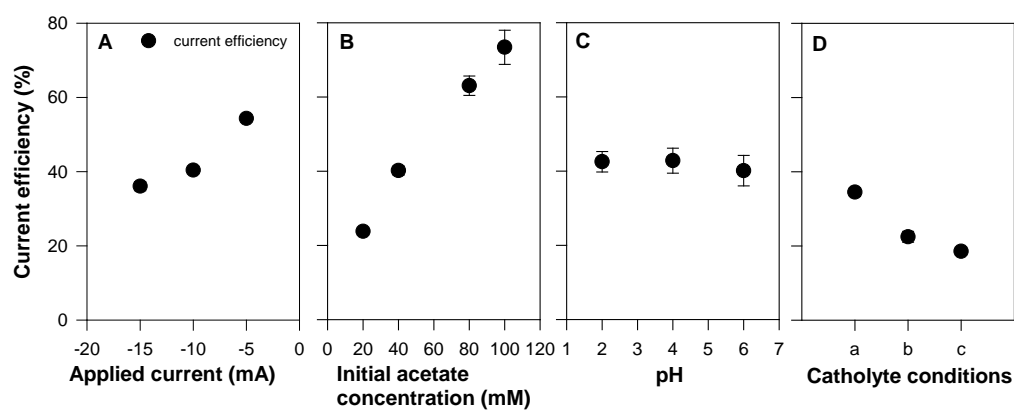
**Figure S1.** Schematic diagram of the electro dialysis reactor used in this study and a photograph.



**Figure S2.** Comparison of propionate transfer through an anion exchange membrane. (A) Amount of propionate transferred to the anodic chamber, (B) applied current in the reactor for 16hr, (C) GC analysis results of the fermentation broth, (D) GC analysis results of the synthetic medium.



**Figure S3.** Membrane and cathodic electrode surface after the completion of electro dialysis for acetate separation. membrane (A) and cathodic electrode (D) from the cell using synthetic broth media, respectively. (B) and (E) from centrifuged fermentation broth, (C) and (F) from non-centrifuged fermentation broth.



**Figure S4.** Estimated current efficiency on different parameters tested. (A) Current efficiency of different currents from -5 mA to -20 mA, (B) Effects of the initial acetate concentration, (C) Effects of different initial anodic pH, (D) Effects of different catholytes with synthetic media (a), centrifuged fermentation broth (b) and non-centrifuged fermentation broth (c).