Can acid pre-treatment enhance biohydrogen and biomethane production from grass silage in single-stage and two-stage fermentation processes?

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The supporting information contains 3 figures as referred to in the main manuscript:

Fig. S1. Scanning electron microscope (SEM) graphs of grass silage before and after pre-treatment: (a) untreated silage ×1k; (b) untreated silage ×10k; (c) silage pre-treated with 2% H_2SO_4 at 135 °C for 15 min ×1k; (d) silage pre-treated with 2% H_2SO_4 at 135 °C for 15 min ×10 k.

Fig. S2. Fourier transform infrared (FTIR) spectra of the silage residue before and after pre-treatment.

Fig. S3. X-ray diffraction (XRD) spectra of the silage residue before and after pre-treatment.

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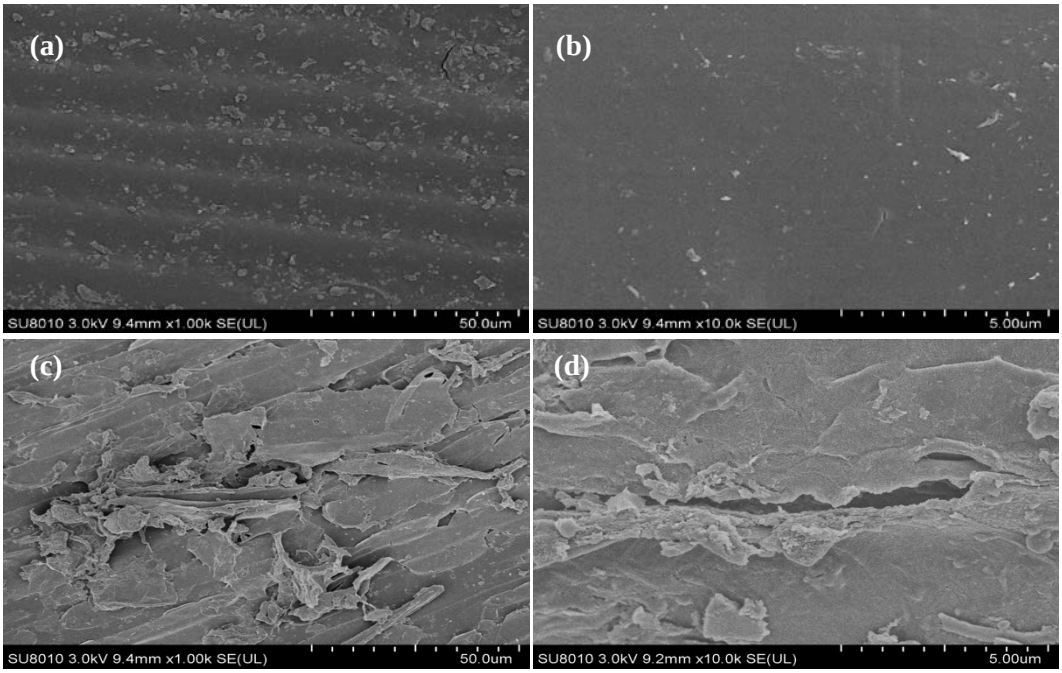

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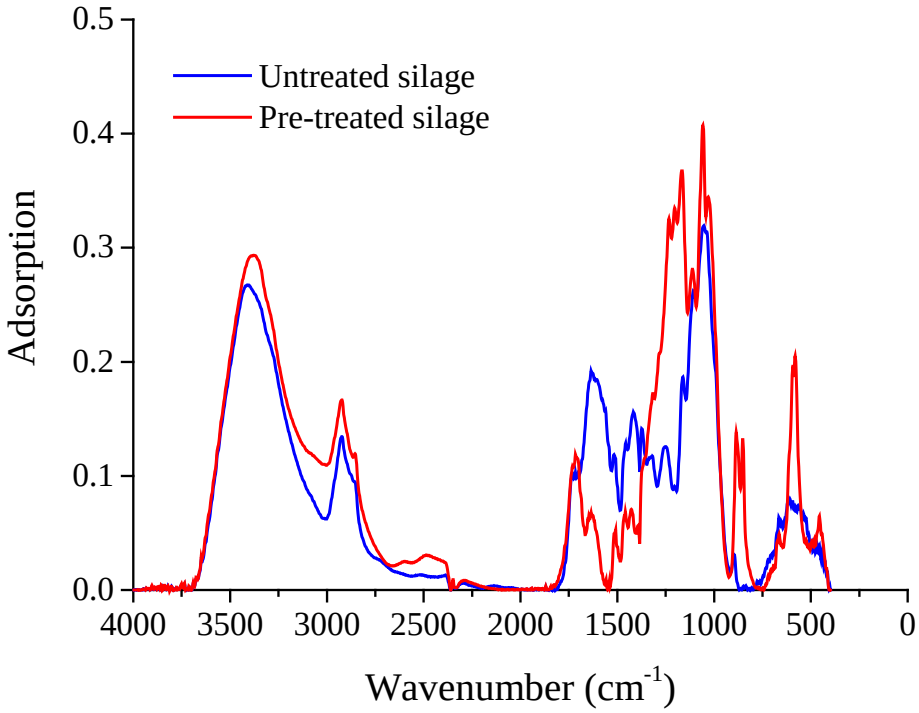

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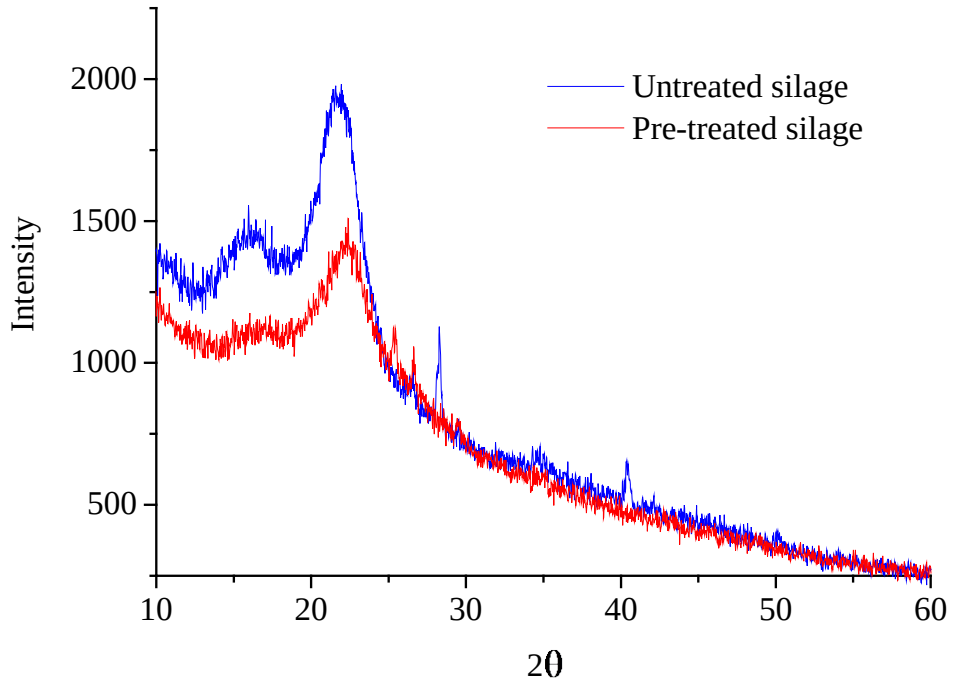

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