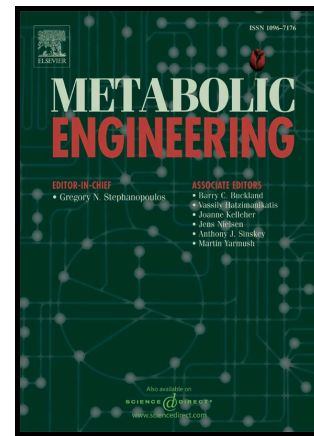


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Characterization of the *Clostridium thermocellum* AdhE, NfnAB, Ferredoxin and Pfor proteins for their ability to support high titer ethanol production in *Thermoanaerobacterium saccharolyticum*

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Abstract

The thermophilic anaerobes *Thermoanaerobacterium saccharolyticum* and *Clostridium thermocellum* are good candidates for lignocellulosic ethanol production. *T. saccharolyticum* has been successfully engineered to produce ethanol at high titer (70 g/L). The maximum ethanol titer of engineered strains of *C. thermocellum* is only 25 g/L. We hypothesize that one or more of the enzymes in the ethanol production pathway in *C. thermocellum* is not adequate for ethanol

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