Evaluation of Vanillic acid mineralizing strain for biofuel production

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We have a strain in our lab that can degrade vanillic acid which is one of the toxic compounds released during treatment of lignocellulosic biomass for the conversion to biofuel. We confirmed that this strain is an obligate anaerobic and non-fermentative bacterium. And the growth was characterized based on benzoic acid as the only carbon source within media. After, we tested other chemicals, vanillic acid and 4-hydroxybenzoic acid. These were performed both in a serum bottle and bio-reactor using fed-batch. Also, we performed the fermentation by *Clostridial* strain in the presence or absence of this strain, and they are compared. As a result, we showed the effect of this strain on the fermentation, especially in aspects of growth and product such as butyric acid. The products were analyzed by means of gas chromatography.