

Decolorization of Acid green 25 dye using recombinant *Bacillus subtilis* spores

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In this study, we tried to decompose synthetic industrial dyes using *Bacillus subtilis* spore, which has CotA spore coat protein known as having multi-copper oxidase (laccase) activity. We confirmed the decolorization rate of Acid green 25 by 20 % in 5 hrs using a wild-type *Bacillus subtilis* spore. To express CotA protein on the surface of the spores, anchoring motives CotE was used. And we confirmed the decolorization rate of Acid green 25 by 56% in 5 hrs using a recombinant *Bacillus subtilis* spore. His6-tag was added at the C-terminal of target protein, CotA. The spore surface expression of target protein, CotA, was confirmed by flow cytometry using FITC labelled anti-His6 antibody.