

Optimization of Hydrogen Production by Medium Composition of *Enterobacter cloacae* YJ-1

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Abstract

This study was to optimize the medium composition for hydrogen production. Glucose was better than other carbon sources in hydrogen production and its production was 975.4 mL/L at 2%(w/v) for 48h. Organic nitrogen sources were more effective than inorganic nitrogen sources, and also yeast extract among organic nitrogens was the most effective in hydrogen production. Among metal ions, Na₂MoO₄ was most effective, and its production was 1753.3 mL/L at 0.04%(w/v). Addition of amino acids was very effective with compare to another components of medium, and cystein was most effective among them.

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