The effect of carbon, nitrogen, and CuSO₄ on laccase production by

*Bacillus* sp. strain LA1

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Abstract: Laccase is widely used in bioremediation and beverage manufacturing. The aim of this study was to optimize the source and concentration of carbon and nitrogen including the effect of CuSO₄ on growth and laccase production from *Bacillus* sp. strain LA1. The results showed that laccase activity was maximum at 119.5 units/mL in the mineral medium containing soluble starch (20 g/L), yeast extract (5.0 g/L) and CuSO₄ (0.008 g/L). The cell growth and laccase production was completely inhibited in the medium with CuSO₄ concentration higher than 0.04 g/L.

Keywords: Laccase; Production; Bacillus strain LA1; Copper (II) sulfate