

Physical factors affecting the production of organic solvent-tolerant protease by *Pseudomonas aeruginosa* strain K

ABSTRACT

The physical factors affecting the production of an organic solvent-tolerant protease from *Pseudomonas aeruginosa* strain K was investigated. Growth and protease production were detected from 37 to 45 °C with 37 °C being the optimum temperature for *P. aeruginosa*. Maximum enzyme activity was achieved at static conditions with 4.0% (v/v) inoculum. Shifting the culture from stationary to shaking condition decreased the protease production (6.0–10.0% v/v). Extracellular organic solvent-tolerant protease was detected over a broad pH range from 6.0 to 9.0. However, the highest yield of protease was observed at pH 7.0. Neutral media increased the protease production compared to acidic or alkaline media

Keyword: Organic solvent-tolerant protease, Physical factors, *Pseudomonas aeruginosa*