

A model for biopigment formation by *Serratia marcescens* biovar A2/6 in batch cultures containing lactic acid and beef extract

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Abstract

Serratia marcescens biovar A2/A6 is able to produce a red pigment as a secondary metabolite which has antimicrobial activity. This paper describes its growth and biopigment formation in batch cultures, in media containing different concentrations of lactic acid and beef extract as carbon and nitrogen sources, respectively. An unstructured model has also been developed to describe its growth, lactic acid uptake and biopigment formation. The comparison of simulated and experimental data shows that the proposed model predicts reasonably well the system behaviour over a range of conditions.

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