STABILITY OF NATURAL PIGMENTS PRODUCED BY SERRATIA MARCESCENS

RUI-YU CHEN, KAI-JIE YOU, Wu Jane Yii
E-mail: jywu@mail.dyu.edu.tw

ABSTRACT
The aim of this study was to present new data on the thermal stability of red pigment produced by Serratia marcescens DYU in submerged fermentation. The stability of red pigment in the solution during dark/light storage were studied at various temperature, pH and light sources. The degradation of the red pigment was collected and submitted to measurement of the absorbance at 540 nm. The thermal degradation of the red pigment followed a first-order kinetic reaction. The empirical results described the behavior of the responses of color degradation and half-life of the red pigment, and the temperature dependence of the degradation constants followed the Arrhenius model. On the other hand, the degradation of the color of pigment solution was also evaluated chromametrically by measuring the L*, a*, and b* values.

Keywords: SERRATIA MARCESCENS、NATURAL PIGMENTS

REFERENCES
Francielo Vendruscolo, Bruna Luise Müller, Denise Esteves Moritz, Débora de Oliveira , Willibaldo Schmidell Jorge Luiz Ninow, 2013. T...