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Accepted Research Article (Uncorrected Version)

Makale Başlığı / Title	Zingiber officinale bitkisinden toplam polifenollerin ekstraksiyonunun modellenmesi Modeling of extraction of total polyphenols from Zingiber officinale
Yazarlar / Authors	Sibel YİĞİTARSLAN
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Kimya! ... yildizibel@sdu.edu.tr

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Çs a c s Y s ... suyla ekstrakte ... Modelleri ... katsayı ...

Abstract In this paper, kinetics of extraction of total polyphenols from officinale was investigated. Samples were extracted using different temperatures and the extraction was realized under unimixed medium to observe the kinetics. Four different models were used for mathematically describing the physical behavior of extraction. The yields of polyphenols determined as gal equivalents ranged between 2.2923 mg/g depending on the extraction conditions. The mass transfer model for unsteady conditions was found as the best fit to the experimental data. Also, mole convective diffusivities and activation energy of extraction were evaluated in this study. It was found that increase in temperature increased the diffusion coefficients and decreased the activation energy of extraction. It has been found that temperature was much more effective than mixing rate, on the process.

Anahtar kelimeler: Ekstraksiyon, Modelleme, Polifenoller, Zingiber officinale

Keywords: Extraction, Modeling, Polyphenols, Zingiber officinale

1 fi y r y ... polifenoller ... [7]. Bu bitkilerden biri olan Zingiber officinale ... hastalara verilmesi durumunda destekleyici kanser tedavisi ... [11],[12].

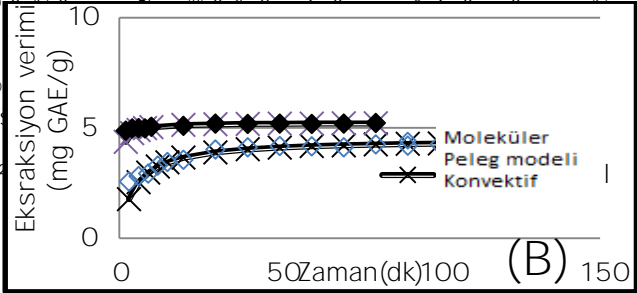
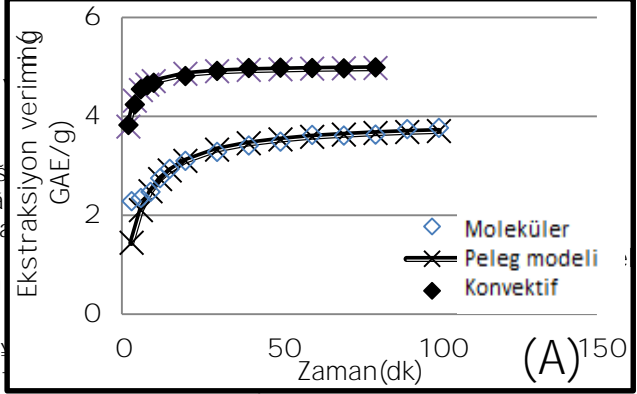
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Tablo 1: Ekstraksiyon prosesinin model parametreleri.

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