

عنوان مقاله:

Optimization of pineapple flavor production using ohmic- heating reactor

محل انتشار:

اولین کنگره بین المللی و بیست و چهارمین کنگره ملی علوم و صنایع غذایی ایران (سال: 1395)

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خلاصه مقاله:

The present work illustrates the incorporation of ohmic-heating reactor and its improved impact in optimization of pineapple flavor (ethyl butyrate) production by using Amberlyst 15 dry as catalystraction. The effect of different parameters namely: salt concentration (1%, 2%, 3% w/w), voltage (100, 200, 300 volt), catalyst loading (2%, 4%, 6% w/w) and molar ratio (1:1, 2:1, 1:2) has been studied on conversion yield of ethyl butyrate. The optimum condition was 1% salt concentration, ohmic voltage 200 volt, 2% catalyst loading and alcohol:acid molar ratio of 1:1 collectively, gave 63% conversion of the product after 90 minutes. The results showed that use of ohmic greatly improves pineapple flavor production by increasing yields and reducing time of reaction.

کلمات کلیدی:

Amberlyst 15 dry, Ethyl butyrate, Ohmic-heating reactor, Pineapple flavor, Yield

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