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Acid hydrolysis of brewer grains

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Abstract

Brewer grain is a large-capacity waste of brewing industry. The promising field of the brewer grain processing is its use as new raw source for obtaining xylose and xylite – valuable products that found their application as sweeteners for pancreatic diabetes patients nutrition. This work is devoted to the development of ways for acid hydrolysis of brewer grain aimed at the obtaining of pentose hydrolyzates, enriched with xylose. Optimal technological parameters of acid hydrolysis have been determined: hydrolyzing agent (H_2SO_4) concentration is 3.0%, temperature – 100 ºC, treatment duration – 5 hours.