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The Editorial Board recommends authors to structure the presented material using subheadings: INTRODUCTION, METHODS, DISCUSSION OF THE RESULTS, CONCLUSION, REFERENCES.

UDC 577.325

# RESEARCH OF OPERATING MODES FOR THE HETEROGENEOUS BIOCATALYST ON THE BASIS OF THE IMMOBILIZED INULINASE IN THE REACTOR OF CONTINUOUS ACTION TO RECEIVE FRUCTOSE FROM INULIN CONTAINING PLANTS EXTRACTS

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## **ABSTRACT**

The highly stable heterogeneous preparation of inulinase, immobilized on the ion-exchange KU-2 resins, is developed. It effectively split chemically pure and containing in plant extracts inulin. It is suitable for use not less, than in 10cycles of hydrolysis in a row. Substrate movement from top to bottom with a speed of 3 ml/min (inulin) and 7 ml/min (plants extract) or from bottom to top with a speed of 5 ml/min is optimum at using of the biocatalyst in the reactor of continuous action.

Keywords: inulinase, immobilization of heterogeneous biocatalyst, inulin, extract of *Helianthus tuberosus*, ion-exchange KU-2 resin, reactor of continuous action

# INTRODUCTION METHODS DISCUSSION OF THE RESULTS CONCLUSION REFERENCES

Information about the authors (place of work, surname, first name and patronymic in full, position, contact details – in Russian and English) is placed at the end of the article.

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# Article in English, French, German. and other languages (Latin):

Pitts J. N. Singlet oxygen in the environmental sciences. Singlet molecular oxy-gen and photochemical air pollution / J. N. Pitts, A. U. Khan, E. B. Smith, R. P. Wayne (with all authors credited) // Environmental Science & Technology. – 1969. – Vol. 3. - N = 3. - P. 241-247.

# The book (monograph, collection):

Zhukova N. S. Inzhenernye sistemy i sooruzheniya. Uchebnoe posobie. V 3 chastyakh. Chast' 1. Otoplenie i ventilyatsiya / N. S. Zhukova, V. N. Azarov – Volgograd : VolgGTU, 2017. – 89 s.

Yungnickel I.L. Organic Analysis / I.L. Yungnickel, E.D. Peter, A.Polgar, E.T.Weiss. – New York, 1953. – p. 127.

#### **Conference materials:**

Kalinina G. P. Razvitie nauchno-metodicheskoi raboty v Knizhnoi palate / G. P. Kalinina, V. P. Smirnova // Rossiiskaya knizhnaya palata: slavnoe proshloe i nadezhnoe budushchee : materialy nauchno-metodicheskoi konferentsii k 100-letiyu RKP / Informatsionnoe telegrafnoe agentstvo Rossii (ITAR-TASS), filial «Rossiiskaya knizhnaya palata»; pod obshchei redaktsiei K. M. Sukhorukova. – Moskva: RKP, 2017. – P. 61–78.

#### **Internet resource:**

Kondrat'ev V.B. Global'naya farmatsevticheskaya. Available at: http://perspektivy.info/rus/ekob/globalnaja\_farmacevticheskaja\_promyshlennost\_2 011-07-8.html (accessed 22 June 2023).

# Dissertation or dissertation author's abstract:

Velichkovskii B. B. Funktsional'naya organizatsiya rabochei pamyati : spetsial'nost' 19.00.01 «Obshchaya psikhologiya, psikhologiya lichnosti, istoriya psikhologii» : avtoreferat dissertatsii na soiskanie uchenoi stepeni doktora psikhologicheskikh nauk / Velichkovskii Boris Borisovich ; Moskovskii gosudarstvennyi universitet im. M. V. Lomonosova. – Moskva, 2017. – 44 p.

## **Patents:**

Patent № 2637215 RF, MPK B02C 19/16 (2006.01), B02C 17/00 (2006.01). Vibratsionnaya mel'nitsa : № 2017105030 : zayavl. 15.02.2017 : opubl. 01.12.2017 / Artemenko K. I., Bogdanov N. E. ; zayavitel' BGTU. – 4 p.

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