

## **Forward and inverse problems of supercritical extraction of oil from polydisperse packed bed of ground plant material**

Egorov A., Salamatin A., Maksudov R.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### **Abstract**

The problem of determining the overall extraction curve for the supercritical fluid oil extraction from polydisperse layer of ground oilseed granules was solved analytically using the shrinking core model. The functional dependence obtained for bi-disperse approximation of the packed bed describes the results of known experiments with high accuracy. Ways to solve the inverse problem of determining the size distribution function for particles of granular layer based on experimental overall extraction curves are discussed. © 2014 Pleiades Publishing, Ltd.

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