AL-FARABI KAZAKH NATIONAL UNIVERSITY

FACULTY OF PHYSICS AND TECHNOLOGY

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3D SIMULATION OF REACTIVE FLOTATIONS IN COMBUSTION CHAMBERS

STUDENT TRAINING MANUAL

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The manual is devoted to the 3-dimensional computer simulation of heat and mass transfer processes in the combustion of Ekibastuz coal in the steam boilers furnaces, describes physical and mathematical models of the task in hand, as well as methods for solving equations describing the three-dimensional process of convective heat and mass transfer during solid fuel combustion in a pulverized one, taking into account radiative transport and multiphasal nature of the medium.

The manual is primarily intended for master's students of the Department of Thermophysics, Standardization and Metrology, but it can also be helpful for students, postgraduate and PhD students.