

ALL-UNION SEMINAR ON NUMERICAL METHODS  
IN MULTICOMPONENT PROBLEMS IN HEAT AND  
MASS TRANSFER IN THE PRESENCE OF PHASE  
TRANSITIONS AND CHEMICAL REACTIONS

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This seminar was held November 20-22, 1974, in Kiev and was organized by the Institute of Technical Thermophysics, Academy of Sciences of the Ukrainian SSR, in conjunction with the section "Analytical Methods of Calculating Heat- and Mass-Transfer Processes" of the Scientific Council on "Mass and Heat Transfer in Technical Processes," State Committee on Science and Technology, Council of Ministers of the USSR.

The seminar was attended by 100 representatives of 24 organizations from 15 major scientific centers; 36 papers were presented on heat and mass transfer in phase transitions and chemical reactions, in the flow of viscous liquids, and in deformable systems. These papers dealt with aspects of new difference systems particularly promising for handling stationary and nonstationary transport problems, and also mathematical simulation on analog computers and design of hybrid systems (combinations of digital and analog computers).

The seminar demonstrated the increasing complexity of researches in heat physics, in which numerous physical factors have to be combined with complex geometry in the presence of rapid and essentially nonlinear processes. For this reason, a major current problem in transport theory is rigorous analysis of the mathematical adequacy of numerical schemes, together with the efficiency and economy in machine time.

At the end of the seminar, there was a meeting of the Section "Analytical Methods of Calculating Heat- and Mass-Transfer Processes" of the Scientific Council on "Mass and Heat Transfer in Technical Processes," State Committee on Science and Technology, Council of Ministers of the USSR. The resolution adopted at the meeting acknowledged the fruitful work of the Organizing Committee (President Dr. O. A. Gerashchenko), and it was recommended that the proceedings should be published.

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Translated from *Inzhenerno-Fizicheskii Zhurnal*, Vol. 29, No. 1, pp. 180-181, July, 1975.

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