investigations into heat transfer in a transient flow with high thermal loads."

P. L. Kirillov: "Temperature distribution in a turbulent liquid flow in a tube."

B. S. Petukhov and L. I. Roisin: "Heat transfer in a laminar liquid flow in circular tubes."

B. S. Petukhov and B. N. Popov: "Heat transfer calculation in tubes with a turbulent liquid flow of variable physical properties."

I. T. Alad'ev and V. A. Efimov: "Heat transfer intensification in electrical fields."

L. A. Dorfman: "Heat transfer of rotating surfaces."

V. P. Isachenko and S. G. Agababov: "Intensification of heat transfer in rough tubes and estimation of corresponding change in hydraulic resistance."

M. G. Kryukov: "Convective heat transfer of a solid particle in a gas flow."

A. A. Shlanchauskas: "The effect of ultrasound on heat transfer."

The papers were followed by three days' discussion. The speakers in the discussion made incisive comments concerning some papers presented at the Symposium. They spoke as well of the prospects of convective heat-transfer researches.

Urgent necessity to study both integral heat-transfer characteristics at high-rate processes and temperature fields and temperature distribution were emphasized by the speakers.

They noted that many theoretical works of insignificant scientific and practical importance appeared recently. In these works, minor problems are investigated, also general varieties of boundary conditions are treated. Meanwhile the main actual problem is to profoundly study the mechanism of the process and to work out new theories of transport in a turbulent flow which are to change semiempirical von Kármán–Prandtl's theory. The following problems were considered the most urgent and important for investigators into the field of convective heat transfer.

1. Further study of convective heat-transfer mechanism especially in high-rate processes (convective resistance), turbulent heat transfer, heat transfer in the fluid of variable physical properties, with internal heat source etc.

2. Mastery of the methods for both intensification of convective heat-transfer processes and their deceleration (overheating protection).

3. Development of portable and effective heat-transfer appartuses for various engineering branches.

4. Investigation of the non-stationary processes of heat transfer and fluid dynamics as well as some other problems.

The speakers in the discussion pointed out the use of sponsoring such Symposia which consider narrow problems. They are to be held in the period between all-union conferences covering all the heat-transfer problems.

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ANNOUNCEMENT

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