

CHRONICLES

CONFERENCE OF THE "INZHENERNO-FIZICHESKII ZHURNAL" ADVISORY BOARD

É. I. Berezovskii

On May 19, 1972 the editorial staff and the advisory board of the "Inzhenerno-Fizicheskii Zhurnal" held a joint conference in Minsk.

This conference was attended by A. V. Lykov (editor-in-chief), S. S. Zabrodskii and É. I. Berezovskii (assistant chief editors), L. L. Vasil'ev, T. L. Perel'man, A. P. Prudnikov, B. M. Smol'skii, and A. G. Shashkov (members of the editorial staff), L. F. Timofeev (chief secretary), and the following members of the advisory board: P. Anastasievic (Belgrade), Ya. Valharz (Prague) A. A. Gukhman (Moscow), M. F. Kazanskii (Kiev), L. A. Kozdoba (Kiev), M. D. Mihailov (Sofia), S. Pabis (Warsaw), L. Strah (Prague), A. F. Chudnovskii (Leningrad), and A. Éndrenyi (Budapest).

The following persons had been invited to participate in the work of the advisory board: P. D. Lebedev (Moscow), V. M. Borishanskii (Leningrad), and A. G. Temkin (Riga).

The agenda consisted of the following items:

1. Report on the work of the editorial staff.
2. Discussion of the report and adoption of a resolution.

The conference was opened by A. V. Lykov with a brief address. The report on the staff's work was read by S. S. Zabrodskii, who noted that a tremendous job has been done within the past four years since the previous joint conference with the advisory board of "Inzhenerno-Fizicheskii Zhurnal": the editorial staff has held 41 conferences at which 2680 articles were reviewed and 1590 of them approved for print, including 280 for the files, with a total of 1433 published. The other articles were rejected, many for not conforming to the Journal's format.

As in the past, most attention in this Journal is now being given to scientific problems of particular significance to modern technology. In it are published the results of theoretical and experimental studies in the fields of thermophysics, heat and mass transfer, heat conduction theory, desiccation theory, structural mechanical properties of disperse systems, and geodynamics. Alongside are also published letters to the editor. Other sections in the Journal are: reviews and bibliography, chronicles of most important events in the scientific life of the USSR and other countries, and surveys pertaining to most current problems in modern science and engineering.

The Journal is translated into English and this version is published in the USA.

The editors of "Inzhenerno-Fizicheskii Zhurnal" systematically publish the contents of current issues of the International Journal "Heat and Mass Transfer", where, in turn, the contents of our issues are published. In this way, business relations have been established between both Journals which facilitate a timely exchange of information on scientific developments in the USSR and abroad and which promote the collaboration between scientists of various countries.

The editors of "Inzhenerno-Fizicheskii Zhurnal" pay much attention to young scientists and offer them a lot of help. Articles which have been submitted are forwarded to leading experts for review and then thoroughly discussed at editorial staff conferences.

The large readership of the Journal is an asset on which the editors draw in their work. The editorial staff is responsible not only to the Government Committee on Science and Technology at the USSR Council

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of Ministers, to the branches and the Presidium of the BSSR Academy of Sciences, but also to the readers — readers' conferences are conducted in various cities within the Soviet Union (such a conference was held, for example, in Leningrad in 1971). Twelve such readers' conferences were held altogether since the publication of this Journal had begun.

During this period the "Inzhenerno-Fizicheskii Zhurnal" has become the organ of the BSSR Academy of Sciences as well as of the Government Committee on Science and Technology at the USSR Council of Ministers.

The volume of information offered the readers every year has been increased appreciably by abstracting and keeping articles on file, for instance. This has helped to reduce the backlog and to accelerate the processing of articles — making it, on the average, in 10 months. In 1971, for instance, about 30% of all approved manuscripts were filed.

Such relatively short schedules for publishing will be maintained, not only by the abstracting and filing policy but also by a further refinement of the Journal's format.

It is to be noted that 30 articles by foreign authors, including 16 by authors from socialist countries, have been published in the "Inzhenerno-Fizicheskii Zhurnal" since its inception. Scientific achievements of brotherly socialist countries should, of course, henceforth receive wider coverage in this Journal. This is one of the tasks facing our foreign members on the advisory board.

It would be also desirable not to have to reject manuscripts coming from socialist countries. Therefore, the editorial staff is asking the foreign members of the advisory board whether they would be willing to prereview the manuscripts addressed to the "Inzhenerno-Fizicheskii Zhurnal" from their respective countries.

The editors carry on a lively correspondence with both the authors and reviewers on questions pertaining to the review and preparation of articles for print, as well as on problems of journal circulation in the USSR and abroad.

In 1972 were printed over 2700 copies of the Journal, 547 of which were sent to subscribers in 35 countries.

As compared with 1970, the subscription of the Journal has increased in 1972 by 210% in Bulgaria, 90% in Hungary, 100% in Poland, and 280% in Yugoslavia.

A great contribution to popularizing the Journal is being made by the following members of the advisory board: Prof. S. Pabis and J. I. Giborowski (Polish People's Republic), M. D. Mihailov (Bulgarian People's Republic), P. Anastasievic and T. Gregoric (Socialist Federation of Yugoslav Republics), I. Kirevic (Socialist Romanian Republic), and A. Endrenyi (Hungarian People's Republic).

Following the presentation of this report, the participants of the conference exchanged views on the Journal's contents and on the editorial work.

It was suggested that members of the advisory board and of the editorial staff should either personally survey the problems relating to the Journal contents, or should ask other scientists to do it; that the editors should reject purely technical articles on hydraulics and articles dealing with thermodynamic apparatus used for solving very intrinsic problems in thermodynamics.

A. F. Chudnovskii in his presentation dwelled on the need to publish articles in the Journal which deal with experimental methods and techniques based on latest developments. These articles should contain a description of a given new physical principle and discuss the feasibility of applying to the measurement of whatever thermophysical quantity, followed by an example and an evaluation of the time saving which the given new method would yield. For instance, a substance has been found which could be used for converting temperature readings into frequency data. The process of moisture measurement could thus be automated to such an extent as to make a continuous recording of the desiccation or the hydration process possible.

M. D. Mihailov in his comments dwelled on the popularization of the "Inzhenerno-Fizicheskii Zhurnal" in the socialist countries "... It seems to me that this problem has been neglected. So far not the most outstanding work is coming from the socialist countries, judging by those published in this Journal, and the reason is that their preliminary section has not been properly organized." He suggested that regional editorial offices be established at societal headquarters in the socialist countries. There the articles could be submitted by authors in their native languages, then preselected for good translation into Russian, and thus forwarded to the editors of "Inzhenerno-Fizicheskii Zhurnal." In conclusion, he said:

"... we often use programs written in FORTRAN for solving problems, knowing that these programs work. In view of this, it would be helpful to establish a program bank in FORTRAN and in ALGOL for solving and filing the solutions to problems in heat and mass transfer."

P. Anastasievic, J. Valharz, and S. Pabis seconded M. D. Mihailov's motion that regional editorial offices of the "Inzhenerno-Fizicheskii Zhurnal" be organized.

A. G. Shashkov in his comments raised the question of the form in which the final results of a study should be presented in an article so as to be of use to specialists in other areas. He noted "... a huge amount of experimental data pertaining to thermophysical properties has been accumulated in the last hundred years. Theories are being developed at the same time. We often do not know, however, how theoretical calculations compare with test data, because the names and the specified accuracies of the various methods do not tell much. Nowadays one must take into account scores of simultaneously occurring phenomena. In glasses, for instance, there occurs convection along with accommodation, temperature jump, radiation, etc. We often do not know to what extent all this has been considered by the authors of published reports. Thus, experimental studies useful for practical purposes become worthless to theoreticians. They are not suitable as criteria for judging the correctness of theoretical calculations. I, therefore, suggest that the author of an article dealing with an experimental study be allowed to thoroughly analyze any side effects."

Also A. A. Gukhman paid a great deal of attention to experimental studies in his talk: "I was on the Zhurnal Tekhnicheskoi Fiziki advisory board for many years. In that publication appear 30-40 page articles, not to accommodate the author but to fulfill the requirement. If a serious item is printed, and only serious items should be printed, then it must cover and touch upon all problems related to the technique of an experiment and thus leave no doubt as to the reliability of the results. And what do we sometimes encounter now? A complex problem is being solved concerning, for example, the flow at the nozzle throat section. A system is given closed with respect to one variable which can be calculated from the test data. There follows a detailed description of the mathematical apparatus, but exactly a single sentence tells us that the system of equations becomes a closed one depending on the value of friction stress at the surface — which can be determined experimentally. But measuring this friction stress is three times more difficult than setting up these equations and solving them. This I call an utter disregard for the experiment. If we wish to stimulate interest in experimental research, on the other hand, then we must require that such research be reported in a format which will clearly show up not only the measurement errors but also errors in the method. Let us consider again the flow at the nozzle throat section. Here has been disregarded the most significant effect, which causes a quantitative error larger than the measured value itself. I have in mind suction, which is inevitable during a jet discharge from a channel while measurements are made at the nozzle throat. Thus, it is one thing to agree on a few conclusions in a mathematical treatise and it is quite another thing to agree on what relates to the basic method or even the actual technique of an experiment."

The presentations by members of the advisory board from socialist countries were listened to very attentively. It was proposed that authors from these countries submit their articles to the "Inzhenerno-Fizicheskii Zhurnal" office together with a recommendation from the respective country's member of the advisory board.

The report by S. S. Zabrodskii was discussed by P. Anastasievic, J. Valharz, A. V. Lykov, P. D. Lebedev, V. M. Borishanskii, L. Strah, and A. G. Temkin.

In conclusion, A. V. Lykov proposed to the board members from countries of the socialist fraternity that they conduct readers' conferences in their countries for a discussion of the Journal's contents. He thanked all members of the advisory board for their participation in this conference and for their competent discussion of urgent problems.

The following resolution was adopted at the conference of the advisory board.

Resolution Adopted at the Conference of the "Inzhenerno-Fizicheskii Zhurnal" Advisory Board.

Having heard and discussed the report of the assistant chief editor of "Inzhenerno-Fizicheskii Zhurnal" S. S. Zabrodskii, Corresponding Member of the BSSR Academy of Sciences, concerning the work of the editorial staff and office, having also heard and discussed reports of the foreign board members about their activities, the advisory board notes that:

1. Over the long range, with the approval of the readership, the problem orientation of the Journal in the area of heat and mass transfer is to be maintained. Such an orientation is relevant. It is inseparably tied to the solution of important problems in modern technology.

2. The "Inzhenerno-Fizicheskii Zhurnal" has become an organ of the Government Committee on Science and Technology at the USSR Council of Ministers, which is an indication of the Journal's importance and also its responsibility in stimulating the development of modern technology.

3. In view of the increasing volume of manuscripts submitted to the "Inzhenerno-Fizicheskii Zhurnal", it is worthwhile to broaden the practice of abstracting and filing articles and to further refine the Journal's format, considering also the emergence and expansion of contiguous scientific and scientific-technical journals (for instance, the journal "Teoreticheskie Osnovy Khimicheskoi Tekhnologii").

4. The advisory board recognizes with satisfaction the participation of foreign members in this conference.

The advisory board recognizes the tremendous work done by Professors Pabis (Warsaw), Ciborowski (Warsaw), Mihailov (Sofia), Kurevic (Bucharest), and Anastasievic and Gregoric (Belgrade) in popularizing the "Inzhenerno-Fizicheskii Zhurnal". It would be desirable to intensify such efforts in the German Democratic Republic and in Czechoslovakia.

5. Still not enough articles are submitted to the "Inzhenerno-Fizicheskii Zhurnal" from countries of the socialist fraternity which would publicize the achievements of those countries in the science of heat and mass transfer.

The advisory board resolves:

1. to approve the activity of the editorial staff and office during the period (four years) covered by the report;

2. to approve the added scientific orientation of the Journal, and to refine its format by discontinuing, for instance, the publication of articles on hydraulics and chemical technological processes (which are to appear in the journals "Teoreticheskie Osnovy Khimicheskoi Tekhnologii" and "Khimicheskaya Promyshlennost");

3. to ask the foreign members of the advisory board, who represent the Journal in their respective countries, to assist in the submittal of more original articles, surveys, bibliographies, and testimonial articles honoring the science personalities, also to accept the responsibility for preselecting those manuscripts which publicize the achievements of socialist countries in the science of heat and mass transfer.