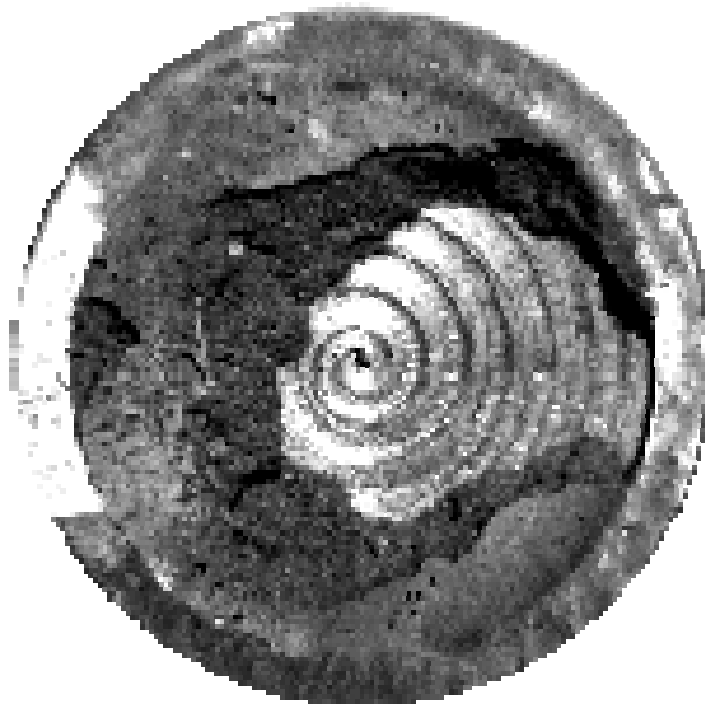


SEMINAR PROCEEDINGS



**SOPOT, WDW Hotel Complex
1-2nd June 2000**



POLISH ACADEMY OF SCIENCES
INSTITUTE OF FLUID-FLOW MACHINERY

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INTERNATIONAL CAVITATION EROSION TEST SEMINAR PROCEEDINGS

Seminar organised
by the Institute of Fluid-Flow Machinery
of the Polish Academy of Sciences

under sponsorship
of the Polish State Committee of Scientific Research

Sopot, WDW Hotel Complex, 1 - 2nd June 2000



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**to late Professors J.Noskievic and K.Steller
in memoriam**

PREFACE

This volume comprises papers presented during the International Cavitation Erosion Test (ICET) Seminar held on June 1 and 2nd 2000 in Sopot. The purpose of the Seminar is to summarise results obtained within the framework of the ICET project. Therefore workshop sessions will form a basic form of the debate. The protocols of discussions held during this sessions will be attached to this volume in form of a supplement.

The initiative of the International Cavitation Erosion Test (ICET), put forward by the Institute of Fluid-Flow Machinery of the Polish Academy of Sciences (IMP PAN) during the 7th International Conference on Erosion by Liquid and Solid Impact (ELSI VII) held in Cambridge, U.K., in September 1987. Each Test Participant took care by himself to provide for financial support of his contribution to the project. No such support was available from the side of the Test Co-ordinator. Wide response to the initiative can be therefore considered a measure of significance attributed by eminent research and development centres to the goals of the project.

The *spiritus movens* of the ICET was *Professor Kazimierz Steller*, head of the Department of Fluid Dynamics at the IMP PAN and initial Test Co-ordinator. His multiyear experience in the field of cavitation research and numerous international contacts were essential when discussing the idea of the project with our partners at the beginning of eighties. The ICET programme was prepared under close collaboration with *Dr Tadeusz Krzysztofowicz*, Institute of Welding and Structural Materials, Technical University of Gdańsk, and consulted with the ICET International Advisors. Dr T.Krzysztofowicz took also care for selection, heat treatment and determination of mechanical properties of the test materials.

In mid 1992 all the experimental data were already available to the Test Co-ordinator and most of the data processing work was completed. Preliminary surveys of results were presented during conferences held in 1991 and 1992 in Gdynia, Paris, Nanjing, Karlsruhe and Cambridge. Unexpected death of Prof. K.Steller in May 1992 and deep involvement of his research group in projects and industrial contracts vital for the position and existence of the Department have stopped further work within the framework of the ICET programme for the next four years.

The work was resumed only in 1996 by completing the documentary part of the *Preliminary Report* and commencing development of the ICET database comprising, among others, the tabulated volume loss vs. time curves. At the turn of 1997 and 1998 also the work on the *Co-ordinator's Report* could have been started. At the same time we started to develop the ICET *www* page. Later on we placed there the database installation files as well as schematics of test rigs and photographs of eroded specimens. Finally, in September 1999 the *Preliminary Report*, including ICET database files, was sent to Test Participants and Test Panel Members.

Unfortunately, after over 10 years since the project started, identification of all the Participants appeared to be a difficult task. In one case (Dr Remo Martinella of CISE, Milan) we did not succeed at all. Several years ago, too early death took Professor J.Noskievič away. In some cases it turned out that the labs do not exist any more (SIGMA Research Institute, Olomouc) or do not continue their cavitation research (Chinese Ship Scientific Research Centre, the City University in London). There have been surely also other reasons that resulted in the number of Test Participants interested in the Seminar having shrunk to 4.

Nevertheless the Test-Co-ordinator expects that this event will be a proper completion of a long year effort, giving an excellent opportunity for interesting and fruitful discussion

Dr Janusz Steller
ICET Co-ordinator

Gdańsk, 31 May 2000

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