INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER

BOARD OF EDITORS

E. A. BRUN, 8 place du Commerce, Paris 15ême, France

CARL GAZLEY, Jr., Dept. of Geophysics and Astronomy, The RAND Corporation, 1700 Main Street, Santa Monica, California 90406, U.S.A.

J. GOSSE (Associate Editor), C.N.A.M., 292, rue Saint-Martin, 75141-Paris Cedex 03, France

U. GRIGULL, Technische Universität, Arcisstrasse 21, München, Germany

E. HAHNE (Associate Editor), Universität Stuttgart, 7 Stuttgart 1, Seidenstr. 36, Germany

J. P. HARTNETT, Energy Engineering Dept., University of Illinois, Box 4348, Chicago, Illinois 60680, U.S.A.

O. G. MARTYNENKO, Heat and Mass Transfer Institute, Byelorussian Academy of Sciences, 25 Podlesnaya, Minsk, B.S.S.R., U.S.S.R.

W. J. MINKOWYCZ (Associate Editor), Energy Engineering Dept., University of Illinois, Box 4348, Chicago, Illinois 60680, U.S.A.

Y. MORI, Faculty of Engineering, Tokyo Institute of Technology, Meguro-ku, Tokyo, Japan

R. I. SOLOUKHIN, Heat and Mass Transfer Institute, Byelorussian Academy of Sciences, 15 Podlesnaya, Minsk, B.S.S.R., U.S.S.R.

D. B. SPALDING, Bakery House, 40 High St., Wimbledon, London SW19 5AU, England

B. R. PAI, (Associate Editor for the Indian Sub-Continent), National Aeronautical Laboratory, Post Bag No. 1779, Bangalore-560017, India

HONORARY EDITORIAL ADVISORY BOARD

Chairman: E. R. G. ECKERT, University of Minnesota, Minneapolis, Minnesota 55455, U.S.A. Past-chairman: Sir OWEN SAUNDERS, F.R.S., Imperial College, London, England

L. H. BACK, Pasadena

F. J. BAYLEY, Sussex

J. BEÉR, Sheffield

F. BOŠNJAKOVIĆ, Stuttgart

J. W. CIBOROWSKI, Warsaw

J. A. CLARK, Ann Arbor

I. CURIEVICI, Iasi, Romania

D. A. DE VRIES, Eindhoven

R. G. DEISSLER, Cleveland, Ohio

J. J. D. DOMINGOS, Lisbon

R. V. DUNKLE, Melbourne

D. K. EDWARDS, Los Angeles

R. EICHHORN, Lexington

H. W. EMMONS. Cambridge, Massachusetts

A. ENDRENYI, Budapest

A. FORTIER, Orsay

B. GEBHART, New York

H. GLASER, Stuttgart

R. J. GOLDSTEIN, Minneapolis

P. GRASSMAN, Zürich

A. A. GUKHMAN, Moscow

W. B. HALL, Manchester, England

G. F. HEWITT, Harwell, England

T. W. HOFFMAN. Hamilton, Ontario

T. F. IRVINE, JR., Stony Brook, New York

Y. KATTO, Tokyo

S. S. KUTATELADZE, Novosibirsk

A. I. LEONTIEV, Moscow

J. MATHIEU, Ecully

M. D. MIKHAILOV, Sofia

YU. A. MIKHAILOV, Riga

TOKURO MIZUSHINA, Kyoto

H. MONDIN, Grenoble

I. L. MOSTINSKY, Moscow

L. G. NAPOLITANO, Naples

K. NISHIKAWA, Hakozaki, Japan

T. D. PATTEN, Edinburgh

J. R. A. PEARSON, London

KURT PETERS, Vienna

A. A. POMERANTSEV, Moscow

A. RAMACHANDRAN,

Madras

J. F. RICHARDSON, Swansea, Wales

WARREN M. ROHSENOW, Cambridge, Massachusetts

J. J. RONCO, La Plata, Argentina

R. H. SABERSKY. Pasadena, California

T. SATO, Kyoto, Japan

JIRI SCHNELLER, Bechovice, Czechoslovakia

R. A. SEBAN Berkeley, California

S. SIDEMAN, Haifa

R. S. SILVER, Glasgow

MARIO SILVESTRI, Milan

E. M. SPARROW,

Minneapolis, Minnesota

M. A. STYRIKOVICH, Moscow

J. TABOREK, Alhambra, California C.-L. TIEN. Berkeley, California

Y. S. TOULOUKIAN,

West Lafayette, Indiana

M. G. VELARDE, Madrid

D. VORTMEYER, München

J. W. WESTWATER, Urbana, Illinois

S. S. ZABRODSKY, Minsk

Z. ZARIC, Beograd, Yugoslavia

A .A. ZHUKAUSKAS, Vilnius

N. ZUBER. Washington, D.C.

Annual Subscription Rates 1979

For libraries, research establishments, and all other multiple-reader institutions: US \$220 (including postage and insurance). All subscription enquiries should be addressed to: The Subscription Fulfillment Manager, Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England.

Specially Reduced Rates to Individuals

In the interests of maximizing the dissemination of the research results published in this important international journal we have established a two-tier price structure. Any individual, whose institution takes out a library subscription, may purchase a second or additional subscription for personal use at the much reduced rate of US \$30 per annum.

Microform Subscriptions and Back Issues
Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche. Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Published monthly

Copyright © Pergamon Press Ltd. 1979

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the copyright holder.

U.S. Copyright Law applicable to Users in the U.S.A.

The Article Fee Code on the first page of an article in this journal indicates the copyright owner's consent that, in the U.S.A., copies may be made for personal or internal use, provided the stated fee for copying, beyond that permitted by Section 107 or 108 of the United States Copyright Law, is paid. The appropriate remittance should be forwarded, with a copy of the first page of the article, to the Copyright Clearance Center Inc., PO Box 765, Schenectady, NY 12301. If a code does not appear copies of the article may be made without charge, provided permission is obtained from the publisher. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying.

In case of doubt please contact your nearest Pergamon office.

PERGAMON PRESS