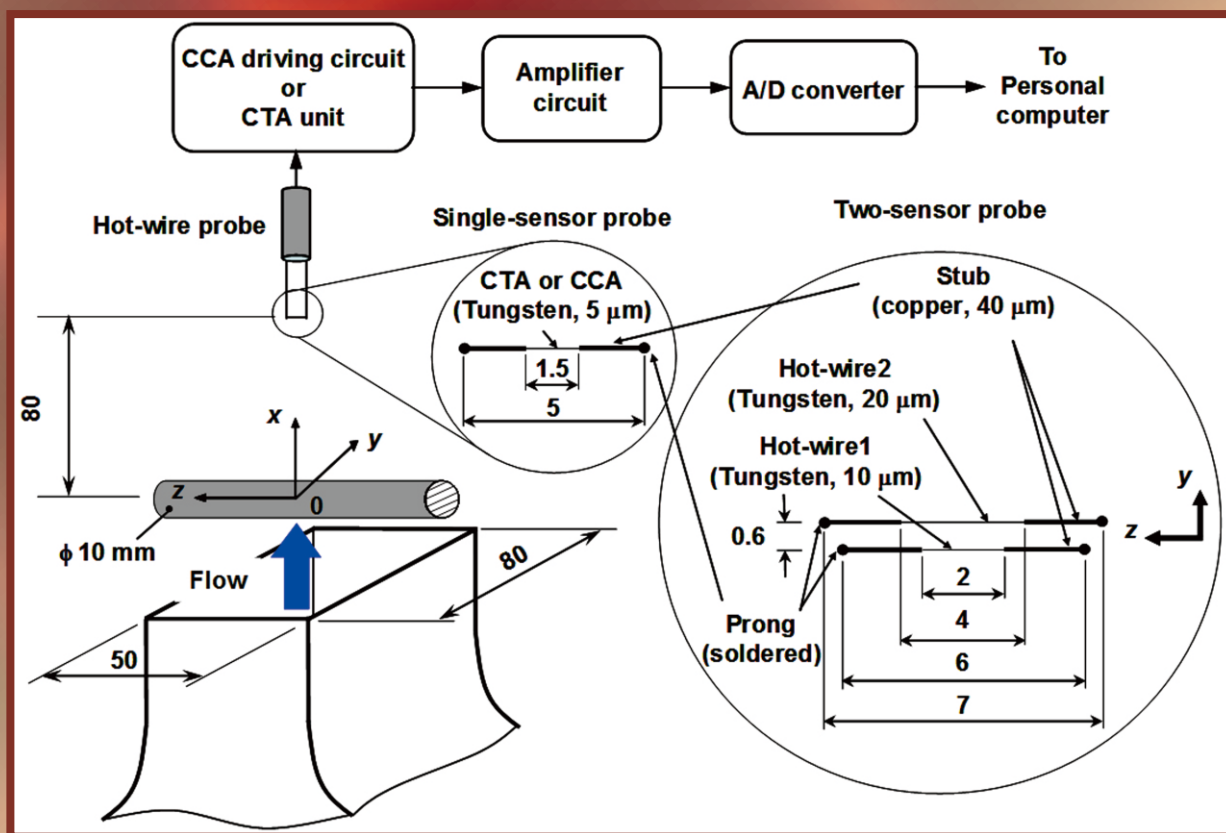




Open Journal of Fluid Dynamics



ISSN: 2165-3852



Journal Editorial Board

ISSN: 2165-3852 (print) ISSN: 2165-3860 (online)

<http://www.scirp.org/journal/ojfd>

Editor in Chief

Prof. Heuy-Dong Kim

Andong National University, South Korea

Associate Editor

Dr. Mohammad Mehdi Rashidi

Bu-Ali Sina University, Iran

Editorial Board

Prof. Saeid Abbasbandy

Imam Khomeini International University, Iran

Prof. William E. Acree, Jr.

University of North Texas, USA

Prof. Ramesh K. Agarwal

Washington University in St. Louis, USA

Prof. Mostafa Barigou

The University of Birmingham, UK

Prof. Bin Chen

Xi'an Jiaotong University, China

Prof. Juergen Czarske

University of Technology, Germany

Dr. Jiannong Fang

École Polytechnique Fédérale de Lausanne, Switzerland

Dr. Sandip Ghosal

Northwestern University, USA

Dr. Anup Gokarn

Flow Science Inc., USA

Prof. Mohamed Abdel-Aziz Mostafa Habib

Fahd University of Petroleum and Minerals, Saudi Arabia

Prof. Yongjun Jian

Inner Mongolia University, China

Prof. Russell G. Keanini

University of North Carolina, USA

Dr. Rajan Kumar

Florida State University, USA

Prof. Chao-An Lin

National Tsing Hua University, Chinese Taipei

Dr. Zhanke Liu

Schlumberger Technology Corporation, USA

Prof. Mario Mlsale

University of Genoa, Italy

Dr. Khaled A. Sallam

Oklahoma State University, USA

Prof. Richard Saurel

Aix-Marseille University, France

Prof. José R. Serrano

Universidad Politécnica de Valencia, Spain

Prof. Zhiqiang Shao

Fuzhou University, China

Prof. Guihua Tang

Xi'an Jiaotong University, China

Dr. Makoto Umeki

University of Tokyo, Japan

Dr. Guiren Wang

University of South Carolina, USA

Prof. Lian-Ping Wang

College of Engineering, USA

Dr. Bai Wei

National University of Singapore, Singapore

Prof. Jinjia Wei

Xi'an Jiaotong University, China

Prof. Chao Yang

Chinese Academy of Sciences, China

Prof. Hamit Yurtseven

Middle East Technical University, Turkey

TABLE OF CONTENTS

Volume 3 Number 2

June 2013

Dimensional and Mechanical Similarity Analysis of the Flow in Rotating Liquid Film Reactor	
X. Li, L. X. Xu, J. J. Zhang, W. L. Lan.....	33
Drilling Operation and Formation Damage	
H. Fallah, S. Sheydai.....	38
Study of the Different Factors That Influence Jet Pump Performance	
A. A. Saker, H. Z. Hassan.....	44
Transient Electro-Osmotic and Pressure Driven Flows through a Microannulus	
R. Na, Y. J. Jian, L. Chang, J. Su, Q. S. Liu.....	50
Unsteady Incompressible Viscoelastic Flow of a Generalised Maxwell Fluid between Two Rotating Infinite Parallel Coaxial Circular Disks	
D. Bose, U. Basu.....	57
Non Linear Vortex Structures in Stratified Fluid Driven by Small-Scale Helical Force	
A. Tur, V. Yanovsky.....	64
Hamiltonian Formulation for Water Wave Equation	
S. Sultana, Z. Rahman.....	75
Similarity Solution of the Influence of the Thermal Radiation and Heat Transfer on Steady Compressible Boundary Layer Flow	
F. I. Alao, S. B. Folarin.....	82
Conjugate Effects of Heat and Mass Transfer on Natural Convection Flow along an Isothermal Sphere with Radiation Heat Loss	
S. Aktar, M. B. M. Ruma, Md. A. Alim.....	86
An Adaptive Response Compensation Technique for the Constant-Current Hot-Wire Anemometer	
S. M. Khine, T. Houra, M. Tagawa.....	95
Numerical Simulation of Water Impact on a Wave Energy Converter in Free Fall Motion	
Z. Z. Hu, D. M. Causon, C. G. Mingham, L. Qian.....	109
Time-Dependent Ferrofluid Dynamics in Symmetry Breaking Transverse	
S. Altmeyer.....	116
Numerical Investigation of an Impinging Diffusion Flames-Effects of Fuel Variability	
N. Ghiti, A. A. Bentebbiche, S. Hanchi.....	127
On the Boundary Layer Flow over a Moving Surface in a Fluid with Temperature-Dependent Viscosity	
E. W. Mureithi, J. J. Mwaonangi, O. D. Makinde.....	135
Effects of Hub Profiles on Efficiency and Flow of Jet Fan with Single Stage Impeller	
S. Kametaka, D. Deki, T. Kanemoto, R. Kawashima.....	141

The figure on the front cover is from the article published in Open Journal of Fluid Dynamics, 2013, Vol. 3, No. 2, pp. 95-108 by Soe Minn Khine, Tomoya Houra and Masato Tagawa.

Open Journal of Fluid Dynamics (OJFD)

Journal Information

SUBSCRIPTIONS

The *Open Journal of Fluid Dynamics* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2013 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

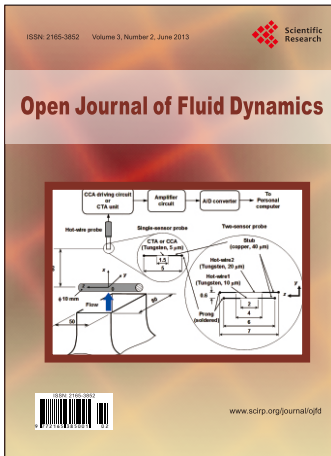
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ojfd@scirp.org



Open Journal of Fluid Dynamics

ISSN: 2165-3852 (print) ISSN: 2165-3860 (online)

www.scirp.org/journal/ojfd

Open Journal of Fluid Dynamics (OJFD) is an international journal dedicated to the latest advancement of fluid dynamics. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of applied science.

Editor in Chief

Prof. Heuy-Dong Kim

Andong National University, South Korea

Associate Editor

Dr. Mohammad Mehdi Rashidi

Bu-Ali Sina University, Iran

Editorial Board

Prof. Saeid Abbasbandy
Prof. William E. Acree, Jr.
Prof. Ramesh K. Agarwal
Prof. Mostafa Barigou
Prof. Bin Chen
Prof. Juergen Czarske
Dr. Jiannong Fang
Dr. Sandip Ghosal
Dr. Anup Gokarn
Prof. Mohamed Abdel-Aziz Mostafa Habib
Prof. Yongjun Jian
Prof. Russell G. Keanini
Dr. Rajan Kumar
Prof. Chao-An Lin

Dr. Zhanke Liu
Prof. Mario Misaie
Dr. Khaled A. Sallam
Prof. Richard Saurel
Prof. José R. Serrano
Prof. Zhiqiang Shao
Prof. Guihua Tang
Dr. Makoto Umeki
Dr. Guiren Wang
Prof. Lian-Ping Wang
Dr. Bai Wei
Prof. Jinjia Wei
Prof. Chao Yang
Prof. Hamit Yurtseven

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

Aerodynamics
Bio-Fluid Mechanics
Boundary Layer Flow
Combustion and Reacting Flow
Compressible Flow
Computational Fluid Dynamics
Environmental Fluid Dynamics
Environmental Fluid Mechanics
Experimental Fluid Mechanics
Fluid Mechanics Fluid Mechanics
Fluid-Structure Interaction

Free Shear Layer Flow
Heat and Mass Transfer
High-Speed Flow
Hydrodynamic
Jet and Wake Flow
Magnetic Fluid
Micro and Nano Fluidics
Micro Fluid Dynamics
Multi-Phase Flow
Multiphase Fluid Dynamics
Naval Hydrodynamics

Non-Newtonian Flow
Non-Newtonian Fluid Mechanics
Physical-Chemical Hydrodynamics
Plasma Dynamics
Radiation Hydrodynamics
Rotating and Stratified Fluid
Rotating Flow
Seepage Mechanics
Theoretical Fluid Dynamics
Turbulence Theory
Viscous Fluid

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/ojfd>

E-Mail: ojfd@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, world-wide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Website: <http://www.scirp.org>
Subscription: sub@scirp.org
Advertisement: service@scirp.org