## Memoirs of the School of Engineering Nagoya University

Vol.45, No.2, 1993

## CONTENTS

Ikuo NAKAMURA, Yasuhiko SAKAI, Hiroyuki Tsunoda and Shengjian Liu Diffusion of Turbulent Plume Around a Sphere	135
Tomoyuki Nagaya, Hiroshi Orihara and Yoshihiro Ishibashi The Kolmogorov-avrami Type Models of Crystal Growth in Limited Volumes  Research Report	185
Takeo Soga, Byung Gon Kim, and Satoshi Kogure  Numerical Simulation of Plume Impingement on the Lunar Surface	214
Takeo Soga, Hiroshi Kawato, and Byung Gon Kim Direct Monte Carlo Simulation of Axisymmetric Free Let	223

## PUBLISHED BY THE SCHOOL OF ENGINEERING, NAGOYA UNIVERSITY NAGOYA, JAPAN

These publications are issued biannually.

Original and selected works are collected and recorded for future research works and for information abroad. The authors of these works are the researchers of the School, *i.e.*, the professors, the lecturers and the co-workers who belong to the School of Engineering.

The authors alone are responsible for the contents of these Memoirs.

All communications relating to these Memoirs should be addressed to the Dean of the School of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, 464-01 Japan.

Dean of the School: Prof. Tetsuo FUJIMOTO

**Editorial Committee** 

Chairman: Prof. Kiyoshi KAWADE

Prof. Michio Hibino, Prof. Shigeki Toyama Prof. Nobuo Nakahara, Prof. Noboru Sugie