

# Memoirs of the Faculty of Engineering Nagoya University Vol.42, No.2, 1990

## CONTENTS

Ikuo NAKAMURA and Takashi WATANABE Fundamental Study of the Problem Solver for Fluids Engineering .....	183
Hideo FURUHASHI and Toshio GOTO Studies on the Pulsed UV lasers Excited by Longitudinal Discharge with Automatic Preionization .....	238
M. YASUHARA, Y. NAKAMURA, K. TSUBOI and K. KUWABARA Theory and Shock Tunnel Experiments on Flow past Hypersonic Vehicles .....	299
Research Report	
Tadayoshi SUGIMURA, Toshitaka FUJIWARA and John H. LEE Cellular Detonation—Instability and Sub-Structure .....	360

**PUBLISHED BY**  
**THE FACULTY OF ENGINEERING, NAGOYA UNIVERSITY**  
**NAGOYA, JAPAN**

These publications are issued periodically (semi-annual).

The original and selected works are collected and recorded for the future and for information abroad. The authors of these works are the researchers of the faculty, *i.e.*, the professors, the lecturers and the co-workers.

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 Faculty of Engineering, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, 464-01 Japan.

Dean of the Faculty: Prof. Minoru MATSUO

**Editorial Committee**

Chairman: Prof. Katsumi YAMAGUCHI

Prof. Susumu UCHIYAMA Prof. Genji JINBO

Prof. Sadamichi MAEKAWA Assis. Prof. Atsushi KATAGI