

Journal of Smart Processing
Vol. 13 No. 2 2024 (March 2024)

CONTENTS

Development of Microchip Laser and Its Applications

S.P.S. Announcement N7

Preface of Feature Article

Development of Microchip Laser and Its Applications
Tomokazu SANO.....37

Feature Articles

Review Articles

State-of-the-Art Microchip Laser: Tiny Integrated Power Chip Laser
Takunori TAIRA.....38

Fatigue Strength Enhancement of Metallic Materials by Low Energy Microchip Lasers
Yoshio MIZUTA and Yuji SANO.....46

Development of Remote Analysis Technology Using Microchip Laser for
Accident Reactor Decommissioning
Hironori OHBA, Ikuo WAKAIDA and Takunori TAIRA.....51

Ultrasonic Measurement by Using Self-Mixing Interferometry with a Microchip Laser
Akihiro TSUJI, Takeshi HOSHI, Hiromichi NAKAJIMA and Setsu YAMAMOTO.....59

Microchip Laser Aimed at Various Applications
Tsuyoshi NAGATA.....64

Development Status of High Pulse-Energy Microchip Lasers
Tadashi HAJIKANO, Rakesh BHANDARI, Shota SEKIGUCHI,
Haruyuki ENDO and Yuichi TAKUSHIMA.....69

Regular Research Article

Development of Dynamic Laser Ultrasonic System Using Microchip Laser Mounted
on a Robot Arm
Kazufumi NOMURA, Norimitsu OKUYAMA, Takeru INOUE and Tomokazu SANO.....75

General Article

Regular Research Article

A Comparative Numerical Study of Thermo-Mechanical Behavior among Various
IMC Joints under Thermal Cycling Condition
Xunda LIU, Hiroaki TATSUMI and Hiroshi NISHIKAWA.....83

S.P.S. News N8