

Special Issue

Mesoscale Three Dimensional Metrology

Review

- Mesoscale Profile Measurement Improved by Intelligent Measurement Technology

Kiyoshi TAKAMASU.....213

Lecture

- Dimensional Metrology on Micro-and Meso-Scale

Osamu SATO.....217

- Standard Sample in Dimensional Nanometrology

Ichiko MISUMI.....222

- Measuring Method for Shape and Dimension of Micro-components

Jun GODA and Kimiyuki MITSUI.....226

- Microprobe for the NanoCMM Based on Optical Radiation Pressure Control

Yasuhiro TAKAYA.....230

- Current State of Minute Form Measuring Technology

Kazuhiro ISHIZU and Kentaro NEMOTO.....235

- My Experience in Precision Engineering

Kazuaki IWATA245

- Gravure & Interview

Taylor Hobson Ltd.209
Tutomu MIYASHITA
Interview : Mahito NEGISHI

- Introduction to Precision Engineering

Mold and Die239
Hiroshi SUZUKI

- Introduction of Laboratories

Applied Robot System Laboratory, Shizuoka Institute of Science and Technology243

- Corporate Members 319
- JSPE Membership Guidance 246
- From the Lecture Committee告 3-1
- Editor's Note告 3-9

Paper

- **A research on the Evaluation of Grindability of Fine-Ceramics by Constant Pressure Grinding (1st Report)** ————— 247
—Formulation of the Removal Rate in Case of Ductile Mode and Brittle Mode Grinding—
Takekazu SAWA, Yasuyuki NAGATO, Yasushi IKUSE and Kuniaki UNNO
- **Combinatorial Search for a New Amorphous Alloy as Mold Material for Glass Molding** ————— 252
—Evaluation of Crystallization Temperature and Mechanical Property—
Ryusuke YAMAUCHI, Seiichi HATA, Junpei SAKURAI and Akira SHIMOKOHBE
- **Development of Multi-Polygon Laser Scanner Using a Shrink Fitter** ————— 258
Akihiro KANNO, Isami NITTA, Kimio KOMATA and Satoshi IGUCHI
- **Improvement of Accuracy of Micro EDM Using Self-Drilled Holes Method** ————— 264
Minoru YAMAZAKI, Takemi SUZUKI, Noritoshi MORI, Yoshikazu TERANISHI and Masanori KUNIEDA
- **Optical Fiber Cylindrical-Lensed End Machining with Fiber Bending (2nd report)** ————— 269
—Theoretical and experimental analyses of cylindrical-lensed end machining—
Mitsushi MATSUNAGA and Shinsuke MATSUI
- **Internal Modification of Ultra Thin Silicon Wafer by Permeable Pulse Laser** ————— 275
Etsuji OHMURA, Masayoshi KUMAGAI, Kenshi FUKUMITSU, Makoto NAKANO, Naoki Uchiyama and Hideki MORITA
- **Processing Characteristics in Scratching and Indentation Test of Single Crystal Gallium Nitride** ————— 282
Shunsuke FURUYA, Hiromi OBARA, Takuya SOMA and Hitoshi TOKURA
- **Effect of Native Oxide Layer on Nanoindentation Test of High Purity Aluminum** ————— 287
Masashi YOSHIDA, Tsunetaka SUMOMOGLI, Masayoshi NAKAMURA and Masahiro OKUMIYA
- **Development of the translational and rotational piezoelectric actuator using a single stator (1st report)** ————— 292
—Design of the stator by finite element method analysis—
Tomoaki MASHIMO and Shigeki TOYAMA
- **Analysis Method of Skill Acquisition Process using Electromyogram for Autonomous Assistive Devices** ————— 298
Kahori KITA, Ryu KATO, Hiroshi YOKOI and Tamio ARAI
- **Object-oriented Design Patterns for Parallel Discrete Event Simulation of Distributed Control Systems** ————— 306
Toyoaki TOMURA and Satoshi KANAI
- **Development of Custom-made Design Method of Artificial Hip Joint Stem** ————— 313
Kenichi HIROSAKI, Kazuhiro SHINTANI and Ayumi KANEUJI