

Special Issue

State-of-the-Art Medical Diagnostic Technology Created by Precision Engineering

Review

- **Medical and Healthcare Technologies That Require Research and Development to Build a Desirable Japanese Society in 2040~Consideration Based on Discussion at the Future Innovation Working Group~** Ichiro SAKUMA745

Lecture

- **Method of Medical Digitalization (Me-DigIT) and Its Effects and Social Impacts**
Norihiko KOIZUMI, Yu NISHIYAMA, Fumio EURA, Tsubasa IMAIZUMI,
Akihide OTSUKA, Yudai SASAKI, Yuka SHIGENARI, Riki IGARASHI,
Kenta KUSAHARA, Kento KOBAYASHI, Hiroyuki TSUKIHARA,
Naoki MATSUMOTO, Masahiro OGAWA and Sunao SHOJI749
- **Development of Cell Chips for Diagnosis** Shohei YAMAMURA753
- **Cancer Diagnosis Using Nanowire Devices** Takao YASUI757
- **Applying Convolutional Neural Networks for Automatic Detection of Early Gastric Cancer with Limited Endoscopic Images**
Satoko TAKEMOTO, Keisuke HORI, Yoshimasa SAKAI, Masaomi NISHIMURA,
Hiroaki IKEMATSU, Tomonori YANO and Hideo YOKOTA761
- **X-ray CT System Working on Dose Reduction of Medical Exposure** Katsumi GOTANDA765
- **My Experience in Precision Engineering**
Yasuto TATSUTA777
- **Gravure & Interview**
Olympus Corporation741
Yasuhito KURA/Yasuyuki FUTATSUGI/Masahiro KAWAUCHI
Interview : Jongho PARK
- **Introduction to Precision Engineering**
Phenomenon of the Cylindrical Grinding - Grinding Forces and the Thermal Deformation of the Ground Workpiece/
Takashi ONISHI769
- **Introduction of Laboratories**
MicroNano Processing Laboratory, Top Runner Incubation Center for Academia-Industry Fusion, Dept. of Mechanical
Engineering, Nagaoka University of Technology775

- JSPE Affiliate News 778
- Corporate Members 783
- Information 785
- JSPE Membership Guidance 786
- From the Lecture Committee 告 9-1
- Editor's Note 告 9-12

Paper

- Development of a Water-Film Chuck (2nd Report) ————— 787
—Thinning Method of Water-Film and Wafer Thinning by Grinding—
Kenichiro YOSHITOMI, Atsunobu UNE, Tsubasa BANDO and Eiichi YAMAMOTO
- Relationships among Carrier, Friction Coefficient and Removal Rate of Double-Sided Polishing ————— 793
—Effect of Carrier on Friction Coefficient between Polishing Pad and Substrate and Correlation of Friction Coefficient and
Removal Rate—
Michio UNEDA, Michiaki HIYAMA, Ryo IZUMIDA, Kazutaka SHIBUYA, Tadakazu MIYASHITA and Ken-ichi
ISHIKAWA
- Development of a Cell Micro Tensile Tester and Its Application to Quantitative Analysis of Cell Stiffness and Adhesion
Forces of Vascular Smooth Muscle Cells ————— 800
—Measurement of a Single Cell Stiffness and Adhesion Force—
Kazuaki NAGAYAMA and Shigeaki OHATA

※The journal papers listed above are published on J-STAGE (Japan Science and
Technology Information Aggregator, Electronic).
<https://www.jstage.jst.go.jp/browse/jjspe/-char/en/>
This printed material does not include these papers.