

# IEICE TRANSACTIONS

## on Electronics

0-19-13  
月 E92-C  
刊 n. 8

### ■ Special Section on Recent Development of Electro-Mechanical Devices (IS-EMD2008)

#### Special Section on Recent Development of Electro-Mechanical Devices (IS-EMD2008)

981 FOREWORD ..... Masanari TANIGUCHI

#### PAPERS

982 Fretting in Electrical/Electronic Connections: A Review (INVITED) ..... Milenko BRAUNOVIC

#### ■ Arc Discharge & Contact Phenomena

992 Rotational Motion of Break Arcs Driven by Radial Magnetic Field in a DC Resistive Circuit ..... Junya SEKIKAWA and Takayoshi KUBONO

998 Electric Measurement of Melting Phenomena for Breaking Relay Contacts ..... Noboru WAKATSUKI, Nobuo TAKATSU, and Masahiro OIKAWA

#### 1003 Analytical Model of Melting Phenomena for Breaking Relay Contacts

..... Noboru WAKATSUKI, Nobuo TAKATSU, Toshiteru MAEDA, and Takayuki KUDO

#### 1008 Experimental Research of Arc Behavior in Liquid Metal for Current Limiting Application

..... Yiyang LIU, Mingzhe RONG, Yi WU, Chenxi PAN, Hong LIU, and Shijie YU

#### 1013 Contact Area Analysis by FEM with Plating Layer for Electrical Contact

..... Kaori SHIMIZU, Shigeki SHIMADA, Shigeru SAWADA, and Yasuhiro HATTORI

#### LETTER

#### ■ Arc Discharge & Contact Phenomena

#### 1020 Effect of Heating Value on Contact Diameter at Low Speed Breaking Contact

..... Kazuaki MIYANAGA, Yoshiki KAYANO, Tasuku TAKAGI, and Hiroshi INOUE

#### PAPERS

#### ■ Relays & Switches

1023 Study on Optimization of Electromagnetic Relay's Reaction Torque Characteristics Based on Adjusted Parameters ..... Guofu ZHAI, Qiya WANG, and Wanbin REN

1028 Research on Dynamic Characteristics Testing and Analyzing System of Electromagnetic Relay ..... Xuerong YE, Huimin LIANG, Jie DENG, and Guofu ZHAI

..... Qiong YU, Li REN, and Wanbin REN

LILY

刊號: N54-0164S

雜誌名稱: IEICE trans. on electronics

ISSN:0916-8524

年代:2009

VOL.V.E92C

NO.8

架號: O-119-1-3

刊別:M

without Current-Feedback System

..... Chi CHEN, Yingyi LIU, Liang JI, and Chunping NIU



A PUBLICATION OF THE ELECTRONICS SOCIETY

The Institute of Electronics, Information and Communication Engineers

Kikai-Shinko-Kaikan Bldg., 5-8, Shibakoen 3 chome, Minato-ku, TOKYO, 105-0011 JAPAN

URL:<http://search.ieice.org/es/>

VOL.E92-C NO.8

AUGUST 2009

1045 Prognostic and Diagnostic Technology for DC Actuated Contactors and Motor Starters

Xin ZHOU, Lian ZOU, and Roger BRIGGS

#### ■ Actuators & Pulse Generators

- 1052 New Method to Model the Equivalent Circuit of the Pulse Generator in Electrical Fast Transient/Burst Test ..... Xiaoshe ZHAI, Yingsan GENG, Jianhua WANG, Zhengxiang SONG, and Degui CHEN  
1058 An Ultrasonic Actuating Driver for a Central Supporting Bending Mode Using a Motional Current Technique ..... Fuhliang WEN, Chao-Chun WEN, Ming-Hung LAI, and Ichien HSU

## **Regular Section**

PAPERS

#### ■ Electronic Circuits

- 1066 Adaptive Sense Current Control for DC-DC Boost Converters to Get Accurate Voltage  
Robert Chen-Hao CHANG, Hou-Ming CHEN, Wang-Chuan CHENG, Chu-Hsiang CHIA,  
Pui-Sun LEI, and Zong-Yui LIN

1073 Low Power 10-b 250 Msample/s CMOS Cascaded Folding and Interpolating A/D Converter  
Zhi-Yuan CUI, Yong-Gao JIN, Nam-Soo KIM, and Ho-Yong CHOI

1080 A  $0.18\mu\text{m}$  Stability-Enhanced CMOS LDO with Robust Compensation Scheme  
Hsuan-JI PAN and Chern-Lin CHEN

BRIEF PAPERS

#### ■ Microwaves, Millimeter-Waves

- 1087 Rectangular TE<sub>30</sub> to TE<sub>10</sub> Mode Converter ..... Yoshihiro KOKUBO  
**■ Electronic Circuits**  
 1091 A 2.3–7 GHz CMOS High Gain LNA Using CS-CS Cascode with Coupling C ..... Hangue PARK, Sungho LEE, Jaejun LEE, and Sangwook NAM

LETTERS

■ Lasers, Quantum Electronics

- 1095 Beam Profile Tailoring of Laser Diodes Using Lloyd's Mirror Interference  
Takashi FUKUSHIMA, Kuniaki MIYAHARA, and Naoki NAKATA

#### ■ Microwaves/Millimeter-Waves

- 1098 A Novel Spatial Power Combiner Amplifier Based on SIW/HMSIW  
..... Haiyan JIN, Guangjun WEN, Xiaorong JING, Li JIAN, and Tianqi ZHANG

1192 ABSTRACTS (IEICE Trans. Electron. (Japanese Edition), Vol. J92-C, No. 8)

Original Contributions in English

Copyright © 2009 by The Institute of Electronics, Information and Communication Engineers

The IEICE Transactions on Electronics has been selected for coverage in the following ISI (Institute for Scientific Information) products/services.

- Science Citation Index Expanded (included in "Web of Science")
  - Current Contents (Edition: Engineering, Computing and Technology)
  - ISI Alerting Services