

Advanced Experimental Mechanics

Volume 6, August 2021

— Contents —

Editorial

Editorial.....	1
Takashi YOKOYAMA	

Special Submission

An Approach for Judging Confident PIV Measurement in Two-Phase Turbulent Near-Wake Flow.....	3
Wei - Cheng CHEN and Keh - Chin CHANG	

Fluid and Thermal Engineering

Visualizations of pH Change and Flow Field in a Liquid Induced by Irradiating Atmospheric Pressure Plasma Jet to the Liquid Surface.....	13
Ryosuke KOBAYASHI and Tetsuya YANO	
Static and Dynamic Surface Tension of Molten Eutectic Solder under Various Oxygen Concentrations.....	21
Tatsuro WAKIMOTO, Kokichi ABE, Kenji KATOH, Yoshiaki UEDA and Manabu IGUCHI	
Experimental and Numerical Investigations of Flow over a Pitching Airfoil in Periodic Flow.....	27
Yoshitaka ISODA, Yohsuke TANAKA, Takuma SADANAGA and Shigeru MURATA	

Solid Mechanics and Materials Engineering

Estimating Stresses Generated in Silicon Wafer from Measured Deflection Distribution.....	33
Naoya TOYAMA, Yuelin ZHANG, Satoru YONEYAMA, Satoshi KUWABARA and Hidetomo TAKANO	
Effect of Welding Conditions on Torsional Characteristics of SUS304 Stainless Steel Friction-Welded Joints.....	39
Yuichi ONO, Sho OGAWA, Taichi TERAJ and Shigekazu MORITO	
Development of High-Efficient NDI System for Conveyance Rolls Using Vibrothermography.....	47
Daisuke IMANISHI and Yoshiaki NISHINA	
A Measurement System for Deformation and Torsion Angle in Plastic Ankle Foot Orthoses.....	53
Daisuke MORIOKA, HongSeok CHOI, Ichiro KITAYAMA and Masato KITANO	

Materials Science and Processing

Fundamental Study on Discharge Assisted Cutting.....	59
Hiroshi SAWANO, Suguru WATANABE and Kentaro KOBAYASHI	

Porous Nickel Plating as a Surface Treatment for Bonding Dissimilar Materials ······	65
Chisa FUKUDA, Koya TAKAHASHI, Yoshiyuki NISHIMURA and Koichi OZAKI	
Transfer of Copper from Carbon Saturated Molten Iron to Molten Silver via Solid Iron under Temperature Gradient ······	71
Hiroki ITO, Kengo KATO and Hideki ONO	
Structure Evolution between Closely Located Microchannels Produced by Ni-Al Sacrificial-Core Method ······	77
Tatsuya OHMI and Hideaki ICHIMURA	

Damping and Vibration

Experimental and Numerical Analyses of Torque Properties of a Separated Double-Chamber Rotary Damper Using Elastomer Particles ······	83
Allah RAKHIO, Yasushi IDO, Yuhiro IWAMOTO and Atsushi TOYOUCHI	
Experimental Analysis of Rotary Particle Damper: Effect of Using Spherical and Ellipsoidal Elastomer Particles on Damping ······	90
Allah RAKHIO, Yasushi IDO, Yuhiro IWAMOTO and Atsushi TOYOUCHI	

Geoenvironmental Engineering

Experimental Investigation on Flow Suppression and Modification of High Water Content Soil Using Water Absorbent Polymer and Fiber Cement Stabilization ······	99
Kohei UENO, Kazumi RYUO, Tomoaki SATOMI and Hiroshi TAKAHASHI	
Study on Stability of Slope Covered by Modified Landslide Sludge ······	104
Delima Canny Valentine SIMARMATA, Thomas Teguh WIJAYA, Tomoaki SATOMI and Hiroshi TAKAHASHI	

ISEM News

Cancellation of the 15th ISEM '20-Ljubljana, Slovenia ······	111
Igor EMRI	