

4th Asian Workshop on Nano/Micro Forming Technology

Oct. 26-29, Nikko Hotel , Toyohashi city, JAPAN

Oct. 26 17:30-19:00 Reception

Technical sessions

| No | Time | Title | Authors |
|--|-----------------------------|--|--|
| Session 1 Oct. 27 9:00-10:40 (Chairpersons: Prof. Y. Saotome, Prof. K.F. Zhang) | | | |
| A01 | 9:00-9:20 | The microstructural evolution of nano-grain ni-al powder during mechanical alloying and sintering forging | <u>K.F. Zhang</u> , G.H. Xu (HIT, China) |
| A02 | 9:20-9:40 | Mechanical property of ceramic micro samples manufactured by powder injection molding | <u>Z. Lu</u> , K.F. Zhang (HIT, China) |
| A03 | 9:40-10:00 | Preparation and superplasticity of Al ₂ O ₃ /Ni-Co nanocomposites | <u>G.f. Wang</u> (HIT, China) |
| A04 | 10:00-10:20 | Digital image correction for shear banding in bulk metallic glasses | <u>S.H. Joo</u> (Postech, Korea), H. Kato (Tohoku Univ, Japan), S.H. Lee, H. S. Kim(Postech, Korea) |
| A05 | 10:20-10:40 | Nanoimprint of 18 nm-pitch ultrafine pattern on metallic glass with mold fabricated by focused ion beam and reactive ion etching | <u>Y. Fukuda</u> , Y. Saotome, N. Nishiyama, K. Takenaka, N. Saidoh (Tohoku Univ), E. Makabe (BMG Co.) , A. Inoue (Tohoku Univ, Japan) |
| Session 2 Oct. 27 10:50-11:50 (Chairpersons: Prof. H.S. Kim, Dr. T. Makino) | | | |
| A06 | 講演中止 以下時間 繰り上げ | Numerical simulation and experimental study on micro-indentations | <u>G.C. Wang</u> , W. Zheng (ShanDong Univ, China), Z.Y. Jiang, D.B. Wei (UOW, Australia) |
| A07 | 10:50-11:10 | Measuring local stress-strain behavior using nanoindentation | <u>H.J. Jeong</u> , D.H. Lim, B.-C. Suh (Postech), J. H. Hahn, J. H. Je, N. J. Kim (KRISS), and H. S. Kim (Postech, Korea) |
| A08 | 11:10-11:30 | Measurement of mechanical property of material formed in micro/meso-scale | T. Makino, <u>H.Y. Fung</u> , Y. Fukui (NIT, Japan) |
| A09 | 11:30-11:50 | Size effects in sheet metal forming with miniaturization | <u>D.B. Shan</u> , C.J. Wang, J. Xu, B. Guo (HIT, China) |
| Session 3 Oct. 27 13:10-14:30 (Chairpersons: Prof. M. Yang, Prof. G. Wang) | | | |
| A10 | 13:10-13:30 | Effect of microstructure of metal foils on frictional behavior in micro deep drawing | <u>T. Shimizu</u> (TIRI), M. Ogawa, K. Manabe (TMU, Japan) |
| A11 | 13:30-13:50 | Plasma etching with metallic masking for micro-patterning onto DLC coated mold-dies | <u>T. Aizawa</u> (SIT, Japan), <u>N. T. Redatioao</u> , E. E. Yunata (Brawijaya Univ, Indonesia) |
| A12 | 13:50-14:10 | Fine imprinting onto plastics by micro-patterned DLC-coated mold-die | <u>T. Aizawa</u> (SIT), K. Itoh (MFL Co. llc, Japan) |
| A13 | 14:10-14:30 | Exotic mechanical properties of metal-doped nano-columnar DLC coating | <u>S. Yukawa</u> , T. Aizawa (SIT, Japan) |
| Session 4 Oct. 27 14:40-16:00 (Chairpersons: Prof. M. Yoshino, Dr. G. H. Kim) | | | |
| A14 | 14:40-15:00 | Micro hole piercing for ultra fine grain stainless steel | <u>T. Komatsu</u> , H. Kobayashi (Komatsu Seiki Kosakusho Co.), S. Torizuka(NIMS), S. Nagayama (Tokushu Kinzoku Excel co., Japan) |
| A15 | 16:10-16:30 | Burr formation characteristics of low temperature micro cutting process with SM45C | <u>G.-H. Kim</u> , J.-I. Son, J.-W. Lee, G.-S. Yoon, J.-D. Kim (KIIT), T.-I. Seo (Univ. of Incheon, Korea) |
| A16 | 15:20-15:40 | Fabrication of multilayer nano dot array structures by combination of coating, nano plastic forming and annealing process | <u>Z.X. Li</u> , A. Yamanaka, M. Yoshino (TIT, Japan) |
| A17 | 15:40-16:00 | Development of precision injection mold for LED silicone lens | <u>J.-W. Lee</u> , G.-H. Kim, G.-S. Yoon, C.-W. Lee, S.-H. Yoo (KIIT, Korea) |
| Session 5 Oct. 27 16:10-17:30 (Chairpersons: Prof. D.B. Shan, Dr. T.Furushima) | | | |
| A18 | 16:10~16:30 | Effect of low frequency vibration on metallic surface deformation | <u>Y. Bai</u> , K. Nishikawa (TMU), M.K.Roy (IIIT-MD, India) , M. Yang (TMU, Japan) |
| A19 | 16:30~16:50 | Application of heat assistance to microforming | <u>H. Tanabe</u> , M. Yang (TMU, Japan) |
| A20 | 16:50~17:10 | Evaluation of deformation characteristic in ultrasonic vibration assisted foil bending | <u>S. Kosuge</u> , M. Yang (TMU, Japan) |
| A21 | 17:10~17:30 | Micro laser dieless drawing process of copper alloy tubes | <u>T.Furushima</u> , Y. Noda and K. Manabe (TMU, Japan) |

Oct. 27 18:30- Banquet