

2008 年度業績 一辻 伸泰

学術論文・解説記事

1. M.Reihanian, R.Ebrahimi, N.Tsuji and M.M.Moshksar, Analysis of the Mechanical Properties and Deformation Behavior of Nanostructured Commercially Pure Al Processed by Equal Channel Angular Pressing (ECAP), *Mater. Sci. Eng. A*, 473, 189-194, 2008
2. Yuichiro Koizumi, Kazuki Iwamoto, Nobuhiro Tsuji and Yoritoshi Minamino, Evolution of antiphase domain (APD) /lamella mixed microstructure in Ti-39at%Al single crystals, *Mater. Sci. Eng. A*, 478, 147-153, 2008
3. Dmitry Orlov, Pinaki Prasad Bhattacharjee, Yoshikazu Todaka, Minoru Umemoto and Nobuhiro Tsuji, Reversal Straining to Manage Structure in Pure Aluminum under SPD, *Mater. Sci. Forum*, 584-586, 133-138, 2008
4. Daisuke Terada, Toshiaki Masui, Naoya Kamikawa and Nobuhiro Tsuji, Microstructure and Mechanical Properties of Al-0.5at.%X (=Si, Ag, Mg) Alloys Highly Deformed by ARB Process, *Mater. Sci. Forum*, 584-586, 547-552, 2008
5. S.Ii, M.Hishida, N.Takata, K.Ikeda, H.Nakashima and N.Tsuji, Grain Boundary Structures of ARB Processed Aluminum, *Mater. Sci. Forum*, 584-586, 716-722, 2008
6. Takatoshi Sato, Daisuke Terada and Nobuhiro Tsuji, Microstructure and Aging Behavior of Al-0.2wt%Zr Alloy Heavily Deformed by ARB Process, *Mater. Sci. Forum*, 584-586, 728-733, 2008
7. K.Kitagawa, K.Kita, M.Gotoh, N.Takata and N.Tsuji, Structure and Mechanical Properties of Severely Deformed Cu-Cr-Zr Alloys Produced by Accumulative Roll Bonding Process, *Mater. Sci. Forum*, 584-586, 791-796, 2008
8. M. Reihanian, R. Ebrahimi, M.M. Moshksar, D. Terada, N. Tsuji, Microstructure Quantification and Correlation with Flow Stress of Ultrafine Grained Commercially Pure Al Fabricated by Equal Channel Angular Pressing (ECAP), *Mater. Charact.*, 59, 1312-1323, 2008
9. Xiaoxu Huang, Naoya Kamikawa, Nobuhiro Tsuji and Niels Hansen, Nanostructured Aluminum and IF Steel –a Comparative Study, *ISIJ International*, 48, 1080-1087, 2008
10. N.Tsuji, N.Kamikawa, R.Ueji, N.Takata, H.Koyama and D.Terada, Managing Both Strength and Ductility in Ultrafine Grained Steels, *ISIJ International*, 48, 1114-1121, 2008
11. R.Ueji, N.Tsuchida, D.Terada, N.Tsuji, Y.Tanaka, A.Takemura and K.Kunishige, Tensile Property and Twinning Behavior of High Manganese Austenitic Steel with Fine Grained Structure, *Scripta Mater.*, 59, 963-966, 2008
12. 北川和夫、北 和久、鈴木大介、高田尚記、辻 伸泰, ARB 法により強ひずみ加工した超微細粒 Cu-Cr-Zr 合金の機械的特性, 銅と銅合金, 47, 66-72, 2008

13. D.Terada, H.Houda and N.Tsuji, Effect of Strain on 'Hardening by Annealing and Softening by Deformation' Phenomena in Ultrafine Grained Aluminum, *J. Mater. Sci.*, 43, 7331-7337, 2008
14. N.Takata, Y.Okitsu and N.Tsuji, Dynamic Deformation Behavior of Ultrafine Grained Aluminum Produced by ARB and Subsequent Annealing, *J. Mater. Sci.*, 43, 7385-7390, 2008
15. Y.Okitsu, N.Takata and N.Tsuji, Mechanical Properties of Ultrafine Grained Ferritic Steel Sheets Fabricated by a New Process without Severe Plastic Deformation, *J. Mater. Sci.*, 43, 7391-7396, 2008
16. Y.F.Sun, Y.Todaka, M.Umemoto and N.Tsuji, Solid State Amorphization of Cu+Zr Multi-stacks by ARB and HPT Techniques, *J. Mater. Sci.*, 43, 7457-7464, 2008
17. Y.Okitsu, N.Takata and N.Tsuji, A New Route to Fabricate Ultrafine Grained Structures in Carbon Steels without Severe Plastic Deformation, *Scripta Mater.*, 60, 76-79, 2009
18. D.Orlov, Y.Todaka, M.Umemoto and N.Tsuji, Role of Strain Reversal in Grain Refinement by Severe Plastic Deformation, *Mater. Sci. Eng. A*, 499, 427-433, 2009
19. D.Orlov, Y.Beygelzimer, S.Synkov, V.Varykhin, N.Tsuji and Z.Horita, Microstructure Evolution in Pure Al Processed with Twist Extrusion, *Mater. Trans.*, 50, 96-100, 2009
20. T.Kunimine, N.Takata, N.Tsuji, T.Fujii, M.Kato and S.Onaka, Temperature and Strain Rate Dependence of the Flow Stress in Severely Deformed Copper by Accumulative Roll Bonding, *Mater. Trans.*, 50, 64-69, 2009
21. 辻 伸泰、上路林太郎、紙川尚也、寺田大将, ARB 法により超強加工された IF 鋼の微細組織, *ふえらむ*, 14, 16-17, 2009
22. 池田賢一、山田康介、高田尚記、吉田冬樹、中島英治、辻 伸泰, 超強加工された純銅の粒界構造, *ふえらむ*, 14, 19, 2009
23. 辻 伸泰、大崎 智、大久保忠勝、宝野和博、孫 玉峰、寺田大将、戸高義一、梅本 実, 超強加工された Cu+Zr 積層体におけるバルクメカニカルアロイングとアモルファス形成, *ふえらむ*, 14, 20-21, 2009
24. 辻 伸泰, 金属材料の超強加工に伴う超微細粒組織の形成, *鉄と鋼*, 94, 582-589, 2008
25. A.Azushima, R.Kopp, A.Korhonen, D.Y.Yang, F.Micari, G.D.Lahoti, P.Groche, J.Yanagimoto, N.Tsuji, A.Rosochowski and A.Yanagida, Severe Plastic Deformation (SPD) Processes for Metals, *CIRP ANNALS-MANUFACTURING TECHNOLOGY*, 57, 716-735, 2008

国際会議プロシーディングス

1. N.Kamikawa, X.Huang, G.Winther, N.Tsuji and N.Hansen, Reversible texture transition during accumulative roll bonding, *Ceramic Transactions*, 201, 669-680, 2008
2. T.Haruna, Y.Nakagawa, D.Terada, N.Takata and N.Tsuji, Susceptibility to Hydrogen Embrittlement of Ultrafine Grained IF Steel Produced by Severe Plastic Deformation, *Abstract*

- of the 214th Meeting of The Electrochemical Society, #1595 in CD-ROM, 2008
3. T. Akaki, H. Tsuchiya, D. Terada, N. Tsuji and S. Fujimoto, Influence of Metallurgical Factors on Morphology of Anodized Tubular Oxide Layers, Abstract of the 214th Meeting of The Electrochemical Society, #1704 in CD-ROM, 2008
 4. N.Tsuji, Reason of limited tensile elongation and ways to manage both high strength and large ductility in nanostructured metals fabricated by giant straining processes, Extended abstract of GSAM 2008, 12, 2008
 5. Yoshitaka Okitsu , Naoki Takata and Nobuhiro Tsuji, Ultrafine grained multi-phase steel with high strength and high ductility fabricated by rolling and annealing of duplex microstructure, Extended abstract of GSAM 2008, 19, 2008
 6. T.Ichitsubo, K.Hirai, S.Yukitani, E.Matsubara, D.Terada and N.Tsuji, Ultrasonic Damping and X-ray Peak Broadening of ARB Aluminum, Extended abstract of GSAM 2008, 52, 2008
 7. H.Kitahara, T.Horiike, R.Miyahara, M.Tsushida, S.Ando and N.Tsuji, Fatigue Fracture Behavior of Ultrafine Grained Al Fabricated by ARB, Extended abstract of GSAM 2008, 53-54, 2008
 8. Dmitry Orlov, Yoshikazu Todaka, Minoru Umemoto and Nobuhiro Tsuji, On the effect of strain amplitude during reversal SPD on grain refinement in pure aluminum, Extended abstract of GSAM 2008, 55-56, 2008
 9. P.P. Bhattacharjee , N. Tsuji, Microstructure and Texture of Pure Ni Heavily Deformed by Accumulative Roll Bonding, Extended abstract of GSAM 2008, 62-63, 2008
 10. Seiichiro Ii¹, Naoki Takata², Ken-ichi Ikeda³, Hideharu Nakashima⁴ and Nobuhiro Tsuji, Asymmetric grain boundaries observed in ultrafine grained Aluminum by ARB process, Extended abstract of GSAM 2008, 64, 2008
 11. Daisuke Terada , Toshiaki Masui, Naoya Kamikawa and Nobuhiro Tsuji, Effect of additives on microstructure evolution and mechanical properties of Al-0.5 at.% X (=Si, Ag, Mg) alloys severely deformed by ARB process, Extended abstract of GSAM 2008, 65, 2008
 12. Takahiro Kunimine , Naoki Takata , Nobuhiro Tsuji , Toshiyuki Fujii , Masaharu Kato and Susumu Onaka, Temperature and Strain Rate Dependence of Flow Stress in Severely Deformed Copper by Accumulative Roll Bonding, Extended abstract of GSAM 2008, 72-73, 2008
 13. R.Miyahara, T.Horike, H.Kitahara, M.Tsushida, S.Ando and N.Tsuji, Fatigue Crack Propagation Behavior in Ultrafine Grained Cu Fabricated by ARB, Extended abstract of GSAM 2008, 74-75, 2008
 14. Takemoto Y., Numakura H., Terada D. and Tsuji N, Characterization of defects in severely deformed aluminium, Extended abstract of GSAM 2008, 80, 2008
 15. Takayuki Hase, Daisuke Terada, Masako Sonobe, Tohru Yamazaki and Nobuhiro Tsuji, Microstructure and Mechanical Property of Electrodeposited Nanocrystalline Ni, Extended abstract of GSAM 2008, 88, 2008

16. Genki Horii, Daisuke Terada and Nobuhiro Tsuji, "Necking behavior of ultrafine-grained Al fabricated by ARB process during tensile test", Extended abstract of GSAM 2008, 89, 2008
17. T. Haruna, Y. Nakagawa, D. Tareda, N. Takata, and N. Tsuji, Effect of Hydrogen on Fracture Strain of Ultrafine Grained IF Steel Produced by Accumulative Roll-Bonding Process, Extended abstract of GSAM 2008, 93, 2008

著書

1. 辻 伸泰, 「実験力学ハンドブック」 III 応用編 27 高温材料プロセス 27.3.圧延, 朝倉書店, 2008, 9(総ページ数)
2. 辻 伸泰, 「新機能材料 金属ガラスの基礎と産業への応用」第2編 金属ガラスの基礎 第2章 金属ガラスの作製法 第2節 機械加工法, テクノシステム, 2009
3. N. Tsuji, Bulk Nanostructured Materials, Part Three Processing, 10. Fabrication of Bulk Nanostructured Materials by Accumulative Roll Bonding (ARB), Weinheim, 2009, 19(総ページ数)

受賞

1. N.Kamikawa, T.Sakai and N.Tsuji, 大阪大学論文 100 選・2007-2008・選出, 2008 年 6 月
2. Nobuhiro Tsuji, Scripta Materialia 2007 Top 10 Referees, 2008 年 7 月 9 日
3. 辻 伸泰, 第 5 回 (平成 20 年度) 日本学術振興会賞、日本学術振興会, 2009 年 3 月 9 日
4. Daisuke Terada, Best Young Scientist Award in GSAM 2008, 2008 年 11 月 24 日