

2009 年度業績 一安田 秀幸

学術論文・解説記事

1. Tomoya Nagira, Hideyuki Yasuda, Satoshi Takeshima, Takumi Sakimura, Yoshiharu Waku, Kentarou Uesugi, Chain structure in the unidirectionally solidified Al₂O₃-YAG-ZrO₂ eutectic composite, J. Crystal Growth, 311, 3765-3770, 2009
2. Tomoya Nagira, Hideyuki Yasuda and Masato Yoshiya, Formation and Microstructure of Al₂O₃-YAG eutectic Ceramics by Phase Transformation from Metastable system to Equilibrium system, Journal of Physics; Conference Series, 165, 012006, 2009
3. 上島伸文、吉矢真人、安田秀幸、FePd の規則-不規則変態に及ぼす磁気エネルギー効果の解析, 日本機化学会第 22 回計算力学講演会 CD-ROM 論文集, 312-313, 2009
4. H.Yasuda, Y.Yamamoto, N.Nakatsuka, M.Yoshiya, T.Nagira, A.Sugiyama, I.Ohnaka, K.Uesugi, K.Umetani, In-situ observation of solidification phenomena in Al-Cu alloy and Fe-Si-Al alloy, Int. J. Cast Met. Res., 22, 15-21, 2009
5. H. Yasuda, D. Nagamatsu, T. Yoshimoto, T. Nagira, M. Yoshiya, Y. Yokoyama, A. Inoue, Crystal Growth in the Bulk-Metallic-Glass Zr-based Alloys Using the DC + AC Levitation Method, J. Phys.: Conf. Ser., 144, 012056, 2009
6. N.Nakatsuka, H.Yasuda, T.Nagira, M.Yoshiya, Three-Dimensional Alignment of FeSi₂ with Orthorhombic Symmetry by an Anisotropic Magnetic Field, J. Phys.: Conf. Ser., 165, 012021, 2009
7. Y.Yokoyama, H. Fredriksson, H.Yasuda, M. Nishijima, A.Inoue, Glassy solidification criterion of Zr₅₀Cu₄₀Al₁₀ alloy, J. Phys.: Conf. Ser., 144, 012044, 2009
8. J.Gao, Y.K.Zhang, T.Fukuda, H.Yasuda, M.Kolbe, J.C.He, Undercooling and Rapid Solidification of Cu₈₄Co₁₆ Alloys Under a Static Magnetic Field, J. Phys.: Conf. Ser., 144, 012117, 2009
9. 横山嘉彦、安田秀幸、井上明久, キャップ鑄造法による大型バルク金属ガラスの開発, 機能材料, 29, 5-14, 2009
10. 福井治世、今村晋也、田林大二、安田秀幸, 勾配変化させた基板バイアス電圧が TiAlN 膜微細組織と切削性能に与える影響, 砥粒加工学会誌, 53, 633-638, 2009
11. K. Nogita, H. Yasuda, M. Yoshiya, S. D. McDonald, K. Uesugi, A. Takeuchi and Y. Suzuki, The role of trace element segregation in the eutectic modification of hypoeutectic Al-Si alloys, J. Alloy Compounds, 489, 415-420, 2009
12. Y. Waku, H. Yasuda, High Temperature Characteristics of Unidirectionally Solidified Eutectic Ceramic Composites and Some Potential Applications, Materials Science Forum, 638-642, 997-1002, 2009

13. Y.K. Zhang, J. Gao, H. Yasuda, D.M. Herlach, J.C. He, Does reduced fluid flow alter alpha-Fe content of Nd-Fe-B ingots?, *Journal of Alloys and Compounds*, 493, L8-L11. 2010
14. H. Yasuda, S. Kato, T. Shinba, T. Nagira, M. Yoshiya, A. Sugiyama, K. Umetani, K. Uesugi, Regular structure formation of hypermonotectic Al-In alloys, *Materials Science Forum*, 649, 131-136. 2010
15. Y. Koizumi, A. Sugihara, H. Tsuchiya, Y. Minamino, S. Fujimoto, H. Yasuda, M. Yoshiya, Selective dissolution of nanolamellar Ti-41at%Al alloy single crystals, *Acta Mater.*, 58, 2876-2886. 2010

国際会議プロシーディングス

1. Tomoya Nagira, Hideyuki Yasuda, Masato Yoshiya and Takeharu Katou, HIGH TEMPERATURE STRENGTH OF THE Al₂O₃-YAG EUTECTIC COMPOSITE PRODUCED BY USING TRANSFORMATION FROM METASTABLE EUTECTIC TO EQUILIBRIUM EUTECTIC, *Proceedings of the 3rd International Conference of Processing Materials for Properties(PMP-III)*, 977-982, 2009
2. H. Yasuda, Y. Yamamoto, N. Nakatsuka, M. Yoshiya, T. Nagira, A. Sugiyama, I. Ohnaka, K. Uesugi, K. Umetani, Observation of the Segregation by using Time-resolved X-ray Imaging, *Modeling of Casting, Welding and Advanced Solidification Processes -XII*, 245-252. 2009
3. H. Yasuda, N. Nakatsuka, T. Nagira, A. Sugiyama, M. Yoshiya, K. Uesugi, K. Umetani, X-ray imaging study on grain refinement due to dendrite fragmentation, *Proc. 6th Electromagnetic Processing of Materials*, 257-260. 2009
4. N. Nakatsuka, H. Yasuda, T. Nagira, M. Yoshiya, Crystallographical alignment of FeSi₂ particles with orthorhombic symmetry under an oscillating magnetic field, *Proc. 6th Electromagnetic Processing of Materials*, 749-752. 2009

受賞

1. 柳楽知也, 粉体粉末冶金協会 研究進歩賞, 2009.6.
2. 多田昌浩, 機能元素のナノ材料科学」 第2回若手の会 ポスターセッション 優秀賞, 2009.7.

シンポジウム開催状況

1. The 2nd International Symposium on Cutting Edge of Computer Simulation of Solidification and Casting, 主な招待講演者 : Ingo STEINBACH, ICAMS, Ruhr-University Bochum,

Germany / Christoph BECKERMAN, The University of Iowa, USA / John ÅGREN, Royal Institute of Technology (KTH), Sweden, 参加人数 102(外国人参加者数 45)

2. International workshop on X-ray imaging of solidification of metallic materials, 主な招待講演者 : R. Matheiesen, Norwegian University of Science and Technology (NTNU), Norway / C.M. Gourlay, Imperial College London, United Kingdom / B. Billia, Aix-Marseille Université & CNRS, IM2NP, UMR, France, 参加人数 45(外国人参加者数 5)