

2008 年度業績 — 桐原 聡秀

学術論文・解説記事

1. Weiwu Chen, Soshu Kirihara, Yoshinari Miyamoto, "Static tuning band gaps of three-dimensional photonic crystals in subterahertz frequencies", *Applied Physics Letters*, 92, 183504-1-3, 2008
2. Soshu Kirihara, Yoshinari Miyamoto, Terahertz Wave Control Using Ceramic Photonic Crystals with Diamond Structure Including Plane Defects Fabricated by Micro-stereolithography, *Ceramic Interconnect and Ceramic Microsystems Technology*, 5, 254-257, 2008
3. Toshihide Horii, Soshu Kirihara, Yoshinari Miyamoto, Freeform fabrication of Ti-Al alloys by 3D micro-welding, *Intermetallics*, 16, 1245-1249, 2008
4. Weiwu Chen, Soshu Kirihara, Yoshinari Miyamoto, Fabrication and Characterization of Three-Dimensional ZrO₂-Toughened Al₂O₃ Ceramic Microdevices, *International Journal of Applied Ceramic Technology*, 5(4), 353-359, 2008
5. Weiwu Chen, Soshu Kirihara, Yoshinari Miyamoto, Microfabrication of Three-Dimensional Photonic Crystals of SiO₂-Al₂O₃ Ceramics and Their Terahertz Wave Properties, *International Journal of Applied Ceramic Technology*, 5(3), 228-233, 2008
6. Soshu Kirihara, Masaru Kaneko, Toshiki Nik, Terahertz Wave Control Using Ceramic Photonic Crystals with a Diamond Structure Including Plane Defects Fabricated by Microstereolithography, *International Journal of Applied Ceramic Technology*, 6(1), 41-44, 2009
7. Hideaki Kanaoka, Soshu Kirihara and Yoshinari Miyamoto, "Terahertz wave properties of alumina microphotonic crystals with a diamond structure", *Journal of Materials Research*, 23(4), 1036-1041, 2008
8. Yoshinari Miyamoto, Hideaki Kanaoka, Soshu Kirihara, Terahertz wave localization at a three-dimensional ceramic fractal cavity in photonic crystals, *Journal of Applied Physics*, 103, 103106-1-5, 2008
9. Wen Wang, Soshu Kirihara, Yoshinari Miyamoto, Zhihao Jiny, "Fabrication of Metalodielectric Photonic Crystals with a Diamond Structure and their Microwave Properties", *Journal of the American Ceramic Society*, 91(4), 1194-1198, 2008
10. Takuji Nakagawa, Keisuke Kageyama, Hiroshi Takagi, Yukio Sakabe, "Stereolithographic Fabrication and Microwave Properties of 1D Tunable Photonic Crystals Composed of YIG and Alumina Plates in Resin", *Journal of the American Ceramic Society*, 91(7), 2195-2200, 2008
11. Zhongqi Shi, Mohamed Radwan, Soshu Kirihara, Yoshinari Miyamoto, Zhihao Jin, Combustion synthesis of rod-like AlN nanoparticles, *Journal of the Ceramic Society of Japan*, 116(9), 975-979, 2008

12. Toshihide Horii, Soshu Kirihara, Yoshinari Miyamoto, Freeform fabrication of superalloy objects by 3D micro welding, *Materials & Design*, 30, 1093-1097, 2008
13. Naoki Mizuta, Kiyotaka Matsuura, Soshu Kiriharac, Yoshinari Miyamotoc, Titanium aluminide coating on titanium surface using three-dimensional microwelder, *Materials Science and Engineering A*, 492, 199-204, 2008
14. 水田直気、松浦清隆、大野宗一、宮本欽生、桐原聡秀、アルミニウムめっきとアーク表面溶融法を用いたチタン表面へのアルミナド被覆, *軽金属*, 58(12), 656-661, 2009
15. 桐原聡秀, 宮本欽生, 電磁波材料の空間パターンニングにおける人造界面テクニクス, *機能材料*, 28(12), 48-53, 2008
16. 桐原聡秀, 電磁気構造体と環境材料テクニクス, *セラミックスデータブック 2008/9*, 36(90), 51-54, 2008
17. 宮本欽生, 史忠旗, 桐原聡秀, 一次元窒素化アルミニウムナノ粒子の燃焼合成と応用, *粉体と工業*, 40(10), 30-36, 2008

国際会議プロシーディングス

1. Soshu Kirihara, Daisuke Sano, Masaru Kaneko, Smart Processing in Materials Tectonics: Fabrication of Photonic Crystals for Terahertz Wave Control by Using Micor-stereolithography, *Proceeding of The 3rd International Conference on Rapid Prototyping and Manufacturing and The 2nd International Conference for Bio-manufacturing*, 3, 111-114, 2008
2. Masahito Ishikawa, Soshu Kirihara, Yoshinari Miyamoto, Taiji Sohmura, Freeform Fabrication of Alumina Dental-Corwin Models by Using Stereolithography, *Proceedings of the 32nd International Conference Advanced Ceramics and Composites*, 29(9), 131-138, 2008
3. Takanori Hibino, Soshu Kirihara and Yoshinari Miyamoto, Localization of Terahertz Waves in Photonic Fractal Arrays of Alumina Fabricated by Micro-Stereolithography, *Proceedings of the 32nd International Conference Advanced Ceramics and Composites*, 29(9), 155-161, 2008
4. Yuta Yamamoto, Soshu Kirihara, Freeform Fabrication of WC-Co/SUS304 Composite Materials by Using Three Dimensional Micro Welding, *Proceedings of Materials Science and Technology 2008*, ISBN-13: 978-0-87170-723-9, 2374-2383, 2008
5. Soshu Kirihara, Daisuke Sano, Freeform Micro Fabrication of Metal Structures to Control Electromagnetic Wave by Using Stereolithography, *Proceedings of Materials Science and Technology 2008*, ISBN-13: 978-0-87170-723-9, 2384-2393, 2008
6. Yoshinari Miyamoto, Weiwu Chen, Hideaki Kanaoka, Masahito Ishikawa and Soshu Kirihara, Smart Processing of 3D Micro Ceramic Devices for Functional and Structural Applications, *Proceeding of the 10th International Conference of the European Ceramic Society*, 10, 482-486,

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受賞

1. 桐原聡秀, 日本セラミックス協会関西支部学術講演奨励賞, 2008/7/24
2. Toshihide Horii, YOUNG RESEARCHER AWARD IUMRS-ICA 2008, 2008/12/13
3. Daisuke Sano, Best Presentation Award MM&FGM 2008, 2008/9/25

シンポジウム開催状況

1. 第5回スマートプロセス研究センター産学連携シンポジウム, 主な招待講演者: 堀尾浩次(大同特殊鋼株), 三宅行一(三井金属鉱業株), 萩原明房(東京電力株), 参加人数 107(外国人参加者数 5)
2. 日本セラミックス協会シンポジウム特定セッション: スマートプロセスによるセラミックス材料開発の新展開, 主な招待講演者: 井須紀文(株式会社 INAX), 参加人数 60(外国人参加者数 0)
3. The First Asian Symposium on Smart Processing Technology 2008, 主な招待講演者: Prof. Di Zhang, Shanghai Jiao Tong University, CHINA, Prof. Sirirung Songsivilai, NANOTEC, THAILAND, Prof. Nam-hyun Kang, Pusan National University, KOREA, 参加人数 120(外国人参加者数 29)
4. Smart Processing Technology Symposium on IUMRS-ICA in Asia 2008, 主な招待講演者: Prof. Jing Zhang, Tohoku University, Prof. Junichi Tatami Yokohama National University, 参加人数 107(外国人参加者数 23)

特許権などの知的財産権

1. Three-dimensional Periodic Structure and Method for Producing the Same, 発明者: Soshu Kiriara, Yoshinari Miyamoto, Takuji Nakagawa, Katsuhiko Tanaka, 権利者: Murata Manufacturing Co., Ltd., US7303626B2, 出願年月日: 2005/5/15, 取得年月日: 2007/12/4