

2007 年度業績 — 桐原 聡秀

学術論文・解説記事

1. E. Semouchkina, Y. Miyamoto, S. Kirihara, G. Semouchkina and M. Lanagan, Analysis of Electromagnetic Response of 3-D Dielectric Fractals of Menger Sponge Type, IEEE Trans. on Microwave Theory and Techniques, 55, 6, 1305-1313, 2007
2. W. Chen, S. Kirihara and Y. Miyamoto, Fabrication and Measurement of Micro Three-Dimensional Photonic Crystals of SiO₂ Ceramic for Terahertz Wave Applications, J. Am. Ceram. Soc., 90, 7, 2078-2081, 2007
3. W. Chen, S. Kirihara and Y. Miyamoto, Freeform Fabrication of Photonic Crystals with 3-Dimensional Diamond Structure by Micro-Stereolithography, Ceram. Trans., 198, 407-412, 2007
4. T. Nakagawa, K. Kageyama, N. Wada, Y. Sakabe, S. Kirihara and Y. Miyamoto, Fabrication and Microwave Properties of Three-Dimensional Photonic Crystals with a Diamond Structure Composed of Ceramic Spheres in Resin, J. Am. Ceram. Soc., 90, 4, 1112-1115, 2007
5. W. Chen, S. Kirihara and Y. Miyamoto, Three-dimensional Microphotonic Crystals of ZrO₂ Toughened Al₂O₃ for Terahertz Wave Applications, Appl. Phys. Lett., 91, 153507/1-3, 2007
6. T. Nakagawa, K. Kageyama, H. Takagi, Y. Sakabe, S. Kirihara and Y. Miyamoto, Diamond-Structure Photonic Crystals Composed of Ceramic Spheres in Resin and Their Microwave Properties, JPN. J. Appl. Phys., 45, 10B, 1 月 5 日, 2008
7. T. Nakagawa, K. Kageyama, H. Takagi, Y. Sakabe, S. Kirihara and Y. Miyamoto, Photonic Band Gaps in Diamond Structures Composed of Ceramic Spheres, Smart Processing Technology, 2, 167-170, 2008
8. 宮本欽生, 桐原聡秀, 陳衛武, 金岡秀明, セラミックス材料を用いた THZ 用フォトニック結晶, セラミックス, 42, 4, 272-277, 2007
9. 桐原聡秀, 宮本欽生, CAD/CAM を利用した金属およびセラミックス構造の自由造形, 溶接学会誌, 77, 2, 65-69, 2008
10. H. Kanaoka, S. Kirihara and Y. Miyamoto, Terahertz Wave Properties of Alumina Micro Photonic Crystals with a Diamond Structure, Journal of Materials Research, 印刷中
11. W. Wang, S. Kirihara, Y. Miyamoto and Z. Jin, Fabrication of Metallodielectric Photonic Crystals with Diamond Structure and their Microwave Properties, Journal of the American Ceramic Society, 印刷中

国際会議プロシーディングス

1. Y. Miyamoto, W. Chen, H. Kanaoka and S. Kirihara, Smart Processing Development on 3D Ceramic Structures for Terahertz Wave, Proc. 31st Int. Conf. on Adv. Ceramics and Composites, 79-90, 2007
2. S. Kirihara, T. Hibino, H. Kanaoka and Y. Miyamoto, Design and Fabrication of Terahertz Wave Control Devices by Micro-stereolithography, Proc. Ceramic Interconnect and Ceramic Microsystems Technologies, 4, 125-130, 2007
3. T. Horii, Y. Yamamoto, S. Kirihara, Y. Miyamoto and N. Yamanaka Freeform Fabrication of Metals by 3D Micro Welding, Proc. 3rd Int. Conf. on Adv. Research in Virtual and Rapid Prototyping, 3, 509-513, 2007
4. H. Kanaoka, S. Kirihara and Y. Miyamoto, Micro-Fabrication and Terahertz Wave Properties of Alumina Photonic Crystals with Diamond Structure, Proc. 31st Int. Conf. on Adv. Ceramics and Composites, 99-104, 2007
5. Y. Nakahata, S. Kirihara and Y. Miyamoto, Fabrication of New Dielectric Fractal Structures and Localization of Electromagnetic Wave, Proc. 31st Int. Conf. on Adv. Ceramics and Composites, 91-98, 2007

著書

1. 桐原聡秀, 宮本欽生, フォトニック結晶技術の応用, シーエムシー出版, 80-90, 2007
2. 桐原聡秀, 宮本欽生, エレクトロニクス用セラミックスの製造プロセスと応用技術<大全集>, 技術情報協会, 843-852, 2007
3. S. Kirihara and Y. Miyamoto, Nanoparticle Technology Handbook, ELSEVIER, 375-377, 2007
4. 桐原聡秀, 宮本欽生, 粉体粉末冶金技術戦略マップ, (社)粉体粉末冶金協会, 1月7日, 2007

シンポジウム開催状況

1. The Second International Symposium on Smart Processing Technology (SPT' 07), 参加人数 164 (外国人参加者数 39)
2. The 7th Korea/Japan Joint Workshop on Smart Processing Developments for Environmental-friendly Advanced Materials, 参加人数 33 (外国人参加者数 25)

特許権などの知的財産権

1. 光造形物の製造方法, 発明者: 桐原 聡秀 外 3 名, 特許出願 2006-66218, 出願年月日: 2006 年 3 月 10 日