

## 2007 年度業績 — 節原 裕一

### 学術論文・解説記事

1. Y. Setsuhara, K. Takenaka, A. Ebe and K. Nishisaka, Development of Large Area Plasma Reactor Using Multiple Low-Inductance Antenna Modules for Flat Panel Display Processing, *Solid State Phenomena*, 127, 239-244, 2007
2. K. Takenaka, Y. Setsuhara, K. Nishisaka and A. Ebe, Effect of Pressure on Inductively-Coupled Plasmas Sustained with Multiple Low-Inductance Internal-Antenna Units, *Transactions of the Materials Research Society of Japan*, 32, 493-496, 2007
3. K. Takenaka, H. Nakayama, Y. Setsuhara, H. Abe and K. Nogi, Modification of nanoparticle films with inductively-coupled high-pressure RF plasmas, *Transactions of the Materials Research Society of Japan*, 32, 505-508, 2007
4. Y. Setsuhara, K. Takenaka, D. Tsukiyama, K. Nishisaka and Akinori Ebe, Ultra-Large Area RF Plasma Sources Employing Multiple Low-Inductance Internal-Antenna Modules for Flat Panel Display Processing, *Materials Science Forum*, 561-565, 1237-1240, 2007
5. D. Tsukiyama, K. Takenaka, Y. Setsuhara, K. Nishisaka and A. Ebe, Meters-Scale Large-Area Plasma Sources with Multiple Low-Inductance Antenna Units for Next-Generation Flat-Panel Display Processing, *Transactions of the Materials Research Society of Japan*, 32, 497-500, 2007
6. Eiji Takahashi, Yasuaki Nishigami, Atsushi Tomyo, Masaki Fujiwara, Hirokazu Kaki, Kiyoshi Kubota, Tsukasa Hayashi, Kiyoshi Ogata, Akinori Ebe, Yuichi Setsuhara, Large-Area and High-Speed Deposition of Microcrystalline Silicon Film by Inductive Coupled Plasma using Internal Low-Inductance Antenna, *Jpn. J. Appl. Phys.*, 46, 1280-1285, 2007
7. K. Takenaka, Y. Setsuhara, K. Nishisaka A. Ebe, Y.-M. Kim and J. G. Han, Properties of Argon/Oxygen Mixture Plasmas Driven by Multiple Internal-Antenna Units, *Surf. Coat. Technol.*, Accepted for publication
8. Yuichi Setsuhara, Takashi Sera and Kosuke Takenaka, Discharge Profiles of Internal-Antenna-Driven Inductively-Coupled Plasmas, *Surf. Coat. Technol.*, Accepted for publication
9. K. Takenaka, H. Nakayama, Y. Setsuhara, H. Abe and K. Nogi, Modification of Yttrium-Iron-Oxide Nanoparticle Films Using Inductively-Coupled Plasma Annealing, *Surf. Coat. Technol.*, Accepted for publication
10. K. Takenaka, D. Tsukiyama, Y. Setsuhara, K. Nishisaka and A. Ebe, Uniformity of 500-mm Cylindrical Plasma Source Sustained with Multiple Low-Inductance Antenna Units, *Surf. Coat. Technol.*, Accepted for publication
11. Kousuke Takenaka, Daisuke Tsukiyama, Yuichi Setsuhara, Kazuaki Nishisaka and Akinori Ebe,

Large-Area Low-Damage Plasma Sources Driven by Multiple Low-Inductance-Antenna Modules for Next-Generation Flat-Panel Display Processes, Surf. Coat. Technol., Accepted for publication

12. H. Kaki, E. Takahashi, T. Hayashi, K. Ogata, A. Ebe, K. Takenaka and Y. Setsuhara, Interface structures of microcrystalline silicon films deposited with inductively coupled plasmas using internal low-inductance antenna units, Surf. Coat. Technol., Accepted for publication
13. Yuichi Setsuhara, Daisuke Tsukiyama, Kosuke Takenaka and Koichi Ono, Simulation-Aided Designing of Meter-Scale Large-Area Plasma Source with Multiple Low-Inductance Antenna Modules, Jpn. J. Appl. Phys., Accepted for publication
14. K. Takenaka, Y. Setsuhara, K. Nishisaka and A. Ebe, Characterization of Ion Energy Distributions in Inductively-Coupled Argon Plasmas Sustained with Multiple Internal Antenna Units, Jpn. J. Appl. Phys., Accepted for publication

#### 国際会議プロシーディングス

1. Y. Setsuhara, D. Tsukiyama, K. Takenaka and A. Ebe, "Meters-Scale Ultra-Large-Area Plasma-Source Designs Employing Multiple Low-Inductance -Antenna Modules", The 18th International Symposium on Plasma Chemistry, Kyoto, Japan, August 26 - 31, 2007, Full-Papers CD, 30P-76-1-30P-76-4, 2007
2. K. Takenaka, Y. Setsuhara, K. Nishisaka, A. Ebe, Y.-M. Kim, J. G. Han, "Characterization of Argon/Oxygen Mixture Plasmas Driven by Multiple Internal-Antenna Units", The 18th International Symposium on Plasma Chemistry, Kyoto, Japan, August 26 - 31, 2007, Full-Papers CD, 30P-77-1-30P-77-4, 2007

#### 著書

1. Y. Setsuhara (分担執筆) , Nanoparticle Technology Handbook, ELSEVIER, 2007