

## 国内共同研究員との共著査読付学術論文(2013年度)

- (1) "Characteristics of Photocurrent Generation in the Near-Ultraviolet Region in Si Quantum-Dot Sensitized Solar Cells"  
Thin Solid Films, 544 (2013), 93-98.  
G. Uchida, M. Sato, H. Seo, K. Kamataki, N. Itagaki, K. Koga and M. Shiratani
- (2) "Effects of Nanoparticle Incorporation on Properties of Microcrystalline Films Deposited Using Multi-Hollow Discharge Plasma CVD"  
Surf. Coat. Technol., 228 (2013), S550-S553.  
Y. Kim, T. Matsunaga, K. Nakahara, H. Seo, K. Kamataki, G. Uchida, N. Itagaki, K. Koga and M. Shiratani
- (3) "Characteristics of Crystalline Silicon/Si Quantum Dot/Poly(3,4-ethylenedioxothiophene) Hybrid Solar Cells"  
Jpn. J. Appl. Phys., 52 (2013), 11NA05-1-11NA05-4.  
G. Uchida, Y. Wang, D. Ichida, H. Seo, K. Kamataki, N. Itagaki, K. Koga and M. Shiratani
- (4) "Correlation between Volume Fraction of Silicon Clusters in Amorphous Silicon Films and Optical Emission Properties of Si\* and SiH\*"  
Jpn. J. Appl. Phys., 52 (2013), 11NA07-1-11NA07-4.  
Y. Kim, K. Hatozaki, Y. Hashimoto, G. Uchida, K. Kamataki, N. Itagaki, H. Seo, K. Koga and M. Shiratani
- (5) "Flux Control of Carbon Nanoparticles Generated Due to Interactions between Hydrogen Plasmas and Graphite Using DC-Biased Substrates"  
Jpn. J. Appl. Phys., 52 (2013), 11NA08-1-11NA08-4.  
K. Koga, M. Tateishi, K. Nishiyama, G. Uchida, K. Kamataki, D. Yamashita, H. Seo, N. Itagaki, M. Shiratani, N. Ashikawa, S. Masuzaki, K. Nishimura, A. Sagara and the LHD Experimental Group
- (6) "Epitaxial Growth of ZnInON Films with Tunable Band Gap from 1.7 to 3.3 EV on ZnO Templates"  
Jpn. J. Appl. Phys., 52 (2013), 11NM06-1-11NM06-5.  
K. Matsushima, T. Hirose, K. Kuwahara, D. Yamashita, G. Uchida, H. Seo, K. Kamataki, K. Koga, M. Shiratani and N. Itagaki
- (7) "Study on the Fabrication of Paint-Type Si Quantum Dot-Sensitized Solar Cells"  
Jpn. J. Appl. Phys., 52 (2013), 10MB07-1-10MB07-5.  
H. Seo, M. Son, H. Kim, Y. Wang, G. Uchida, K. Kamataki, N. Itagaki, K. Koga and M. Shiratani
- (8) "Effects of Nitrogen on Crystal Growth of Sputter-Deposited ZnO Films for Transparent Conducting Oxide"  
Jpn. J. Appl. Phys., 52 (2013), 11NB03-1-11NB03-5.  
I. Suhariadi, K. Oshikawa, K. Kuwahara, K. Matsushima, D. Yamashita, G. Uchida, K. Koga, M. Shiratani

- (9) "The Improvement on the Performance of Quantum Dot-Sensitized Solar Cells with Functionalized Si"  
Thin Solid Films, 546 (2013), 284-288.  
H. Seo, Y. Wang, M. Sato, G. Uchida, K. Koga, N. Itagaki, K. Kamataki and M. Shiratani
- (10) "Mass Density Control of Carbon Films Deposited by H-assisted Plasma CVD Method Original Research Article Surface and Coatings Technology"  
Surf. Coat. Technol., 228 (2013), S15-S18.  
T. Urakawa, H. Matsuzaki, D. Yamashita, G. Uchida, K. Koga, M. Shiratani, Y. Setsuhara, M. Sekine and M. Hori
- (11) "Theory for Correlation between Plasma Fluctuation and Fluctuation of Nanoparticle Growth in Reactive Plasmas"  
Jpn. J. Appl. Phys., 53 (2014), 010201-1-010201-4.  
M. Shiratani, K. Koga, K. Kamataki, S. Iwashita, G. Uchida, H. Seo and N. Itagaki
- (12) "Improvement on the Electron Transfer of Dye-Sensitized Solar Cell Using Vanadium Doped TiO<sub>2</sub>"  
Jpn. J. Appl. Phys., 52 (2013), 11NM02-1-11NM02-4.  
H. Seo, Y. Wang, D. Ichida, G. Uchida, N. Itagaki, K. Koga, M. Shiratani, S.-H. Nam and J.-H. Boo
- (13) "Performance Dependence of Si Quantum Dot-Sensitized Solar Cells on Counter Electrode"  
Jpn. J. Appl. Phys., 53 (2014), 05FZ01-1-05FZ01-4.  
H. Seo, D. Ichida, G. Uchida, N. Itagaki, K. Koga and M. Shiratani
- (14) "Investigations on Plasma-Biomolecules Interactions as Fundamental Process for Plasma Medicine"  
J. Phys. : Conf. Ser., 441 (2013), 012001.  
K. Takenaka, K. Cho, Y. Setsuhara, M. Shiratani, M. Sekine and M. Hori
- (15) "Hot Cracking Phenomena in Electron-beam-melted Surface Region of Co-Cr-Mo Alloy"  
溶接学会論文集, 31, 4 (2013), 100s-103s.  
S. Kakiuchi, S. Tomida, H. Yamagishi, T. Yoneda and K. Nakata
- (16) "Interfacial Microstructure of CP-Ti and AZ31 Joint by Friction Stir Welding"  
溶接学会論文集, 31, 4 (2013), 96s-99s.  
M. Aonuma, K. Morikawa, Y. Teranishi and K. Nakata
- (17) "Novel Solid State Cladding of Brass to Steel Plate by Friction Stir Welding"  
溶接学会論文集, 31, 4 (2013), 73s-77s.  
T. Matsuyama, T. Tsumura and K. Nakata

- (18) "Crystallization of Si<sub>1-x</sub>Gex Multilayer by Soft X-ray Irradiation"  
Appl. Phys. Express, 6, 6 (2013), 65501.  
A. Heya, N. Matsuo, M. Takahashi, K. Ito and K. Kanda
- (19) "チタン製眼鏡フレームのレーザ微細溶接に関する基礎研究"  
溶接学会論文集, 31, 2 (2013), 167-173.  
中村 浩, 川人 洋介, 強力 真一, 多田 弘幸, 片山 聖二
- (20) "レーザを用いた純チタンとエンジニアリングプラスチックPETとの異材直接接合"  
軽金属溶接, 51, 5 (2013), 166-172.  
西本 浩司, 中村 浩, 丹羽 悠介, 川人 洋介, 片山 聖二
- (21) "Microstructural and Mechanical Behavior of Multi-Walled Carbon Nanotubes Reinforced Al-Mg-Si Alloy Composites in Aging Treatment"  
Carbon, 72 (2014), 15-21.  
K. Kondoh, H. Fukuda, J. Umeda, H. Imai and B. Fugetsu
- (22) "Microstructural and Electrical Properties of Copper-titanium Alloy Dispersed with Carbon Nanotubes via Powder Metallurgy Process"  
Mater. Trans., 55, 3 (2014), 522-527.  
H. Imai, K. Kondoh, S. Li, J. Umeda, B. Fugetsu and M. Takahashi
- (23) "Numerical Study of Local PWHT Condition for EB Welded Joint between First and Side Walls in ITER-TBM"  
J. Nucl. Mater., 442 (2013), S535-S540.  
H. Serizawa, S. Nakamura, H. Tanigawa, H. Ogiwara and H. Murakawa
- (24) "Weldability of Dissimilar Joint between F82H and SUS316L under Fiber Laser Welding"  
Fusion Eng. Design, 88 (2013), 2466-2470.  
H. Serizawa, D. Mori, Y. Shirai, H. Ogiwara and H. Mori
- (25) "結晶塑性FE解析による巨視的弾性応力下の繰返し軟化挙動の考察"  
スマートプロセス学会誌, 2, 3 (2013), 123-127.  
堤 成一郎, 大和 真征, 後藤 浩二, 渡邊 育夢, Fionn Dunne
- (26) "塑性流動を利用したアルミニウム合金/鋼板の新たな異種金属点接合 –摩擦アンカー接合によるアルミニウム合金と鋼の接合–"  
溶接学会論文集, 32, 1 (2014), 1-7.  
大石 郁, 坂村 勝, 大田 耕平, 藤井 英俊

- (27) "Interface Shape and Microstructure Controlled Dissimilar Friction Stir Lap Welded Steels"  
Sci. Technol. Weld. Joining, 18, 4 (2013), 279-286.  
H. Fujii, Y. D. Chung, Y. F. Sun and H. Tanigawa
- (28) "High Strength and Ductility of Friction-Stir-Welded Steel Joints Due to Mechanically Stabilized Metastable Austenite"  
Scr. Mater., 70 (2014), 39-42.  
H. Fujii, R. Ueji, Y. Morisada and H. Tanigawa
- (29) "摩擦圧接によるポーラスアルミニウム/薄肉パイプ複合部材の創製"  
日本機械学会論文集 A編, 79, 804 (2013), 1066-1070.  
齋藤 雅樹, 半谷 祐彦, 藤井 英俊, 孫 玉峰, 森貞 好昭, 北原 総一郎, 桑水流 理, 吉川 暢宏
- (30) "その場生成したCuAl<sub>2</sub>を分散させたポーラスAlコア充填パイプ複合部材の創製"  
日本機械学会論文集 A編, 79, 804 (2013), 1071-1075.  
田島 敏宣, 半谷 祐彦, 齋藤 雅樹, 小山 真司, 藤井 英俊, 孫 玉峰, 森貞 好昭, 桑水流 理, 吉川 暢宏
- (31) "摩擦圧接を用いた均一気孔径を有するポーラスCuの作製"  
日本機械学会論文集 A編, 79, 804 (2013), 1079-1082.  
圖子田 幸祐, 半谷 祐彦, 吉田 浩亮, 藤井 英俊, 孫 玉峰, 森貞 好昭, 桑水流 理, 吉川 暢宏
- (32) "Friction Powder Compaction Process for Fabricating Open-Celled Cu Foam by Sintering-Dissolution Process Route NaCl Space Holder"  
Mater. Sci. Eng. A., 585 (2013), 468-474.  
Y. Hangai, K. Zushita, H. Fujii, R. Ueji, O. Kuwazuru and N. Yoshikawa
- (33) "Surface Hardening of Ferritic Flake Graphite Cast Iron by Friction Stir Processing"  
Mater. Trans., 54, 10 (2013), 1938-1943.  
K. Imagawa, H. Fujii, Y. Morisada, T. Hashimoto, Y. Yamaguchi and S. Kiguchi
- (34) "Improvement of Toughness and Strength of Thick Structural Steel Weld by Friction Stir Welding Conditions"  
Sci. Technol. Weld. Joining, 18, 4 (2013), 287-292.  
Y. Morisada, H. Fujii, R. Nishimoto, T. Miyazawa, Y. Iwamoto and R. Ueji
- (35) "濡れ性を用いた切削加工用薄膜の切削抵抗評価"  
精密工学会誌, 79, 6 (2013), 547-552.  
橋倉 弘樹, 森貞 好昭, 藤井 英俊, 神田 一隆, 久保田 和幸, 伊坂 正和

- (36) "Effects of Tool Rotation Speed on the Mechanical Properties and Microstructure of Friction-Stir-Welded ODS Steel"  
Mater. Sci. Eng. A., 595 (2014), 291-296.  
K. Yabuuchia, N. Tsuda, A. Kimura, Y. Morisada, H. Fujii, H. Serizawa, S. Nogami, A. Hasegawa and T. Naqasaka
- (37) "レーザーピーニングにおける金属硬化特性に対するレーザー入射角度変化の効果"  
レーザー研究, 41, 11 (2013), 942-945.  
水田 浩平, 津山 美穂, 部谷 学, 塚本 雅裕, 柴柳 敏哉, 中野 人志
- (38) "ナノ秒レーザを用いた炭素纖維強化プラスチックCFRPのアブレーション"  
スマートプロセス学会誌, 3, 1 (2014), 54-59.  
佐藤 雄二, 塚本 雅裕, 大久保 友雅, 高橋 謙次郎, 升野 振一郎
- (39) "繰り返し静水圧加圧におけるセラミックス成形体内の均質化過程に関する多重球殻モデルによる弾性解析"  
粉体工学会誌, 51, 3 (2014), 153-162.  
安田 公一, 田中 諭, 内藤 牧男
- (40) "Hydrothermal Growth of Tailored SnO<sub>2</sub> Nanocrystals"  
Cryst. Growth Des., 13 (2013), 1685-1693.  
K. Sato, Y. Yokoyama, J.-C. Valmalette, K. Kuruma, H. Abe and T. Takarada
- (41) "Scalable and Template-Free Production of Mesoporous Calcium Carbonate and Its Potential to Formaldehyde Adsorbent"  
J. Nanopart. Res., 16, 2 (2014), 2266(8pages).  
S. Yamanaka, T. Oiso, Y. Kurahashi, H. Abe, K. Hara, T. Fujimoto and Y. Kuga
- (42) "Reaction Temperature Variations on the Crystallographic State of Spinel Cobalt Aluminate"  
Dalton Trans., 42 (2013), 7167-7176.  
M. Taguchi and T. Nakane, K. Hashi, S. Ohki, T. Shimizu, Y. Sakka, A. Matsushita, H. Abe, T. Funazukuri and T. Naka
- (43) "Low-temperature Au-Au Bonding Using Nanoporous Au-Ag Sheets"  
Jpn. J. Appl. Phys., 52 (2013), 050204-1-050204-3.  
H. Mimatsu, J. Mizuno, T. Kasahara, M. Saito, H. Nishikawa and S. Shoji
- (44) "Inhomogeneous Magnetic Phase in Co-Al-O Spinel Nanocrystals"  
J. Magn. Magn. Mater., 350 (2014), 161-166.  
K. Sato, T. Naka, T. Nakane, D. Rangappa, S. Takami, S. Ohara and T. Adschari

- (45) "Particle Size for Photocatalytic Activity of Anatase TiO<sub>2</sub> Nanosheets with Highly Exposed {001} Facets"  
RSC Advances, 3, 42 (2013), 19268-19271.  
Z. Tan, K. Sato, S. Takami, C. Numako, M. Umetsu, K. Soga, M. Nakayama, R. Sasaki, T. Tanaka, C. Ogino, A. Kondo, K. Yamamoto, T. Hashishin and S. Ohara
- (46) "鉄骨仕口部マグ溶接のバッキングレス化検討"  
日本建築学会構造系論文集, 78, 694 (2013), 2049-2056.  
菅 哲男, 河西 龍, 鈴木 励一, 佐々木 誉史, 中込 忠男