

2008 年度業績 — 廣瀬 明夫

学術論文・解説記事

1. Yusuke Akada, Hiroaki Tatsumi, Takuto Yamaguchi, Akio Hirose, Toshiaki Morita and Eiichi Ide, Interfacial Bonding Mechanism Using Silver Metallo-Organic Nanoparticles to Bulk Metals and Observation of Sintering Behavior, *Materials Transaction*, 49(7), 1537-1545, 2008
2. Toshiaki Morita, Eiichi Ide, Yusuke Yasuda, Akio Hirose, and Kojiro F. Kobayashi, Study on Bonding Technology Using Silver Nanoparticles, *Japanese Journal of Applied Physics*, 47(8), 6615-6622, 2008
3. Yasuyuki Ozeki, Tomoyuki Inoue, Takayuki Tamaki, Hideaki Yamaguchi, Satoshi Onda, Wataru Watanabe, Tomokazu Sano, Shumpei Nishiuchi, Akio Hirose, and Kazuyoshi Itoh, Direct Welding between Copper and Glass Substrates with Femtosecond Laser Pulses, *Applied Physics Express*, 1, 082601-1-3, 2008
4. Toshiaki Morita, Yusuke Yasuda, Eiichi Ide and Akio Hirose, Bonding Technique Using Micro-Scaled Silver-Oxide Particles for In-Situ Formation of Silver Nanoparticles, *Materials Transaction*, 49(12), 2875-2880, 2008
5. Toshiaki Morita, Yusuke Yasuda, Eiichi Ide and Akio Hirose, Direct Bonding to Aluminum with Silver-oxide Microparticles, *Materials Transactions*, 50(1), 226-228, 2009
6. M. Tsujino, T. Sano, N. Ozaki, O. Sakata, M. Okoshi, N. Inoue, R. Kodama, and A. Hirose, Quenching of high-pressure phases of silicon using femtosecond laser-driven shock wave, *The Review of Laser Engineering, Supplemental Volume*, 1218-1221, 2008
7. 武田 直也, 巽 裕章, 赤田 裕亮, 小椋 智, 井出 英一, 守田 俊章, 廣瀬 明夫, 酸化銀マイクロ粒子を用いた銀ナノ粒子その場生成による新接合法, 第 15 回エレクトロニクスにおけるマイクロ接合・実装技術シンポジウム(Mate2009)論文集, 15, 195-200, 2009
8. 岩崎 正剛, 佐野 智一, 桂 澄夫, 吉田 勝弘, 中山 明, 廣瀬 明夫, 酸化インジウムスズ細線のレーザパターニング, 第 15 回エレクトロニクスにおけるマイクロ接合・実装技術シンポジウム(Mate2009)論文集, 15, 243-246, 2009
9. 中島 透, 佐野 智一, 小椋 智, 大越 昌幸, 井上 成美, 廣瀬 明夫, フェムト秒レーザパルスを用いた鉄の表面改質, 第 15 回エレクトロニクスにおけるマイクロ接合・実装技術シンポジウム(Mate2009)論文集, 15, 247-250, 2009
10. 廣瀬明夫, 金属ナノ粒子を用いた接合技術, *表面技術*, 59(7), 443-447, 2008
11. Akio Hirose, Hiroaki Tatsumi, Naoya Takeda, Yusuke Akada, Tomo Ogura, Eiichi Ide and Toshiaki Morita, A Novel Metal-to-metal Bonding Process through In-situ Formation of Ag Nanoparticles Using Ag₂O Microparticles, *Journal of Physics: Conference Series*, in press

12. Tomokazu Sano, Kengo Takahashi, Osami Sakata, Masayuki Okoshi, Narumi Inoue, Kojiro F. Kobayashi, and Akio Hirose, Femtosecond laser-driven shock synthesis of hexagonal diamond from highly oriented pyrolytic graphite, *Journal of Physics: Conference Series*, in press
13. T. Ogura, Y. Saito, K. Ueda and A. Hirose, Evaluation of Interfacial Microstructures in Dissimilar Joints of Aluminum Alloys to Steel Using Nanoindentation Technique, *Journal of Physics: Conference Series*, in press

国際会議プロシーディングス

1. T. Tachibana, S. Hojo, S. Iwatani, T. Ogura, S. Nakagawa, K. Miyamoto and A. Hirose, Effects of Zinc Insert and Al Content in Mg Alloy on the Bondability in Dissimilar Joints of Steel and Magnesium Alloy, *Proceedings of 8th International Welding Symposium*, 123, 2008
2. H. Tatsumi, N. Takeda, Y. Akada, T. Ogura, E. Ide, T. Morita and A. Hirose, Bonding Mechanism of Novel Bonding Process Using Ag₂O Microparticles via In-situ Formation of Ag Nanoparticles, *Proceedings of 8th International Welding Symposium*, 260, 2008
3. M. Tsujino, T. Sano, N. Ozaki, O. Sakata, M. Okoshi, N. Inoue, R. Kodama and A. Hirose, Deformation of Femtosecond Laser Shock-Loaded Silicon, *Proceedings of 8th International Welding Symposium*, 321, 2008
4. T. Nakashima, T. Sano, T. Ogura, M. Okoshi, N. Inoue and A. Hirose, Surface Modification of Steels Using Femtosecond Laser Pulses, *Proceedings of 8th International Welding Symposium*, 323, 2008
5. M. Yoshida, S. Angata, E. Ide, T. Morita, A. Hirose and K. F. Kobayashi, Bondability of Cu-Cu Joint Using Ag Metallo-Organic Nanoparticles, *Proceedings of 8th International Welding Symposium*, 318, 2008
6. S. Iwasaki, T. Sano, S. Katsura, K. Yoshida, A. Nakayama and A. Hirose, Patterning of ITO Microwire Using Laser Direct Writing Method, *Proceedings of 8th International Welding Symposium*, 322, 2008
7. Y. Saito, H. Umeshita, T. Ogura and A. Hirose, Effects of Copper Alloying on the Bondability of Dissimilar Joints of Aluminum Alloys to Steel, *Proceedings of 8th International Welding Symposium*, 300, 2008
8. N. Takeda, H. Tatsumi, Y. Akada, T. Ogura, T. Morita, E. Ide and A. Hirose, Novel Metal-to-Metal Low Temperature Bonding Process Using In-situ Formation of Ag₂O-derived Ag Nanoparticles, *Proceedings of 8th International Welding Symposium*, 317, 2008
9. T. Ogura, H. Umeshita, Y. Saito and A. Hirose, Characteristics and Estimation of Interfacial Microstructure with Additional Elements in Dissimilar Joints of Aluminum Alloys to Steel, *Proceedings of 8th International Welding Symposium*, 177, 2008

10. T. Sano, K. Takahashi, O. Sakata, M. Okoshi, N. Inoue, K. F. Kobayashi and A. Hirose, Femtosecond Laser Synthesis of Hexagonal-Diamond from Graphite, Proceedings of 8th International Welding Symposium, 10, 2008

著書

1. Akio Hirose (分担執筆), Microjoining and nanojoining, Woodhead Publishing Limited, 2008, 総ページ数 810

受賞

1. Masashi Tsujino, The ICPEPA 2008 Outstanding Student Paper Award (Poster), Sep. , 2008
2. 辻野雅之, 自動車技術会大学院研究奨励賞, 2009年3月24日
3. 巽 裕章, (社)溶接学会 奨学賞, 2009年3月24日
4. 廣瀬明夫, 大阪大学教育・研究功績賞, 2009年2月19日