

2011 —HIROSE Akio

Scientific Papers/Commentary Articles

1. Masashi Tsujino, Tomokazu Sano, Tomo Ogura, Masayuki Okoshi, Narumi Inoue, Norimasa Ozaki, Ryosuke Kodama, Kojiro F. Kobayashi, and Akio Hirose, Formation of High-Density Dislocations and Hardening in Femtosecond-Laser-Shocked Silicon, *Applied Physics Express*, 5, 022703, 2012
2. T. Ogura, A. Hirose and T. Sato, Effects of Pre-Aging on Bendability of an Asymmetric-Rolled Al-Mg-Si Alloy, *Materials Science Forum*, 706-709, 377-382, 2012
3. A. Hirose, N. Takeda, H. Tatsumi, Y. Akada, T. Ogura, E. Ide and T. Morida, Low Temperature Sintering Bonding Process Using Ag Nanoparticles Derived from Ag₂O for Packaging of High-temperature Electronics, *Materials Science Forum*, 706-709, 2962-2967, 2012
4. Tomo Ogura, Yuichi Saito, Taichi Nishida, Hidehito Nishida, Takumi Yoshida, Noriko Ohmichi, Mitsuo Fujimoto and Akio Hirose, Partitioning evaluation of mechanical properties and the interfacial microstructure in a friction stir welded aluminum alloy/stainless steel lap joint, *Scripta Materialia*, 66, 531-534, 2012
5. M. Tsujino, T. Sano, O. Sakata, N. Ozaki, S. Kimura, S. Takeda, M. Okoshi, N. Inoue, R. Kodama, K. F. Kobayashi, and A. Hirose, "Synthesis of submicron metastable phase of silicon using femtosecond laser-driven shock wave", *Journal of Applied Physics*, 110, 126103, 2011
6. Y. Sano, K. Masaki, T. Gushi, T. Sano, Improvement in fatigue performance of friction stir welded A6061-T6 aluminum alloy by laser peening without coating, *Materials and Design*, 36, 809-814, 2011
7. Tomo Ogura, Shoichi Hirose, Akio Hirose and Tatsuo Sato, Effects of Microalloying Tin and Combined Addition of Silver and Tin on the Formation of Precipitate Free Zones and Mechanical Properties in Al-Zn-Mg Alloys, *Materials Transactions*, 52, 900-905, 2011
8. Keisuke Ueda, Tomo Ogura, Shumpei Nishiuchi, Kenji Miyamoto, Toshikazu Nanbu and Akio Hirose, Effects of Zn-based Alloys Coating on Mechanical Properties and Interfacial Microstructures of Steel /Aluminum Alloy Dissimilar Metals Joints Using Resistance Spot Welding, *Materials Transactions*, 52, 967-973, 2011
9. Taichi Nishida, Tomo Ogura, Mitsuo Fujimoto and Akio Hirose, Microstructure and Mechanical Properties of 5000 Series Aluminum Stud Joints with Zn Insert Using Friction Welding, *Materials Transactions*, 52, 960-966, 2011
10. Tomo Ogura, Keisuke Ueda, Yuichi Saito and Akio Hirose, Nanoindentation Measurement of Interfacial Reaction Layers in 6000 Series Aluminum Alloys and Steel Dissimilar Metal Joints with Alloying Elements, *Materials Transactions*, 52, 979-984, 2011

11. Tomo Ogura, Masumi Nishimura, Hiroaki Tatsumi, Naoya Takeda, Wataru Takahara and Akio Hirose, Evaluation of interfacial bonding utilizing Ag₂O-derived silver nanoparticles using TEM observation and molecular dynamics simulation, *The Open Surface Science Journal*, 3, 967-973, 2011

International Conference Proceedings

1. Masaki Yamamoto, Tomo Ogura, Ryoji Ohashi, Mitsuo Fujimoto and Akio Hirose, Effect of welding parameters on bondability of Al alloy/zinc coated steel joint by friction stir joining, *Proc. of ECO-MATES 2011*, 299-300, 2011
2. Shinya Takata, Tomo Ogura, Akio Hirose, Ide Eiichi, Toshiaki Morita, Improvement of bondability in Cu/Cu joint using Ag₂O paste by controlling reducing solvent, *Proc. of ECO-MATES 2011*, 159-160, 2011
3. Yoh Tanaka, Shinichi Fujiwara, Tomo Ogura, Tomokazu Sano, Akio Hirose, Interfacial microstructure and evaluation of the thermal reliability in Cu/Ni ultrasonic bonded joints, *Proc. of ECO-MATES 2011*, 161-162, 2011
4. Taichi Nishida, Tomo Ogura, Hidehito Nishida, Takumi Yoshida, Noriko Ohmichi, Mitsuo Fujimoto and Akio Hirose, Interfacial microstructure observation of A3003/SUS304FSW lap joint, *Proc. of ECO-MATES 2011*, 277-278, 2011
5. Tomoki Matsuda, Tomokazu Sano, Tomo Ogura, Kobayashi F. Kojiro, and Akio Hirose, Microstructure of pure iron hardened using femtosecond laser-driven shock wave, *Proc. of ECO-MATES 2011*, 297-298, 2011
6. Tomo Ogura, Taichi Nishida, Hidehito Nishida, Mitsuo Fujimoto and Akio Hirose, Microscale Evaluation of Mechanical Properties in Friction Stir Welded A6061/SUS304 Dissimilar Lap Joint, *Proc. of ECO-MATES 2011*, 275-276, 2011
7. K. Miyamoto, S. Nakagawa, S. Iwatani, S. Hojo, T. Tachibana, T. Ogura, A. Hirose, K. F. Kobayashi, Dissimilar Joining of Magnesium Alloy and Steel by Resistance Spot Welding, *Proc. of International Seminar on Welding Science and Engineering (WSE2011) & CCWS Seminar 2011*, 89-91, 2011
8. T. Yagishita, T. Ogura and A. Hirose, Bondability of Low Temperature Sinter Bonding Process Using Ag₂O Pastes with Polyethylene Glycols, *Proc. International Conference on Electronics Packaging 2011 (ICEP2011)*, 247-252, 2011

Invited/Plenary Presentations

1. A. Hirose, International Workshop on Welding and Joining of Mg alloys, 2011.7, Waterloo,

Canada, Invited

2. A. Hirose, Termec2011, 2011.8, Quebec, Canada, Invited
3. T. Sano, Termec2011, 2011.8, Quebec, Canada, Invited

Symposia

1. Global COE Program “Center of Excellence for Advanced Structural and Functional Materials Design” Global Seminar, Invited speakers: Prof. Norman Y. Zhou, The University of Waterloo, Canada / Prof. Michael Mayer, The University of Waterloo, Canada / Prof. Anming Hu, The University of Waterloo, Canada / Prof. Gui - sheng Zou, Tsinghua University, China