

## 2009 — NAKAJIMA Hideo

### Scientific Papers/Commentary Articles

1. S. Ueno, H. Kobatake, H. Fukuyama, S. Awaji, and H. Nakajima, Formation of silicon hollow spheres via electromagnetic levitation method under static magnetic field in hydrogen–argon mixed gas, *Materials Letters*, 63(6-7), 602-604, 2009
2. S.Y. Kim, J.S. Park, H. Nakajima, Fabrication of Lotus-type Porous Aluminum through Thermal Decomposition Method, *Metallurgical and Materials Transactions A*, 40A(4), 937-942, 2009
3. T. Ide, M. Tane, H. Nakajima, Compressive deformation behavior of porous g-TiAl with directional pores, *Materials Science and Engineering A*, 508(1-2), 220-225, 2009
4. K. Alvarez, S.-K. Hyun, T. Nakano, Y. Umakoshi, H. Nakajima, In vivo osteocompatibility of lotus-type porous nickel-free stainless steel in rats, *Materials Science and Engineering C*, 29(4), 1182-1190, 2009
5. S. Ueno, T. Akatsu, H. Nakajima, Fabrication of Porous Magnesium Spinel with Directional Pores by Unidirectional Solidification, *Ceramics International*, 35(6), 2469-2473, 2009
6. M. Tane, H. Nakajima, Fabrication of Lotus-type Porous Aluminum Utilizing Decomposition of Moisture, *Materials Transactions*, 50(6), 1477-1481, 2009
7. R. Nakamura, G. Matsubayashi, H. Tsuchiya, S. Fujimoto, H. Nakajima, Transition in the Nanoporous Structure of Iron Oxides during the Oxidation of Iron Nanoparticles and Nanowires, *Acta Materialia*, 57(14), 4261-4266, 2009
8. H. Nakajima, R. Nakamura, Diffusion in Intermetallic Compounds and Fabrication of Hollow Nanoparticles through Kirkendall Effect, *Journal of Nano Research*, 7, 1-10, 2009
9. S. Ueno, L.M. Lin, H. Nakajima, Effect of Silica on Formation of Porous Alumina during Unidirectional Solidification in Hydrogen Atmosphere, *Materials Transactions*, 50(8), 2011-2014, 2009
10. R. Nakamura, G. Matsubayashi, H. Tsuchiya, S. Fujimoto, H. Nakajima, Formation of Oxide Nanotubes via Oxidation of Fe, Cu and Ni Nanowires and Their Structural Stability: Difference in Formation and Shrinkage Behavior of Interior Pores, *Acta Materialia*, 57(17), 5046-5052, 2009
11. K. Alvarez , H. Nakajima, Metallic Scaffolds for Bone Regeneration, *Materials*, 2, 790-832, 2009
12. M . Kashihara, H . Yonetani , T. Kobi, S. K. Hyun, S. Suzuki, H. Nakajima, Fabrication of Lotus-type Porous Carbon Steel via Continuous Zone Melting and Its Mechanical Properties, *Materials Science and Engineering A*, 524(1-2), 112-118, 2009
13. H. Chiba, T. Ogushi, H. Nakajima, S. Ueno, K. Torii, T. Tomimura, The Uncertainty in

SCHF-DT Thermal Conductivity Measurements of Lotus-Type Porous Copper, Advanced Engineering Materials, 11(10), 848-851, 2009

14. T.Wada, T.Ide, H. Nakajima, Fabrication of Porous Metals with Directional Pores through Thermal Decomposition of Chromium Nitride, Metallurgical and Materials Transactions A, 40A(13), 3204-3209, 2009
15. T.B. Kim, S. Suzuki, H. Nakajima, "Effect of Conditions of Unidirectional Solidification on Microstructure and Pore Morphology of Al-Mg-Si Alloys", Materials Transactions, 51(3), 496-502, 2010
16. J. Lobos, S. Suzuki, H. Utsunomiya, H. Nakajima, Structure Change and Improvement of the Mechanical Properties of Lotus-type Porous Copper by ECAE Process, Materials Science Forum, 620-622, 757-760, 2009
17. H. Nakajima, T. Ide, S.-Y. Kim, Fabrication of Porous Metals with Directional Pores Through Solidification of Gas-dissolved Melt, Materials Science Forum , 620-622, 785-790, 2009
18. S. Ueno, H. Kobatake, H. Fukuyama, S. Awaji, H. Nakajima, Effects of Static Magnetic Field and Gas Atmosphere on Solidification of Silicon by Electromagnetic Levitation, Journal of Physics: Conference Series, 165, 012020, 2009
19. H. Nakajima, S. Y. Kim, J. S. Park, Fabrication of porous aluminium with directional pores through thermal decomposition method, Journal of Physics: Conference Series, 165, 012063, 2009
20. T. Ide H. Nakajima, Fabrication of lotus-type porous copper through thermal decomposition of titanium hydride, Journal of Physics: Conference Series, 165, 012064, 2009
21. M. Tane, H. Nakajima, Fabrication of Porous Magnesium with Directional Pores through Thermal Decomposition of Magnesium Hydride, Journal of Physics: Conference Series, 165, 012065, 2009
22. J. S. Park, H. Nakajima, Fabrication of lotus-type porous aluminum using thermal decomposition of magnesium hydroxide, Journal of Physics: Conference Series, 165, 012066, 2009
23. T.B. Kim, S. Suzuki, H. Nakajima, Fabrication of a lotus-type porous Al-Si alloy by continuous casting with a thermal decomposition method, Journal of Physics: Conference Series, 165, 012067, 2009
24. S. Suzuki, T.B. Kim, H. Nakajima, Fabrication of Al-Cu alloy with elongated pores by continuous casting technique, Journal of Physics: Conference Series, 165, 012068, 2009
25. S. Ueno, T. Akatsu, H. Nakajima, Fabrication of Porous Magnesium Spinel ( $MgAl_2O_4$ ) with Cylindrical Pores by Unidirectional Solidification, Journal of Physics: Conference Series, 165, 012069, 2009
26. J. Lobos, S. Suzuki, H. Nakajima, Y. S. Ji, H. Fujii, D. Terada, N. Tsuji, Structure change and

- improvement of the mechanical properties of a lotus-type porous copper by wire-brushing, Journal of Physics: Conference Series, 165, 012070, 2009
27. Y. Kawamura, S. Suzuki, S.Y. Kim, H. Nakajima, M. Kashihara, H.Yonetani, Mechanical property of lotus-type porous carbon steel fabricated by continuous casting method, Journal of Physics: Conference Series, 165, 012071, 2009
  28. R. Nakamura, H. Nakajima, Structural Stability of Hollow Oxide Nanoparticles at High Temperatures, Journal of Physics: Conference Series, 165, 012072, 2009
  29. H. Nakajima, R. Nakamura, Fabrication of Hollow Nano Particles of Metallic Oxides Through Oxidation Process, Materials Science Forum, 638-642, 67-72, 2010

### **International Conference Proceedings**

1. R. Nakamura, H. Nakajima, H. Mori, Formation of a Nano-hole via Oxidation of Metal Nanoparticles, Defect and Diffusion Forum, 289-292, 649-656, 2009
2. R. Nakamura, H. Nakajima, H. Mori, Shrinkage of Hollow Nanoparticles of Oxides of Cu and Ni at High Temperatures, Defect and Diffusion Forum, 289-292, 673-678, 2009
3. J. Lobos, S. Suzuki, H. Utsunomiya, H. Nakajima, Structure Change and Improvement of the Mechanical Properties of Lotus-type Porous Copper by ECAE Process, Materials Science Forum, 620-622, 757-760, 2009
4. H. Nakajima, T. Ide, S.-Y. Kim, Fabrication of Porous Metals with Directional Pores Through Solidification of Gas-dissolved Melt, Materials Science Forum, 620-622, 785-790, 2009
5. M. Kashihara, H. Yonetani, S. Suzuki, S.Y. Kim, H. Nakajima, Fabrication of Lotus-type Porous Carbon Steel by Continuous Casting Technique and Application to Machine Tools, Proceedings of International Symposium on Cellular Metals for Structural and Functional Applications(CELLMET2008), 89-94, 2009
6. K. Alvarez, H. Nakajima, Lotus-type Porous Ni-free Stainless Steel Biomaterial Produced by Continuous Zone Melting Technique, Proceedings of International Symposium on Cellular Metals for Structural and Functional Applications(CELLMET2008), 301-306, 2009
7. S. Ueno, H. Kobatake, H. Fukuyama, S. Awaji, H. Nakajima, Effects of Static Magnetic Field and Gas Atmosphere on Solidification of Silicon by Electromagnetic Levitation, Journal of Physics: Conference Series, 165, 012020, 2009
8. H. Nakajima, S. Y. Kim, J. S. Park, Fabrication of porous aluminium with directional pores through thermal decomposition method, Journal of Physics: Conference Series, 165, 012063, 2009
9. T. Ide H. Nakajima, Fabrication of lotus-type porous copper through thermal decomposition of titanium hydride, Journal of Physics: Conference Series, 165, 012064, 2009

10. M. Tane, H. Nakajima, Fabrication of Porous Magnesium with Directional Pores through Thermal Decomposition of Magnesium Hydride, Journal of Physics: Conference Series, 165, 012065, 2009
11. J. S. Park, H. Nakajima, Fabrication of lotus-type porous aluminum using thermal decomposition of magnesium hydroxide, Journal of Physics: Conference Series, 165, 012066, 2009
12. T.B. Kim, S. Suzuki, H. Nakajima, Fabrication of a lotus-type porous Al-Si alloy by continuous casting with a thermal decomposition method, Journal of Physics: Conference Series, 165, 012067, 2009
13. S. Suzuki, T.B. Kim, H. Nakajima, Fabrication of Al-Cu alloy with elongated pores by continuous casting technique, Journal of Physics: Conference Series, 165, 012068, 2009
14. S. Ueno, T. Akatsu, H. Nakajima, Fabrication of Porous Magnesium Spinel (MgAl<sub>2</sub>O<sub>4</sub>) with Cylindrical Pores by Unidirectional Solidification, Journal of Physics: Conference Series, 165, 012069, 2009
15. J. Lobos, S. Suzuki, H. Nakajima, Y. S. Ji, H. Fujii, D. Terada, N. Tsuji, Structure change and improvement of the mechanical properties of a lotus-type porous copper by wire-brushing, Journal of Physics: Conference Series, 165, 012070, 2009
16. Y. Kawamura, S. Suzuki, S.Y. Kim, H. Nakajima, M. Kashihara, H.Yonetani, Mechanical property of lotus-type porous carbon steel fabricated by continuous casting method, Journal of Physics: Conference Series, 165, 012071, 2009
17. R. Nakamura, H. Nakajima, Structural Stability of Hollow Oxide Nanoparticles at High Temperatures, Journal of Physics: Conference Series, 165, 012072, 2009
18. H. Nakajima, R. Nakamura, Fabrication of Hollow Nano Particles of Metallic Oxides Through Oxidation Process, Materials Science Forum, 638-642, 67-72, 2010

### Intellectual Properties

1. 大韓民国特許, 多孔質金属の製造方法, 発明者: 中嶋英雄, 権利者: 中嶋英雄, 10-0887651, 出願年月日 : 2002/8/26, 取得年月日 : 2009/3/2
2. カナダ特許, ポーラス金属の製法, 発明者 : 中嶋英雄, 権利者 : 中嶋英雄, 2378825, 出願年月日 : 2002/7/10, 取得年月日 : 2009/9/15