

## **2007 — NAKAJIMA Hideo**

### **Scientific Papers/Commentary Articles**

1. H. Nakajima, Fabrication, properties and application of porous metals with directional pores, *Progress in Materials Science*, 52(7), pp. 1091-1173, 2007
2. R. Nakamura, J.-G. Lee, D. Tokozakura, H. Mori and H. Nakajima, Hollow oxide formation by oxidation of Al and Cu nanoparticles, *J. Appl. Phys*, 101(7), 074303(7pages), 2007
3. T. Kujime, M. Tane, S.K. Hyun, and H. Nakajima, Three-dimensinal Image-based Modeling of Lotus-type Porous Carbon Steel and Simulation of its Mechanical Behavior by Finite Element Method, *Mater. Sci. Eng. A*, 460-461, pp. 220-226, 2007
4. M. Tane and H. Nakajima, Effective-Mean-Field Theory for Electrical Conductivity of Multiphase Composite Materials, *Jpn. J. Appl. Phys*, 46(8), pp.5221-5225, 2007
5. J.S. Park, S.K. Hyun, S. Suzuki, and H. Nakajima, Effect of transference velocity and hydrogen pressure on porosity and pore morphology of lotus-type porous copper fabricated by continuous casting technique, *Acta Mater*, 55(16), pp.5646-5654, 2007
6. H. Seki, M. Tane, and H. Nakajima, Effects of Anisotropic Pore Structure and Fiber Texture on Fatigue Properties of Lotus-type Porous Magnesium, *J. Mater. Res*, 22(11), pp.3120-3129, 2007
7. M. Sugiyama, S.K. Hyun, M. Tane and H. Nakajima, Fabrication of Lotus-type Porous NiTi Shape Memory Alloys using the Continuous Zone Melting Method and Tensile Property, *High Temp. Mater. Proces*, 26(4), pp. 297-301, 2007
8. H. Seki, M. Tane, M. Otsuka, and H. Nakajima, Effects of Pore Morphology on Fatigue Strength and Fracture Surface of Lotus-type Porous Copper, *J. Mater. Res*, 22(7), pp.1331-1338, 2007
9. D. Tokozakura, R. Nakamura, H. Nakajima, J.-G. Lee, and H. Mori, Transmission electron microscopy observation of oxide layer growth on Cu nanoparticles and formation process of hollow oxide particles, *J. Mater. Res*, 22(10), pp.2930-2935, 2007
10. T. Murakami, T. Tsumura, T. Ikeda, H. Nakajima, K. Nakata, Anisotropic Fusion Profile and Joint Strength of Lotus-type Porous Magnesium by Laser Fusion, *Mater. Sci. Eng. A*, 456, pp.278-285, 2007
11. H. Nakajima and T. Ide, Fabrication of Porous Copper with Directional Pores through Thermal Decomposition of Compounds, *Metall. Mater. Trans*, 39A, 390-394, 2008
12. M. Tane and H. Nakajima, Fabrication of Porous Magnesium with Directional Pores through Use of Hydrogen Thermally Decomposed from MgH<sub>2</sub> Powders during Unidirectional Solidification, *J. Mater. Res*, 23(3), pp.849-855, 2008
13. R. Nakamura, J.-G. Lee, H. Mori, and H. Nakajima, Oxidation behaviour of Ni nanoparticles and formation process of hollow NiO, *Phil. Mag*, 88(2), pp. 257-264, 2008

14. K. Alvarez, S.K. Hyun, H. Tsuchiya, S. Fujimoto and H. Nakajima, Corrosion behaviour of Lotus-type porous high nitrogen nickel-free stainless steels, *Corrosion Sci.*, 50(1), pp. 183-193, 2008
15. S. Ueno, L.M. Lin ,and H. Nakajima, Formation Mechanism of Porous Alumina with Oriented Cylindrical Pores Fabricated by Unidirectional Solidification, *J. Am. Ceram. Soc.*, 91(1), pp.223-226, 2008
16. H. Seki, M. Tane, H. Nakajima, Fatigue Crack Initiation and Propagation in Lotus-type Porous Copper, *Mater. Trans.*, 49(1), pp.144-150, 2008
17. S. Ueno, L.M. Lin, and H. Nakajima, Effects of Impurities on Formation Pores during Solidification for Porous Alumina and Its Compressive Strength, *J. Ceram. Soc. Jpn.*, 116(1), pp.137-140, 2008
18. K. Alvarez, K. Sato, S.K. Hyun, and H. Nakajima, "Fabrication and Properties of Lotus-type Porous Nickel-free Stainless Steel with High Temperature Nitriding", *Mater. Sci. Eng. C*, 28(1), pp.44-50, 2008
19. H. Chiba, T. Ogushi, H. Nakajima, K. Torii, T. Tomimura, and F. Ono, Steady State Comparative-longitudinal Heat Flow Method Using Specimen of Different Thicknesses for Measuring Thermal Conductivity of Lotus-type Porous Metals, *J. Appl. Phys.*, 103(1), 013515(9pages), 2008

#### **International Conference Proceedings**

1. H. Seki, M. Tane, and H. Nakajima, Fatigue strength of lotus-type porous magnesium, *Mater. Sci. Forum*, 561-565, pp.1681-1684, 2007
2. R. Nakamura, D. Tokozakura, J.-G. Lee, H. Mori and H. Nakajima, "Oxidation Behavior of Cu Nanoparticles and Formation of Hollow Cu<sub>2</sub>O Spheres", *Mater. Sci. Forum*, 561-565, pp.1703-1706, 2007
3. S. Ueno, L.M. Lin ,and H. Nakajima, Effect of Impurities on Formation of Pores in Porous Alumina during Unidirectional Solidification, *Mater. Sci. Forum*, 569, pp.313-316, 2008
4. J.-G. Lee , R. Nakamura, D. Tokozakura, H. Nakajima, H. Mori, and J.H. Lee, Formation of Hollow Zinc Oxide by Oxidation and Subsequent Thermal Treatment, *Solid State Phenomena*, 135, pp.11-14, 2008
5. T. Nakano, T. Tachibana, K. Hagihara, Y. Umakoshi, T. Ide, M. Tane and H. Nakajima, Microstructure and Deformation Behavior of Lamellar Ti-rich TiAl Crystal with Lotus-type Aligned Pores, *Mater. Sci. Forum*, pp.383-386, 2007

### **Publications**

1. T. Ogushi, H. Chiba, M. Tane and H. Nakajima, Cellular and Porous Materials: Thermal Properties Simulation and Prediction, WILEY-VCH Verlag GmbH & Co. KGaA, 2008, 27 頁(全 439)