

## 2007 年度業績 — 中野 貴由

### 学術論文・解説記事

1. T. Nakano, T. Ishimoto, J.-W. Lee and Y. Umakoshi, Preferential orientation of biological apatite crystallite in original, regenerated and diseased cortical bones, *Journal of the Ceramic Society of Japan*, 116, pp. 313-315, 2008
2. K. Koizumi, Y. Minamino, T. Nakano and Y. Umakoshi, Effects of antiphase domains on dislocation motion in Ti3Al single crystals deformed by prism slip, *Philosophical Magazine*, 88, pp. 465-488, 2008
3. S. Hata, T. Nakano, N. Kuwano, M. Itakura, S. Matsumura and Y. Umakoshi, Microscopic properties of long-period ordering in Al-rich TiAl alloys, *Metallurgical and Materials Transaction A*, 39 [7], 1610-1617, 2008
4. 李志旭, 中野貴由, 豊澤悟, 田畑泰彦, 馬越佑吉, 大理石骨病 (op/op) マウスの大腿骨骨幹中央断面部での生体アパタイト結晶の配向性分布, *日本金属学会誌*, 72(2), pp. 85-90, 2008
5. 宮部さやか, 中野貴由, 石本卓也, 高野直樹, 安達泰治, 岩城啓好, 小林章郎, 高岡邦夫, 馬越佑吉, 透過型光学系を有する微小領域 X線回折法によるヒト海綿骨内生体アパタイト配向性の 2次元定量解析, *日本金属学会誌*, 72(1), pp. 57-62, 2008
6. M. Kashii, J. Hashimoto, T. Nakano, Y. Umakoshi and H. Yoshikawa, Alendronate treatment promotes bone formation with a less anisotropic microstructure during intramembranous ossification in rats, *Journal of Bone and Mineral Metabolism*, 26(1), pp.24-33, 2008
7. J.-W. Lee, T. Nakano, S. Toyosawa, Y. Tabata and Y. Umakoshi, Evaluation of BAp orientation using mouse models for osteoporosis (OPG-KO) and osteopetrosis (op/op), *Materials Science Forum*, 561-565, pp.761-764, 2007
8. T. Ishimoto, T. Nakano, Y. Umakoshi, M. Yamamoto and Y. Tabata, Change in material and structural parameters of bone mechanical function during long-bone regeneration, *Materials Science Forum*, 561-565, pp.1451-1454, 2007
9. 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, *Materials Science Forum*, 561-565, pp.383-386, 2007
10. K. Hagihara, T. Tanaka, T. Nakano, P. Veyssi re and Y. Umakoshi, Effects of the anisotropy of the anti-phase boundary energy on the yield stress anomaly in Ni3X compounds with close-packed crystal structures, *Philosophical Magazine Letters*, 87(10), pp.705-712, 2007
11. 石本卓也, 中野貴由, 寒知子, 大橋芳夫, 藤谷渉, 馬越佑吉, 服部友一, 樋口裕一, 多根正和, 中嶋英雄, 生体材料最適形状設計のための金属インプラント周囲ならびに一方

性孔内部に導入される新生骨の骨質評価, 日本金属学会誌, 71(4), pp.432-438, 2007

#### 国際会議プロシーディングス

1. T. Nakano, S. Tachibana, K. Hagihara, Y. Umakoshi, T. Ide, M. Tane and H. Nakajima, Fabrication and Plastic Deformation Behavior of Lamellar Ti-rich TiAl Crystals with Lotus-Type Aligned Pores, Proceeding of MetFoam 2007, 213-216, 2008
2. K. Sasaki, T. Sasaki, T. Nakano, Y. Umakoshi and J. D. Ferrara, The evaluation of preferential alignment of biological apatite (BAp) crystallites in bone using transmission X-ray diffraction method, Advance in X-ray Analysis, 51, 155-161, 2008
3. K. Hagihara, T. Nakano, A. Sonoura, K. Watanabe, Y. Umakoshi and M. Niinomi, Effect of Bcc-phase Stability on Cyclic Deformation Behavior in Beta-type Ti-Nb-Ta-Zr Alloys Single Crystals with Different Nb Content, Proceeding of JIMIC-5, pp. 1445-1447, 2007
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5. T. Nakano, T. Ishimoto, J.-W. Lee and Y. Umakoshi, BAp Orientation Analysis in Original, Regenerated and Pathological Bone Tissue, "Archives of BioCeramics Research", 17, pp. 19-22, 2007
6. T. Nakano, K. Hagihara and Y. Umakoshi, Effect of C11b -Stabilized Element on Deformation Mode in  $(\text{Nb}_{1-x}\text{Mox})\text{Si}_2$  ( $X=0-0.85$ ) Single Crystals, Proceeding of MRS, 980, pp. 297-302, 2007

#### 受賞

1. 宮部さやか, 中野貴由, 馬越佑吉, 橋本淳, 吉川秀樹, "平成 19 年度日本金属学会・鉄鋼協会関西支部 材料開発研究会優秀ポスター賞", 2007.12.6.
2. 中野貴由, "全国歯科大学・歯学部付属病院新療放射線技師連絡協議会第 18 回研修会感謝状", 2007.7.1.
3. 中野貴由, 第 65 回日本金属学会功績賞, 力学特性部門, 2007.3.27.

#### シンポジウム開催状況

1. 日本金属学会—S1:バイオセラミックス研究の最前線, 参加人数 70

### 特許権などの知的財産権

1. 硬組織の評価方法, 発明者: 佐々木勝成, 中野貴由, 馬越佑吉, 190961, 出願年月日: 2007.7.25
2. インプラント材料及び当該インプラント材料の製造方法, 発明者: 中野貴由、馬越佑吉、中嶋英雄
3. 硬組織代替材料, 発明者: 馬越佑吉, 中野貴由, 藤谷渉, 海原一裕, 出願年月日: 2007.5.8