

## 2011 年度業績 一寺井 智之

### 学術論文・解説記事

1. Sonomura, H., Terai, T., Kakeshita, T., Osakabe, T., Kakurai, K., Kuroiwa, Y., Moriyoshi, C., Okubo, T., Kato, K., Kim, J., Takata, M., Neutron diffraction study on magnetic structure in layered manganite  $\text{La}_{2-2x}\text{Sr}_{1+2x}\text{Mn}_2\text{O}_7(x=0.307)$ , *Solid State Phenomena*, Vols. 172-174, pp.1301-1306, 2011
2. Lee, Y., Todai, M., Okuyama, T., Fukuda, T., Kakeshita, T., Kainuma, R., Isothermal nature of martensitic transformation in an  $\text{Ni}_{45}\text{Co}_5\text{Mn}_{36.5}\text{In}_{13.5}$  magnetic shape memory alloy, *Scripta Materialia*, Vol. 64, pp. 927-930, 2011
3. Kakeshita, T., Nam, J., Fukuda, T., Kinetics of martensitics transformations in magnetic field or under hydrostatic pressure, *Science and Technology of Advance Materials*, Vol. 12, 6pp, 2011
4. Todai, M., Fukuda, T., Kakeshita, T., Relation between incommensurate satellites and phonon softening in Ti-Ni-based shape memory allys, *Scripta Materialia*, Vol. 64, pp. 541-543, 2011
5. Fukuda, T., Terai, T., Maeda, H., Kakeshita, T., Stress- Temperature Phase Diagram of  $\text{Ni}_2\text{MnGa}$  and Structural Relations between Its Constituent Phases, *Materials Science Forum*, Vol. 684, pp. 61-71, 2011
6. Todai, M., Higaki, A., Fukuda, T., Kakeshita, T., Martensitic transformation from incommensurate state with nano-scale domain structure in a Ti-42Ni-8Fe(at.%) alloy under a compressive stress, *Philosophical Magazine Letters*, Vol. 91, pp. 31-36, 2011
7. Maeda, H., Fukuda, T., Kakeshita, T., Effect of hydrostatic pressure on martensitic transformation in a ferromagnetic shape memory alloy  $\text{Ni}_2\text{MnGa}$ , *Journal of Alloys and Compounds*, Vol. 509, pp. 7840-7843, 2011
8. Yamamoto, M., Sekida, S., Fukuda, T., Kakeshita, T., Takahashi, K., Koyama, K., Nojiri, H. , A new type of FCT martensite phase in single-crystalline  $\text{Fe}_3\text{Pt}$  Invar alloy, *Journal of Alloys and Compounds*, Vol. 509, pp. 8530-8533, 2011

### 国際会議プロシーディングス

1. T. Kakeshita, T. Fukuda, Yong-Hee Lee, An Interpretation on kinetics of martensitic transformation, *Solid State Phenomena*, 172-174, pp. 90-98, 2011
2. T. Fukuda, T. Yamamoto, M. Yamamoto, T. Kakeshita, Instability of the parent phase in nearly ordered  $\text{Fe}_3\text{Pt}$  Invar alloys, *Solid State Phenomena*, 172-174, pp. 79-83, 2011
3. M. Todai, T. Fukuda, T. Kakeshita, Position of incommensurate satellites appearing in Ti-Ni based shape memory alloys, *Solid State Phenomena*, 172-174, pp. 150-154, 2011

4. F. Xiao, T. Fukuda, T. Kakeshita, Composition Dependence of Martensitic Transformation and Superelastic Behavior in Fe-Pd Alloys, Proceedings of ECO-MATES 2011, pp. 247-248, 2011
5. Ju-yong Choi, T. Fukuda, T. Kakeshita, Effect of Magnetic Field on Morphology of Martensite in a Sensitized SUS304 Stainless Steel, Proceedings of ECO-MATES 2011, pp. 233-234, 2011
6. Yong-hee Lee, T. Fukuda, T. Kakeshita, Isothermal Martensitic Transformation under Magnetic Field in Ni<sub>45</sub>Co<sub>5</sub>Mn<sub>36.5</sub>In<sub>13.5</sub> Alloy, Proceedings of ECO-MATES 2011, pp. 41-42, 2011
7. M. Yamamoto, T. Fukuda, T. Kakeshita, Influence of degree of order on rearrangement of martensite variants by magnetic field in Fe<sub>3</sub>Pt, Proceedings of ECO-MATES 2011, pp. 69-70, 2011

#### 共同研究

大学：国内 4 / 国外 2

その他研究機関：国内 2

企業：国内 3

#### シンポジウム開催状況

1. International Conference On Martensitic Transformation (ICOMAT 2011), 主な招待講演者：福田 隆 (大阪大学)、Prof. V.A. Chernenko (University of the Basque Country)、Avadh B. Saxena (Los Alamos National Laboratory), 参加人数 308 (外国人参加者数 210)
2. 材料物性工学談話会 H23 年度第 1 回講演会, 主な招待講演者：糟谷 正 (大阪大学工学研究科 新日鐵共同研究講座), 参加人数 26 (外国人参加者数 6)
3. 材料物性工学談話会 H23 年度第 2 回講演会, 主な招待講演者：山本 厚之 (兵庫県立大学大学院工学研究科物質工学専攻), 参加人数 47 (外国人参加者数 6)
4. 材料物性工学談話会 H23 年度第 3 回講演会, 主な招待講演者：中嶋 英雄 (大阪大学産業科学研究所), 参加人数 71 (外国人参加者数 10)
5. グローバル COE プログラム「構造・機能先進材料デザイン教育研究拠点」 第 5 回シンポジウム, 主な招待講演者：新家 光雄 (東北大学金属材料研究所), 参加人数 73 (外国人参加者数 15)