

## 2009 年度業績 一荒木 秀樹

### 学術論文・解説記事

1. Masataka Mizuno, Hideki Araki, Yasuharu Shirai, Investigation of Lattice Defects in LaNi<sub>5</sub> by Positron Annihilation Spectroscopy and First-Principles Calculations, International Journal of Quantum Chemistry, 109, 2758-2763, 2009
2. Masataka Mizuno, Hideki Araki, Yasuharu Shirai, Effect of hydrogen on stability of vacancy in LaNi<sub>5</sub>, Journal of Physics; Conference series, 165, 012043-1-012043-6, 2009
3. A.Yabuuchi, D.Kubo, M.Mizuno, H.Araki, T.Onishi, Y.Shirai, Frozen-in vacancies in PVD-Cu film with improved high pressure reflowability studied using a slow positron beam, Journal of Physics; Conference series, 165, 012044-1-012044-4, 2009
4. Kouji Sakaki, Ryousuke Date, Masataka Mizuno, Hideki Araki, Yumiko Nakamura, Yasuharu Shirai, Robert C. Bowman Jr., Etsuo Akiba, Behavior of vacancy formation and recovery during hydrogenation cycles in LaNi<sub>4.93</sub>Sn<sub>0.27</sub>, Journal of Alloys and Compounds, 477, 205-211, 2009
5. Kouji Sakaki, Etsuo Akiba, Masataka Mizuno, Hideki Araki, Yasuharu Shirai, The effect of substitutional elements (Al, Co) in LaNi<sub>4.5</sub>M<sub>0.5</sub> on the lattice defect formation in the initial hydrogenation and Dehydrogenation, Journal of Alloys and Compounds, 473, 87-93, 2009
6. 西内武司、坂下信一郎、広沢哲、中村昌樹、水野正隆、荒木秀樹、白井泰治, Nd-Fe-B 系磁石作製プロセスにおける微細組織変化と陽電子寿命, 日立金属技報, 25, 30-37, 2009
7. 水野正隆, 荒木秀樹, 白井泰治, 水素吸蔵合金 LaNi<sub>5</sub> に存在する格子欠陥—陽電子消滅法と第一原理計算による分析・評価—, 金属, 79, 777-782, 2009