

## センターからのお知らせ

### 2008 年度共同利用成果

<SQUID (片平) >

- T. Takano, T. Kishiume, Y. Taguchi and Y. Iwasa, “Interlayer-spacing dependence of  $T_c$  in  $Li_xM_yHfNCl$  (M: molecule) superconductors”, Phys. Rev. Lett. **100** (2008) 247005.
- 田口康二郎, 高野琢, 岩佐義宏, “層状窒化物におけるキャリアドーピングと超伝導”, 固体物理 **43** (2008) 599.
- T. Takano, A. Kitora, Y. Taguchi, Y. Iwasa, “Optical properties of layered superconductor  $Li_xZrNCl$ ”, J. Phys. Chem Solids **69** (2008) 3089.
- Y. Kasahara, T. Kishiume, T. Takano, Y. Taguchi, Y. Iwasa, “Specific heat study of electron-doped ZrNCl superconductors”, Journal of Physics: Conference Series **150** (2009) 052099.
- T. Takano, T. Kishiume, Y. Kasahara, Y. Taguchi, Y. Iwasa, “Effect of organic-molecule co-intercalation on  $T_c$  in  $Li_xHfNCl$  superconductor”, Journal of Physics: Conference Series **150** (2009) 052258.
- T. Takano, T. Takenobu, Y. Iwasa, “Enhancement of Carrier Hopping by Doping in Single Walled Carbon Nanotube Films”, J. Phys. Soc. Jpn. **77** (2008) 124709.
- H. Okada, K. Koyama, K. Watanabe, Y. Kusakari, T. Kanomata, and H. Nishihara, “Magnetic properties of Heusler compounds  $Ru_2CrGe$  and  $Ru_2CrSn$ ”, Appl. Phys. Lett. **92** (2008) 062502\_1-3.
- K. Koyama, Y. Mitsui and K. Watanabe, “Magnetic and structural phase transitions of MnBi under high magnetic fields”, Sci. Technol. Adv. Mater. **9** (2008) 024204\_1-5.
- H. Okada, K. Koyama, M. Nakatake, K. Shimada, H. Namatame, M. Taniguchi, and K. Watanabe, “Photoemission spectroscopy of spinel-type  $CuV_2S_4$  single crystal”, J. Phys. Soc. Jpn. **77** (2008) 114711\_5.

- M. Enoki, M. Fujita and K. Yamada, “Neutron-Scattering Study of Spin Correlations in  $\text{La}_{1.94-x}\text{Sr}_x\text{Ce}_{0.06}\text{CuO}_4$ ”, *J. Phys. Chem. Solids* **69** (2008) 3129-3121.
- M. Fujita, M. Enoki and K. Yamada, “Spin- and Charge-Density-Wave Orders in  $\text{La}_{1.87}\text{Sr}_{0.13}\text{Cu}_{0.99}\text{Fe}_{0.01}\text{O}_4$ ”, *J. Phys. Chem. Solids* **69** (2008) 3167-3170.
- M. Fujita, H. Goka, M. Enoki and K. Yamada, “Neutron-Scattering Study of Impurity Effects on the Stripe Order in High- $T_c$  Cuprate”, *Physica B* **403** (2008) 1044-1046.
- D. X. Li, T. Yamamura, S. Nimori, Y. Shiokawa, “Re-entrant Spin-glass Behavior in  $\text{CeAu}_2\text{Si}_2$ ”, *J. Alloys and Compounds* **451** (2008) 461-463.
- T. Yamamura, D. X. Li, M. Kuznietz, Y. Shiokawa, “Magnetic Ordering in  $(\text{Th}_x\text{U}_x)\text{Co}_2\text{X}_2$  (X=Ge, Si) Solid Solutions”, *J. Appl. Phys.* **103** (2008) 07A916\_1-3.
- D. X. Li, S. Nimori, T. Yamamura, Y. Shiokawa, “Ac Susceptibility Studies of Spin Freezing Behavior in  $\text{U}_2\text{CuSi}_3$ ”, *J. Appl. Phys.* **103** (2008) 07B715\_1-3.
- L. Jia, J. R. Sun, F. W. Wang, T. Y. Zhao, H. W. Zhang, B. G. Shen, D. X. Li, S. Nimori, Y. Ren, and Q. S. Zeng, “Volume dependence of the magnetic coupling in  $\text{LaFe}_{13-x}\text{Si}_x$  based compounds”, *Appl. Phys. Lett.* **92** (2008) 101904\_1-3.
- M. Kuznietz, T. Yamamura, D. X. Li, and Y. Shiokawa, “Magnetic properties of the compounds  $\text{ThCo}_2\text{Ge}_2$  and  $\text{ThCo}_2\text{Si}_2$ ”, *J. Magn. Magn. Mater.* **320** (2008) 2402-2405.
- Y. Koike, T. Adachi, Y. Tanabe, K. Omori, T. Noji and H. Sato, “Inhomogeneous Superconductivity in both Underdoped and Overdoped Regimes of High- $T_c$  Cuprates” *Journal of Physics: Conference Series* **108** (2008) 012003\_1-9.
- L. Miu, Y. Tanabe, T. Adachi, Y. Koike, D. Miu, G. Jakob and H. Adrian, “Anomalous Behavior of the Second Magnetization Peak in  $\text{La}_{1.81}\text{Sr}_{0.19}\text{CuO}_4$  Single Crystals: Possible Influence of Two-Band Superconductivity”, *Phys. Rev. B* **78** (2008) 024520\_1-4.

- Y. Tanabe, T. Adachi, K. Omori, H. Sato, T. Noji and Y. Koike, “Inhomogeneous Superconducting State in the Overdoped Regime of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ : Comparison with the Superconducting State of  $\text{NbSe}_2$ ”, *J. Phys. Soc. Jpn.* **77** (2008) 124716\_1-6.
- R. A. Cooper, Y. Wang, B. Vignolle, O. J. Lipscombe, S. M. Hayden, Y. Tanabe, T. Adachi, Y. Koike, M. Nohara, H. Takagi, C. Proust and N. E. Hussey, “Anomalous Criticality in the Electrical Resistivity of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ”, *Science* **323** (2009) 603-607.
- S. Chamura, T. Adachi, Y. Tanabe and Y. Koike, “Possible Inhomogeneity of Superconductivity in  $(\text{Y,Ca})\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$  Probed by Magnetic Susceptibility and Specific Heat”, *Journal of Physics: Conference Series* **150** (2009) 052032\_1-4.
- Y. Tanabe, T. Adachi, H. Sato, K. Omori and Y. Koike, “Anomalous Enhancement of Vortex Pinning and Microscopic Phase Separation in the Overdoped Regime of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ”, *Journal of Physics: Conference Series* **150** (2009) 052266 (\_1-4.).
- W. Ito, M. Nagasako, R. Y. Umetsu, R. Kainuma, T. Kanomata, K. Ishida, “Atomic ordering and magnetic properties in the  $\text{Ni}_{45}\text{Co}_5\text{Mn}_{36.7}\text{In}_{13.3}$  metamagnetic shape memory alloy”, *Appl. Phys. Lett.*, **93** (2008) 232503.
- R. Kainuma, W. Ito, R. Y. Umetsu, K. Oikawa, K. Ishida, “Magnetic field-induced reverse transformation in B2-type NiCoMnAl shape memory alloys”, *Appl. Phys. Lett.* **93** (2008) 091906.
- R.Y. Umetsu, R. Kainuma, Y. Amako, Y. Taniguchi, T. Kanomata, K. Fukushima, A. Fujita, K. Oikawa, K. Ishida, “Mössbauer study on Martensite Phase in  $\text{Ni}_{50}\text{Mn}_{36.5}^{57}\text{Fe}_{0.5}\text{Sn}_{13}$  Metamagnetic Shape Memory Alloy”, *Appl. Phys. Lett.* **93** (2008) 042509.
- K. Ito, W. Ito, R. Y. Umetsu, M. Nagasako, R. Kainuma, A. Fujita, K. Oikawa, K. Ishida, “Martensitic and magnetic properties of NiCoMnSn metamagnetic shape memory alloy powders”, *Mater. Trans.* **49** (2008) 1915.

- M. Saito, K. Ishikawa, K. Taniguchi, T. Arima, “Magnetic Control of Crystal Chirality and the Existence of a Large Magneto-Optical Dichroism Effect in  $\text{CuB}_2\text{O}_4$ ”, *Phys. Rev. Lett.* **101** (2008) 117402\_1-4 (Editors’ Suggestion).

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- J. Tang, T. Rachi, R. Kumashiro, M. A. Avila, K. Suekuni, T. Takabatake, FZ. Guo, K. Kobayashi, K. Aoki and K. Tanigaki “Energetics of endohedral atoms in type-I clathrates observed by soft x-ray spectroscopy”, *Phys. Rev. B* **78** (2008) 085203.
- J. Tang, Zhaofei Li, J. Ju, R. Kumashiro, Marcos A. Avila, K. Suekuni, T. Takabatake, FangZhun Guo, K. Kobayashi, K. Akai and K. Tanigaki “Soft x-ray photoelectron spectroscopy study of type-I clathrates”, *Sci. Technol. Adv. Mater.* **9** (2008) 044207-044211.
- K. Iwasa, S. Itohe, C. Yang, Y. Murakami, M. Kohgi, K. Kuwahara, H. Sugawara, H. Sato, N. Aso, T. Tayama and T. Sakakibara, "Magnetic Correlation in the Ordered Phase of  $\text{CeOs}_4\text{Sb}_{12}$ ", *J. Phys. Soc. Jpn.* **77** (2008) Supplement A 318-320.
- D. Okuyama, T. Matsumura, T. Mouri, N. Ishikawa, K. Ohoyama, H. Hiraka, H. Nakao, K. Iwasa, Y. Murakami, "Competition of magnetic and quadrupolar order parameters in  $\text{HoB}_4$ ", *J. Phys. Soc. Jpn.* **77** (2008) 044709\_1-14.
- M. Sugi, Y. Matsumoto, N. Kimura, T. Komatsubara, H. Aoki, T. Terashima, S. Uji, “Fermi surface properties of  $\text{CeRu}_2(\text{Si}_{1-x}\text{Ge}_x)_2$  in magnetic fields above the metamagnetic transitions” *Phys. Rev. Lett.* **101** (2008) 056401.
- Y. Matsumoto, M. Sugi, N. Kimura, T. Komatsubara, H. Aoki, I. Satoh, T. Terashima, S. Uji, “Continuous evolution of fermi surface properties above metamagnetic transitions in  $\text{Ce}_x\text{La}_{1-x}\text{Ru}_2\text{Si}_2$ ”, *J. Phys. Soc. Jpn.* **77** (2008) 053703.
- D. Jaiswal-Nagar, T. Isshiki, N. Kimura, H. Aoki, H. Takeya, S. Ramakrishnan, A. K. Grover, “Anisotropy in spatial order-disorder transformations and the vortex lattice symmetry transition in  $\text{YNi}_2\text{B}_2\text{C}$  and  $\text{LuNi}_2\text{B}_2\text{C}$ ”, *Euro Phys. Lett.* **84** (2008) 67004.

- T. Isshiki, N. Kimura, H. Aoki, T. Terashima, S. Uji, K. Yamauchi, H. Harima, D. Jaiswal-Nagar, S. Ramakrishnan, A. K. Grover, “de Haas-van Alphen effect in the mixed state of LuNi<sub>2</sub>B<sub>2</sub>C: Anisotropy and field dependence of the damping due to superconductivity”, Phys. Rev. B **78** (2008) 134528.

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- Y. Tokita, T. Nishizaki, T. Sasaki, and N. Kobayashi, “Vortex Phase Diagram of Underdoped YBa<sub>2</sub>Cu<sub>3</sub>O<sub>y</sub> Single Crystals in the Magnetic Field Parallel to the *ab*-Plane”, J. Phys: Conference Series, **150** (2009) 052270\_1-4.