

Tang, XF; Chen, LD; Jun, W; Luo, PF; Zhang, QJ; Goto, T; Hirai, T; Yuan, RZ

*Lattice thermal conductivity of  $RyMx$*

Acta Phys. Sin. 53 (2004) 1463 – 1468

04-IMR0532

Bian, Z; Wang, RJ; Wang, WH; Zhang, T; Inoue, A

*Carbon-nanotube-reinforced Zr-based bulk metallic glass composites and their*

Adv. Funct. Mater. 14 (2004) 55 – 63

04-IMR0395

Waghmare, U; Sluiter, MHF; Kimura, T; Goto, T; Kawazoe, Y

*A lead-free high-T-C ferroelectric  $BaTi_2O_5$ : A first-principles*

Appl. Phys. Lett. 84 (2004) 4917 – 4919

04-IMR0172

Zhang, W; Louzguine, DV; Inoue, A

*Synthesis and magnetic properties of Fe-Pt-B nanocomposite permanent magnets with low Pt concentrations*

Appl. Phys. Lett. 85 (2004) 4998 – 5000

04-IMR0401

Yonenaga, I; Sakurai, M; Sluiter, MHF; Kawazoe, Y

*Local atomic structure in Czochralski-grown  $Ge_{1-x}Six$  bulk*

Appl. Surf. Sci. 224 (2004) 193 – 196

04-IMR0161

Kutsukake, K; Usami, N; Fujiwara, K; Ujihara, T; Sasaki, G; Nakajima, K; Zhang, BP; Segawa, Y

*Fabrication of SiGe-on-insulator by rapid thermal annealing of Ge on Si-on-insulator*

Appl. Surf. Sci. 224 (2004) 95 – 98

04-IMR0032

Hiromoto, S; Hanawa, T; Asami, K

*Composition of surface oxide film of titanium with culturing murine fibroblasts*

Biomaterials 25 (2004) 979 – 986

00-04TC01185

Liao, YX; Chen, H; Note, R; Mizuseki, H; Kawazoe, Y

*Current-voltage characteristics of molecular devices at low*

Chin. Phys. Lett. 21 (2004) 1247 – 1250

04-IMR0176

Amano, T; Watanabe, T; Hara, A; Sakai, N; Isobe, H; Sasaki, K; Shishido, T

*The sulfur effects on high-temperature oxidation of an alumina-forming heat-resistant*

ISIJ Int. 44 (2004) 145 – 152

04-IMR0612

Hasegawa, M; Kotani, K; Yamaura, S; Kato, H; Kodama, I; Inoue, A

*Hydrogen-induced internal friction of Zr-based bulk glassy alloys in a rod shape above 90*

J. Alloy. Compd. 365 (2004) 221 – 227

04-IMR0405

Hasegawa, M; Takeuchi, M; Kato, H; Yamaura, S; Inoue, A

*Stability and hydrogen-induced internal friction of Ti-rich multicomponent glassy*

J. Alloy. Compd. 372 (2004) 116 – 120

04-IMR0406

Shishido, T; Ye, JH; Kudou, K; Okada, S; Iizumi, K; Oku, M; Ishizawa, Y; Yoshikawa, A; Tanaka, M; Nomura, A; Sugawara, T; Obara, K; Amano, T; Oishi, S; Kamegashira, N; Kawazoe, Y; Kohiki, S; Nakajima, K

*Boron-carbon atomic ratio dependence on the hardness and oxidation resistance of perovskite-type solid solution  $ScRh_3B_xC_{1-x}$*

J. Alloy. Compd. 375 (2004) 217 – 220

04-IMR0034

El Ouenzerfi, R; Ono, S; Quema, A; Goto, M; Sakai, M; Sarukura, N; Nishimatsu, T; Terakubo, N; Mizuseki, H; Kawazoe, Y; Sato, H; Ehrentaut, D; Yoshikawa, A; Fukuda, T

*Design of wide-gap fluoride heterostructures for deep ultraviolet optical*

J. Appl. Phys. 96 (2004) 7655 – 7659

04-IMR0180

Iizumi, K; Okada, S; Mori, T; Shishido, T; Kudou, K; Rogl, P

*$RMn_2Si_2$  ( $R = La, Ce, Pr, Nd, Sm, Gd$ ) compounds grown from metal flux and properties of the*

J. Ceram. Soc. Jpn. 112 (2004) 263 – 265

04-IMR0613

Wang, SY; Yu, JZ; Mizuseki, H; Yan, JA; Kawazoe, Y; Wang, CY

*First-principles study of the electronic structures of icosahedral Ti-N ( $N=13,19,43,55$ )*

J. Chem. Phys. 120 (2004) 8463 – 8468

04-IMR0181

Sahara, R; Ichikawa, H; Mizuseki, H; Ohno, K; Kubo, H; Kawazoe, Y

*Thermodynamic properties of the Cu-Au system using a face-centered-cubic lattice model with a renormalized potential*

J. Chem. Phys. 120 (2004) 9297 – 9301

04-IMR0182

Zeng, Z; Chen, JQ; Mizuseki, H; Fukada, T; Kawazoe, Y

*Three-dimensional unsteady convection in  $LiCaAlF_6$ -Czochralski*

J. Cryst. Growth 266 (2004) 81 – 87

04-IMR0184

Inerbaev, TM; Belosludov, VR; Belosludov, RV; Sluiter, M; Kawazoe, Y; Kudoh, JI

*Theoretical study of clathrate hydrates with multiple*

J. Incl. Phenom. Macrocycl. Chem. 48 (2004) 55 – 60

04-IMR0185

Zabinski, PR; Meguro, S; Asami, K; Hashimoto, K

*Electrodeposited Co-Fe and Co-Fe-C alloys for hydrogen evolution in a hot 8 kmol  $m^{-3}$  NaOH solution*

J. Jpn. Inst. Met. 68 (2004) 456 – 461

00-04TC02218

Ohta, M; Fujita, A; Fukamichi, K; Kimura, H

*Effect of Si substitution on anti-invar behavior of  $Y-6(Mn_{1-x}Si_x)(23)$*

J. Magn. Magn. Mater. 272-76 (2004) 499 – 500

04-IMR0614

Bian, Z; Zhang, T; Kato, H; Hasegawa, M; Inoue, A

*Mechanical properties and fracture characteristics of Zr-based bulk metallic glass composites containing carbon nanotube addition*

J. Mater. Res. 19 (2004) 1068 – 1076

04-IMR0415

Inoue, A; Sobu, S; Louzguine, DV; Kimura, H; Sasamori, K

*Ultrahigh strength Al-based amorphous alloys containing*

J. Mater. Res. 19 (2004) 1539 – 1543

04-IMR0417

Khazaei, M; Farajian, AA; Jeong, GH; Mizuseki, H; Hirata, T; Hatakeyama, R; Kawazoe, Y

*Dynamical criteria for Cs ion insertion and adsorption at cap and stem of carbon nanotubes: Ab initio study and comparison with experiment*

J. Phys. Chem. B 108 (2004) 15529 – 15535

04-IMR0187

Oku, M; Shishido, T; Shinohara, T; Sun, Q; Kawazoe, Y; Nakajima, K; Wagatsuma, K

*Effect of boron non-stoichiometry on B-site in perovskite type structure ScBxRh3 and CeBxRh3 on charges of atoms on A-site: study by X-ray photoelectron and nuclear magnetic resonance spectroscopies*

J. Solid State Chem. 177 (2004) 457 – 460

04-IMR0048

Okada, S; Kudou, K; Tanaka, T; Shishido, T; Gurin, VN; Lundstrom, T

*Growth and some properties of Sc2AlB6 crystal obtained from the solution in aluminum*

J. Solid State Chem. 177 (2004) 547 – 550

04-IMR0615

Belosludov, RV; Farajian, AA; Mizuseki, H; Ichinoseki, K; Kawazoe, Y

*Electron transport in molecular enamel*

Jpn. J. Appl. Phys. Part 1 – Regul. 43 (2004) 2061 – 2063

Pap. Short Notes Rev. Pap.

04-IMR0188

Hashimoto, T; Nishimatsu, T; Mizuseki, H; Kawazoe, Y; Sasaki, A; Ikeda, Y

*Ab initio determination of total-energy surfaces for distortions of ferroelectric perovskite*

Jpn. J. Appl. Phys. Part 1 – Regul. 43 (2004) 6785 – 6792

Pap. Short Notes Rev. Pap.

04-IMR0189

El Ouenzerfi, R; Ono, S; Quema, A; Goto, M; Sarukura, N; Nishimatsu, T; Terakubo, N; Mizuseki, H; Kawazoe, Y; Yoshikawa, A; Fukuda, T

*Design proposal of light emitting diode in vacuum ultraviolet based on perovskite-like fluoride*

Jpn. J. Appl. Phys. Part 2 – Lett. 43 (2004) L1140 – L1143

Express Lett.

04-IMR0190

Kohiki, S; Hori, K; Kawaguchi, A; Murakawa, Y; Shimooka, H; Tajiri, T; Deguchi, H; Mitome, M; Bando, Y; Fukushima, S; Arai, M; Oku, M; Shishido, T

*Dilution effects on chemical and magnetic clusters of*

Jpn. J. Appl. Phys. Part 2 – Lett. 43 (2004) L1620 – L1622

Express Lett.

04-IMR0594

Omori, M; Okubo, A; Otsubo, M; Hashida, T; Tohji, K  
*Consolidation of multi-walled carbon nanotube and hydroxyapatite coating by the spark plasma system (SPS)*

Key Eng. Mat. 254-2 (2004) 395 – 398

00-04TC02306

Yuan, GY; Zhang, T; Inoue, A  
*Structure and mechanical properties of Mg<sub>85</sub>Cu<sub>5</sub>Zn<sub>5</sub>Y<sub>5</sub> amorphous alloy containing nanoscale particles*

Mater. Lett. 58 (2004) 3012 – 3016

04-IMR0425

Asami, K; Qin, CL; Zhang, T; Inoue, A  
*Effect of additional elements on the corrosion behavior of a Cu-Zr-Ti bulk metallic*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 235 – 239  
Prop. Microstruct. Process.

04-IMR0430

Haruyama, O; Annoshita, N; Nishiyama, N; Kimura, HM; Inoue, A  
*Electrical resistivity behavior in Pd-Cu-Ni-P metallic glasses and*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 288 – 291  
Prop. Microstruct. Process.

04-IMR0431

Haruyama, O; Tando, A; Kimura, HM; Nishiyama, N; Inoue, A  
*Structural relaxation in Pd-Cu-Ni-P metallic*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 292 – 296  
Prop. Microstruct. Process.

04-IMR0432

Okai, D; Fukami, T; Yamasaki, T; Zhang, T; Inoue, A  
*Temperature dependence of heat capacity and electrical resistivity of Zr-based bulk glassy*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 364 – 367  
Prop. Microstruct. Process.

04-IMR0436

Pang, SJ; Zhang, T; Asami, K; Inoue, I  
*Bulk glassy Ni(Co-Nb)-Ti-Zr alloys with high corrosion resistance and high*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 368 – 371  
Prop. Microstruct. Process.

04-IMR0616

Saotome, Y; Noguchi, Y; Zhang, T; Inoue, A  
*Characteristic behavior of Pt-based metallic glass under rapid heating and its application to microforming*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 389 – 393  
Prop. Microstruct. Process.

04-IMR0438

Zhang, T; Inoue, A  
*Formation, thermal and mechanical properties of bulk glassy alloys in Zr-Al-Co and Zr-Al-Co-Cu systems*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 432 – 435  
Prop. Microstruct. Process.

04-IMR0441

Yamasaki, T; Yufune, N; Ushio, H; Okai, D; Fukami, T; Kimura, HM; Inoue, A  
*Viscosity measurements for Fe-Ni-B and Fe-Ni-Al-B liquid alloys by an oscillating crucible*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 705 – 708  
Prop. Microstruct. Process.

04-IMR0444

Kasai, M; Matsubara, E; Saida, J; Nakayama, M; Uematsu, K; Zhang, T; Inoue, A  
*Crystallisation behaviour of CU60Zr30Ti10, bulk glassy*  
Mater. Sci. Eng. A-Struct. Mater. 375-77 (2004) 744 – 748  
Prop. Microstruct. Process.

04-IMR0326

Okada, S; Kudou, K; Mori, T; Shishido, T; Higashi, I; Kamegashira, N; Nakajima, K; Lundstrom, T  
*Crystal growth of aluminum magnesium borides from Al-Mg-13 ternary system solutions and properties of the crystals*  
Mater. Sci. Forum 449-4 (2004) 365 – 368

04-IMR0052

Sobu, S; Kimura, H; Louzguine, DV; Inoue, A  
*Formation, thermal stability and mechanical properties of aluminum-based glassy alloys containing boron*  
Mater. Trans. 45 (2004) 1204 – 1209

04-IMR0455

Zhang, W; Inoue, A  
*Formation and mechanical strength of new Cu-based bulk glassy alloys with large supercooled liquid region*  
Mater. Trans. 45 (2004) 1210 – 1213

04-IMR0456

Nakano, S; Yamaura, SI; Uchinashi, S; Kimura, H; Inoue, A  
*Effect of hydrogen absorption on the electrical resistance of melt-spun Mg-Pd and Mg-Ni-Pd amorphous alloys*  
Mater. Trans. 45 (2004) 1367 – 1370

04-IMR0462

Sluiter, MHF; Adachi, H; Belosludov, RV; Belosludov, VR; Kawazoe, Y  
*Ab initio study of hydrogen storage in hydrogen hydrate*  
Mater. Trans. 45 (2004) 1452 – 1454

04-IMR0196

Zeng, Z; Chen, JQ; Mizuseki, H; Sato, H; Shimamura, K; Ichinoseki, K; Fukuda, T; Kawazoe, Y  
*Numerical study on LiCaAlF6 Czochralski crystal*  
Mater. Trans. 45 (2004) 1515 – 1521

04-IMR0197

Zeng, Z; Mizuseki, H; Chen, JQ; Ichinoseki, K; Kawazoe, Y  
*Oscillatory thermocapillary convection in liquid bridge under*  
Mater. Trans. 45 (2004) 1522 – 1527

04-IMR0198

Bian, Z; Ahmad, J; Zhang, W; Inoue, A  
*In situ formed (CU0.6Zr0.25Ti0.15)(93)Nb-7 bulk metallic glass*  
Mater. Trans. 45 (2004) 2346 – 2350

04-IMR0467

He, HC; Hasegawa, A; Fujiwara, M; Satou, M; Shishido, T; Abe, K  
*Fabrication and characterization of W-Re-Os alloys for studying transmutation effects of W in fusion reactors*  
Mater. Trans. 45 (2004) 2657 – 2660

04-IMR0617

Nakano, S; Yamaura, S; Uchinashi, S; Kimura, H; Inoue, A  
*Relations between the electrical resistance and hydrogen absorption/desorption for melt-spun Mg<sub>87</sub>Al<sub>3</sub>Pd<sub>10</sub> and Ni<sub>60</sub>Nb<sub>20</sub>Zr<sub>20</sub> amorphous alloys*

Mater. Trans. 45 (2004) 2766 – 2769

04-IMR0471

Bian, Z; Zhang, T; Inoue, A  
*Effect of carbon nanotube addition on the compressive fracture characteristics of Zr-based bulk metallic glass composites*

Mater. Trans. 45 (2004) 284 – 287

04-IMR0448

Yamaura, S; Shimpo, Y; Okouchi, H; Nishida, M; Kajita, O; Inoue, A  
*The effect of additional elements on hydrogen permeation properties of melt-spun Ni-Nb-Zr amorphous alloys*

Mater. Trans. 45 (2004) 330 – 333

04-IMR0449

Inoue, A; Zhang, W  
*Formation, thermal stability and mechanical properties of Cu-Zr and Cu-Hf binary glassy alloy*

Mater. Trans. 45 (2004) 584 – 587

04-IMR0451

Vinograd, VL; Sluiter, MHF; Winkler, B; Putnis, A; Halenius, U; Gale, JD; Becker, U  
*Thermodynamics of mixing and ordering in pyrope-grossular solid*

Mineral. Mag. 68 (2004) 101 – 121

04-IMR0618

Kikuchi, Y; Belosludov, RV; Baba, H; Farajian, AA; Mizuseki, H; Kawazoe, Y  
*Structure and electronic properties of metal*

Mol. Simul. 30 (2004) 929 – 933

04-IMR0200

Cheng, WW; Liao, XY; Chen, H; Note, R; Mizuseki, H; Kawazoe, Y  
*Electron transport through heterocyclic molecule: ab initio molecular orbital*

Phys. Lett. A 326 (2004) 412 – 416

04-IMR0206

Yagi, Y; Briere, TM; Sluiter, MHF; Kumar, V; Farajian, AA; Kawazoe, Y  
*Stable geometries and magnetic properties of single-walled carbon nanotubes doped with 3d transition metals: A first-principles study*

Phys. Rev. B 69 (2004) Art. No. 075414 –

04-IMR0208

Weng, HM; Yang, XP; Dong, JM; Mizuseki, H; Kawasaki, M; Kawazoe, Y  
*Electronic structure and optical properties of the Co-doped anatase TiO<sub>2</sub> studied from first*

Phys. Rev. B 69 (2004) Art. No. 125219 –

04-IMR0209

Sluiter, MHF; Kawazoe, Y  
*Phase diagram of single-wall carbon nanotube crystals under hydrostatic*

Phys. Rev. B 69 (2004) Art. No. 224111 –

04-IMR0210

Takahashi, M; Sembiring, T; Noda, Y; Shishido, T; Ohshima, K

*Magnetic structures and spin-glass-like behavior in ordered and disordered Pt-rich Pt-Mn*

Phys. Rev. B 70 (2004) Art. No. 014431 –

04-IMR0619

Yuhara, J; Klikovits, J; Schmid, M; Varga, P; Yokoyama, Y; Shishido, T; Soda, K

*Atomic structure of an Al-Co-Ni decagonal quasicrystalline*

Phys. Rev. B 70 (2004) Art. No. 024203 –

04-IMR0620

Geng, HY; Chen, NX; Sluiter, MHF

*First-principles equation of state and phase stability for the Ni-Al system under high*

Phys. Rev. B 70 (2004) Art. No. 094203 –

04-IMR0621

Wang, SY; Yu, JZ; Mizuseki, H; Sun, Q; Wang, CY; Kawazoe, Y

*Energetics and local spin magnetic moment of single 3,4d impurities encapsulated in an icosahedral Au-12 cage*

Phys. Rev. B 70 (2004) Art. No. 165413 –

04-IMR0213

Sluiter, MHF; Vinograd, V; Kawazoe, Y

*Intermixing tendencies in garnets: Pyrope and*

Phys. Rev. B 70 (2004) Art. No. 184120 –

04-IMR0214

Farajian, AA; Mizuseki, H; Kawazoe, Y

*Electronic transport properties of a metal-semiconductor carbon nanotube*

Physica E 22 (2004) 675 – 678

04-IMR0221

Kato, H; Yubuta, K; Louzguine, DV; Inoue, A; Kim, HS

*Influence of nanoprecipitation on strength of Cu60Zr30Ti10 glass containing mu m-ZrC particle reinforcements*

Scr. Mater. 51 (2004) 577 – 581

04-IMR0482

Zhang, AY; Akashi, T; Goto, T

*Electrical conductivity of nonstoichiometric Ba beta-alumina single crystals prepared by a floating zone method*

Solid State Ion. 166 (2004) 77 – 82

04-IMR0539

Castle, JE; Asami, K

*A more general method for ranking the enrichment of alloying elements in passivation*

Surf. Interface Anal. 36 (2004) 220 – 224

00-04TC02282

Majumder, C; Mizuseki, H; Kawazoe, Y

*Effect of substituent groups on the electronic properties of a molecular device: an ab initio theoretical study*

Theochem-J. Mol. Struct. 681 (2004) 65 – 69

04-IMR0228