Crystal Physics 2000

Sato, T; Yamada, Y; Saijo, S; Hori, T; Hirose, R; Tanaka, N; Sazaki, G; Nakajima, K; Igarashi, N; Tanaka, M; Matsuura, Y

Enhancement in the perfection of orthorhombic lysozyme crystals grown in a high magnetic field (10 T)

Acta Crystallogr. Sect. D-Biol. Crystallogr. 56 （2000） 1079 －1083

00-IMR0042

Ujihara, T; Osamura, K

Kinetic analysis of spinodal decomposition process in Fe-Cr alloys by small angle neutron scattering

Acta Mater. 48 （2000） 1629 －1637

00-IMR0043

Usami, N; Araki, Y; Ito, Y; Miura, M; Shiraki, Y

Modification of the growth mode of Ge on Si by buried Ge islands

Appl. Phys. Lett. 76 （2000） 3723 －3725

00-IMR0044

Usami, N; Miura, M; Ito, Y; Araki, Y; Shiraki, Y

Drastic increase of the density of Ge islands by capping with a thin Si layer

Appl. Phys. Lett. 77 （2000） 217 －219

00-IMR0045

Usami, N; Azuma, Y; Ujihara, T; Sazaki, G; Nakajima, K; Yakabe, Y; Kondo, T; Koh, S; Shiraki, Y; Zhang, B; Segawa, Y; Kodama, S

SiGe bulk crystal as a lattice-matched substrate to GaAs for solar cell applications

Appl. Phys. Lett. 77 （2000） 3565 －3567

00-IMR0046

Nishijima, Y; Nakajima, K; Otsubo, K; Ishikawa, H

InGaAs single crystal with a uniform composition in the growth direction grown on an InGaAs seed using the multicomponent zone growth method

J. Cryst. Growth 208 （2000） 171 －178

00-IMR0048

Y. Suzuki, S. Miyashita, G. Sazaki, T. Nakada, T. Sawada, H. Komatsu

Effects of Pressure on Growth Kinetics of Tetragonal Lysozyme Crystals

J. Cryst. Growth 208 （2000） 638 －644

00-IMR0047

Yanagiya, S; Sazaki, G; Durbin, SD; Miyashita, S; Nakajima, K; Komatsu, H; Watanabe, K; Motokawa, M

Effects of a magnetic field on the growth rate of tetragonal lysozyme crystals

J. Cryst. Growth 208 （2000） 645 －650

00-IMR0049

Y. Suzuki, T. Sawada, S. Miyashita, H. Komatsu, G. Sazaki, T. Nakada

An interferometric study of the solubility of lysozyme crystal under high pressure

J. Cryst. Growth 209 （2000） 1018 －1022

00-IMR0050

Nakajima, K; Ujihara, T; Miyashita, S; Sazaki, G

Thickness dependence of stable structure of the Stranski–Krastanov mode in the GaPSb/GaP system

J. Cryst. Growth 209 (2000) 637 – 647

00-IMR0051

Nakajima, K; Ujihara, T; Sazaki, G; Usami, N

Phase diagram calculation for epitaxial growth of GaInAs on InP considering the surface, interfacial and strain energies

J. Cryst. Growth 220 (2000) 413 – 424

00-IMR0052

Ujihara, T; Sazaki, G; Miyashita, S; Usami, N; Nakajima, K

In situ measurement of composition in high-temperature solutions by X-ray fluorescence spectrometry

Jpn. J. Appl. Phys. Part 1 – Regul. Pap. Short Notes Rev. Pap. 39 (2000) 5981 – 5982

00-IMR0053

Usami, N; Shiraki, Y

Optical investigation of modified Stranski–Krastanov growth mode in the stacking of self-assembled Ge islands

Thin Solid Films 369 (2000) 108 – 111

00-IMR0054

Crystal Physics 2001

Kawaguchi, K; Shiraki, Y; Usami, N; Zhang, J; Woods, NJ; Breton, G; Parry, G

Fabrication of strain-balanced Si/Si1-xGex multiple quantum wells on Si1-yGey virtual substrates and their optical properties

Appl. Phys. Lett. 79 (2001) 344 - 346

01-IMR0024

Hondoh, H; Sazaki, G; Miyashita, S; Durbin, SD; Nakajima, K; Matsuura, Y

Macrobond analysis of the macro- and micromorphology of monoclinic lysozyme crystal

Cryst. Growth Des. 1 (2001) 327 - 332

01-IMR0025

Nakajima, K; Ujihara, T; Miyashita, S; Sazaki, G

Effects of misfit dislocations and AlN buffer layer on the GaInN/GaN phase diagram of the growth mode

J. Appl. Phys. 89 (2001) 146 - 153

01-IMR0026

Ujihara, T; Sazaki, G; Fujiwara, K; Usami, N; Nakajima, K

Physical model for the evaluation of solid-liquid interfacial tension in silicon

J. Appl. Phys. 90 (2001) 750 - 755

01-IMR0027

Ninomiya, K; Yamamoto, T; Oheda, T; Sato, K; Sazaki, G; Matsuura, Y

Morphology and solubility of multiple crystal forms of Taka-amylase A

J. Cryst. Growth 222 (2001) 311 - 316

01-IMR0028

Azuma, Y; Usami, N; Ujihara, T; Sazaki, G; Murakami, Y; Miyashita, S; Fujiwara, K; Nakajima, K

Growth of SiGe bulk crystal with uniform composition by directly controlling the growth temperature at the crystal-melt inter-face using in situ monitoring system

J. Cryst. Growth 224 (2001) 204 - 211

01-IMR0029

Shimomura, S; Kitano, Y; Kuge, H; Kitada, T; Nakajima, K; Hiyamizu, S

Lattice-matched InxGa1-xAs/InxAl1-xAs quantum wells (x=0.18 and 0.19) grown on (411)A- and (100)-oriented InGaAs ternary substrates by molecular beam epitaxy

J. Cryst. Growth 227 (2001) 72 - 76

01-IMR0030

Usami, N; Miura, M; Ito, Y; Araki, Y; Nakajima, K; Shiraki, Y

Modification of the growth mode of Ge on Si(100) in the presence of buried Ge islands

J. Cryst. Growth 227 (2001) 782 - 785

01-IMR0031

Ye, JH; Shishido, T; Fukuda, T; Nakajima, K

Crystal growth and structural properties of RRh3B2 (R = Gd, Er, Tm) compounds

J. Cryst. Growth 229 (2001) 521 - 526

01-IMR0032

Okada, S; Shishido, T; Ogawa, M; Matsukawa, F; Ishizawa, Y; Nakajima, K; Fukuda, T; Lundstrom, T
MnSi and MnSi2-x single crystals growth by Ga flux method and properties
J. Cryst. Growth 229（2001） 532 – 536
01-IMR0033

Nakajima, K; Durbin, SD; Capper, P; Hiyamizu, S
Proceedings of the First Asian Conference on Crystal Growth and Crystal Technology Sendai, Japan, 29 August-1 September 2000 - Editors' preface
J. Cryst. Growth 229（2001） XIII – XIII
01-IMR0034

Sato, T; Yamada, Y; Saijo, S; Hori, T; Hirose, R; Tanaka, N; Sazaki, G; Nakajima, K; Igarashi, N; Tanaka, M; Matsuura, Y
Improvement in diffraction maxima in orthorhombic HEWL crystal grown under high magnetic field
J. Cryst. Growth 232（2001） 229 – 236
01-IMR0035

Sawano Kentaro, Ikeda Manabu, Ohdaira Keisuke, Arimoto Keisuke, Shiraki Yasuhiro, Usami Noritaka
On the Origin of the Drastic Enhancement of the No-Phonon Transition in GaAsP/GaP Indirect Quantum Wells with un Ultrathin AlP Layer
Journal of the Korean Physical Society 39[3]（2001） 440 – 442
01-IMR0036

Kitahara, K; Nakajima, K; Moritani, A
Observation of defects in laser-crystallized polysilicon thin films by hydrogenation and Raman spectroscopy
Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 40（2001） 1209 – 1213
01-IMR0037

Usami, N; Azuma, Y; Ujihara, T; Sazaki, G; Miyashita, S; Murakami, Y; Nakajima, K
Growth of SixGe1-x (x=0.15) bulk crystal with uniform composition utilizing in situ monitoring of the crystal-solution interface
Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 40（2001） 4141 – 4144
01-IMR0038

Shishido, T; Kudou, K; Okada, S; Ye, JH; Yoshikawa, A; Sasaki, T; Oku, M; Horiuchi, H; Higashi, I; Kohiki, S; Kawazoe, Y; Nakajima, K
R-dependency of the hardness of perovskite-type RRh3B compounds (R = La, Gd, Lu and Sc)
Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 40（2001） 6037 – 6038
01-IMR0039

Ujihara, T; Osamura, K
Assessing composition gradient energy effects due to spin interaction on the spinodal decomposition of Fe-Cr
Mater. Sci. Eng. A-Struct. Mater. Prop. Microstruct. Process. 312（2001） 128 – 135
01-IMR0040

Usami, N; Azuma, Y; Ujihara, T; Sazaki, G; Nakajima, K; Yakabe, Y; Kondo, T; Kawaguchi, K; Koh, S; Shiraki, Y; Zhang, BP; Segawa, Y; Kodama, S
Molecular beam epitaxy of GaAs on nearly lattice-matched SiGe substrates grown by the multicomponent zone-melting method
Semicond. Sci. Technol. 16（2001） 699 – 703
01-IMR0041

Crystal Physics 2002

Kolobov, A; Oyanagi, H; Usami, N; Tokumitsu, S; Hattori, T; Yamasaki, S; Tanaka, K; Ohtake, S; Shiraki, Y

Raman scattering and x-ray absorption studies of Ge-Si nanocrystallization

Appl. Phys. Lett. 80（2002） 488 －490

02-IMR0030

Suzuki, Y; Sazaki, G; Miyashita, S; Sawada, T; Tamura, K; Komatsu, H

Protein crystallization under high pressure

Biochim. Biophys. Acta-Protein Struct. Molec. Enzym. 1595（2002） 345 －356

02-IMR0031

Suzuki, Y; Sazaki, G; Visuri, K; Tamura, K; Nakajima, K; Yanagiya, S

Significant decrease in the solubility of glucose isomerase crystals under high pressure

Cryst. Growth Des. 2（2002） 321 －324

02-IMR0032

Shishido, T; Sasaki, T; Kudou, K; Okada, S; Yoshikawa, A; Ko, JM; Ye, JH; Higashi, I; Oku, M; Horiuchi, H; Fukuda, T; Kohiki, S; Nakajima, K

Solid solution range of boron and properties of the perovskite-type NdRh3B

J. Alloy. Compd. 335（2002） 191 －195

02-IMR0033

Usami, N; Takahashi, T; Fujiwara, K; Ujihara, T; Sazaki, G; Murakami, Y; Nakajima, K

Strain distribution of Si thin film grown on multicrystalline-SiGe with microscopic compositional distribution

J. Appl. Phys. 92（2002） 7098 －7101

02-IMR0034

Sazaki, G; Miyashita, S; Nokura, M; Ujihara, T; Fujiwara, K; Usami, N; Nakajima, K

In situ observation of the Marangoni convection in a NaCl aqueous solutions under microgravity

J. Cryst. Growth 234（2002） 516 －522

02-IMR0035

Sazaki, G; Azuma, Y; Miyashita, S; Usami, N; Ujihara, T; Fujiwara, K; Murakami, Y; Nakajima, K

In-situ monitoring system of the position and temperature at the crystal-solution interface

J. Cryst. Growth 236（2002） 125 －131

02-IMR0037

Okada, S; Ogawa, M; Shishido, T; Iizumi, K; Kudou, K; Kanari, H; Nakajima, K; Rogl, P

Crystal growth of REMn2Si2 (RE = Y, Er) by a Pb flux method

J. Cryst. Growth 236（2002） 617 －620

02-IMR0036

Nakajima, K; Kusunoki, T; Azuma, Y; Usami, N; Fujiwara, K; Ujihara, T; Sazaki, G; Shishido, T

Compositional variation in Si-rich SiGe single crystals grown by multi-component zone melting method using Si seed and source crystals

J. Cryst. Growth 240（2002） 373 －381

02-IMR0038

Ujihara, T; Fujiwara, K; Sazaki, G; Usami, N; Nakajima, K

New method for measurement of interdiffusion coefficient in high temperature solutions based on Fick's first law

J. Cryst. Growth 241 (2002) 387 – 394

02-IMR0039

Ujihara, T; Fujiwara, K; Sazaki, G; Usami, N; Nakajima, K

Simultaneous in situ measurement of solute and temperature distributions in the alloy solutions

J. Cryst. Growth 242 (2002) 313 – 320

02-IMR0040

Fujiwara, K; Nakajima, K; Ujihara, T; Usami, N; Sazaki, G; Hasegawa, H; Mizoguchi, S; Nakajima, K

In situ observations of crystal growth behavior of silicon melt

J. Cryst. Growth 243 (2002) 275 – 282

02-IMR0041

Nishijima, Y; Otsubo, K; Tezuka, H; Nakajima, K; Ishikawa, H

InGaAs zone growth single crystal with convex solid-liquid interface toward the melt

J. Cryst. Growth 245 (2002) 228 – 236

02-IMR0042

Sato, N; Uragami, Y; Nishizaki, T; Takahashi, Y; Sazaki, G; Sugimoto, K; Nonaka, T; Masai, E; Fukuda, M; Senda, T

Crystal structures of the reaction intermediate and its homologue of an extradiol-cleaving catecholic dioxygenase

J. Mol. Biol. 321 (2002) 621 – 636

02-IMR0043

Ujihara, T; Fujiwara, K; Sazaki, G; Usami, N; Nakajima, K

Evaluation of the diffusion coefficients in liquid GaGe binary alloys using a novel method based on Fick's first law

J. Non-Cryst. Solids 312 (2002) 196 – 202

02-IMR0044

Shishido, T; Ye, JH; Okada, S; Kudou, K; Oku, M; Obara, K; Sugawara, T; Yoshikawa, A; Ishizawa, Y; Ogawa, M; Iizumi, K; Higashi, I; Amano, T; Kohiki, S; Kawazoe, Y; Nakajima, K

Boron-carbon atomic ratio dependence on the hardness and oxidation resistance of solid solutions of perovskite-type borocarbide YRh3BxC1-x (0 <= x <= 1)

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 41 (2002) 3031 – 3032

02-IMR0045

Usami, N; Takahashi, T; Fujiwara, K; Ujihara, T; Sazaki, G; Murakami, Y; Nakajima, K

Evidence of the presence of built-in strain in multicrystalline SiGe with large compositional distribution

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 41 (2002) 4462 – 4465

02-IMR0046

Kitahara, K; Yamazaki, R; Kurosawa, T; Nakajima, K; Moritani, A

Analysis of stress in laser-crystallized polysilicon thin films by Raman scattering spectroscopy

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 41 (2002) 5055 – 5059

02-IMR0047

Usami, N; Fujiwara, K; Ujihara, T; Sazaki, G; Yaguchi, H; Murakami, Y; Nakajima, K

Control of macroscopic absorption coefficient of multicrystalline SiGe by microscopic compositional distribution

Jpn. J. Appl. Phys. Part 2 - Lett. 41 （2002） L37 －L39

02-IMR0048

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

REMn2Si2 (RE = Y, Tb, Dy, Ho) single crystals grown from lead flux and magnetic properties

Jpn. J. Appl. Phys. Part 2 - Lett. 41 （2002） L555 －L558

02-IMR0049

Kudou, K; Okada, S; Mori, T; Iizumi, K; Shishido, T; Tanaka, T; Higashi, I; Nakajima, K; Rogl, P; Andersson, YB; Lundstrom, T

Crystal growth and properties of AlLiB14

Jpn. J. Appl. Phys. Part 2 - Lett. 41 （2002） L928 －L930

02-IMR0050

Usami, N; Azuma, Y; Ujihara, T; Sazaki, G; Fujiwara, K; Murakami, Y; Nakajima, K

Fabrication of SiGe bulk crystals with uniform composition as substrates for Si-based heterostructures

Mater. Sci. Eng. B-Solid State Mater. Adv. Technol. 89 （2002） 364 －367

02-IMR0051

Sato, N; Nakajima, K; Usami, N; Takahashi, H; Muramatsu, A; Matsubara, E

Preparation of a TiO2 film coated Si device for photo-decomposition of water by CVD method using Ti(OPri)(4)

Mater. Trans. 43 （2002） 1533 －1536

02-IMR0052

Mikami, M; Nakamura, S; Itoh, M; Nakajima, K; Shishido, T

Lattice dynamics and dielectric properties of yttrium oxysulfide

Phys. Rev. B 65 （2002） Art. No. 094302 －

02-IMR0053

Nakajima, K; Usami, N; Fujiwara, K; Murakami, Y; Ujihara, T; Sazaki, G; Shishido, T

Melt growth of multicrystalline SiGe with large compositional distribution for new solar cell applications

Sol. Energy Mater. Sol. Cells 72 （2002） 93 －100

02-IMR0054

Nakajima, K; Usami, N; Fujiwara, K; Murakami, Y; Ujihara, T; Sazaki, G; Shishido, T

Growth and properties of SiGe multicrystals with microscopic compositional distribution for high-efficiency solar cells

Sol. Energy Mater. Sol. Cells 73 （2002） 305 －320

02-IMR0055

Crystal Physics 2003

Alguno, A; Usami, N; Ujihara, T; Fujiwara, K; Sazaki, G; Nakajima, K; Shiraki, Y

Enhanced quantum efficiency of solar cells with self-assembled Ge dots stacked in multilayer structure

Appl. Phys. Lett. 83 (2003) 1258 – 1260

03-IMR0037

Zhang, BP; Binh, NT; Segawa, Y; Wakatsuki, K; Usami, N

Optical properties of ZnO rods formed by metalorganic chemical vapor deposition

Appl. Phys. Lett. 83 (2003) 1635 – 1637

03-IMR0038

Sawano, K; Koh, S; Shiraki, Y; Usami, N; Nakagawa, K

In-plane strain fluctuation in strained-Si/SiGe heterostructures

Appl. Phys. Lett. 83 (2003) 4339 – 4341

03-IMR0039

Shishido, T; Ye, JH; Okada, S; Kudou, K; Iizumi, K; Oku, M; Ishizawa, Y; Amano, T; Kohiki, S; Kawazoe, Y; Nakajima, K

Hardness and oxidation resistance of perovskite-type borocarbide system YRh3BxC1-x (0 <= x <= 1)

J. Alloy. Compd. 354 (2003) 198 – 201

03-IMR0040

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

Comparison of electronic structures of ScAl3 and ScRh3: X-ray photoelectron spectroscopy and ab initio band calculation

J. Alloy. Compd. 358 (2003) 264 – 267

03-IMR0041

Usami, N; Ichitsubo, T; Ujihara, T; Takahashi, T; Fujiwara, K; Sazaki, G; Nakajima, K

Influence of the elastic strain on the band structure of ellipsoidal SiGe coherently embedded in the Si matrix

J. Appl. Phys. 94 (2003) 916 – 920

03-IMR0042

Azuma, Y; Usami, N; Ujihara, T; Fujiwara, K; Sazaki, G; Murakami, Y; Nakajima, K

Growth of SiGe bulk crystals with uniform composition by utilizing feedback control system of the crystal-melt interface position for precise control of the growth temperature

J. Cryst. Growth 250 (2003) 298 – 304

03-IMR0043

Sawano, K; Arimoto, K; Hirose, Y; Koh, S; Usami, N; Nakagawa, K; Hattori, T; Shiraki, Y

Planarization of SiGe virtual substrates by CMP and its application to strained Si modulation-doped structures

J. Cryst. Growth 251 (2003) 693 – 696

03-IMR0044

Nagatoshi, Y; Sazaki, G; Suzuki, Y; Miyashita, S; Matsui, T; Ujihara, T; Fujiwara, K; Usami, N; Nakajima, K

Effects of high pressure on the growth kinetics of orthorhombic lysozyme crystals

J. Cryst. Growth 254 (2003) 188 – 195

03-IMR0045

Yanagiya, S; Nishikata, S; Sazaki, G; Hoshino, A; Nakajima, K; Inoue, T

Recrystallization of Cu-phthalocyanine on KCl (001) substrates by annealing method

J. Cryst. Growth 254 (2003) 244 - 250

03-IMR0046

Mikami, M; Nakamura, S; Itoh, M; Nakajima, K; Shishido, T

Lattice dynamics and optical properties of yttrium oxysulfide

J. Lumines. 102 (2003) 7 - 12

03-IMR0047

Hayashi, K; Takahashi, Y; Matsubara, E; Nakajima, K; Usami, N

3D atomic imaging of SiGe system by X-ray fluorescence holography

J. Mater. Sci.-Mater. Electron. 14 (2003) 459 - 462

03-IMR0048

Zhang, BP; Manh, LH; Wakatsuki, K; Ohnishi, T; Lippmaa, M; Usami, N; Kawasaki, M; Segawa, Y

Epitaxial growth and polarity of ZnO films on sapphire (0001) substrates by low-pressure metal organic chemical vapor deposition

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 42 (2003) 2291 - 2295

03-IMR0049

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

Hardness and oxidation resistance of perovskite-type solid solution of the ScRh3B-ScRh3C system

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 42 (2003) 5213 - 5214

03-IMR0050

Shishido, T; Okada, S; Ishizawa, Y; Kudou, K; Iizumi, K; Sawada, Y; Horiuchi, H; Inaba, K; Sekiguchi, T; Ye, JH; Miyashita, S; Nomura, A; Sugawara, T; Obara, K; Murakami, Y; Fujiwara, K; Ujihara, T; Sazaki, G; Usami, N; Oku, M; Yokoyama, Y; Kohiki, S; Kawazoe, Y; Nakajima, K

High-temperature solution growth and characterization of chromium disilicide

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 42 (2003) 7292 - 7293

03-IMR0051

Shishido, T; Kudou, K; Sasaki, T; Okada, S; Ye, JH; Iizumi, K; Nomura, A; Sugawara, T; Obara, K; Tanaka, M; Kohiki, S; Kawazoe, Y; Nakajima, K; Oku, M

Search for perovskite-type new boride in the Sc-Ni-B system

Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 42 (2003) 7464 - 7466

03-IMR0052

Ujihara, T; Obara, K; Usami, N; Fujiwara, K; Sazaki, G; Shishido, T; Nakajima, K

High-quality crystalline silicon layer grown by liquid phase epitaxy method at low growth temperature

Jpn. J. Appl. Phys. Part 2 - Lett. 42 (2003) L217 - L219

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

Fabrication of SiGe-on-insulator through thermal diffusion of Ge on Si-on-insulator substrate

Jpn. J. Appl. Phys. Part 2 - Lett. 42 (2003) L232 - L234

03-IMR0054

Zhang, BP; Manh, L; Wakatsuki, K; Tamura, K; Ohnishi, T; Lippma, M; Usami, N; Kawasaki, M; Koinuma, H; Segawa, Y

In-plane orientation and polarity of ZnO epitaxial films on As-polished sapphire (alpha-Al2O3) (0001) substrates grown by metal organic chemical vapor deposition

Jpn. J. Appl. Phys. Part 2 - Lett. 42 (2003) L264 - L266

03-IMR0055

Crystal Physics 2004

Sato, T; Hara, S; Matsui, T; Sazaki, G; Saijo, S; Ganbe, T; Tanaka, N; Sugano, Y; Shoda, M

A unique dye-decolorizing peroxidase, DyP, from Thanatephorus cucumeris Dec 1: heterologous expression, crystallization and preliminary X-ray analysis

Acta Crystallogr. Sect. D-Biol. Crystallogr. 60 (2004) 149 – 152

04-IMR0024

Zhang, BP; Binh, NT; Wakatsuki, K; Usami, N; Segawa, Y

Low-temperature growth of ZnO epitaxial films by metal organic chemical vapor deposition

Appl. Phys. A-Mater. Sci. Process. 78 (2004) 25 – 28

04-IMR0025

Zhang, BP; Binh, NT; Wakatsuki, K; Usami, N; Segawa, Y

Low-temperature growth of single-crystalline ZnO tubes on sapphire(0001) substrates

Appl. Phys. A-Mater. Sci. Process. 79 (2004) 1711 – 1714

04-IMR0026

Alguno, A; Usami, N; Ujihara, T; Fujiwara, K; Sazaki, G; Nakajima, K; Sawano, K; Shiraki, Y

Effects of spacer thickness on quantum efficiency of the solar cells with embedded Ge islands in the intrinsic layer

Appl. Phys. Lett. 84 (2004) 2802 – 2804

04-IMR0027

Zhang, BP; Binh, NT; Wakatsuki, K; Segawa, Y; Yamada, Y; Usami, N; Kawasaki, M; Koinuma, H

Formation of highly aligned ZnO tubes on sapphire (0001) substrates

Appl. Phys. Lett. 84 (2004) 4098 – 4100

04-IMR0028

Kutsukake, K; Usami, N; Ujihara, T; Fujiwara, K; Sazaki, G; Nakajima, K

On the origin of strain fluctuation in strained-Si grown on SiGe-on-insulator and SiGe virtual substrates

Appl. Phys. Lett. 85 (2004) 1335 – 1337

04-IMR0029

Sawano, K; Koh, S; Shiraki, Y; Ozawa, Y; Hattori, T; Yamanaka, J; Suzuki, K; Arimoto, K; Nakagawa, K; Usami, N

Fabrication of high-quality strain-relaxed thin SiGe layers on ion-implanted Si substrates

Appl. Phys. Lett. 85 (2004) 2514 – 2516

04-IMR0030

Nakajima, K; Fujiwara, K; Pan, WG

Wave-shaped Si crystal wafers obtained by plastic deformation and preparation of their solar cells

Appl. Phys. Lett. 85 (2004) 5896 – 5898

04-IMR0031

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

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

Appl. Surf. Sci. 224 (2004) 95 – 98

04-IMR0032

Asai, T; Suzuki, Y; Sazaki, G; Tamura, K; Sawada, T; Nakajima, K

Effects of high pressure on the solubility and growth kinetics of monoclinic lysozyme crystals

Cell. Mol. Biol. 50 (2004) 329 – 334

04-IMR0033

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 ScRh3BxC1-x

J. Alloy. Compd. 375 (2004) 217 – 220

04-IMR0034

Shishido, T; Kudou, K; Sasaki, T; Okada, S; Ye, J; Iizumi, K; Nomura, A; Sugawara, T; Obara, K; Tanaka, A; Kohiki, S; Kawazoe, Y; Nakajima, K; Oku, M

Search for perovskite-type new borides in the Sc-TM-B (TM = Ti, V, Cr, Mn, Fe, Co, and Ni) systems

J. Alloy. Compd. 383 (2004) 294 – 297

04-IMR0035

Shishido, T; Okada, S; Ishizawa, Y; Kudou, K; Iizumi, K; Sawada, Y; Horiuchi, H; Inaba, K; Sekiguchi, T; Ye, J; Miyashita, S; Nomura, A; Sugawara, T; Obara, K; Oku, M; Fujiwara, K; Ujihara, T; Sazaki, G; Usami, N; Kohiki, S; Kawazoe, Y; Nakajima, K

Molten metal flux growth and properties of CrSi2

J. Alloy. Compd. 383 (2004) 319 – 321

04-IMR0036

Pan, WG; Fujiwara, K; Usami, N; Ujihara, T; Nakajima, K; Shimokawa, R

Ge composition dependence of properties of solar cells based on multicrystalline SiGe with microscopic compositional distribution

J. Appl. Phys. 96 (2004) 1238 – 1241

04-IMR0038

Zhang, BP; Wakatsuki, K; Binh, NT; Segawa, Y; Usami, N

Low-temperature growth of ZnO nanostructure networks

J. Appl. Phys. 96 (2004) 340 – 343

04-IMR0037

Nakajima, K; Ujihara, T; Usami, N; Fujiwara, K; Sazaki, G; Shishido, T

Phase diagram of growth mode for the SiGe/Si heterostructure system with misfit dislocations

J. Cryst. Growth 260 (2004) 372 – 383

04-IMR0039

Fujiwara, K; Obinata, Y; Ujhara, T; Usami, N; Sazaki, G; Nakajima, K

In-situ observations of melt growth behavior of polycrystalline silicon

J. Cryst. Growth 262 (2004) 124 – 129

04-IMR0040

Sazaki, G; Fujino, T; Sadowski, JT; Usami, N; Ujihara, T; Fujiwara, K; Takahashi, Y; Matsubara, E; Sakurai, T; Nakajima, K

Epitaxial relation and island growth of perylene-3.4.9.10-tetracarboxylic dianhydride (PTCDA) thin film crystals on a hydrogen-terminated Si(111) substrate

J. Cryst. Growth 262 (2004) 196 – 201

04-IMR0041

Sazaki, G; Moreno, A; Nakajima, K
Novel coupling effects of the magnetic and electric fields on protein crystallization
J. Cryst. Growth 262 (2004) 499 – 502
04-IMR0042

Sazaki, G; Matsui, T; Tsukamoto, K; Usami, N; Ujihara, T; Fujiwara, K; Nakajima, K
In situ observation of elementary growth steps on the surface of protein crystals by laser confocal microscopy
J. Cryst. Growth 262 (2004) 536 – 542
04-IMR0043

A. Moreno and G. Sazaki
The Use of a new ad hoc growth cell with parallel electrodes for the nucleation control of lysozyme
J. Cryst. Growth 264 (2004) 438 – 444
04-IMR0044

Fujiwara, K; Obinata, Y; Ujihara, T; Usami, N; Sazaki, G; Nakajima, K
Grain growth behaviors of polycrystalline silicon during melt growth processes
J. Cryst. Growth 266 (2004) 441 – 448
04-IMR0045

Ujihara, T; Kanda, E; Obara, K; Fujiwara, K; Usami, N; Sazaki, G; Alguno, A; Shishido, T; Nakajima, K
Effects of growth temperature on the surface morphology of silicon thin films on (111) silicon monocrystalline substrate by liquid phase epitaxy
J. Cryst. Growth 266 (2004) 467 – 474
04-IMR0046

Zhang, BP; Binh, NT; Wakatsuki, K; Segawa, Y; Yamada, Y; Usami, N; Kawasaki, M; Koinuma, H
Pressure-dependent ZnO nanocrsytal growth in a chemical vapor deposition process
J. Phys. Chem. B 108 (2004) 10899 – 10902
04-IMR0047

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

Binh, NT; Zhang, BP; Liu, CY; Wakatsuki, K; Segawa, Y; Usami, N; Yamada, Y; Kawasaki, M; Koinuma, H
Structural and optical properties of ZnO epitaxial films grown on Al2O3 (1120) substrates by metalorganic chemical vapor deposition
Jpn. J. Appl. Phys. Part 1 - Regul. Pap. Short Notes Rev. Pap. 43 (2004) 4110 – 4113
04-IMR0049

Usami, N; Pan, WG; Fujiwara, K; Ujihara, T; Sazaki, G; Nakajima, K
Relationship between device performance and grain boundary structural configuration in a solar cell based on multicrystalline SiGe
Jpn. J. Appl. Phys. Part 2 - Lett. 43 (2004) L250 – L252
04-IMR0050

Azuma, Y; Nishijima, Y; Nakajima, K; Usami, N; Fujiwara, K; Ujihara, T

Successful growth of InxGa1-xAs (x > 0.18) single bulk crystal directly on GaAs seed crystal with preferential orientation

Jpn. J. Appl. Phys. Part 2 - Lett. Express Lett. 43 (2004) L907 - L909

04-IMR0051

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

Kusunoki, K; Munetoh, S; Kamei, K; Hasebe, M; Ujihara, T; Nakajima, K

Solution growth of self-standing 6H-SiC single crystal using metal solvent

Mater. Sci. Forum 457-460 (2004) 123 - 126

04-IMR0053

Kamei, K; Kusunoki, K; Munetoh, S; Ujihara, T; Nakajima, K

TEM studies on the initial stage of seeded solution growth of 6H-SiC using metal solvent

Mater. Sci. Forum 457-460 (2004) 347 - 350

04-IMR0054

Ujihara, T; Munetoh, S; Kusunoki, K; Kamei, K; Usami, N; Fujiwara, K; Sazaki, G; Nakajima, K

Crystal quality evaluation of 6H-SiC layers grown by liquid phase epitaxy around micropipes using micro-Raman scattering spectroscopy

Mater. Sci. Forum 457-460 (2004) 633 - 636

04-IMR0055

Zhang, BP; Wakatsuki, K; Binh, NT; Usami, N; Segawa, Y

Effects of growth temperature on the characteristics of ZnO epitaxial films deposited by metalorganic chemical vapor deposition

Thin Solid Films 449 (2004) 12 - 19

04-IMR0056

Usami, N; Alguno, A; Sawano, K; Ujihara, T; Fujiwara, K; Sazaki, G; Shiraki, Y; Nakajima, K

Fabrication of solar cell with stacked Ge islands for enhanced absorption in the infrared regime

Thin Solid Films 451-52 (2004) 604 - 607

04-IMR0057
