

PUBLICATIONS

DIVISION OF SYNTHETIC CHEMISTRY — Organoelement Chemistry —

Mizuhata Y, Tokitoh N: (*E*)-*N*-{2-(9-Fluorenylidene)-3a,5,7-trimethyl-2*H*-indol-3-ylidene}-2,4,6-trimethylaniline, *Acta Cryst. E*, **64**, o493 (2008).

Nagahora N, Sasamori T, Hosoi Y, Furukawa Y, Tokitoh N: Generation, Isolation, and Reactivity of a Kinetically Stabilized Diphosphene Anion Radical, *J. Organomet. Chem.*, **693**, 625-632 (2008).

Matsumoto T, Sasamori T, Sato K, Takui T, Tokitoh N: Reduction of a Kinetically Stabilized Silabenzene Leading to the Formation of the Corresponding Anion Radical Species, *Organometallics*, **27**, 305-308 (2008).

Mizuhata Y, Tokitoh N: 9,9'-Dibromo-9,9'-bifluorene, *Acta Cryst. E*, **64**, o544 (2008).

Sasamori T, Tokitoh N: Doubly Bonded Systems between Heavier Group 15 Elements, *Dalton Trans.*, 1395-1408 (2008).

Kajiwara T, Takeda N, Sasamori T, Tokitoh N: Synthesis of Alkali Metal Salts of Borylsilyl Anions Utilizing Highly Crowded Silylboranes and Their Properties, *Organometallics*, **27**, 880-893 (2008).

Isobe T, Mizuhata Y, Tokitoh N: Acyclic Tetrachalcogenoether Ligands Tethered with Bulky Substituents: Their Syntheses and Coordination Chemistry, *J. Organomet. Chem.*, **693**, 1225-1232 (2008).

Tokitoh N, Tajima T, Takeda N, Sasamori T: Synthesis and Characterization of the First Stable Stannane, *Phosphorus, Sulfur, and Silicon and the Related Elements*, **183**, 948-955, (2008).

Sasamori T, Mieda E, Tsurusaki A, Nagahora N, Tokitoh N: Selenization and Tellurization Reactions of Kinetically Stabilized Dipnictenes, *Phosphorus, Sulfur, and Silicon and the Related Elements*, **183**, 998-1002 (2008).

Tanabe T, Mizuhata Y, Takeda N, Tokitoh N: Syntheses and Structures of Platinum Siloxides Bridged by a Sulfur or Selenium Atom and a Unique 1,3-Aryl Migration from Silicon to Platinum through the Si-O-Pt Linkages, *Organometallics*, **27**, 2156-2158 (2008).

Ozaki S, Sasamori T, Tokitoh N: Synthesis of a 1-Hydrosilene Stable in Solution and Its Unique Properties, *Organometallics*, **27**, 2163-2165 (2008).

Tanabe Y, Mizuhata Y, Tokitoh N: Mechanistic Investigation of the Hydration Reaction of [Cr(η^6 -silabenzene)(CO)₃]: Hydrido-silacyclohexadienylchromium Complex as an Intermediate, *Chem. Lett.*, **37**, 720-721 (2008).

Tokitoh N, Wakita K, Matsumoto T, Sasamori T, Okazaki R, Takagi N, Kimura M, Nagase S: The Chemistry of Stable Silabzenes, *J. Chin. Chem. Soc.*, **55**, 487-507 (2008).

Sasamori T, Yuasa A, Hosoi Y, Furukawa Y, Tokitoh N: 1,2-Bisferrocenyldisilene: A Multi-step Redox System with an Si=Si Double Bond, *Organometallics*, **27**, 3325-3327 (2008).

Nagahora N, Sasamori T, Tokitoh N: Chalcogenation Reactions of a Stable Ferrocenyldiphosphene: Formation of Thia-, Selena-, and Telluradiphosphiranes, *Heteroatom Chem.*, **19**, 443-449 (2008).

Mizuhata Y, Sasamori T, Nagahora N, Watanabe Y, Furukawa Y, Tokitoh N: Synthesis and Properties of Stable 2-Metallanaphthalenes of Heavier Group 14 Elements, *Dalton Trans.*, 4409-4418 (2008).

Nagahora N, Sasamori T, Tokitoh N: A Ferrocenyldiphosphene-platinum Complex: Structural Features and Theoretical Calculations, *Organometallics*, **27**, 4265-4268 (2008).

Yamase K, Hayashi S, Nakanishi W, Sasamori T, Tokitoh N: Fine Structures of 1-(Arylethyynylselanyl)naphthalenes: Characteristic Features Brought by the Ethynylselanyl Group, *Polyhedron*, **27**, 2478-2486 (2008).

Mizuhata Y, Tokitoh N: Stannenes: Distannenes, and Stannyne, *Tin Chemistry: Fundamentals, Applications and Frontiers*, 177-200, ed by Gielen M, Davies A G, Pannell K, Tiekkink E, John Wiley & Sons, Chichester (2008).

Nakanishi W, Hayashi S, Morinaka S, Sasamori T, Tokitoh N: Extended Hypervalent E'…E-E…E' 4c-6e (E, E' = Se, S) Interactions: Structure, Stability and Reactivity of 1-(8-PhE'C₁₀H₆)EE(C₁₀H₆E'Ph-8')-1', *New J. Chem.*, **32**, 1881-1889 (2008).

Tokitoh N, Matsumoto T, Sasamori T: Unexpected Cyclization Reaction of an Overcrowded 2-Phosphinophenylmethanimine Derivative Leading to the Formation of the First Stable 2-Phosphaph-2*H*-isoindole Derivative, *Heterocycles*, **76**, 981-987 (2008).

Sasamori T, Kawai M, Takeda N, Tokitoh N: Synthesis of Stable *cis*-Dichloro- and *cis*-Dimethylplatinum(II) Complexes Bearing Bulky Primary Phosphines and Introduction of an Alkyl Group on the Primary Phosphine Ligand, *Chem. Lett.*, **37**, 1192-1193 (2008).

Sasamori T, Hironaka K, Sugiyama Y, Takagi N, Nagase S, Hosoi Y, Furukawa Y, Tokitoh N: Synthesis and Reactions of a Stable 1,2-Diaryl-1,2-dibromodisilene: A Precursor for Substituted Disilenes and a 1,2-Diaryldisilyne, *J. Am. Chem. Soc.*, **130**, 13856-13857 (2008).

Matsuo K, Kawabe S, Tokuda Y, Eguchi T, Yamanaka R, Nakamura K: Asymmetric Reduction of Ketones with a Germinated Plant, *Tetrahedron: Asymm.*, **19**, 157-159 (2008).

Nakamura K, Matsuda T: Enzymatic Reduction Reaction, *Asymmetric Organic Synthesis with Enzyme*, 193-228, ed by Gotor V, Alfonsa I, Garcia-Urdiales E, Wiley-VCH (2008).

Nakamura K, Matsuda T: Enzyme-catalyzed Reduction of Carbonyl Compounds, *Modern Reduction Methods*, 209-234, ed by Andersson G, Munslow I J, Wiley-VCH (2008).

- Itoh K, Nakamura K, Utsukihara T, Sakamaki H, Horiuchi C A: Stereoselective Oxidation of Racemic 1-Arylethanols by Plant Cultured Cells of Ocimum basilicum cv. Purpurascens, *Biotechnology Lett.*, **30**, 951-954 (2008).
- Matsuda T, Marukado R, Koguchi S, Nagasawa T, Mukouyama M, Harada T, Nakamura K: Novel Continuous Carboxylation Using Pressurized Carbon Dioxide by Immobilized Decarboxylase, *Tetrahedron Lett.*, **49**, 6019-6020 (2008).
- Andrade L H, Nakamura K: Bioreduction of Ketones by Micro-organisms, *Handbook of Green Chemistry-Green Catalysis*, 151-169, ed by Anastas P, Wiley-VCH (2008).
- Matsuda T, Marukado R, Mukouyama M, Harada T, Nakamura K: Asymmetric Reduction of Ketones by Geotrichum candidum: Immobilization and Application to Reaction Using Supercritical Carbon Dioxide, *Tetrahedron: Asymm.*, **19**, 2272-2275 (2008).
- Structural Organic Chemistry —**
- Murata M, Ochi Y, Tanabe F, Komatsu K, Murata Y: Internal Magnetic Fields of Dianions of Fullerene C₆₀ and Its Cage-Opened Derivatives Studied by Encapsulated H₂ as an NMR Probe, *Angew. Chem. Int. Ed.*, **47**, 2039-2041 (2008).
- Sartori E, Ruzzi M, Turro N J, Komatsu K, Murata Y: Lawler RG, Buchachenko AL, Paramagnet Enhanced Nuclear Relaxation of H₂ in Organic Solvents and in H₂ @C₆₀, *J. Am. Chem. Soc.*, **130**, 2221-2225 (2008).
- Murata Y, Maeda S, Murata M, Komatsu K: Encapsulation and Dynamic Behavior of Two H₂ Molecules in an Open-Cage C₇₀, *J. Am. Chem. Soc.*, **130**, 6702-6703 (2008).
- Murata M, Ochi Y, Kitagawa T, Komatsu K, Murata Y: NMR Studies on Monofunctionalized Fulleranyl Cation and Anion Encapsulating a H₂ Molecule, *Chem. Asian J.*, **3**, 1336-1342 (2008).
- Turro N J, Marti A A, Chen J Y C, Jockusch S, Lawler R G, Ruzzi M, Satori E, Chuang S C, Komatsu K, Murata Y: Demonstration of a Chemical Transformation Inside a Fullerene. The Reversible Conversion of the Allotropes of H₂ @C₆₀, *J. Am. Chem. Soc.*, **130**, 10506-10507 (2008).
- Murata M, Murata Y, Komatsu K: Surgery of Fullerenes, *Chem. Commun.*, 6083-6094 (2008).
- Murata M, Maeda S, Morinaka Y, Murata Y, Komatsu K: Synthesis and Reaction of Fullerene C₇₀ Encapsulating Two Molecules of H₂, *J. Am. Chem. Soc.*, **130**, 15800-15801 (2008).
- Synthetic Organic Chemistry —**
- Kawabata T, Moriyama K, Kawakami S, Tsubaki K: Powdered KOH in DMSO: An Efficient Base for Asymmetric Cyclization via Memory of Chirality at Ambient Temperature, *J. Am. Chem. Soc.*, **130**, 4153-4157 (2008).
- Tsubaki K: Colorimetric Recognition Using Functional Phenolphthalein Derivatives, *J. Incl. Phenom. Macrocyclic. Chem.*, **61**, 217-225 (2008).
- Kawabata T, Muramatsu W, Nishio T, Shibata T, Urano Y: Stragies R, Regioselective Acylation of Octyl β-D-Glucopyranoside by Chiral 4-Pyrrolidinopyridine Analogues, *Synthesis*, 747-753 (2008).
- Tsubaki K, Takaishi K, Sue D, Matsuda K, Kanemitsu Y, Kawabata T: Thress-Component Cascade Energy Transfer Using Oligonaphthalene Skeletons, *J. Org. Chem.*, **73**, 4279-4282 (2008).
- Azuma Y, Yoshimura T, Kawabata T, Futaki S: A New Approach for Metal-induced Switch Using Modified Cysteines, *Peptide Science* 2007, 377-378 (2008).
- Kan T, Kawamoto Y, Asakawa T, Furuta T, Fukuyama T: Synthetic Studies on Altemicidin: Stereocontrolled Construction of the Core Framework, *Org. Lett.*, **10**, 169-171 (2008).
- Kitamura Y, Yoshikawa S, Furuta T, Kan T: One-pot Synthesis of Carbazole via Tandem Suzuki-Miyaura and Amination Reaction, *Synlett*, 377-380 (2008).
- Furuta T, Ueda M, Hirooka Y, Tanaka K, Kan T: Synthesis of Diazirine Possessing an Acetophenone Derivative as a Valuable Intermediate for a Flavonoid Photoaffinity Probe, *Heterocycles*, **76**, 811-817 (2008).
- Koizumi Y, Suzuki S, Takeda K, Murahashi K, Horikawa M, Katagiri K, Masu H, Kato T, Azumaya I, Fujii S, Furuta T, Tanaka K, Kan T: Synthesis and Characteristic Stereostructure of Biphenanthryl Ether, *Tetrahedron:Asymmetry*, **19**, 1407-1410 (2008).
- Moriyama K, Sakai H, Kawabata T: Direct Asymmetric Intramolecular Alkylation of β-Alkoxy-α-amino Esters via Memory of Chirality, *Org. Lett.*, **10**, 3883-3886 (2008).
- Furuta T, Mochizuki M, Ito M, Takahashi T, Suzuki T, Kan T: Versatile Synthesis of Head Group Functionalized Phospholipids via Oxime Bond Formation, *Org. Lett.*, **10**, 4847-4850 (2008).
- Watanabe T, Kawabata T: Asymmetric Dieckmann Condensation via Memory of Chirality: Synthesis of the Key Intermediate for AS-3201, an Aldose Reductase Inhibitor, *Heterocycles*, **76**, 1593-1606 (2008).
- [Others]**
- Kawabata T: Development of Catalysts for Regioselective Acylation of Monosaccharides, *Wako Junyaku Jiho*, **76**, 16-19 (2008) (in Japanese).
- DIVISION OF MATERIALS CHEMISTRY**
— Chemistry of Polymer Materials —
- Morinaga T, Ohno K, Tsujii Y, Fukuda T: Structural Analysis of "Semisoft" Colloidal Crystals by Confocal Laser Scanning Microscopy, *Macromolecules*, **41**, 3620-3626 (2008).
- Xu C, Ohno K, Ladmiral V, Compost R J: Dispersion of Polymer-Grafted Magnetic Nanoparticles in Homopolymers and Block Copolymers, *Polymer*, **49**, 3568-3577 (2008).
- Ishikawa T, Ejaz M, Tsujii Y, Shibata H, Matsumoto M: Phase-separated Structures of Mixed LB Films of Silane-coupling Agents with Polymerization Initiating Groups and Amphiphilic Carboxylic Acids, *Colloid. Surf. A-Physicochem. Eng. Asp.*, **321** (1-3), 76-81 (2008).

Arita T, Kayama Y, Ohno K, Tsujii Y, Fukuda T: High-pressure Atom Transfer Radical Polymerization of Methyl Methacrylate for Well-defined Ultrahigh Molecular-weight Polymers, *Polymer*, **49**, 2426-2429 (2008).

Goto A, Tsujii Y, Fukuda T: Reversible Chain Transfer Catalyzed Polymerization (RTCP): A New Class of Living Radical Polymerization, *Polymer*, **49**, 5177-5185 (2008).

Goto A, Zushi H, Hirai N, Wakada T, Tsujii Y, Fukuda T: Living Radical Polymerization with Nitrogen Catalyst; Reversible Chain Transfer Catalyzed Polymerization (RTCP) with N-Iodosuccinimide, *Macromolecules*, **41**, 6261-6263 (2008).

Kayahara E, Yamago S, Kwak Y, Goto A, Fukuda T: Substituent Effects of Radical-Mediated Organotellanyl Group Transfer Reactions. Optimization of Promoters for Highly Controlled Living Radical Polymerizations, *Macromolecules*, **41**, 527-529 (2008).

Goto A, Hirai N, Tsujii Y, Fukuda T: Reversible Transfer Catalyzed Polymerizations (RTCPs) of Styrene and Methyl Methacrylate with Phosphorus Catalysts, *Macromol. Symp.*, **261**, 18-22 (2008).

Inoue T, Nakatsuji R, Watanabe H, Tsujii Y: Effect of Surface Treatments on Viscoelastic Measurements of Thread-like Micellar Solutions, *Nihon Reoroji Gakkaishi*, **36**, 187-190 (2008).

Yoshida Y, Isogai A, Tsujii Y: Structural Analysis of Polymer-brush-type Cellulose Beta-ketoesters by Molecular Dynamics Simulation, *Cellulose*, **15**, 651-658 (2008).

[Others]

Tsujii Y: Concentrated Polymer Brushes and Tribology, *Sen'i Gakkaishi*, **64**, 144-146 (2008) (in Japanese).

Tsujii Y: Surface Design by Living Radical Polymerization—Fabrication of Concentrated Polymer Brushes, *J. Adhesion Soc. Jpn.*, **44**, 272-279 (2008) (in Japanese).

Tsujii Y, Ohno K, Fukuda T: Concentrated Polymer Brushes, *Supramolecular Science*, Chap. 3.3.8 (2008) (in Japanese).

Goto A: Control of Radical Polymerization: Development of a New Class of Living Radical Polymerization, *Future Materials*, **9**, 69-71 (2008) (in Japanese).

— Polymer Controlled Synthesis —

Kayahara E, Yamago S, Kwak Y, Goto A, Fukuda T: Optimization of Organotellurium Transfer Agents for Highly Controlled Living Radical Polymerization, *Macromolecules*, **41**, 527-529 (2008).

Yamada T, Mishima E, Ueki K, Yamago S: Phenyltellanyl Triflate (PhTeOTf) as a Powerful Tellurophilic Activator in the Friedel-Crafts Reaction, *Chem. Lett.*, 650-651 (2008).

Mishima E, Matsumiya Y, Yamago S, Watanabe H: Kinetics of Living Anionic Polymerization of Polystyryl Lithium in Cyclohexane, *Polym. J.*, **40**, 749-762 (2008).

Yamago S, Matsumoto A: Arylthiols as Highly Chemoselective and Environmentally Benign Radical Reducing Agents, *J. Org. Chem.*, **73**, 7300-7304 (2008).

Kawahara Y, Nakayama A, Matsumura N, Yoshioka T, Tsuji M: Structure for Electro-Spun Silk Fibroin Nanofibers, *J. Appl. Polym. Sci.*, **107**, 3681-3684 (2008).

Nakamura J, Tsuji M, Nakayama A, Kawaguchi A: Substrate-Controlled Reorganization of Solution-Grown Polyethylene Single Crystals through Partial Melting, *Macromolecules*, **41**, 1358-1363 (2008).

Nakayama A, Takahashi R, Hamano T, Yoshioka T, Tsuji M: Morphological Study on Electrospun Nanofibers of Aromatic Polyesters, *Sen'i Gakkaishi*, **64**, 32-33 (2008) (in Japanese).

Ikeda Y, Yasuda Y, Hijikata K, Tosaka M, Kohjiya S: Comparative Study on Strain-Induced Crystallization Behavior of Peroxide-Crosslinked and Sulfur-Crosslinked Natural Rubber, *Macromolecules*, **41**, 5876-5884 (2008).

— Inorganic Photonics Materials —

Menaa B, Takahashi M, Tokuda Y, Yoko T: Organically Modified Siloxane Glass Films Prepared Via a Non-Aqueous Gel Coating Process and Doped With Optically Active Dyes Rhodamine 6G and Coumarin 152, *Solid State Sci.*, **10**, 1200-1208 (2008).

Takahashi M, Uemura K, Maeda T, Yao J X, Tokuda Y, Yoko T, Costacurta S, Malfatti L, Innocenzi P: Bottom-Up and Top-Down Approach for Periodic Microstructures on Thin Oxide Films by Controlled Photo-Activated Chemical Processes, *J. Sol-Gel Sci. Techn.*, **48**, 182-186 (2008).

Menaa B, Takahashi M, Tokuda Y, Yoko T: Dispersion and Photoluminescence of Free-Metal Phtalocyanine Doped in Sol-Gel Polyphenylsiloxane Glass Films, *J. Photochem. Photobiol. A-Chem.*, **194**, 632-636 (2008).

Innocenzi P, Kidchob T, Malfatti L, Costacurta S, Takahashi M, Piccinini M, Marcelli A: In-situ Study of Sol-Gel Processing by Time-Resolved Infrared Spectroscopy, *J. Sol-Gel Sci. Techn.*, **48**, 253-259 (2008).

Falcaro P, Costacurta S, Malfatti L, Takahashi M, Kidchob T, Casula MF, Piccinini M, Marcelli A, Marmiroli B, Amenitsch H, Schiavuta P, Innocenzi P: Fabrication of Mesoporous Functionalized Arrays by Integrating Deep X-Ray Lithography with Dip-Pen Writing, *Adv. Mater.*, **20**, 1864-1869 (2008).

Costacurta S, Malfatti L, Kidchob T, Takahashi M, Mattei G, Bello V, Maurizio C, Innocenzi P: Self-Assembled Mesoporous Silica-Germania Films, *Chem. Mater.*, **20**, 3259-3265 (2008).

[Others]

Yoko T: Organic-Inorganic Hybrid Photonics Materials, *Science and Industry*, **82**, 310-317 (2008).

— Nanospintronics —

Tanigawa H, Koyama T, Bartkowiak M, Kasai S, Kobayashi K, Ono T, Nakatani Y: Dynamical Pinning of a Domain Wall in a Magnetic Nanowire Induced by Walker Breakdown, *Phys. Rev. Lett.*, **101**, [207203-1]-[207203-4] (2008).

Yamada K, Kasai S, Nakatani Y, Kobayashi K, Ono T: Switching Magnetic Vortex Core by a Single Nanosecond Current Pulse, *Appl. Phys. Lett.*, **93**, [152502-1]-[152502-4] (2008).

Ono T, Nakatani Y: Magnetic Domain Wall Oscillator, *Appl. Phys. Express*, **1**, [061301-1]-[061301-3] (2008).

Kondou K, Ohshima N, Kasai S, Nakatani Y, Ono T: Single Shot Detection of the Magnetic Domain Wall Motion by Using Tunnel Magnetoresistance Effect, *Appl. Phys. Express*, **1**, [061302-1]-[061302-3] (2008).

Kasai S, Nakano K, Kondou K, Ohshima N, Kobayashi K, Ono T: Three-Terminal Device Based on the Current-Induced Magnetic Vortex Dynamics with the Magnetic Tunnel Junction, *Appl. Phys. Express*, **1**, [091302-1]-[091302-2] (2008).

Koyama T, Yamada G, Tanigawa H, Kasai S, Ohshima N, Fukami S, Ishiwata N, Nakatani Y, Ono T: Control of Domain Wall Position by Electrical Current in Structured Co/Ni Wire with Perpendicular Magnetic Anisotropy, *Appl. Phys. Express*, **1**, [101303-1]-[101303-3] (2008).

Tanigawa H, Kondou K, Koyama T, Nakano K, Kasai S, Ohshima N, Fukami S, Ishiwata N, Ono T: Current-Driven Domain Wall Motion in CoCrPt Wires with Perpendicular Magnetic Anisotropy, *Appl. Phys. Express*, **1**, [011301-1]-[011301-3] (2008).

Himeno A, Kondo K, Tanigawa H, Kasai S, Ono T: Domain Wall Ratchet Effect in a Magnetic Wire with Asymmetric Notches, *J. Appl. Phys.*, **103**, 07E703-07E704 (2008).

Gubbiotti G, Madami M, Tacchi S, Carlotti G, Tanigawa H, Ono T: Spin Dynamics of Multilayered Nanoelements with Different Shapes Studied by Brillouin Light Scattering Technique, *J. Phys. D: Appl. Phys.*, **41**, [134023-1]-[134023-6] (2008).

Hashisaka M, Nakamura S, Yamauchi Y, Kasai S, Kobayashi K, Ono T: Development of a Measurement System for Quantum Shot Noise at Low Temperatures, *Physica Status Solidi (c)*, **5**, 182-185 (2008).

Hashisaka M, Yamauchi Y, Nakamura S, Kasai S, Ono T, Kobayashi K: Measurement for Quantum Shot Noise in a Quantum Point Contact at Low Temperatures, *Journal of Physics Conference Series*, **109**, [012013-1]-[012013-5] (2008).

Yamamoto S, Tamada Y, Kobayashi K, Ono T, Takano M: Effects of Size Distribution on the Easy Axis Alignment of $L1_0$ -FePt Nanoparticles, *J. Magn. Soc. Jpn.*, **32**, 66-69(2008) (in Japanese).

Yamamoto S, Tamada Y, Nasu S, Takano M, Ono T: Synthesis of $L1_0$ -FePt Nanoparticles by Nanoreactor Method and their Magnetic Properties, *Materia Japan*, **47**, 312-316 (2008) (in Japanese).

DIVISION OF BIOCHEMISTRY
— Biofunctional Design-Chemistry —

Kosuge M, Takeuchi T, Nakase I, Jones A T, Futaki S: Cellular Internalization and Distribution of Arginine-Rich Peptides as a Function of Extracellular Peptide Concentration, Serum, and Plasma Membrane Associated Proteoglycans, *Bioconjug. Chem.*, **19**, 656-664 (2008).

Nakase I, Takeuchi T, Tanaka G, Futaki S: Methodological and Cellular Aspects That Govern the Internalization Mechanisms of Arginine-Rich Cell-Penetrating Peptides, *Adv. Drug Deliv. Rev.*, **60**, 598-607 (2008).

Futaki S: Membrane Permeable Peptide Vectors: Chemistry and Functional Design for the Therapeutic Applications., *Adv. Drug Deliv. Rev.*, **60**, 447 (2008).

Morisaki T, Imanishi M, Futaki S, Sugiura Y: Rapid Transcriptional Activity in Vivo and Slow DNA Binding in Vitro by Artificial Multi-Zinc Finger Protein, *Biochemistry*, **47**, 10171-10177 (2008).

Sasaki K, Kogure K, Chaki S, Nakamura Y, Moriguchi R, Hamada H, Danev R, Nagayama K, Futaki S, Harashima H: An Artificial Virus-like Nano Carrier System: Enhanced Endosomal Escape of Nanoparticles via Synergistic Action of pH-sensitive Fusogenic Peptide Derivatives, *Anal. Bioanal. Chem.*, **391**, 2717-2727 (2008).

El-Sayed A, Khalil I A, Kogure K, Futaki S, Harashima H: Octaarginine- and Octalysine-Modified Nanoparticles Have Different Modes of Endosomal Escape, *J. Biol. Chem.*, **283**, 23450-23461 (2008).

Wada T, Sawa N, Sato H, Futaki S, Inoue Y: Effects of Arginine Residue Introduction upon Interaction and Complexation Behavior of Peptide Ribonucleic Acids (PRNAs) with RNA: Synthesis and Properties of Alpha-Containing Arginine, *Nucleic Acids Symp. Ser.*, **52**, 673-674 (2008).

Khalil I A, Kogure K, Futaki S, Harashima H: Octaarginine-Modified Liposomes: Enhanced Cellular Uptake and Controlled Intracellular Trafficking, *Int. J. Pharm.*, **354**, 39-48 (2008).

Nakase I, Lai H, Singh N P, Sasaki T: Anticancer Properties of Artemisinin Derivatives and Their Targeted Delivery by Transferrin Conjugation, *Int. J. Pharm.*, **354**, 28-33 (2008).

Negi S, Imanishi M, Matsumoto M, Sugiura Y: New Redesigned Zinc-Finger Proteins: Design Strategy and Its Application, *Chemistry*, **14**, 3236-3249 (2008).

Dhanasekaran M, Negi S, Imanishi M, Suzuki M, Sugiura Y: Effects of Bulkiness and Hydrophobicity of an Aliphatic Amino Acid in the Recognition Helix of the GAGA Zinc Finger on the Stability of the Hydrophobic Core and DNA Binding Affinity, *Biochemistry*, **47**, 11717-11724 (2008).

[Others]

Futaki S: Intracellular Delivery Using Cell Penetrating Peptides, *Farumashia*, **44**, 321-325 (2008) (in Japanese).

— Chemistry of Molecular Biocatalysts —

Wada K, Hiratake J, Irie M, Okada T, Yamada C, Kumagai H, Suzuki H, Fukuyama K: Crystal Structures of *Escherichia coli* γ -Glutamyltranspeptidase in Complex with Azaserine and Acivicin: Novel Mechanistic Implication for Inhibition by Glutamine Antagonists, *J.Mol. Biol.*, **380**, 361-372 (2008).

Saino H, Mizutani M, Hiratake J, Sakata K: Expression and Biochemical Characterization of β -Primeverosidase and Application of β -Primeverosylamide to Affinity Purification, *Biosci. Biotech. Biochem.*, **72**, 376-383 (2008).

Hiratake J: Emission Light Color and Structure of Firefly Luciferase—Chemical Significance of Acyl-AMP Intermediate Analogs—, *Seibutsu-kogaku Kaishi*, **86**, 174-176 (2008).

Hiratake J: Novel Inhibitors of γ -glutamyl Transpeptidase (GGT)—A New Chemical Tool to Probe the Physiological Roles of GGT—, *Wako Chemicals Bulletin*, **76** (No. 3), 2-6 (2008).

Seki H, Ohyama K, Sawai S, Mizutani M, Ohnishi T, Sudo, H, Akashi T, Aoki T, Saito K, Muranaka T: Licorice β -Amyrin 11-Oxidase, a Cytochrome P450 with a Key Role in the Biosynthesis of the Triterpene Sweetener Glycyrrhizin, *Proc Natl Acad Sci U.S.A.*, **105**, 14204-14209 (2008).

Kai K, Mizutani M, Kawamura N, Yamamoto R, Tamai M, Yamaguchi H, Sakata K, Shimizu B: Scopoletin is Biosynthesized via *Ortho*-Hydroxylation of Feruloyl-CoA by an 2-Oxoglutarate Dependent Dioxygenase in *Arabidopsis thaliana*, *Plant J.*, **55**, 989-999 (2008).

Shimizu B, Kai K, Mizutani M: Isolation of *Ortho*-Hydroxylase of Cinnamates and Biosynthetic Pathway of Coumarins, *Kagaku to Seibutsu*, **46**, 518-520 (2008).

Shimizu B, Kai K, Tamai M, Yamaguchi H, Mizutani M, Sakata K: Biosynthetic Origin of the 1-Oxygen of Umbelliferone in the Root Tissue of Sweet Potato, *Zeitschrift für Naturforschung*, **63c**, 687-690 (2008).

Daiyasu H, Saino H, Tomoto H, Mizutani M, Sakata K, Toh H: Computational and Experimental Analyses of Furcatin Hydrolase for Substrate Specificity Studies of Disaccharide-specific Glycosidases, *J Biochem.*, **144**, 467-475 (2008).

Nakatsubo T, Kitamura Y, Sakakibara N, Mizutani M, Hattori T, Sakurai N, Shibata D, Suzuki S, Umezawa T: *At5g54160* Gene Encodes *Arabidopsis thaliana* 5-Hydroxyconiferaldehyde O-Methyltransferase, *J. Wood Sci.*, **54**, 312-317 (2008).

Nakatsubo T, Mizutani M, Suzuki S, Hattori T, Umezawa T: Characterization of *Arabidopsis thaliana* Pinoresinol Reductase, a New Type of Enzyme Involved in Lignan Biosynthesis, *J Biol Chem.*, **283**, 15550-15557 (2008).

Saino H, Mizutani M, Hiratake J, Sakata K: Expression and Biochemical Characterization of β -Primeverosidase and Application of β -Primeverosylamide to Affinity Purification, *Biosci. Biotechnol. Biochem.*, **72**, 376-383 (2008).

Todoroki Y, Kobayashi K, Yoneyama H, Hiramatsu S, Jin M H, Watanabe B, Mizutani M, Hirai N: Structure-Activity Relationship of Uniconazole, a Potent Inhibitor of ABA 8'-Hydroxylase, with a Focus on Hydrophilic Functional Groups and Conformation, *Bioorg Med Chem*, **16**, 3141-3152 (2008).

Sekimata K, Ohnishi T, Mizutani M, Todoroki Y, Han S Y, Uzawa J, Fujioka S, Yoneyama K, Takeuchi Y, Takatsuto S, Sakata K, Yoshida S, Asami T: Brz220 Interacts with DWF4, a Cytochrome P450 Monooxygenase in Brassinosteroid Biosynthesis, and Exerts Biological Activity, *Biosci Biotechnol Biochem*, **72**, 7-12 (2008).

Ogura M, Kinoshita T, Shimizu B, Shirai F, Tokoro K, Lin M L, Sakata K: Identification of Aroma Components during Processing of the Famous Formosa Oolong Tea “Oriental Beauty”, *ACS Symposium Series*, **988**, 87-97 (2008).

— Molecular Biology —

Kusano H, Testerink C, Vermeer JEM, Tsuge T, Shimada H, Oka A, Munnik T, Aoyama T: The *Arabidopsis* Phosphatidylinositol Phosphate 5-kinase PIP5K3 Is a Key Regulator of Root Hair Tip Growth, *Plant Cell*, **20**, 367-380 (2008).

Li L, Qin G, Tsuge T, Hou X, Ding M, Aoyama T, Oka A, Chen Z, Gu H, Zhao Y, Qu L-J: SPOROCYTELESS Modulates *YUCCA* Expression to Regulate the Development of Lateral Organs in *Arabidopsis*, *New Phytol.*, **179**, 751-764 (2008).

Liu J, Zhang Y, Qin G, Tsuge T, Sakaguchi N, Luo G, Sun K, Shi D, Aki S, Zheng N, Aoyama T, Oka A, Yang W, Umeda M, Xie Q, Gu H, Qu L-J: Targeted Degradation of ICK/KRP6 by the RING Type E3 Ligases RHF1a and RHF2a Is Essential for Mitotic Cell Cycle Progression during *Arabidopsis* Gametogenesis, *Plant Cell*, **20**, 1538-1554 (2008).

Menon S, Tsuge T, Dohmae N, Takio K, Wei N: Association of SAP130/SF3b-3 with Cullin-RING Ubiquitin Ligase Complexes and its Regulation by the COP9 Signalosome, *BMC Biochemistry*, **9**, 1 (2008).

Dello Ioio R, Nakamura K, Moubayidin L, Perilli S, Taniguchi M, Morita M T, Aoyama T, Costantino P, Sabatini S: A Genetic Framework for the Control of Cell Division and Differentiation in the Root Meristem, *Science*, **322**, 1380-4 (2008).

— Chemical Biology —

[Others]

Uesugi M, Murata A: Small Molecules that Promote the Production of iPS Cells, *Chemistry Today*, **11**, 37-39 (2008) (in Japanese).

DIVISION OF ENVIRONMENTAL CHEMISTRY

— Molecular Materials Chemistry —

Sato T, Shizuka K, Kuga T, Tanaka K, Kaji H: Electron-Vibration Interactions in Carrier-Transport Material: Vibronic Coupling Density Analysis in TPD, *Chem. Phys. Lett.*, **458**, 152-156 (2008).

Matano Y, Miyajima T, Fukushima T, Kaji H, Kimura Y, Imahori H: Comparative Study of the Synthesis, Structures, and Optical and Electrochemical Properties of Bithiophene-Fused Benzo [c]phospholes, *Chem. Eur. J.*, **14**, 8102-8115 (2008).

Kusaka Y, Nakamura S, Azuma K, Sasaki T, Unate T, Nakatani Y, Nakasuga A, Matsukawa K, Watanabe N, Naito H, Kaji H: Relationship between Resistivity and Structure of Photosensitive Organic Silsesquioxanes by Impedance Spectroscopy and Solid-State ^{29}Si NMR, *Jpn. J. Appl. Phys.*, **47**, 1377-1381 (2008).

Yamada T, Kaji H: Geometric and Electronic Structures of a Hole-Transport Material, TPD, Studied by DFT Calculations and Solid-State NMR, *Proceedings of SPIE*, **7051**, [705104-1]-[705104-7] (2008).

Kaji H, Fukushima T, Takami K, Kusaka Y: Origin of the Different Emission Wavelengths in Alq_3 Analyzed by Solid-state NMR, *Proceedings of SPIE*, **6655**, [665504-1]-[665504-10] (2008).

— Hydrospheric Environment Analytical Chemistry —

Li Y H, Takamatsu T, Sohrin Y: Geochemistry of Lake Biwa Sediments Revisited, *Limnology*, **8**, 321-330 (2007).

Sohrin Y, Firdaus M L, Nakatsuka S, Minami T, Norisuye K: Solid Phase Extraction with Chelating Adsorbents for the Study of Trace Metals in Seawater, *Biomed. Res. Trace Elements*, **18**, 319-327 (2007) (in Japanese).

Kurahashi K, Umetani S, Sohrin Y: Complex Formation of Zn^{2+} , Cd^{2+} , Al^{3+} , Ga^{3+} and In^{3+} with Diaza-crown Ethers and Cryptands in Water as Ion Size Selective Masking Reagents, *Solvent Extr. Res. Dev. Japan*, **15**, 37-44 (2008).

Kurahashi K, Umetani S, Sohrin Y: Solvent Extraction of Divalent Metal Ions with Azacrown Ether Substituted Acyl-pyrazolones, *Anal. Sci.*, **24**, 225-229 (2008).

Firdaus M L, Norisuye K, Nakagawa Y, Nakatsuka S, Sohrin Y: Dissolved and Labile Particulate Zr, Hf, Nb, Ta, Mo and W in the Western North Pacific Ocean, *J. Oceanogr.*, **64**, 247-257 (2008).

Sohrin Y, Urushihara S, Nakatsuka S, Kono T, Higo E, Minami T, Norisuye K, Umetani S: Multielemental Determination of GEOTRACES Key Trace Metals in Seawater by ICPMS after Preconcentration Using an Ethylenediaminetriacetic Acid Chelating Resin, *Anal. Chem.*, **80**, 6267-6273 (2008).

Lai X, Norisuye K, Mikata M, Minami T, Bowie A R, Sohrin Y: Spatial and Temporal Distribution of Fe, Ni, Cu and Pb along 140°E in the Southern Ocean during Austral Summer 2001/02, *Mar. Chem.*, **111**, 171-183 (2008).

[Others]

Nakagawa Y, Firdaus M L, Norisuye K, Sohrin Y, Irisawa K, Hirata T: Precise Mo Isotopic Analysis on Pacific and Antarctic Seawater, *Geochim. Chosmochim. Acta*, A670 (2008).

Norisuye K, Urushihara S, Nakatsuka S, Kono T, Higo E, Minami T, Sohrin Y: Multielemental Determination of GEOTRACES Key Trace Metals by Column Concentration and ICP-MS, *Geochim. Chosmochim. Acta*, A688 (2008).

Firdaus M L, Nakagawa Y, Norisuye K, Sohrin Y: Behaviors of Incompatible Elements in the Western North Pacific Ocean, *Geochim. Chosmochim. Acta*, A271 (2008).

Umetani S, Fukui Y, K. Uezu K: Design of Extraction Reagents of High Selectivity Based on Steric Factors, *Proceedings of ISEC2008*, 1463-1468 (2008).

Minami T, Urushihara S, Sohrin Y: Bioactive Trace Metals in the Bering Sea, *Transactions of the Research Institute of Oceanochemistry*, **21**, 75-77 (2008) (in Japanese).

— Solution and Interface Chemistry —

Chau P-L, Tu K-M, Liang K K, Chan S L, Matubayasi N: Free-Energy Change of Inserting Halothane into Different Depths of a Hydrated DMPC Bilayer, *Chem. Phys. Lett.*, **462**, 112-115 (2008).

Matubayasi N: Free Energy of Solvation in the Energetic Perspective, *Computation in Modern Science and Engineering, Proceedings of International Conference on Computational Methods in Science and Engineering 2007 (ICCMSE 2007)*, Vol 2, Part A, 342-345 (2008).

Morooka S, Matubayasi N, Nakahara M: Hydrothermal C-C Bond Formation and Disproportionation of Acetaldehyde with Formic Acid, *J. Phys. Chem. A*, **112**, 6950-6959 (2008).

Matubayasi N, Shinoda W, Nakahara M: Free-Energy Analysis of the Molecular Binding into Lipid Membrane with the Method of Energy Representation, *J. Chem. Phys.*, **128**, 195107 (13 pages) (2008).

Takahashi H, Ohno H, Kishi R, Nakano M, Matubayasi N: Computation of the Reduction Free Energy of Coenzyme in Aqueous Solution by the QM/MM-ER Method, *Chem. Phys. Lett.*, **456**, 176-180 (2008).

Otomo T, Iwase H, Kameda Y, Matubayasi N, Itoh K, Ikeda S, Nakahara M: Partial Pair Correlation Functions of Low-Density Supercritical Water Determined by Neutron Diffraction with the H/D Isotopic Substitution Method, *J. Phys. Chem. B*, **112**, 4687-4693 (2008).

Takahashi H, Ohno H, Yamauchi T, Kishi R, Furukawa S, Nakano M, Matubayasi N: Investigation of the Dominant Hydration Structures among the Ionic Species in Aqueous Solution: Novel Quantum Mechanics/Molecular Mechanics Simulations Combined with the Theory of Energy Representation, *J. Chem. Phys.*, **128**, 064507 (12 pages) (2008).

Giordani C, Wakai C, Yoshida K, Okamura E, Matubayasi N, Nakahara M: Cholesterol Location and Orientation in Aqueous Suspension of Large Unilamellar Vesicles of Phospholipid Revealed by Intermolecular Nuclear Overhauser Effect, *J. Phys. Chem. B*, **112**, 2622 -2628 (2008).

Matubayasi N, Kinoshita M, Nakahara M: Hydration Free Energy of Hard-Sphere Solute over a Wide Range of Size Studied by Various Types of Solution Theories, *Condensed Matter Physics*, **10**, 471-480 (2007).

Yoshida K, Matubayasi N, Nakahara M: Solvation Shell Dynamics Studied by Molecular Dynamics Simulation in Relation to the Translational and Rotational Dynamics of Supercritical Water and Benzen, *J. Chem. Phys.*, **127**, 174509 (13 pages) (2007).

[Others]

Matubayasi N, Nakahara M: Properties of Supercritical and Hot water: Toward the Innovation of New Hydrogen Technology, *Chemistry (Kagaku)*, **63**, 12-16 (August issue) (2008) (in Japanese).

Nakahara M: To Build a Society with Low-Cost, Hydrogen Technology, *ENEOS Technical Review*, **50**, 5-6 (No.1) (2008) (in Japanese).

— Molecular Microbial Science —

Sato S, Kurihara T, Kawamoto J, Hosokawa M, Sato SB, Esaki N: Cold Adaptation of Eicosapentaenoic Acid-Less Mutant of *Shewanella livingstonensis* Ac10 Involving Uptake and Remodeling of Synthetic Phospholipids Containing Various Polyunsaturated Fatty Acids, *Extremophiles*, **12**, 753-761 (2008).

Kurata A, Fujita M, Mowafy AM, Kamachi H, Kurihara T, Esaki N: Production of (S)-2-Chloropropionate by Asymmetric Reduction of 2-Chloroacrylate with 2-Haloacrylate Reductase Coupled with Glucose Dehydrogenase, *J. Biosci. Bioeng.*, **105**, 429-431 (2008).

Mihara H, Hidese R, Yamane M, Kurihara T, Esaki N: The *iscS* Gene Deficiency Affects the Expression of Pyrimidine Metabolism Genes, *Biochem. Biophys. Res. Commun.*, **372**, 407-411 (2008).

Kurihara T, Esaki N: Bacterial Hydrolytic Dehalogenases and Related Enzymes: Occurrences, Reaction Mechanisms, and Applications, *Chem. Rec.*, **8**, 67-74 (2008).

Kurokawa S, Mihara H, Yokoyama I, Mochizuki M, Yodoi J, Tamura T, Kurihara T, Esaki N: Thioredoxin Reductase 1 Is Important for Selenoprotein Biosynthesis in HeLa Cells, *Biomed. Res. Trace Elem.*, **19**, 84-87 (2008).

Takahata M, Tamura T, Abe K, Mihara H, Kurokawa S, Yamamoto Y, Nakano R, Esaki N, Inagaki K: Selenite Assimilation into Formate Dehydrogenase H Depends on Thioredoxin Reductase in *Escherichia coli*, *J. Biochem.*, **143**, 467-473 (2008).

Abe K, Mihara H, Tobe R, Esaki N: Characterization of Human Selenocysteine Synthase Involved in Selenoprotein Biosynthesis, *Biomed. Res. Trace Elem.*, **19**, 80-83 (2008).

Abe K, Mihara H, Nishijima Y, Kurokawa S, Esaki N: Functional Analysis of Two Homologous Mouse Selenophosphate Synthetases, *Biomed. Res. Trace Elem.*, **19**, 76-79 (2008).

Kudou D, Misaki S, Yamashita M, Tamura T, Esaki N, Inagaki K: The Role of Cysteine 116 in the Active Site of the Antitumor Enzyme L-Methionine γ -Lyase from *Pseudomonas putida*, *Biosci. Biotechnol. Biochem.*, **72**, 1722-1730 (2008).

[Others]

Kurihara T, Esaki N: Proteomic Studies of Psychrophilic Microorganisms, *Psychrophiles: from Biodiversity to Biotechnology* (Edited by Margesin R et al.), 333-344 (2008).

DIVISION OF MULTIDISCIPLINARY CHEMISTRY

— Polymer Materials Science —

Takahashi N, Kanaya T, Nishida K, Kaji K: Gelation-Induced Phase Separation of Poly(vinyl Alcohol) in Mixed Solvent of Dimethyl Sulfoxide and Water, *Macromolecules*, **40**, 8750-8755 (2007).

Kawai T, Rahman N, Matsuba G, Nishida K, Kanaya T, Nakano M, Okamoto H, Kawada J, Usuki A, Honma N, Nakajima K, Matsuda M: Crystallization and Melting Behavior of Poly (L-lactic Acid), *Macromolecules*, **40**, 9463-9469 (2007).

Kanaya T, Matsuba G, Ogino Y, Takahashi N, Nishida K: Quantum Beam Studies on Polymer Crystallization under Flow, *Polymer J.*, **39**, 1085-1097 (2007).

Ogawa H, Kanaya T, Nishida K, Matsuba G: Phase Separation and Dewetting in Polystyrene/Poly(vinyl methyl ether) Blend Thin Films in a Wide Thickness Range, *Polymer*, **49**, 254-262 (2008).

Kanaya T, Matsuba G, Nishida K: Formation of Shish-Kebab Structures in Ultrahigh Molecular Weight Polyethylene (UHMWPE)/Low Molecular Weight Polyethylene (LMWPE) Composites Under Shear Flow, in *Nwabunma D and Kyu T Ed., POLYOLEFIN COMPOSITES Chapter 19*, 552-576 (2008).

Konishi T, Nishida K, Matsuba G, Kanaya T: Mesomorphic Phase of Poly(butylene-2,6-naphthalate), *Macromolecules*, **41**, 3157-3161 (2008).

Ogawa H, Kanaya T, Nishida K, Matsuba G: Composition Fluctuations before Dewetting in Polystyrene/poly(vinyl methyl ether) Blend Thin Films, *Polymer*, **49**, 2553-2559 (2008).

Inoue R, Kanaya T, Nishida K, Tsukushi I, Shibata K: Molecular Weight Dependence of Mean Square Displacement in Ultrathin Polymer Films as Studied by Inelastic Neutron Scattering, *Phys. Rev. E*, **77**, [032801-1]-[032801-4] (2008).

Nishida K, Ogawa H, Matsuba G, Konishi T, Kanaya T: A High-resolution Small-angle Light Scattering Instrument for Soft Matter Studies, *J. Appl. Cryst.*, **41**, 723-728 (2008).

[Others]

Kanaya T: Application of Neutron Scattering in Polymer Science, *J. Cryst. Soc. Jpn.*, **50(1)**, 103-108 (2008) (in Japanese).

Kanaya T, Matsuba G: Polymer Research in Quantum Beam, *Koubunshi*, **57**, 235-240 (2008) (in Japanese).

Fujii Y, Arai M, Kadono Y, Kanaya T, Kamiyama T, Niimura N, Nojiri H, Noda Y, Yagi T, Yamada K: Condensed Physics with J-PARC, *Kotaibutsuri*, **43**, 441-450 (2008) (in Japanese).

— Molecular Rheology —

Chen Q, Matsumiya Y, Masubuchi Y, Watanabe H, Inoue T: Component Dynamics in Polyisoprene/Poly(4-tert-butylstyrene) Miscible Blends, *Macromolecules*, **41(22)**, 8694-8711 (2008).

Masubuchi Y, Watanabe H, Ianniruberto G, Greco F, Marrucci G: Comparison among Slip-Link Simulations of Bidisperse Linear Polymer Melts, *Macromolecules*, **41(21)**, 8275-8280 (2008).

- Inoue T, Nakatsuji R, Watanabe H, Tsujii Y: Effect of Surface Treatments on Viscoelastic Measurements of Thread-like Micellar Solutions, *J. Soc. Rheol. Japan*, **36(4)**, 187-190 (2008).
- Masubuchi Y, Watanabe H, Ianniruberto G, Greco F, Marrucci G: Primitive Chain Network Simulations of Conformational Relaxation for Individual Molecules in Entangled State, *J. Soc. Rheol. Japan*, **36(4)**, 181-185 (2008).
- Watanabe H, Matsumiya Y, van Ruymbeke E, Vlassopoulos D, Hadjichristidis N: Viscoelastic and Dielectric Relaxation of a Cayley-Tree Type Polyisoprene: Test of Molecular Picture of Tube Dilation, *Macromolecules*, **41(16)**, 6110-6124 (2008).
- Mishima E, Matsumiya Y, Yamago S, Watanabe H: Kinetics of Living Anionic Polymerization of Polystyryl Lithium in Cyclohexane, *Polymer J.*, **40(8)**, 749-762 (2008).
- Furuichi K, Nonomura C, Masubuchi Y, Watanabe H, Ianniruberto G, Greco F, Marrucci G: Entangled Polymer Orientation and Stretch under Large Step Shear Deformations in Primitive Chain Network Simulations, *RHEOLOGICA ACTA*, **47(5-6)**, 591-599 (2008).
- Takahashi H, Ishimuro Y, Watanabe H: Nonlinear Mechanical Behavior of Scarcely Crosslinked Poly(dimethyl siloxane) Gel: Effect of Strand Length Polydispersity, *Polymer J.*, **40(5)**, 465-474 (2008).
- Takada J, Watanabe H: Polymer Dynamics in Compatible Polymer Blends, *Expected Materials for the Future*, **8(3)**, 52-59 (2008).
- Endoh M K, Takenaka M, Inoue T, Watanabe H, Hashimoto T: Shear Small-angle Light Scattering Studies of Shear Induced Concentration Fluctuations and Steady State Viscoelastic Properties, *J. Chem. Phys.*, **128**, [164911-1]-[164911-12] (2008).
- Yaoita T, Isaki T, Masubuchi Y, Watanabe H, Ianniruberto G, Greco F, Marrucci G: Statics, Linear, and Nonlinear Dynamics of Entangled Polystyrene Melts Simulated through the Primitive Chain Network Model, *J. Chem. Phys.*, **128**, [154901-1]-[154901-11] (2008).
- Takada J, Sasaki H, Matsushima Y, Kuriyama A, Matsumiya Y, Watanabe H, Ahn K H, Yu W: Component Chain Dynamics in a Miscible Blend of Low-M Poly(p-t-butyl styrene) and Polyisoprene, *J. Soc. Rheol. Japan*, **36(1)**, 35-42 (2008).
- Ouchi S, Masubuchi Y, Shikuma H: The Effect of CO₂ Pressure on Viscoelasticity of LDPE, *International Polymer Processing*, **Feb.08**, 173-177 (2008).
- Moriya M, Ohgo K, Masubuchi Y, Asakura T: Flow Analysis of Aqueous Solution of Silk Fibroin in the Spinnneret of *Bombyx mori* Silkworm by Combination of Viscosity Measurement and Finite Element Method Calculation, *POLYMER*, **49(4)**, 952-956 (2008).
- Masubuchi Y, Ianniruberto G, Greco F, Marrucci G: Quantitative Comparison of Primitive Chain Network Simulations with Literature Data of Linear Viscoelasticity for Polymer Melts, *J. NON-NEWTONIAN FLUID MECH.*, **149(1-3)**, 87-92 (2008).
- Masubuchi Y, Ianniruberto G, Greco F, Marrucci G: Primitive Chain Network Simulations for Bidisperse Linear Polymers, *Int. J. Nano Adv. Eng. Mat., Part A.*, **1(1)**, 35-40 (2008).
- Hosono N, Masubuchi Y, Furukawa H, Watanabe T: A Molecular Dynamics Simulation Study on Polymer Networks of End-linked Flexible or Rigid Chains, *J. Chem. Phys.*, **127(16)**, [164905-1]-[164905-9] (2008).
- Molecular Aggregation Analysis —**
- Iketaki K, Kanai K, Fujita W, Awaga K, Tsutsumi J, Yoshida H, Sato N, Knupfer M, Ouchi Y, Seki K: Electronic Structure of 1,3,5-Trithia-2,4,6-triazapentalenyl on Gold Surfaces, *Chem. Phys. Lett.*, **451**, 58-62 (2008).
- Katoh K, Sato N: Preparation and Characterization of a π-Conjugated Donor-accepter-type Ligand Molecule with Redox Abilities, *Chem. Lett.*, **37**, 618-619 (2008).
- Yoshida H, Sato N: The Crystallographic and Electronic Structures of Three Different Polymorphs of Pntacene, *Phys. Rev. B*, **77**, [235205-1]-[235205-11] (2008).
- Tsutsumi J, Yamamoto D, Yoshida H, Sato N: Electronic Structure of Frontier States in an Evaporated Thin Film of a Highly Amphoteric and Polar Molecule, *Synth. Met.*, **158**, 934-938 (2008).
- Hayashi Y, Oshige I, Katsumoto Y, Omori S, Yasuda A, Asami K: Temporal Variation of Dielectric Properties of Preserved Blood, *Phys. Med. Biol.*, **53**, 295-304 (2008).
- Asami K: Simulation for the Dielectric Images of Single Biological Cells Obtained Using a Scanning Dielectric Microscope, *J. Phys. D: Appl. Phys.*, **41**, [085501-1]-[085501-7] (2008).
- Hayashi Y, Oshige I, Katsumoto Y, Omori S, Yasuda A, Asami K: Dielectric Inspection of Erythrocyte Morphology, *Phys. Med. Biol.*, **53**, 2553-2564 (2008).
- Katsumoto Y, Hayashi Y, Oshige I, Omori S, Kishii N, Yasuda A, Asami K: Dielectric Cytometry with Three-Dimensional Cellular Modeling, *Biophys. J.*, **95**, 3043-3047 (2008).
- Supramolecular Biology —**
- Kataoka M, Hagiwara K, Wada A, Ito M, Umeda M, Casey P J, Fukada Y: Interacting Targets of the Farnesyl of Transducin γ-subunit, *Biochemistry*, **47**, 8424-8433 (2008).
- Ikenouchi J, Sasaki H, Tsukita S, Furuse M, Tsukita S: Loss of Occludin Affects Tricellular Localization of Tricellulin, *Molecular Biology of the Cell*, **19**, 4687-4693 (2008).
- Shimizu M, Fukunaga Y, Ikenouchi J, Nagafuchi A: Defining the Roles of {beta}-catenin and Plakoglobin in LEF/TCF-dependent Transcription Using {beta}-catenin/plakoglobin-null F9 Cells, *Molecular and Cellular Biology*, **28**, 825-835 (2008).
- ADVANCED RESEARCH CENTER FOR BEAM SCIENCE**
— Particle Beam Science —
- Tanabe M, Ishikawa T, Nakao M, Souda H, Ikegami M, Shirai T, Tongu H, Noda A: Longitudinal and Transverse Coupling of the Beam Temperature, *Applied Physics Express*, **1**, [028001-1]-[028001-3] (2008).

Iwashita Y, Tajima Y, Ichikawa M, Nakamura S, Ino T, Muto S, Shimizu H M: Variable Permanent Magnet Sextupole Lens for Focusing of Pulsed Cold Neutrons, *Nucl. Instrum. Meth.*, **A586**, 73-76 (2008).

Fujimoto T, Iwata S, Shibuya S, Noda K, Shirai T, Tongu H, Noda A: Formation and Fast Extraction of a Very Short-bunched Proton Beam for the Investigation of Free Radicals, *Nucl. Instrum. Meth.*, **A588**, 330-335 (2008).

Tajima Y, Iwashita Y, Fujisawa H, Ichikawa M, Tongu H: Reduction of Skin Effect RF Power Loss by a Thin Conductor Foil, *Jpn. J. Appl. Phys.*, **47**, 4765-4768 (2008).

Wakasugi M, Emoto T, Furukawa Y, Ishii K, Ito S, Koseki T, Kurita K, Kuwajima A, Masuda T, Morikawa A, Nakamura M, Noda A, Ohnishi T, Shirai T, Suda T, Takeda H, Tamae T, Tongu H, Wang S, Yano Y: Novel Internal Target for Electron Scattering off Unstable Nuclei, *Phys. Rev. Lett.*, **100**, [164801-1]-[164801-4] (2008).

Iwashita Y, Ichikawa M, Tajima Y, Nakamura S, Kumada M, Spencer C M, Tauchi T, Kuroda S, Okugi T, Ino T, Muto S, Shimizu H M: Strong Variable Permanent Multipole Magnets, *IEEE Trans. Appl. Superconduct.*, **18**, 957-960 (2008).

Iwashita Y, Tajima Y, Hayano H: Development of High Resolution Camera for Observations of Superconducting Cavities, *Phys. Rev. ST Accel. Beams*, **11**, [093501-1]-[093501-6] (2008).

Souda H, Fujimoto S, Tongu H, Shirai T, Tanabe M, Ishikawa T, Nakao M, Ikegami M, Iwata S, Fujimoto T, Takeuchi T, Noda K, Noda A: COD Correction for Laser Cooling at S-LSR, *Nucl. Instrum. Meth.*, **A597**, 160-165 (2008).

[Others]

Ichikawa M, Fujisawa H, Iwashita Y, Tajima Y, Tongu H, Yamada M: Development of Piezoelectric Pulse Gas Valve for Small ECR Ion Source, *Proc. of EPAC08*, 418-420 (2008).

Appleby R, Angal-Kalinin D, Bambade P, Cavalier S, Meur G L, Touze F, Iwashita Y: The 2 mrad Crossing Angle Scheme for the International Linear Collider, *Proc. of EPAC08*, 556-558 (2008).

Sugimoto T, Ichikawa M, Iwashita Y, Yamada M, Kumada M, Kuroda S, Tauchi T: Continuously Adjustable Permanent Magnet Quadrupole for a Final Focus, *Proc. of EPAC08*, 583-585 (2008).

Ohmori C, Aoki M, Arimoto Y, Itahashi I, Kuno Y, Kuriyama Y, Sato A, Yoshida M Y, Iwashita Y, Mori Y: High Field Gradient RF System for Bunch Rotation in PRISM-FFAG, *Proc. of EPAC08*, 796-798 (2008).

Iwashita Y, Tajima Y, Hayano H: Development of a High Resolution Camera and Observations of Superconducting Cavities, *Proc. of EPAC08*, 1956-1958 (2008).

Yamada M, Ichikawa M, Iwashita Y, Tongu H, Ino T, Muto S, Shimizu H M: Development of Modulating Permanent Magnet Sextupole Lens for Focusing of Cold Neutrons, *Proc. of EPAC08*, 2392-2394 (2008).

Sato A, Aoki M, Araki S, Arimoto Y, Eguchi Y, Hirota K, Itahashi I, Kuno Y, Kuriyama Y, Nakanishi Y, Yoshida M Y, Iwashita Y, Kurup A, Mori Y, Ohmori C: Six-sector FFAG Ring to Demonstrate Bunch Rotation for PRISM, *Proc. of EPAC08*, 3389-3391 (2008).

Souda H, Ikegami M, Ishikawa T, Nakao M, Noda A, Tanabe M, Tongu H, Yamada M, Wakita A, Shirai T: Laser Cooling of Bunched Ion Beam at S-LSR, *Proc. of EPAC08*, 3488-3490 (2008).

Noda A, Ikegami M, Ishikawa T, Nakao M, Souda H, Tanabe M, Tongu H, Wakita A, Grieser M, Meshkov I V, Smirnov A, Noda K, Shirai T: Recent Status of Laser Cooling for Mg Realized at S-LSR, *Proc. of EPAC08*, 3476-3478 (2008).

Arimoto Y, Aoki M, Araki S, Eguchi Y, Hirota K, Hossain I, Itahashi I, Kuno Y, Kuriyama Y, Nakanishi Y, Sato A, Yoshida M Y, Iwashita Y, Kurup A, Mori Y, Ohmori C, Oki T: Construction of Six-sector FFAG Ring for Muon Phase Rotation, *Proc. of EPAC08*, 3524-3526 (2008).

Souda H, Nakao M, Wakita A, Tanabe M, Ishikawa T, Ikegami M, Tongu H, Shirai T, Noda A: Laser Cooling Experiments at Ion Storage Ring S-LSR, *Proc. of ARTA2008*, 55-57 (2008) (in Japanese).

Souda H, Ikegami M, Ishikawa T, Noda A, Shirai T, Tanabe M, Tongu H, Takeuchi T: Alignment of S-LSR, *Proc. of IWAA08*, [TU007-1]-[TU007-6] (2008).

Kubo E, Matsuoka K, Nakaya T, Noda A, Shirai T, Yokoyama M, Igarashi Y, Sakashita K: Tests of Muon Monitor Detector for the T2K Experiment, *Beam Sci. Technol.*, **11**, 7-13 (2008).

Shibuya S, Iwata S, Fujimoto T, Shirai T, Tongu H, Noda A, Noda K: Individual Tests of the Fast Current Transformer for the Short-Bunched Beam Measurement at S-LSR, *Beam Sci. Technol.*, **11**, 14-16 (2008).

Ishii K, Kurita K, Emoto T, Ito S, Suda T, Wakasugi M, Wang S, Yano Y, Furukawa Y, Kuwajima A, Tamae T, Shirai T, Tongu H, Noda A: Development of a Recoil Ion Detector for SCRIT, *Beam Sci. Technol.*, **11**, 17-22 (2008).

Furukawa Y, Kuwajima A, Tamae T, Wakasugi M, Emoto T, Ito S, Suda T, Wang S, Yano Y, Ishii K, Kurita K, Shirai T, Tongu H, Noda A: Study of Performance of Electron Detection Arm for SCRIT using Scattered Electrons off Wire Targets, *Beam Sci. Technol.*, **11**, 23-26 (2008).

Tongu H, Noda A, Shirai T, Ikegami M, Fujimoto S, Tanabe M, Souda H: Lifetime of Proton Beam in S-LSR, *Beam Sci. Technol.*, **11**, 27-29 (2008).

Shirai T, Souda H, Tongu H, Noda A, Iwata S: Electron Cooling Force Measurements at S-LSR, *Beam Sci. Technol.*, **11**, 30-32 (2008).

— Laser Matter Interaction Science —

Tokita S, Hashida M, Masuno S, Namba S, Sakabe S: 0.3% Energy Stability, 100-Millijoule-Class, Ti:sapphire Chirped-Pulse Eight-Pass Amplification System, *Opt. Express*, **16**, 14875-14881 (2008).

Tokita S: Cryogenic Solid-State Lasers —Benefits of Cooling and Recent Development—, *Rev. Laser Engineering*, **36**, 538-543 (2008) (in Japanese).

[Others]

Hashida M, Shimizu S, Sakabe S: Carbon Nanotubes Cathode Modified by Femtosecond Laser Ablation, *O plusE*, **30**, 461-464 (2008) (in Japanese).

— Electron Microscopy and Crystal Chemistry —

Imahori H, Ueda M, Kang S, Hayashi H, Kaji H, Seki S, Saeki A, Tagawa S, Umeyama T, Matano Y, Yoshida K, Isoda S, Shiro M, Tkachenko N V, Lemmetyinen H: Effects of Porphyrin Substituents on Film Structure and Photoelectrochemical Properties of Porphyrin-Fullerene Composite Clusters Electro-phoretically Deposited on Nanostructured SnO₂ Electrodes, *Chem. A Eur. J.*, **13**, 10182-10193 (2007).

Kawai M, Kan D, Isojima S, Kurata H, Isoda S, Shimakawa Y, Kimura S, Sakata O: Critical Thickness Control by Deposition Rate for Epitaxial BaTiO₃ Thin Films Grown on SrTiO₃ (001), *J. Appl. Phys.*, **102**, [114311-1]-[114311-4] (2007).

Miyata Y, Terayama M, Minari T, Nishinaga T, Nemoto T, Isoda S, Komatsu K: Synthesis of Oligo(thienylfuran)s with Thiophene Rings at Both Ends and Their Structural, Electronic, and Field-Effect Properties, *Chem. Asian J.*, **2**, 1493-1504 (2007).

Azuma M, Carlsson S, Rodgers J, Tucker M G, Tsujimoto M, Ishiwata S, Isoda S, Shimakawa Y, Takano M, Attfield J P: Pressure-Induced Intermetallic Valence Transition in BiNiO₃, *J. Am. Chem. Soc.*, **129**, 14433-14436 (2007).

Shiraki H, Saito T, Yamada T, Tsujimoto M, Azuma M, Kurata H, Isoda S, Takano M, Shimakawa Y: Ferromagnetic Cuprates, CaCu₃Ge₄O₁₂ and CaCu₃Sn₄O₁₂, within A-site Ordered Perovskite Structure, *Phys. Rev.*, **B76**, [140403-1]-[140403-4] (2007).

Nakanishi T, Michinobu T, Yoshida K, Shirahata N, Ariga K, Möhwald H, Kurth D G: Nanocarbon Superhydrophobic Surfaces Created from Fullerene-Based Hierarchical Supramolecular Assemblies, *Adv. Mater.*, **20**, 443-446 (2008).

Hashimoto T, Namikoshi T, Irie S, Urushisaki M, Sakaguchi T, Nemoto T, Isoda S: Synthesis and Microphase-Separated Structure of Poly(Tricyclodecyl Vinyl Ether)-block-Poly(n-Butyl Vinyl Ether)-block-poly(Tricyclodecyl Vinyl Ether): New Triblock Copolymer as Thermoplastic Elastomer Composed Solely of Poly(Vinyl Ether) Backbones, *J. Polym. Sci., Part A, Polym. Chem.*, **46**, 1902-1906 (2008).

Shiraki H, Saito T, Yamada T, Tsujimoto M, Azuma M, Kurata H, Isoda S, Takano M, Shimakawa Y: Ferromagnetic Cuprates, CaCu₃Ge₄O₁₂ and CaCu₃Sn₄O₁₂, within A-site Ordered Perovskite Structure, *Funtai oyobi Funmatsuyakin*, **55**, 132-136 (2008) (in Japanese).

Kang S, Yasuda M, Miyasaka H, Hayashi H, Kawasaki M, Umeyama T, Matano Y, Yoshida K, Isoda S, Imahori H: Light-Harvesting and Energy Transfer in Multiporphyrin-Modified CdSe Nanoparticles, *Chem. Sus. Chem.*, **1**, 254-261 (2008).

Kawasaki N, Sugiyama N, Otsuka Y, Hashimoto H, Tsujimoto M, Kurata H, Isoda S: Energy-loss Near-edge Structure (ELNES) and First-principle Calculation of Electronic Structure of Nickel Silicide Systems, *Ultramicroscopy*, **108**, 399-406 (2008).

Haruta M, Yoshida K, Kurata H, Isoda S: Atomic Resolution ADF-STEM Imaging of Organic Molecular Crystal of Halogenated-Cu-phthalocyanine, *Ultramicroscopy*, **108**, 545-551 (2008).

Minari T, Kano M, Miyadera T, Wang S-D, Aoyagi Y, Seto M, Nemoto T, Isoda S, Tsukagoshi K: Selective Organization of Solution-Processed Organic Field-effect Transistors, *Appl. Phys. Lett.*, **92**, [173301-1]-[173301-3] (2008).

Kurokasi F, Koyanaka H, Tsujimoto M, Imamura Y: Shape-controlled Multi-porous Carbon with Hierarchical Micro-meso-macro Pores Synthesized by Fast Heating of Wood Biomass, *Carbon*, **46**, 850-857 (2008).

Adachi M, Jiu J, Isoda S, Mori Y, Uchida F: Self-assembled Nanoscale Architecture of TiO₂ and Application for Dye-Sensitized Solar Cells, *Nanotechnology, Science and Applications*, **1**, 1-7 (2008).

Uemura T, Hiramatsu D, Yoshida K, Isoda S, Kitagawa S: Sol-Gel Synthesis of Low-Dimensional Silica within Coordination Nanochannels, *J. Am. Chem. Soc.*, **130**, 9216-9217 (2008).

Yoshida K, Jiu J, Nagamatsu D, Nemoto T, Kurata H, Adachi M, Isoda S: Structure of TiO₂ Nanorods Formed with Double Surfactants, *Mol. Cryst. Liq. Cryst.*, **491**, 14-20 (2008).

Haruta M, Yoshida K, Kurata H, Isoda S: High Resolution ADF-STEM Imaging Application for Organic Crystals, *Mol. Cryst. Liq. Cryst.*, **492**, 200-209 (2008).

Komatsu H, Haruta M, Kan D, Kurata H, Isoda S, Shimakawa Y: Structure and Dielectric Properties of Layered Double Perovskite La₂CuSnO₆ Thin Film, *Funtai oyobi Funmatsuyakin*, **55**, 568-572 (2008).

Haruta M, Kurata H, Isoda S: Direct Observation of C₆₀ and Its Iodine-doped Crystals by Annular Dark-field Scanning Transmission Electron Microscopy, *Fullerene, Nanotubes and Carbon Nanostructures*, **16**, 454-462 (2008).

Maruyama M, Matsubayashi R, Iwakuro H, Isoda S, Komatsu T: Silver Nanosintering: A Lead-free Alternative to Soldering, *Appl. Phys. A-Mater. Sci. Processing*, **93**, 467-470 (2008).

[Others]

Kurata H, Isoda S, Tomita K: Development of Nanotip Field Emission Gun, *Kenbikyou*, **42**, 211-213 (2007) (in Japanese).

Azuma M, Nitaka S, Belik A A, Oka K, Ishiwata S, Tsujimoto M, Saito T, Isoda S, Shirakawa Y, Takano M: Structure Science in Bi, Pb-3d Transition Metal Perovskites, *J. Cryst. Soc. Jpn.*, **49**, 335-340 (2007) (in Japanese).

Kawai M, Kan D, Isojima S, Kurata H, Isoda S, Shimakawa Y, Kimura S, Sakata O: Deposition Rate Effect on Critical Thickness of BaTiO₃ Epitaxial Thin Film Grown on SrTiO₃(001), *Mat. Res. Soc. Proc.*, **1034E**, [K10.4.1]-[K10.4.6] (2007).

Isoda S, Hoshino A, Kurata H: Organic Molecular Heteroepitaxy, *Oyo Butsuri*, **77**, 521-524 (2008) (in Japanese).

— Structural Molecular Biology —

Fujii T, Goda Y, Yoshida M, Oikawa T, Hata Y: Crystallization and Preliminary X-ray Diffraction Studies of Maleylacetate Reductase from Rhizobium sp. Strain MTP-10005, *Acta Cryst.*, **F64**, 737-739 (2008).

[Others]

Fujii T, Oikawa T, Muraoka I, Soda K, Hata Y: Crystal Structure of Tetrameric Malate Dehydrogenase from Antarctic Psychrophile, *Acta Cryst.*, **A64**, C255-256 (2008).

INTERNATIONAL RESEARCH CENTER FOR ELEMENTS SCIENCE

— Organic Main Group Chemistry —

Fujimoto T, Endo K, Tsuji H, Nakamura M, Nakamura E: Construction of Chiral Quaternary Carbon Center by Indium-Catalyzed Asymmetric α -Alkenylation of β -Ketoesters, *J. Am. Chem. Soc.*, **130**, 4492-4496 (2008).

Hatakeyama T, Nakamura M, Nakamura E: Diastereoselective Addition of Zincated Hydrazones to Alkenylboronates and Stereospecific Trapping of Boron/Zinc Bimetallic Intermediates by Carbon Electrophiles, *J. Am. Chem. Soc.*, **130**, 15688-15701 (2008).

Tsuji H, Fujimoto T, Endo K, Nakamura M, Nakamura E: Stereoselective Synthesis of Trisubstituted E-Iodoalkenes by Indium-Catalyzed syn-Addition of 1,3-Dicarbonyl Compounds to 1-Iodoalkynes, *Org. Lett.*, **10**, 1219-1221 (2008).

Hatakeyama T, Yoshimoto Y, Gabriel T, Nakamura M: Iron-Catalyzed Enyne Cross-Coupling Reaction, *Org. Lett.*, **10**, 5340-5344 (2008).

Itoh Y, Tsuji H, Yamagata K, Endo K, Tanaka I, Nakamura M, Nakamura E: Efficient Formation of Ring Structures Utilizing Multisite Activation by Indium Catalysis, *J. Am. Chem. Soc.*, **130**, 17161-17167 (2008).

— Advanced Solid State Chemistry —

Hanaguri T, Kohsaka Y, Davis J C, Lupien C, Yamada I, Azuma M, Takano M, Ohishi K, Ono M, Takagi H: Quasiparticle Interference and Superconducting Gap in Ca_{2-x}Na_xCuO₂Cl₂, *Nature Physics*, **3**, 865-871 (2007).

Yamada I, Takata K, Hayashi N, Shinohara S, Azuma M, Mori S, Muranaka S, Shimakawa Y, Takano M: A Perovskite Containing Quadrivalent Iron as a Charge-Disproportionated Ferrimagnet, *Angew. Chem. Int. Ed.*, **47**, 7032-7035 (2008).

Inoue S, Kawai M, Shimakawa Y, Mizumaki M, Kawamura K, Watanabe T, Tsujimoto Y, Kageyama H, Yoshimura K: Single-Crystal Epitaxial Thin Films of SrFeO₂ with FeO₂ “Infinite Layers”, *Appl. Phys. Lett.*, **92**, [161911-1]-[161911-3] (2008).

Oka K, Yamada I, Azuma M, Takeshita S, Satoh K H, Koda A, Kadono R, Takano M, Shimakawa Y: Magnetic Ground-State of Perovskite PbVO₃ with Large Tetragonal Distortion, *Inorg. Chem.*, **47**, 7355-7359 (2008).

Shimakawa Y: A-Site-Ordered Perovskites with Intriguing Physical Properties, *Inorg. Chem.*, **47**, 8562-8570 (2008).

Komatsu H, Haruta M, Kan D, Kurata H, Isoda S, Shimakawa Y: Structural and Dielectric Properties of Layered Double-Perovskite La₂CuSnO₆ Thin Films, *Funtai Oyobi Funmatsuyakin*, **55**, 568-572 (2008) (in Japanese).

Kasai N, Yamamoto S, Shimakawa Y: Synthesis of Monodisperse-and-Spherical V₂O₅ Fine Particles and Their Self-Assembling, *Funtai Oyobi Funmatsuyakin*, **55**, 637-642 (2008) (in Japanese).

Ichikawa N, Arai M, Imai Y, Hagiwara K, Sakama H, Azuma M, Shimakawa Y, Takano M, Kotaka Y, Yonetani M, Fujisawa H, Shimizu M, Ishikawa K, Cho Y: Multiferroism at Room Temperature in BiFeO₃/BiCrO₃(111) Artificial Superlattices, *Appl. Phys. Express*, **1**, [101302-1]-[101302-3] (2008).

Shiraki H, Saito T, Azuma M, Shimakawa Y: Metallic Behavior in A-Site-Ordered Perovskites ACu₃V₄O₁₂ with A=Na⁺, Ca²⁺, and Y³⁺, *J. Phys. Soc. Jpn.*, **77**, [064705-1]-[064705-4] (2008).

Oka K, Azuma M, Hayashi N, Muranaka S, Narumi Y, Kindo K, Ayukawa S, Kato M, Koike Y, Shimakawa Y, Takano M: Charge and Magnetic Orderings in the Triangular-Lattice Antiferromagnet InFe₂O₄, *J. Phys. Soc. Jpn.*, **77**, [064803-1]-[064803-5] (2008).

Shimakawa Y, Shiraki H, Saito T: Unusual Ferromagnetic-to-Antiferromagnetic-to-Ferromagnetic Transitions in Cu²⁺ ($S=1/2$) Cubic Spin Lattice of A-Site Ordered Perovskites, *J. Phys. Soc. Jpn.*, **77**, [113702-1]-[113702-4] (2008).

Carlsson S J E, Azuma M, Shimakawa Y, Takano M, Hewat A, Attfield J P: Neutron Powder Diffraction Study of the Crystal and Magnetic Structures of BiNiO₃ at Low Temperature, *J. Solid State Chem.*, **181**, 611-615 (2008).

Ishiwata S, Terasaki I, Azuma M, Takano M: High Pressure Synthesis and Structure of a New Magnetoplumbite-Type Cobalt Oxide SrCo₁₂O₁₉, *J. Solid State Chem.*, **181**, 1273-1278 (2008).

Naganuma H, Miura J, Nakajima M, Shima H, Okamura S, Yasui S, Funakubo H, Nishida K, Iijima T, Azuma M, Ando Y, Kamishima K, Kakizaki K, Hiratsuka N: Annealing Temperature Dependences of Ferroelectric and Magnetic Properties in Polycrystalline Co-Substituted BiFeO₃ Films, *Jpn. J. Appl. Phys.*, **47**, 7574-7578 (2008).

Azuma M, Niitaka S, Hayashi N, Oka K, Takano M, Funakubo H, Shimakawa Y: Rhombohedral-Tetragonal Phase Boundary with High Curie Temperature in (1-x)BiCoO_{3-x}BiFeO₃ Solid Solution, *Jpn. J. Appl. Phys.*, **47**, 7579-7581 (2008).

Yasui S, Naganuma H, Okamura S, Nishida K, Yamamoto T, Iijima T, Azuma M, Morioka H, Saito K, Ishikawa M, Yamada T, Funakubo H: Crystal Structure and Electrical Properties of {100}-Oriented Epitaxial BiCoO₃-BiFeO₃ Films Grown by Metalorganic Chemical Vapor Deposition, *Jpn. J. Appl. Phys.*, **47**, 7582-7585 (2008).

Ohta H, Okubo S, Shiraki K, Yoshida M, Belik A A, Azuma M, Takano M: High Field ESR Measurements on One Dimensional Antiferromagnetic Zigzag Chain Systems, *J. Korean Phys. Soc.*, **53**, 999-1005 (2008).

Shiraki H, Saito T, Shimakawa Y: Structural and Magnetic Properties of *A*-Site-Ordered Perovskites $ACu_3Sn_4O_{12}$ with $A=Ca^{2+}$, Sr^{2+} , and Pb^{2+} , *Chem. Mater.*, **20**, 7077-7080 (2008).

Kawashita M, Domi S, Saito Y, Aoki M, Ebisawa Y, Kokubo T, Saito T, Takano M, Araki N, Hiraoka M: In Vitro Heat Generation by Ferrimagnetic Maghemite Microspheres for Hyperthermic Treatment of Cancer under an Alternating Magnetic Field, *J. Mater. Sci: Mater. Med.*, **19**, 1897-1903 (2008).

Shimakawa Y: Multiferroic Bi_2NiMnO_6 with a Double-Perovskite Structure: High-Pressure Synthesized Bulk and Epitaxially Grown Thin Films, *Mater. Res. Soc. Symp. Proc.*, **1034**, [K04-07]-[K04-07] (2008).

Kawai M, Kan D, Isojima S, Kurata H, Isoda S, Kimura S, Sakata O, Shimakawa Y: Deposition Rate Effect on Critical Thickness of $BaTiO_3$ Epitaxial Thin Film Grown on $SrTiO_3(001)$, *Mater. Res. Soc. Symp. Proc.*, **1034**, [K10-04]-[K10-04] (2008).

— Organotransition Metal Chemistry —

Takita R, Takada Y, Jensen R S, Okazaki M, Ozawa F: Synthesis and Ligand Properties of 1-Phosphaethenyl-2-phosphanylferrocenes, *Organometallics*, **27**, 6279-6285 (2008).

Hayashi K, Nakatani M, Hayashi A, Takano M, Okazaki M, Toyota K, Yoshifuji M, Ozawa F: Synthesis and Structures of Platinum(0) Alkyne Complexes with Extended π -Conjugated Systems, *Organometallics*, **27**, 1970-1972 (2008).

Hayashi A, Yoshitomi T, Umeda K, Okazaki M, Ozawa F: Synthesis and Reactions of Diphosphinideneacyclobutene Ruthenium Complexes Relevant to Catalytic Hydrosilylation of Terminal Alkynes, *Organometallics*, **27**, 2321-2327 (2008).

Wakioka M, Nagao M, Ozawa F: Reaction of *trans*-Pd(styryl)Br(PMePh₂)₂ with Styryl Bromide Affording 1,4-Diphenylbutadiene. An Unexpected Homocoupling Process Induced by P-C Reductive Elimination, *Organometallics*, **27**, 602-608 (2008).

Wakioka M, Takita R, Ozawa F: Structure-Controlled Synthesis of π -Conjugated Polymers by Means of Transition-Metal Catalysts, *Nippon Gomu Kyokaishi*, **81**, 431-437 (2008) (in Japanese).

Tobita H, Yamahira N, Ohta K, Komuro T, Okazaki M: A New Hydrosilylation Reaction of Arylacetylene Accompanied by C-H Bond Activation Catalyzed by a Xantsil Ruthenium Complex, *Pure Appl. Chem.*, **80**, 1155-1160 (2008).

Okazaki M, Yamahira N, Minglana J J G, Komuro T, Ogino H, Tobita H: [Ru(xantsil)(CO)(η^6 -Toluene)]: Synthon for a Highly Unsaturated Ruthenium(II) Complex through Facile Dissociation of the Toluene Ligand [xantsil = (9,9-dimethylxanthene-4,5-diyl)bis(dimethylsilyl)], *Organometallics*, **27**, 918-926 (2008).

Kameo H, Nakajima Y, Suzuki H: Drastic Acceleration of Phospine/Phosphite Incorporation into a Tetrahydrido Ruthenium/Osmium Complex, and One-way Ruthenium to Osmium Migration of a Phosphorus Ligand, *Angew. Chem. Int. Ed.*, **47**, 10159-10162 (2008).

Takita R, Song C, Swager T M: *p*-Dimer Formation in an Oligothiophene Tweezer Molecule, *Org. Lett.*, **10**, 5003-5005 (2008).

Takita R, Harada S, Ohshima T, Matsunaga S, Shibasaki M: Catalytic Enantioselective Addition of Terminal Alkynes to Aldehydes: Preparation of (S)-(-)-1,3-Diphenyl-2-Propyn-1-Ol and (S)-(-)-4-Methyl-1-Phenyl-2-Pentyn-1,4-Diol, *Org. Synth.*, **85**, 118-130 (2008).

— Photonic Elements Science —

Matsuda K, Inoue T, Murakami Y, Maruyama S, Kanemitsu Y: Exciton Dephasing and Multiexciton Recombinations in a Single Carbon Nanotube, *Phys. Rev. B*, **77**, [033406-1]-[033406-4] (2008).

Ishizumi A, Sawahata J, Akimoto K, Kanemitsu Y: Site-dependent Eu³⁺ Luminescence in GaN:Eu³⁺ Epitaxial Films Studied by Microscopic Photoluminescence Spectroscopy, *Mater. Sci. Eng. B*, **146**, 186-188 (2008).

Ishizumi A, Takahashi T, Yamamoto A, Kanemitsu Y: Fabrication and Optical Properties of Eu³⁺-doped ZnO Nanospheres and Nanorods, *Mater. Sci. Eng. B*, **146**, 212-215 (2008).

Hirano D, Tayagaki T, Kanemitsu Y: Disorder-induced Rapid Localization of Electron-hole Plasmas in Highly Excited In_xGa_{1-x}N Mixed Crystals, *Phys. Rev. B*, **77**, [073201-1]-[073201-4] (2008).

Ueda A, Tayagaki T, Kanemitsu Y: Energy Transfer from Semiconductor Nanocrystal Monolayers to Metal Surfaces Revealed by Time-Resolved Photoluminescence Spectroscopy, *Appl. Phys. Lett.*, **92**, [133118-1]-[133118-3] (2008).

Ishizumi A, Jojima E, Yamamoto A, Kanemitsu Y: Photoluminescence Dynamics of Mn²⁺-Doped CdS/ZnS Core/Shell Nanocrystals: Mn²⁺ Concentration Dependence, *J. Phys. Soc. Jpn.*, **77**, [053705-1]-[053705-4] (2008).

Matsuda K, Inoue T, Murakami Y, Maruyama S, Kanemitsu Y: Exciton Fine Structure in a Single Carbon Nanotube Revealed Through Spectral Diffusion, *Phys. Rev. B*, **77**, [193405-1]-[193405-4] (2008).

Hosoki K, Tayagaki T, Yamamoto S, Matsuda K, Kanemitsu Y: Direct and Stepwise Energy Transfer from Excitons to Plasmons in Close-Packed Metal and Semiconductor Nanoparticle Monolayer Films, *Phys. Rev. Lett.*, **100**, [207404-1]-[207404-4] (2008).

Yasuda H, Kanemitsu Y: Dynamics of Nonlinear Blue Photoluminescence and Auger Recombination in $SrTiO_3$, *Phys. Rev. B*, **77**, [193202-1]-[193202-4] (2008).

Matsuda K, Ito Y, Kanemitsu Y: Photoluminescence Enhancement and Quenching of Single CdSe/ZnS Nanocrystals on Metal Surfaces Dominated by Plasmon Resonant Energy Transfer, *Appl. Phys. Lett.*, **92**, [211911-1]-[211911-3] (2008).

Hirano D, Tayagaki T, Yamada Y, Kanemitsu Y: Dynamics of Biexciton Localization in Al_xGa_{1-x}N Mixed Crystals Under Exciton Resonant Excitation, *Phys. Rev. B*, **77**, [193203-1]-[193203-4] (2008).

Hirano D, Kanemitsu Y: Dynamics of Electron-hole Plasmas and Localized Excitons in Highly Excited GaN-based Ternary Alloys, *J. Lumi.*, **128**, 721-714 (2008).

Ito Y, Matsuda K, Kanemitsu Y: Photoluminescence Intermittency in Single CdSe Nanoparticles: Environment Dependence, *J. Lumi.*, **128**, 868-870 (2008).

Ueda A, Matsuda K, Tayagaki T, Kanemitsu Y: Carrier Multiplication in Carbon Nanotubes Studied by Femtosecond Pump-Probe Spectroscopy, *Appl. Phys. Lett.*, **92**, [233105-1]-[233105-3] (2008).

Tsubaki K, Takaishi K, Sue D, Matsuda K, Kanemitsu Y, Kawabata T: Three-Component Cascade Energy Transfer with Use of Oligonaphthalene Skeletons, *J. Org. Chem.*, **73**, 4279-4282 (2008).

Ito Y, Matsuda K, Kanemitsu Y: Reversible and Irreversible Spectral Shifts during Photoluminescence Blinking in Single CdSe/ZnS Nanocrystals, *J. Phys. Soc. Jpn.*, **77**, [103713-1]-[103713-4] (2008).

Matsunaga R, Matsuda K, Kanemitsu Y: Evidence for Excitons in a Single Carbon Nanotube due to the Aharonov-Bohm Effect, *Phys. Rev. Lett.*, **101**, [147404-1]-[147404-4] (2008).

BIOINFORMATICS CENTER

— Bioknowledge Systems —

Masoudi-Nejad A, Goto S, Endo TR, Kanehisa M: KEGG Bioinformatics Resource for Plant Genomics Research. In “Plant Bioinformatics” (Edwards, D., ed.), *Methods Mol. Biol.*, **406**, 437-458 (2007).

Kadowaki T, Wheelock CE, Adachi T, Kudo T, Okamoto S, Tanaka N, Tonomura K, Tsujimoto G, Mamitsuka H, Goto S, Kanehisa M: Identification of Endocrine Disruptor Biodegradation by Integration of Structure-activity Relationship with Pathway Analysis, *Environ. Sci. Technol.*, **41**, 7997-8003 (2007).

Huang J, Kawashima S, Kanehisa M: New Amino Acid Indices Based on Residue Network Topology, *Genome Inform.*, **18(1)**, 152-161 (2007).

Suga A, Yamanishi Y, Hashimoto K, Goto S, Kanehisa M: An Improved Scoring Scheme for Predicting Glycan Structures from Gene Expression Data, *Genome Inform.*, **18(1)**, 237-246 (2007).

Muto A, Hattori M, Kanehisa M: Analysis of Common Substructures of Metabolic Compounds within the Different Organism Groups, *Genome Inform.*, **18(1)**, 299-307 (2007).

Huang J, Honda W, Kanehisa M: Predicting B Cell Epitope Residues with Network Topology Based Amino Acid Indices, *Genome Inform.*, **18(2)**, 40-49 (2007).

Kawashima S, Kawashima T, Putnam N H, Rokhsar D S, Wada H, Kanehisa M: Comparative Pair-wise Domain-combinations for Screening the Clade Specific Domain-architectures in Metazoan Genomes, *Genome Inform.*, **18(2)**, 50-60 (2007).

Hashimoto K, Yoshizawa AC, Okuda S, Kuma K, Goto S, Kanehisa M: The Repertoire of Desaturases and Elongases Reveals Fatty Acid Variations in 56 Eukaryotic Genomes, *J. Lipid Res.*, **49**, 183-191 (2008).

Kanehisa M, Araki M, Goto S, Hattori M, Hirakawa M, Itoh M, Katayama T, Kawashima S, Okuda S, Tokimatsu T, Yamanishi Y: KEGG for Linking Genomes to Life and the Environment, *Nucleic Acids Res.*, **36**, D480-D484 (2008).

Kawashima S, Pokarowski P, Pokarowska M, Kolinski A, Katayama T, Kanehisa M: AAindex: Amino Acid Index Database, Progress Report 2008, *Nucleic Acids Res.*, **36**, D202-D205 (2008).

Letunic I, Yamada T, Kanehisa M, Bork P: iPath: Interactive Exploration of Biochemical Pathways and Networks, *Trends Biochem. Sci.*, **33**, 101-103 (2008).

Hashimoto K, Aoki-Kinoshita K F, Ueda N, Kanehisa M, Mamitsuka H: A New Efficient Probabilistic Model for Mining Labeled Ordered Trees Applied to Glycobiology, *ACM TKDD*, **2**, [6:1]-[6:30] (2008).

Kojima K K, Kanehisa M: Systematic Survey for Novel Types of Prokaryotic Retroelements Based on Gene Neighborhood and Protein Architecture, *Mol. Biol. Evol.*, **25**, 1395-1404 (2008).

Okuda S, Yamada T, Hamajima M, Itoh M, Katayama T, Bork P, Goto S, Kanehisa M: KEGG Atlas Mapping for Global Analysis of Metabolic Pathways, *Nucleic Acids Res.*, **36**, W423-W426 (2008).

Yamanishi Y, Araki M, Gutteridge A, Honda W, Kanehisa M: Prediction of Drug-target Interaction Networks from the Integration of Chemical and Genomic Spaces, *Bioinformatics*, **24**, i232-i240 (2008).

Hashimoto K, Takigawa I, Shiga M, Kanehisa M: Mining Significant Tree Patterns in Carbohydrate Sugar Chains, *Bioinformatics*, **24**, i167-i173 (2008).

Hayes C N, Diez D, Joannin N, Honda W, Kanehisa M, Wahlgren M, Wheelock C E, Goto S: varDB: A Pathogen-specific Sequence Database of Protein Families Involved in Antigenic Variation, *Bioinformatics*, **24**, 2564-2565 (2008).

Kotera M, McDonald A G, Boyce S, Tipton K F: Functional Group and Substructure Searching as a Tool in Metabolomics, *PLoS ONE*, **3**, [e1537:1]-[e1537:8] (2008).

Kotera M, McDonald A G, Boyce S, Tipton K F: Eliciting Possible Reaction Equations and Metabolic Pathways Involving Orphan Metabolites, *J. Chem. Inf. Model.*, **48**, 2335-2349 (2008).

[Others]

Hashimoto K, Kanehisa M: KEGG GLYCAN for Integrated Analysis of Pathways, Genes, and Structures, In “Experimental Glycoscience”, 441-444 (2008).

— Biological Information Networks —

Ishida Y, Zhao L, Nagamochi H, Akusu T: Improved Algorithms for Enumerating Tree-Like Chemical Graphs with Given Path Frequency, *Genome Informatics*, **21**, 53-64 (2008).

Akutsu T, Fukagawa D, Takasu A: Improved Approximation of the Largest Common Subtree of Two Unordered Trees of Bounded Height, *Information Processing Letters*, **109**, 165-170 (2008).

Akutsu T, Hayashida M, Zhang S-Q, Ching W-K, Ng M K: Analyses and Algorithms for Predecessor and Control Problems for Boolean Networks of Bounded Indegree, *IPSJ Transactions on Bioinformatics*, **1**, 23-34 (2008).

Kato Y, Akutsu T, Seki H: Prediction of Protein Beta-Sheets: Dynamic Programming Versus Grammatical Approach, *Lecture Notes in Bioinformatics*, **5265**, 66-77 (2008).

Hayashida M, Tamura T, Akutsu T, Ching W-K: On Distribution and Enumeration of Attractors in Probabilistic Boolean Networks, *Lecture Notes in Operations Research*, **9**, 91-100 (2008).

Hayashida M, Sun F, Aburatani S, Horimoto K, Akutsu T: Integer Programming-Based Approach to Allocation of Reporter Genes for Cell Array Analysis, *Int. J. Bioinformatics Research and Applications*, **4**, 385-399 (2008).

Takemoto K, Akutsu T: Origin of Structural Difference in Metabolic Networks with Respect to Temperature, *BMC Syst Biol*, **2**, 82 (2008).

Tamura T, Akutsu T: An Improved Algorithm for Detecting a Singleton Attractor in a Boolean Network Consisting of AND/OR Nodes, *Lecture Notes in Computer Science*, **5147**, 216-229 (2008).

Hayashida M, Akutsu T: Image Compression-Based Approach to Measuring the Similarity of Protein Structures, *Proc. 6th Asia-Pacific Bioinformatics Conference (APBC 2008)*, 221-230 (2008).

Hayashida M, Tamura T, Akutsu T, Zhang S-Q, Ching W-K: Algorithms and Complexity Analyses for Control of Singleton Attractors in Boolean Networks, *EURASIP J Bioinform Syst Biol*, **2008**, [521407-1]-[521407-16] (2008).

Fujiwara H, Wang J, Zhao L, Nagamochi H, Akutsu T: Enumerating Treelike Chemical Graphs with Given Path Frequency, *J Chem Inf Model*, **48**, 1345-1357 (2008).

Song J, Tan H, Takemoto K, Akutsu T: HSEpred: Predict Half-Sphere Exposure from Protein Sequences, *Bioinformatics*, **24**, 1489-1497 (2008).

Hayashida M, Akutsu T, Nagamochi H: A Clustering Method for Analysis of Sequence Similarity Networks of Proteins Using Maximal Components of Graphs, *IPSJ Transactions on Bioinformatics*, **49-Sig 5**, 15-24 (2008).

Tamura T, Ito H: Inferring Pedigree Graphs from Genetic Distances, *IEICE Transactions on Information and Systems*, **E91-D No. 2**, 162-169 (2008).

Seki H, Kato Y: On the Generative Power of Multiple Context-Free Grammars and Macro Grammars, *IEICE Transactions on Information and Systems*, **E91-D**, 209-221 (2008).

[Others]

Akutsu T: Introduction to Discrete Mathematics (20): Bioinformatics, *Rikei eno Sugaku*, **41-11**, 51-56 (2008) (in Japanese).

Akutsu T, Hayashida M, Tamura T: Algorithms for Inference, Analysis and Control of Boolean Networks, *Lecture Notes in Computer Science*, **5147**, 1-15 (2008).

Akutsu T: Discrete Models of Genetic Networks and Their Control, *Journal of the Society of Instrument and Control Engineers*, **47**, 664-669 (2008) (in Japanese).

— Pathway Engineering —

Hashimoto K, Takigawa I, Shiga M, Kanehisa M, Mamitsuka H: Mining Significant Tree Patterns in Carbohydrate Sugar Chains, *Bioinformatics (Proceedings of the Seventh European Conference on Computational Biology (ECCB 2008))*, **24(16)**, i167-i173 (2008).

Hashimoto K, Aoki-Kinoshita K F, Ueda N, Kanehisa M, Mamitsuka H: A New Efficient Probabilistic Model for Mining Labeled Ordered Trees Applied to Glycobiology, *ACM Transactions on Knowledge Discovery From Data*, **2(1)**, Article No.6 (2008).

Takigawa I, Mamitsuka H: Probabilistic Path Ranking Based on Adjacent Pairwise Coexpression for Metabolic Transcripts Analysis, *Bioinformatics*, **24(2)**, 250-257 (2008).

Mamitsuka H: Informatic Innovations in Glycobiology: Relevance to Drug Discovery, *Drug Discovery Today*, **13(3/4)**, 118-123 (2008).

Hancock T, Mamitsuka H: Multi-class Semi-Supervised Graph Partitioning with Decision Trees, *Genome Informatics*, **20**, 102-111 (2008).

Wan R, Wheelock Å, Mamitsuka H: A Framework for Determining Outlying Microarray Experiments, *Genome Informatics*, **20**, 64-76 (2008).

Anh V N, Wan R, Moffat A: Term Impacts as Normalized Term Frequencies for BM25 Similarity Scoring, *Proc. 15th International Symposium on String Processing and Information Retrieval*, **5280 of LNCS**, 51-62 (2008).

[Others]

Mizutani S, Honda W, Kotera M, Mamitsuka H, Kanehisa M: A Co-occurrence Analysis in Differentially Expressed Genes in Adenoma Using Frequent Itemset Mining, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P065 (2008).

Takigawa I, Hashimoto K, Shiga M, Kanehisa M, Mamitsuka H: Efficiently Finding Significant Substructural Patterns Conserved in Glycans, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P066 (2008).

Wan R, Wheelock A, Mamitsuka H: A Framework for Determining Outlying Microarray Experiments, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P048 (2008).

Kayano M, Takigawa H, Shiga M, Tsuda K, Mamitsuka H: Association of SNPs with Multiple Genes Using a Nonlinear Regression Model, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P049 (2008).

Hancock T, Mamitsuka H: Active Pathway Identification and Classification with Probabilistic Ensembles, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P069 (2008).

Matsushima Y, Takigawa I, Ono Y, Sorimachi H, Mamitsuka H: Developing a Substrate Predictor with Sequence Information, *The Proceedings of the 2008 Annual Conference of the Japanese Society for Bioinformatics*, P071 (2008).

Wan R, Mamitsuka H, Kiseleva L, Horton P: Graphical Representation of Cell/tissue Type Relationships for the Web, *Proc. 6th Asia Pacific Bioinformatics Conference (Poster Abstracts)*, 46 (2008).

Shiga M, Takigawa I, Mamitsuka H: Clustering Analysis for Combining Multiple Genomic Data, *Seibutsubutsuri*, **48(3)**, 190-194 (2008) (in Japanese).

Mamitsuka H, Yoneya T: PubMed Article Recommendation System Using a Probabilistic Model, *Jikken-Igaku-Zokan*, **26(7)**, 201-206 (2008) (in Japanese).