

開所 30 周年特別資料③

論文リスト

- (1) H. Nakagawa, K. Obara, H. Yano, O. Ishikawa, T. Hata, H. Yokogawa, and M. Yokoyama, Impurity scattering effect on superfluid phases of ^3He in 97.5 % porous silica aerogel, *J. Low Temp. Phys.*, **138**, 159–164(2005)
- (2) H. Yano, A. Handa, H. Nakagawa, K. Obara, O. Ishikawa, T. Hata, and M. Nakagawa, Observation of laminar and turbulent flow in superfluid ^4He using a vibrating wire, *J. Low Temp. Phys.*, **138**, 561–566(2005)
- (3) H. Yano, A. Handa, H. Nakagawa, M. Nakagawa, K. Obara, O. Ishikawa, and T. Hata, Observation of the turbulent flow in superfluid ^4He using a vibrating wire, *J. Phys. Chem. Solids*, **66**, 1501-1505(2005)
- (4) S. C. Tonwar et al., A new study on the energy spectrum and composition of primary cosmic ray flux at energies $\sim 10^{14}$ - 10^{16} eV using the GRAPES-3 array at Ooty, *Int. J. of Mod. Phys. A*, **20**, 6852(2005)
- (5) S. K. Gupta et al., A high-performance, low-cost, leading edge discriminator, *PRAMANA - journal of physics*, 65-2, 273-283(2005)
- (6) Y. Hayashi et al., A large area muon tracking detector for ultra-high energy cosmic ray astrophysics - the GRAPES-3 experiment, *Nucl. Inst. and Meth. A*, **545**, 643-657(2005)
- (7) S. K. Gupta et al., GRAPES-3 A high-density air shower array for studies on the structure in the cosmic-ray energy spectrum near the knee, *Nucl. Inst. and Meth. A*, **540**, 311-323(2005)
- (8) H. Nakazawa, M. Itazaki, and M. Owaribe, Chloropyridinebis[tricarbonyl(η^5 -cyclopentadiene)tungstenio]indium, *Acta Crystallogr.*, **E61**, m945 (2005).
- (9) H. Nakazawa, M. Itazaki, and M. Owaribe, Dicarboxyl(η^5 -cyclopentadienyl)(trimethylsilylisocyanide)iron(II)trifluoromethanesulfonate, *Acta Crystallogr.*, **E61**, m1073 (2005).
- (10) H. Nakazawa, M. Itazaki, and M. Owaribe, Carbonyl(η^5 -cyclopentadienyl)(isocyanotriphenylborato-*k*C)(triphenylphosphine-*k*P)iron(II), *Acta Crystallogr.*, **E61**, m1166 (2005).
- (11) H. Nakazawa, M. Itazaki, and M. Owaribe, Carbonyl(η^5 -cyclopentadienyl)(trimethylsilylisocyanide)(triphenylphosphine)iron(II)trifluoromethanesulfonate dichloromethane hemisolvate, *Acta Crystallogr.*, **E61**, m1172 (2005).
- (12) H. Nakazawa, M. Itazaki, and M. Owaribe, Dicarboxyl(η^5 -pentamethylcyclopentadienyl)(triphenylphosphine)iron(II)hexafluorophosphate, *Acta Crystallogr.*, **E61**, m1275 (2005).
- (13) M. Kuratsu, M. Kozaki, and K. Okada, 2,2':6',2"':6",6-Trioxotriphenylamine: synthesis and properties of the radical cation and neutral species, *Angew. Chem. Int. Ed.*, **44**, 4056 (2005).
- (14) T. Kubo, A. Shimizu, M. Sakamoto, M. Uruichi, K. Yakushi, M. Nakano, D. Shiomi, K. Sato, T. Takui, Y. Morita, and K. Nakasuji, Synthesis, intermolecular interaction, and semiconductive behavior of a delocalized singlet biradical hydrocarbon, *Angew. Chem. Int. Ed.*, **44**, 6564 (2005).
- (15) S. Nishida, Y. Morita, K. Fukui, K. Sato, D. Shiomi, T. Takui, and K. Nakasuji, Spin transfer and solvato-/thermochromism induced by intramolecular electron transfer in a purely organic open-shell system, *Angew. Chem. Int. Ed.*, **44**, 7277 (2005).
- (16) M. Hisada, H. Satake, K. Masuda, M. Aoyama, K. Murata, T. Shinada, T. Iwashita, Y. Ohfune, and T. Nakajima, Molecular components toxicity of the venom of the solitary wasp, *Anoplius samariensis*, *Biochem. Biophys. Res. Commun.*, **330**, 1048 (2005).
- (17) J. Koyama, I. Morita, N. Kobayashi, T. Osakai, Y. Usuki, and M. Taniguchi, Structure–activity relations of azafluorenone and azaanthraquinone as antimicrobial compounds, *Bioorg. & Med. Chem. Lett.*, **15**, 1079 (2005).

- (18) Y. Usuki, K. Mitomo, N. Adachi, X. Ping K.–I. Fujita, O. Sakanaka, K. Iinuma, H. Iio, and M. Taniguchi, Semi-synthesis and biological evaluation of analogues of UK-2A, a novel antifungal antibiotic from *Streptomyces* sp. 517-02, *Bioorg. & Med. Chem. Lett.*, **15**, 2011 (2005).
- (19) M. Tadokoro, S. Mizugaki, M. Kozaki, and K. Okada, One-dimensional void-space arrays constructed from coordination polymer with bowl-like frameworks of cavitands, *Chem. Commun.*, 1140 (2005).
- (20) H. Nakazawa, K. Kamata, and M. Itazaki, Catalytic C–C bond cleavage and C–Si bond formation in the reaction of RCN with Et₃SiH promoted by an iron complex, *Chem. Commun.*, 4004 (2005).
- (21) R. Miyamoto, R. Tanaka Hamazawa, M. Hirotsu, T. Nishioka, I. Kinoshita, and J. L. Wright, A two-dimensional clathrate hydrate sandwiched by planar arrays of a copper complex, *Chem. Commun.*, 4047 (2005).
- (22) H. Miyake, H. Sugimoto, H. Tamiaki, and H. Tsukube, Dynamic helicity inversion in octahedral cobalt(II) complex system *via* solvato-diastereomerism, *Chem. Commun.*, 4291 (2005).
- (23) M. Hirotsu, N. Ohno, T. Nakajima, and K. Ueno, Synthesis of a cofacial Schiff-base dimanganese(III) complex for asymmetric catalytic oxidation of sulfides, *Chem. Lett.*, **34**, 848 (2005).
- (24) M. Itazaki and H. Nakazawa, Iron-catalyzed silylcyanation with aldehydes and ketones of silyl cyanide prepared from silane and acetonitrile, *Chem. Lett.*, **34**, 1054 (2005).
- (25) K. Ishimori, M. Watanabe, T. Kimura, T. Yaita, T. Yamada, Y. Kataoka, S. Shinoda, and H. Tsukube, Novel separation system of trivalent actinides–combined effects of substituted tris(2-pyridylmethyl)amine ligand and hydrophobic counter-anion, *Chem. Lett.*, **34**, 1112 (2005).
- (26) T. Ise, D. Shiomi, K. Sato, and T. Takui, Syntheses, Crystal structures, and magnetic properties of nitronyl nitroxide triradicals composed of ground-state singlet biradicals and monoradicals: molecular spin clusters in the crystal, *Chem. Mater.*, **17**, 4486 (2005).
- (27) T. Okamoto, M. Kozaki, M. Doe, M. Uchida, G. Wang, and K. Okada, 1,4-Benzoxazino[2,3-b]phenoxazine and its sulfur analogues: synthesis, properties, and application to organic light-emitting diodes, *Chem. Mater.*, **17**, 5504 (2005).
- (28) M. Murakami, R. Mizoguchi, Y. Shimada, T. Yatsushashi, and N. Nakashima, Ionization and fragmentation of anthracene with an intense femtosecond laser pulse at 1.4 μm, *Chem. Phys. Lett.*, **403**, 238 (2005).
- (29) S. Shimizu, V. Zhakhovskii, M. Murakami, M. Tanaka, T. Yatsushashi, S. Okihara, K. Nishihara, S. Sakabe, Y. Izawa, and N. Nakashima, Coulomb explosion of hexafluorobenzene induced by an intense laser field, *Chem. Phys. Lett.*, **404**, 379 (2005).
- (30) T. Nishioka, Y. Onishi, K. Nakajo, G.-X. Jin, R. Tanaka, and I. Kinoshita, Selective oxygenation of amphiphilic thiacalix[3]pyridine Rh(I) diene complexes in both water and organic solvents, *Dalton Trans.*, 2130 (2005).
- (31) R. Miyamoto, R. Sano, T. Matsushita, T. Nishioka, A. Ichimura, Y. Teki, and I. Kinoshita, A complete series of copper(II) halide complexes (X = F, Cl, Br, I) with a novel Cu(II)–C(sp³) bond, *Dalton Trans.*, 3179 (2005).
- (32) H. Sugimoto, M. Tarumizu, K. Tanaka, H. Miyake, and H. Tsukube, A new series of molybdenum-(IV), -(V), and -(VI) dithiolate compounds as active site models of molybdoenzymes: preparation, crystal structures, spectroscopic/electrochemical properties, and reactivity in oxygen atom transfer, *Dalton Trans.*, 3558 (2005).

- (33) H. Sugimoto, Y. Furukawa, M. Tarumizu, H. Miyake, K. Tanaka, and H. Tsukube, Synthesis and crystal structures of $[W(3,6\text{-dichloro-1,2-benzenedithiolate})_3]^{n-}$ ($n = 1, 2$) and $[Mo(3,6\text{-dichloro-1,2-benzenedithiolate})_3]^{2-}$: dependence of the coordination geometry on the oxidation number and counter-cation in trigonal-prismatic and octahedral structures, *Eur. J. Inorg. Chem.*, 3088 (2005).
- (34) Y. Ohfuné and T. Shinada, Enantio- and diastereoselective construction of α,α -disubstituted α -amino acids for the synthesis of biologically active compounds, *Eur. J. Org. Chem.*, 5127 (2005).
- (35) T. Shinada, M. Hamada, M. Kawasaki, and Y. Ohfuné, Stereoselective synthesis of 2,5-di- and 2,2,5-trisubstituted pyrrolidines by allylation reaction of acyliminium ion, *Heterocycles*, **66**, 511 (2005).
- (36) A. Suzumura, D. Paul, H. Sugimoto, S. Shinoda, R. R. Julian, J. L. Beauchamp, J. Teraoka, and H. Tsukube, Cytochrome *c*-crown ether complexes as supramolecular catalysts: cold-active synzymes for asymmetric sulfoxide oxidation in methanol, *Inorg. Chem.*, **44**, 904 (2005).
- (37) H. Sugimoto, M. Harihara, M. Shiro, K. Sugimoto, K. Tanaka, H. Miyake, and H. Tsukube, Dioxo molybdenum(VI) and mono-oxo-molybdenum(IV) complexes with weakened Mo=O bond characters supported by new aliphatic dithiolene ligands as models for arsenite oxidase active sites, *Inorg. Chem.*, **44**, 6386 (2005).
- (38) H. Sugimoto, T. Sakurai, H. Miyake, K. Tanaka, and H. Tsukube, Mononuclear five-coordinate molybdenum(IV) and -(V) monosulfide complexes coordinated with dithiolene ligands: reversible redox of Mo(V)/Mo(IV) and irreversible dimerization of $[Mo^V S]^-$ cores to a dinuclear $[Mo^V_2(\mu-S)_2]^{2-}$ core, *Inorg. Chem.*, **44**, 6927 (2005).
- (39) R. Rahimi, K. Sato, K. Furukawa, K. Toyota, D. Shiomi, T. Nakamura, M. Kitagawa, and T. Takui, Pulsed ENDOR-based quantum information processing, *Int. J. Quant. Info.*, **3**, 197 (2005).
- (40) M. Taniguchi, K. Kato, O. Matsui, P. Xu, H. Nakayama, Y. Usuki, A. Ichimura, K.-I. Fujita, T. Tanaka, Y. Tarui, and E. Hirasawa, Flocculating activity of cross-linked poly- γ -glutamic acid against bentonite and *Escherichia coli* suspension pretreated with $FeCl_3$ and its interaction with Fe^{3+} , *J. Biosci. Bioeng.*, **100**, 207 (2005).
- (41) M. Sugiura, S. Kawahara, H. Iio, and T. Harumoto, Developmentally and environmentally regulated gene expression of gamone 1, the trigger molecule for sexual reproduction in the ciliate *Blepharisma japonicum*, *J. Cell Sci.*, **118**, 2735 (2005).
- (42) S. Shinoda, T. Okazaki, T. N. Player, H. Misaki, K. Hori, and H. Tsukube, Cholesterol-armed cyclens for helical metal complexes offering chiral self-aggregation and sensing of amino acid anions in aqueous solutions, *J. Org. Chem.*, **70**, 1835 (2005).
- (43) Y. Morita, T. Murata, K. Fukui, S. Yamada, K. Sato, D. Shiomi, T. Takui, H. Kitagawa, H. Yamochi, G. Saito, and K. Nakasuji, Hydrogen-bonded networks in organic conductors: crystal structures and electronic properties of tetracyanoquinodimethane with 4,4'-biimidazolium having multiprotonated states, *J. Org. Chem.*, **70**, 2739 (2005).
- (44) T. Vilaivan, C. Winotapan, V. Banphavichit, T. Shinada, and Y. Ohfuné, Indium-mediated asymmetric Barbier-type allylation of aldimines in alcoholic solvents: synthesis of optically active homoallylic amines, *J. Org. Chem.*, **70**, 3464 (2005).
- (45) E. Terada, T. Okamoto, M. Kozaki, M. E. Masaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Exchange interaction of 5,5'-(*m*- and *p*-phenylene)bis(10-phenyl-5,10-dihydrophenazine) dications and related analogues, *J. Org. Chem.*, **70**, 10073 (2005).

- (46) Y. Honjyo, T. Kinoshita, T. Yatsushashi, and N. Nakashima, Formation of 1,3-hexadiene-5-yne by two-photon chemistry of benzene via hot molecule, *J. Photochem. Photobiol. A: Chem.*, **171**, 223 (2005).
- (47) T. Yatsushashi, S. Touma, and N. Nakashima, One- and two-photon-induced ring-cleavage reactions of strained benzocycloalkenes via hot molecules, *J. Phys. Chem. A*, **109**, 6847 (2005).
- (48) T. Yatsushashi and N. Nakashima, Effects of polarization of 1.4 μm femtosecond laser pulses on the formation and fragmentation of naphthalene molecular ions compared at the same effective ionization intensity, *J. Phys. Chem. A*, **109**, 9414 (2005).
- (49) K. Maekawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Exchange interaction in covalently bonded biradical–monoradical composite molecules, *J. Phys. Chem. B*, **109**, 3303 (2005).
- (50) K. Hayakawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Magnetic phase transition in a heteromolecular hydrogen-bonded complex of nitronylnitroxide radicals, *J. Phys. Chem. B*, **109**, 9195 (2005).
- (51) K. Maekawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Theoretical study on spin alignments in ferromagnetic heterospin chains with competing exchange interactions: a generalized ferrimagnetic system containing organic biradicals in the singlet ground state, *J. Phys. Chem. B*, **109**, 9299 (2005).
- (52) T. N. Player, S. Shinoda, and H. Tsukube, Visual sensing of Ca^{2+} ion *via* photoreaction of fluorenyl ester-armed cyclen, *Org. Biomol. Chem.*, 1615 (2005).
- (53) M. Kozaki, A. Isoyama, K. Akita, and K. Okada, Preparation, properties, and reduction of heteroaromatic quinoids with 1,4-diazacyclo-pentadien-2-ylidene terminals, *Org. Lett.*, **7**, 115 (2005).
- (54) M. Kawasaki, T. Shinada, M. Hamada, and Y. Ohfuné, Total synthesis of (–)-kaiotocephalin, *Org. Lett.*, **7**, 4165 (2005).
- (55) K. Takeda, Y. Yoshida, Y. Inanaga, T. Kawae, D. Shiomi, T. Ise, M. Kozaki, K. Okada, K. Sato, and T. Takui, Magnetic ordering in a genuine organic crystal with triangular antiferromagnetic spin units, *Phys. Rev. B*, **72**, 024435 (2005).
- (56) M. Yano, K. Inoue, T. Motoyama, Y. Azuma, M. Tatsumi, O. Yamauchi, M. Oyama, K. Sato, and T. Takui, Synthesis and properties of a triarylamine derivative with a coordination site and its copper(II) complex, *Polyhedron*, **24**, 2112 (2005).
- (57) M. Yano, Y. Nakanishi, K. Matsushita, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Organic high-spin systems of oligoarylamines: properties of tetraaryl-*m*-phenylenediamine oligocations as examined by electron transfer stopped-flow method, *Polyhedron*, **24**, 2116 (2005).
- (58) M. Yano, T. Furuya, M. Yonezawa, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Synthesis, electrochemical and spectroscopic studies of highly extended tetraaryl-*m*-phenylenediamines as precursors of ground-state triplet dications, *Polyhedron*, **24**, 2121 (2005).
- (59) Y. Teki and S. Nakajima, Design, synthesis and electronic states of an iminonitroxide radical with excited quartet high-spin state and photo-induced electron transfer in its CT complex, *Polyhedron*, **24**, 2185 (2005).
- (60) Y. Morita, S. Nishida, K. Fukui, K. Hatanaka, T. Ohba, K. Sato, D. Shiomi, T. Takui, G. Yamamoto, and K. Nakasuji, 2-Aryl substituted 3-oxophenalenoxyl radicals: π -spin structures and properties evaluated by dimer structure, *Polyhedron*, **24**, 2194 (2005).
- (61) S. Nishida, Y. Morita, T. Kobayashi, K. Fukui, A. Ueda, K. Sato, D. Shiomi, T. Takui, and K. Nakasuji, Spin delocalization on curved surface π -system: corannulene with iminonitroxide, *Polyhedron*, **24**, 2200 (2005).
- (62) Y. Teki, Topology and spin alignment utilizing the excited molecular field in π -conjugated organic spin systems, *Polyhedron*, **24**, 2299 (2005).
- (63) K. Fukui, Y. Morita, S. Nishida, T. Kobayashi, K. Sato, D. Shiomi, T. Takui, and K. Nakasuji, Deflected spin transmission from radical substituent to corannulene's curved surface: density functional theory calculations, *Polyhedron*, **24**, 2326 (2005).

- (64) T. Touichi and Y. Teki, Design, synthesis and physical property of a π -conjugated photo-excited organic high-spin systems toward the functional material, *Polyhedron*, **24**, 2337 (2005).
- (65) T. Ise, D. Shiomi, K. Sato, and T. Takui, Magnetic properties of nitronyl nitroxide and iminonitroxide triradicals as model compounds for generalized ferrimagnets, *Polyhedron*, **24**, 2377 (2005).
- (66) H. Miyake and H. Tsukube, Helix architecture and helicity switching via dynamic metal coordination chemistry, *Supramol. Chem.*, **17**, 53 (2005).
- (67) T. Ise, D. Shiomi, K. Sato, and T. Takui, Nitronyl nitroxide triradical as a model for generalized ferrimagnet, *Synth. Met.*, **154**, 297 (2005).
- (68) T. Shinada, T. Ishida, and Y. Ohfuné, Synthesis of α -amino squaric acids using an aminomalonate equivalent bearing squaryl group, *Synthesis*, 2723 (2005).
- (69) K. Okano, H. Tsukube, and K. Hori, Amine side arm effect on the ion selectivity of 12-crown- O_3N derivatives with an amine arm in aqueous and acetonitrile solutions, *Tetrahedron*, **61**, 12006 (2005).
- (70) T. Ishida, T. Shinada, and Y. Ohfuné, Synthesis of novel amino squaric acids via addition of dianion enolates derived from *N*-Boc amino acid esters, *Tetrahedron Lett.*, **46**, 311 (2005).
- (71) S. Shinoda, H. Miyake, and H. Tsukube, Molecular recognition and sensing via rare earth complexes, *Handbook on the Physics and Chemistry of Rare Earths*, K. A. Gschneidner, Jr., J.-C. G. Bünzli, and V. K. Pecharsky, Eds (Elsevier, Amsterdam), **35**, 273 (2005).
- (72) Robabeh D. Rahimi, Kazunobu Sato, Ko Furukawa, Kazuo Toyota, Daisuke Shiomi, Toshikazu Nakamura, Masahiro Kitagawa, and Takeji Takui, Pulsed ENDOR-based Quantum Information Processing, *Quantum Information Science (in Proceedings of the 1st Asia-Pacific Conference on Quantum Information Science)*, C. Soo and W.-M. Zhang, Eds (World Scientific Publishing Co.), 197 (2005).
- (73) 三宅弘之, らせん構造の構築と反転スイッチング:置換活性な金属錯体の特性を活用した新しいアプローチ, *Bull. Jpn. Soc. Coord. Chem.*, **46**, 11 (2005).
- (74) 島田義則, 溝口竜二, 篠原秀則, ハッ橋知幸, 中島信昭, フェムト秒レーザーを用いるダイオキシン類のイオン化, *分析化学*, **54**, 127 (2005).
- (75) 篠田哲史, 片岡悠美子, 築部浩, キラリティーを活用する金属イオン認識系および希土類光センシング系の構築, *有機合成化学協会誌*, **63**, 1209 (2005).
- (76) H. Kawakami, H. Yamanaka, and Y. Nanzai, Thermally stimulated recovery of plastic strain in crosslinked and uncrosslinked epoxy/amine systems, *Polym.* **46**, 11805 (2005).
- (77) H. Kawakami, M. Tomita, and Y. Nanzai, Study on nonlinear deformation mechanism in epoxy glass using birefringence, *J. Rheol.*, **49**, 461 (2005).
- (78) H. Kawakami, R. Otsuki, and Y. Nanzai, Structural Relaxation and Evolution of Yield Stress in Epoxy Glass Aged Under Shear Strain, *Polym. Eng. Sci.*, **45**, 20 (2005).
- (79) 今西啓之, 中村拓司, 高田洋吾, 脇坂知行, 自立型固体高分子燃料電池と電気二重層キャパシタを用いたハイブリッドシステムの電動軽車両への応用 (時分割方式によるパワー制御), *日本機械学会論文集(B編)*, Vol.71, No.702, (2005), pp.674-681.
- (80) 今西啓之, 吉井大智, 中村拓司, 高田洋吾, 脇坂知行, 自立型固体高分子燃料電池と電気二重層キャパシタを用いた電動軽車両用ハイブリッドシステムのモデリング(燃料電池等価回路モデルの適用), *日本機械学会論文集(C編)*, Vol.71, No.708, (2005), pp.2607-2613.
- (81) Y. Kaneko, Y. Mizuta, Y. Nishijima and S. Hashimoto, Vickers Hardness and Deformation of Ni/Cu Nano-Multilayers Electrodeposited on Copper Substrate, *J. Mater. Sci.*, **40**, 3231 (2005).
- (82) Y. Kaneko, K. Fukui and S. Hashimoto, Electron Channelling Contrast Imaging of Dislocation Structures in Fatigued Austenitic Stainless Steels., *Mater. Sci. Eng.*, **A400-401**, 413 (2005).

- (83) Y. Kaneko, M. Ishikawa and S. Hashimoto, Dislocation Structures around Crack Tip of Fatigued Polycrystalline Copper., Mater.Sci.Eng., **A400-401**, 418 (2005).
- (84) T. Hasegawa and M. Nakayama, Jpn. J. Appl. Phys. **44**, 8340 (2005).
D. Kim, M. Miyamoto, T. Mishima, and M. Nakayama, J. Appl. Phys. **98**, 083514 (2005).
M. Nakayama, R. Kitano, M. Ando, and T. Uemura, Appl. Phys. Lett. **87**, 092106 (2005).
H. Ichida, Y. Kanematsu, T. Shimomura, K. Mizoguchi, D. Kim, and M. Nakayama, Phys. Rev. B **72**, 045210 (2005).
- (85) T. Shimomura, D. Kim, and M. Nakayama, J. Lumin. **112**, 191 (2005).
- (86) M. Nakayama, K. Okuda, N. Ando, and H. Nishimura, J. Lumin. **112**, 156 (2005).
- (87) K. Nomura, T. Yamada, Y. Iguchi, S. Takagishi, and M. Nakayama, J. Lumin. **112**, 146 (2005).
- (88) T. Furuichi, K. Mizoguchi, O. Kojima, K. Akahane, N. Yamamoto, N. Ohtani, and M. Nakayama, J. Lumin. **112**, 142 (2005).
- (89) K. Tomihira, D. Kim, and M. Nakayama, J. Lumin. **112**, 131 (2005).
- (90) O. Kojima, K. Mizoguchi, and M. Nakayama, J. Lumin. **112**, 80 (2005).
- (91) D. Kim, A. Nabeshima, and M. Nakayama, Jpn. J. Appl. Phys. **44**, 1514 (2005).
- (92) R. H. Bruce, Solid State Technol. **48** [1], 5 (2005).
- (93) D. Kim, T. Karasawa, T. Iida, and T. Komatsu, J. Phys. Soc. Jpn. **74**, 1309 (2005).
- (94) M. Fujiwara, K. Yanagi, M. Maruyama, M. Sugisaki, K. Kuroyanagi, H. Takahashi, S. Aoshima, Y. Tsuchiya, A. Gall, and H. Hashimoto, Second order nonlinear optical properties of the single crystal of *N*-benzyl 2-methyl-4-nitroaniline: Anomalous enhancement of the d_{333} component and its possible origin, Jpn. J. Appl. Phys., Part 1, **45**, 8676-8685(2006)
- (95) 杉崎 満, “光物性の基礎と応用”, 光物性研究会組織委員会編, オプトロニクス社, 152-170(2006), 第2部 第8章「顕微分光」
- (96) 橋本 秀樹, 藤井 律子, 杉崎 満, “光物性の基礎と応用”, 光物性研究会組織委員会編, オプトロニクス社, 239-261 (2006), 第3部 第5章「有機・バイオ — 光合成アンテナ色素蛋白複合体・カロテノイド・超高速レーザー分光 —」
- (97) H. Yano, A. Handa, M. Nakagawa, K. Obara, O. Ishikawa, and T. Hata, Study on the turbulent flow of superfluid ^4He generated by a vibrating wire, AIP Conf. Proc., **850**, 195-198(2006)
- (98) K. Obara, Y. Nago, H. Yano, O. Ishikawa, T. Hata, H. Yokogawa, and M. Yokoyama, Hydrodynamic property of oscillating superfluid ^3He in aerogel, AIP Conf. Proc., **850**, 231-232(2006)
- (99) O. Ishikawa, R. Kado, H. Nakagawa, K. Obara, H. Yano, T. Hata, H. Yokogawa, and M. Yokoyama, A–B phase transition and pinning of phase boundary of superfluid ^3He in aerogel, AIP Conf. Proc., **850**, 233-234(2006), 233–234.
- (100) O. Ishikawa, R. Kado, H. Nakagawa, K. Obara, H. Yano, T. Hata, H. Yokogawa, and M. Yokoyama, Pulsed NMR measurements in superfluid ^3He in aerogel of 97.5 % porosity, AIP Conf. Proc., **850**, 235-236(2006)
- (101) T. Nonaka et al., Did the 28 October 2003 solar flare accelerate protons to 20 GeV? A study of the subsequent Forbush decrease with the GRAPES-3 tracking muon telescope, Phys. Rev. D, **74**, 052003 (2006)
- (102) M. Itazaki, R. Ujihara, and H. Nakazawa, *fac*-[Bis(2-pyridylmethyl)amine- κ^3N]tribromoindium(III), Acta Crystallogr., **E62**, m1649 (2006).
- (103) Y. Morimoto, Y. Nishikawa, C. Ueba, and T. Tanaka, Reagent-controlled switching of 5-*exo* to 6-*endo* cyclizations in epoxide openings, Angew. Chem., Int. Ed., **45**, 810 (2006).
- (104) K. Sugisaki, K. Toyota, K. Sato, D. Shiomi, and T. Takui, Ab initio MO analysis of the excited electronic states of high-spin quintet 2-methylphenylene-1,3-dinitrene, Angew. Chem. Int. Ed., **45**, 2257 (2006).

- (105) H. Sugimoto, R. Tajima, T. Sakurai, H. Ohi, H. Miyake, S. Itoh, and H. Tsukube, Reversible sulfurization–desulfurization of tungsten bis(dithiolene) complexes, *Angew. Chem. Int. Ed.*, **45**, 3520 (2006).
- (106) Y. Teki, H. Tamekuni, J. Takeuchi, and Y. Miura, First evidence for a uniquely spin polarized quartet photo-excited state of π -conjugated organic spin system generated through ion pair state, *Angew. Chem. Int. Ed.*, **45**, 4666 (2006).
- (107) M. Tadokoro, S. Yasuzuka, M. Nakamura, T. Shinoda, T. Tatenuma, M. Mitsumi, Y. Ozawa, K. Toriumi, H. Yoshino, D. Shiomi, K. Sato, T. Takui, T. Mori, and K. Murata, A high-conductivity crystal containing a copper(I) coordination polymer bridged by the organic acceptor TANC, *Angew. Chem. Int. Ed.*, **45**, 5144 (2006).
- (108) H. Nakai, M. Mizuno, T. Nishioka, N. Koga, K. Shiomi, Y. Miyano, M. Irie, B. K. Breedlove, I. Kinoshita, Y. Hayashi, Y. Ozawa, T. Yonezawa, Y. Toriumi, and K. Isobe, Direct observation of photochromic dynamics in crystalline-state of an organorhodium dithionite complex, *Angew. Chem. Int. Ed.*, **45**, 6473 (2006).
- (109) R. Santo, R. Miyamoto, R. Tanaka, T. Nishioka, K. Sato, K. Toyota, M. Obata, S. Yano, I. Kinoshita, A. Ichimura, and T. Takui, Diamagnetic–paramagnetic conversion of tris(2-pyridylthio)methylcopper(III) through a structural change from trigonal bipyramidal to octahedral, *Angew. Chem. Int. Ed.*, **45**, 7611 (2006).
- (110) Y. Usuki, X. Peng, B. Gülgeze, A. Manyem, and J. Aubé, Cyclization of a carbon-centered radical derived from oxaziridine cleavage, *ARKIVOC*, 189 (2006).
- (111) T. Isobe, M. Doe, Y. Morimoto, K. Nagata, and A. Ohsaki, The anti-*Helicobacter pylori* flavones in a Brazilian plant, *Hyptis fasciculata*, and the activity of methoxyflavones, *Biol. Pharm. Bull.*, **29**, 1039 (2006).
- (112) K. Murata, T. Shinada, Y. Ohfune, M. Hisada, A. Yasuda, H. Naoki, and T. Nakajima, Novel biologically active peptides from the venom of *Polistes rothneyi iwatai*, *Biol. Pharm. Bull.*, **29**, 2493 (2006).
- (113) Y. Usuki, K. Matsumoto, T. Inoue, K. Yoshioka, H. Iio, and T. Tanaka, Structure–activity relationship studies on niphimycin, a guanidylpolyol macrolide antibiotic. Part 1: the role of the *N*-methyl-*N'*-alkylguanidinium moiety, *Bioorg. & Med. Chem. Lett.*, **16**, 1553 (2006).
- (114) Y. Usuki, N. Adachi, K.-I. Fujita, A. Ichimura, H. Iio, and M. Taniguchi, Structure–activity relationship studies on UK-2A, a novel antifungal antibiotic from *Streptomyces* sp. 517-02. Part 5: roles of the 9-membered dilactone-ring moiety in respiratory inhibition, *Bioorg. & Med. Chem. Lett.*, **16**, 3319 (2006).
- (115) C. Shimokawa, Y. Tachi, N. Nishiwaki, M. Ariga, and S. Itoh, Structural characterization of copper(I) complexes supported by β -diketiminato ligands with different substitution patterns, *Bull. Chem. Soc. Jpn.*, **79**, 118 (2006).
- (116) H. Tsukube, A. Onimaru, and S. Shinoda, Anion sensing with luminescent tris(β -diketonato)europium(III) complexes and naked-eye detection of fluoride anion, *Bull. Chem. Soc. Jpn.*, **79**, 725 (2006).
- (117) T. Shinada, T. Kawakami, M. Sakai, H. Matsuda, T. Umezawa, M. Kawasaki, K. Namba, and Y. Ohfune, On the stereoselectivity of the asymmetric transferring Strecker synthesis in a cyclohexane system: synthesis of optically active *cis*- and *trans*-1-amino-2-hydroxycyclohexane-1-carboxylic acids, *Bull. Chem. Soc. Jpn.*, **79**, 768 (2006).
- (118) A. Kunishita, T. Osako, Y. Tachi, J. Teraoka, and S. Itoh, Syntheses, structures, and O₂-reactivities of copper(I) complexes of bis(2-pyridylmethyl)amine and bis(2-quinolylmethyl)amine tridentate ligands, *Bull. Chem. Soc. Jpn.*, **79**, 1729 (2006).

- (119) S. Hiro, Y. Usuki, and H. Iio, Synthesis of the sugar moiety of TIME-EA4, a glycopeptide isolated from silkworm diapause eggs, *Carbohydrate Research*, **341**, 1796 (2006).
- (120) T. Nagataki, Y. Tachi, and S. Itoh, Ni^{II}(TPA) as an efficient catalyst for alkane hydroxylation with *m*-CPBA, *Chem. Commun.*, 4016 (2006).
- (121) T. Ise, D. Shiomi, K. Sato, and T. Takui, Watson–Crick pairing of nucleobases functionalized with open-shell molecular entities in crystalline solids, *Chem. Commun.*, 4832 (2006).
- (122) D. Paul, H. Miyake, S. Shinoda, and H. Tsukube, Proteo-dendrimers designed for complementary recognition of cytochrome *c*: dendrimer architecture toward nanoscale protein complexation, *Chem.–Eur. J.*, **12**, 1328 (2006).
- (123) Y. Teki, T. Toichi, and S. Nakajima, π -Topology and spin alignment in unique photo-excited triplet and quintet states arising from four unpaired electrons of an organic spin system, *Chem.–Eur. J.*, **12**, 2329 (2006).
- (124) M. Tanaka, S. Panja, M. Murakami, T. Yatsushashi, and N. Nakashima, Intact molecular ion formation of cyclohexane and 2,3-dimethyl-1,3-diene by excitation with a short, intense femtosecond laser pulse, *Chem. Phys. Lett.*, **427**, 255 (2006).
- (125) T. Murata, Y. Morita, K. Fukui, Y. Yakiyama, K. Sato, D. Shiomi, T. Takui, and K. Nakasuji, Multidimensional networks of π -conjugated oligomers: crystal structures of 4,4':2',2'':4'',4'''-quaterimidazole in hydrate, protonated salt, and dinucleic copper complexes, *Crystal Growth & Design*, **6**, 1043 (2006).
- (126) Y. Miura, I. Kato, and Y. Teki, Syntheses and magnetic properties of Cu(II)(hfac)₂ and Mn(II)(hfac)₂ complexes of 4-pyridyl-substituted thioaminy radicals, *Dalton Trans.*, 961 (2006).
- (127) R. H. Tanaka, T. Nishioka, I. Kinoshita, T. Takui, R. Santo, and A. Ichimura, Thiocalix[3]pyridine produces a stable mononuclear rhodium(II) complex with mutual Jahn–Teller effect, *Dalton Trans.*, 1374 (2006).
- (128) S. Itoh and Y. Tachi, Structure and O₂-reactivity of copper(I) complexes supported by pyridylalkylamine ligands, *Dalton Trans.*, 4531 (2006).
- (129) H. Sugimoto, M. Tarumizu, H. Miyake, and H. Tsukube, Bis(dithiolene) molybdenum complex that promotes combined coupled electron–proton transfer and oxygen atom transfer reactions: a water-active model of the arsenite oxidase molybdenum center, *Eur. J. Inorg. Chem.*, 4494 (2006).
- (130) H. Ohi, Y. Tachi, and S. Itoh, Modeling the mononuclear, dinuclear, and trinuclear copper(I) reaction centers of copper proteins using pyridylalkylamine ligands connected to 1,3,5-triethylbenzene spacer, *Inorg. Chem.*, **45**, 10825 (2006).
- (131) S. F. Nelsen, A. E. Konradsson, and Y. Teki, Charge-localized naphthalene-bridged bis-hydrazine radical cation, *J. Am. Chem. Soc.*, **128**, 2902 (2006).
- (132) C. Morioka, Y. Tachi, S. Suzuki, and S. Itoh, Significant enhancement of monooxygenase activity of oxygen carrier protein hemocyanin, *J. Am. Chem. Soc.*, **128**, 6788 (2006).
- (133) T. Sasamori, E. Mieda, N. Nagahora, K. Sato, D. Shiomi, T. Takui, Y. Hosoi, Y. Furukawa, N. Takagi, S. Nagase, and N. Tokitoh, One-electron reduction of kinetically stabilized dipnictenes: synthesis of dipnictene anion radicals, *J. Am. Chem. Soc.*, **128**, 12582 (2006).
- (134) T. Michinobu, S. Shinoda, T. Nakanishi, J. P. Hill, K. Fujii, T. N. Player, H. Tsukube, and K. Ariga, Mechanical control of enantioselectivity of amino acid recognition by cholesterol-armed cyclen monolayer at the air–water interface, *J. Am. Chem. Soc.*, **128**, 14478 (2006).
- (135) M. Hamada, I. Ohata, K.-I. Fujita, Y. Usuki, A. Ogita, J. Ishiguro, and T. Tanaka, Inhibitory activity of 1-farnesylpyridinium on the spatial control over the assembly of cell wall polysaccharides in *Schizosaccharomyces pombe*, *J. Biochem.*, **140**, 851 (2006).
- (136) T. Tanaka, K. Nishio, Y. Usuki, and K.-I. Fujita, Involvement of oxidative stress induction in Na⁺ toxicity and its relation to the inhibition of a Ca²⁺-dependent but calcineurin-independent mechanism in *Saccharomyces cerevisiae*, *J. Biosci. Bioeng.*, **101**, 77 (2006).

- (137) M. Sakai, K. Toyota, and T. Takui, A quantum and deductive chemical study for all congeners of polybromo/chlorodibenzo-*p*-dioxin and polybromo/chlorodibenzofuran, *J. Chem. Info. Model.*, **46**, 1269 (2006).
- (138) N. Asakura, Y. Usuki, H. Iio, and T. Tanaka, Synthesis and biological evaluation of γ -fluoro- β,γ -unsaturated acids, *J. Fluorine Chem.*, **127**, 800 (2006).
- (139) C. Shimokawa, J. Teraoka, Y. Tachi, and S. Itoh, A functional model for *p*MMO (particulate methane monooxygenase). Oxygenation of alkanes with H₂O₂ catalysed by β -diketiminato copper(II) complexes, *J. Inorg. Biochem.*, **100**, 1118 (2006).
- (140) K. Hayakawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Building blocks for organic heterospin, heteromolecular complexes as models for organic molecule-based ferrimagnets, *J. Low Temp. Phys.*, **142**, 589 (2006).
- (141) Y. Kanzaki, T. Ise, D. Shiomi, K. Sato, and T. Takui, Magnetic properties of a nitronyl nitroxide triradical as a model for single-component molecule-based ferrimagnets, *J. Low Temp. Phys.*, **142**, 597 (2006).
- (142) T. Ise, D. Shiomi, K. Sato, and T. Takui, Design and synthesis of a novel organic triradical as a model compound for generalized ferrimagnets, *J. Low Temp. Phys.*, **142**, 593 (2006).
- (143) H. Tanaka, T. Ise, D. Shiomi, K. Sato, and T. Takui, Ground-state triplet biradicals of nitronyl nitroxide containing a nucleobase substituent as synthons for bio-inspired organic magnets, *J. Low Temp. Phys.*, **142**, 605 (2006).
- (144) Y. Kanzaki, D. Shiomi, C. Kaneda, T. Ise, K. Sato, and T. Takui, Clustering of molecular spins in the crystals of nitronyl nitroxide and iminonitroxide triradicals based on benzene-1,3,5-triyl frameworks, *J. Mater. Chem.*, **16**, 2064 (2006).
- (145) K. Hayakawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Pyridine-substituted nitronyl nitroxide biradicals: a triplet ($S = 1$) ground state lasting out *N*-methylation, *J. Mater. Chem.*, **16**, 4146 (2006).
- (146) T. Iwagawa, K. Hashimoto, H. Okamura, J. Kurawaki, M. Nakatani, D.-X. Hou, M. Fujii, M. Doe, Y. Morimoto, and K. Takemura, Biscembranes from the soft coral *Sarcophyton glaucum*, *J. Nat. Prod.*, **69**, 1130 (2006).
- (147) Y. Miura, Y. Muranaka, and Y. Teki, New method for syntheses of *N*-*tert*-alkoxyarylaminy radicals, *J. Org. Chem.*, **71**, 4786 (2006).
- (148) T. Yatsushashi, T. Obayashi, M. Tanaka, M. Murakami, and N. Nakashima, Femtosecond laser ionization of organic amines with very low ionization potentials: relatively small suppressed ionization features, *J. Phys. Chem. A*, **110**, 7763 (2006).
- (149) K. Maekawa, D. Shiomi, T. Ise, K. Sato, and T. Takui, Experimental evidence for the triplet-like spin state appearing in ground-state singlet biradicals as a key feature for generalized ferrimagnetic spin alignment, *J. Phys. Chem. B*, **110**, 2102 (2006).
- (150) N. Roques, P. Gerbier, Y. Teki, S. Choua, P. Lesniakova, J.P. Shutter, P. Guinnear, and C. Guerin, Towards a better understanding of photo-excited spin alignment processes using silole diradicals, *New J. Chem.*, **30**, 1319 (2006).
- (151) Y. Usuki, N. Asakura, T. Hayashi, and H. Iio, Synthetic studies of the fluorinated *C*-glycosyl aspargines, *ITE Letters on Batteries, New Technologies & Medicine*, **7**, 63 (2006).
- (152) Y. Morimoto, M. Takaishi, N. Adachi, T. Okita, and H. Yata, Two-directional synthesis and stereochemical assignment toward a *C*₂ symmetric oxasqualenoid (+)-intricatetraol, *Org. Biomol. Chem.*, **4**, 3220 (2006).
- (153) T. Umezawa, T. Hayashi, H. Sakai, T. Yoshikawa, M. Izumida, H. Teramoto, Y. Tamatani, T. Hirose, Y. Ohfune, and T. Shinada, Total synthesis of 5,6,11-trideoxytetradotoxin, *Org. Lett.*, **8**, 4971 (2006).

- (154) M. Kozaki, K. Sugimura, H. Ohnishi, and K. Okada, Preparation, properties, and reduction of a novel TCNQ-type thienoquinoid, *Org. Lett.*, **8**, 5235 (2006).
- (155) H. Nakazawa, M. Ohba, and M. Itazaki, Synthesis and reactivity of a phosphite–boryl complex of molybdenum: formation of $(\eta^5\text{-C}_5\text{Me}_5)\text{Mo}(\text{CO})_3(\text{BH}_2\text{-phosphite})$ and its Mo–B, B–P, and B–H bond reactions, *Organometallics*, **25**, 2903 (2006).
- (156) I. Akai, T. Kato, A. Okada, K. Kanemoto, T. Karasawa, M. Kimura, M. Ohashi, S. Shinoda, and H. Tsukube, Depression of excitonic energy transfer by freezing molecular vibrations in *meta*-linked branching dendrimers, *Phys. Stat. Sol. (C)*, **3**, 3414 (2006).
- (157) I. Akai, T. Kato, K. Kanemoto, T. Karasawa, M. Ohashi, S. Shinoda, and H. Tsukube, Morphology dependence of excitonic energy transfer in light-harvesting dendrimers having benzyl ether-type peripheries, *Phys. Stat. Sol. (C)*, **3**, 3420 (2006).
- (158) S. A. M. Abdelgaleil, M. Doe, Y. Morimoto, and M. Nakatani, Rings B,D-seco limonoids from the leaves of *Swietenia mahogani*, *Phytochemistry*, **67**, 452 (2006).
- (159) H. Takihiro, Y. Uruma, Y. Usuki, A. Miyake, and H. Iio, Practical synthesis of blepharismone, a mating inducing pheromone of *Blepharisma japonicum*, *Tetrahedron: Asymmetry*, **17**, 2339 (2006).
- (160) T. Shinada, T. Umezawa, T. Ando, H. Kozuma, and Y. Ohfuné, A new entry to the synthesis of *N*-acyl-*N*-guanidines, *Tetrahedron Lett.*, **47**, 1945 (2006).
- (161) M. Kozaki, A. Isoyama, and K. Okada, Detection of a diradical intermediate in the cis–trans isomerization of 5,5'-bis(4,5-diphenyl-2*H*-imidazol-2-ylidene)-5,5'-dihydro- $\Delta^{2,2'}$ -bithiophene, *Tetrahedron Lett.*, **47**, 5375 (2006).
- (162) 三宅弘之, 築部浩, CD 分光法を活用する機能性金属錯体の開発: キラリティーセンシングとらせんスイッチング, *JASCO REPORT*, **48**, 19 (2006).
- (163) 篠田哲史, 希土類錯体の発光特性を活用したアニオンセンシング系の構築, *希土類*, **49**, 1 (2006).
- (164) 築部浩, 片岡悠美子, 希土類錯体を用いる分子認識と発光センシング, 『希土類の機能と応用』, 足立吟也 監修 (シーエムシー出版), 339 (2006).
- (165) 大船泰史, 天然神経毒とカイトセファリンの全合成, *ファルマシア*, **42**, 817 (2006).
- (166) T. Wakimoto and T. Azuma, Growth of disturbance wave induced by radial liquid sheet instability, *JSME International Journal Series B*, **49**, 1022(2006).
- (167) H. Kawakami, K. Kishimoto, Y. Nanzai, Y. Sato, Birefringence Change in Epoxy Glass aged under Strain, *J. Non-Cryst. Solids*, **352**, 4956 (2006).
- (168) H. Kawakami, K. Souda, and Y. Nanzai, Relaxation phenomenon in epoxy glass aged under post-yield strain, *Polym. Eng. Sci.*, **46**, 630 (2006).
- (169) 今西啓之, 高田洋吾, 脇坂知行, 農用電動車両用トラクションコントロール 駆動力頂点探索法による滑り制御-, *農業機械学会誌*, Vol.68, No.2, (2006), pp.69-76.
- (170) Y. Ohno, Y. Kaneko and S. Hashimoto, ECC Observations of Nanostructures Formed by Sliding Wear in Copper, *Mater.Sci.Forum*, **503-504**, 727 (2006).
- (171) D. Kim, M. Miyamoto and M. Nakayama, *J. Appl. Phys.* **100**, 094313 (2006).
- (172) K. Mizoguchi, A. Mizumoto, M. Nakayama, S. Saito, A. Shoji, K. Sakai, N. Yamamoto, and K. Akahane, *J. Appl. Phys.* **100**, 103527 (2006).
- (173) S. Wakaiki, D. Kim, S. Komura, K. Mizoguchi, and M. Nakayama, *Phys. Status Solidi C* **3**, 3504 (2006).
- (174) M. Nakayama, S. Wakaiki, K. Mizoguchi, D. Kim, H. Ichida, and Y. Kanematsu, *Phys. Status Solidi C* **3**, 3464 (2006).
- (175) H. Tanaka, M. Ando, T. Uemura, and M. Nakayama, *Phys. Status Solidi C* **3**, 3512 (2006).
- (176) T. Hasegawa and M. Nakayama, *Phys. Status Solidi B* **243**, 3825 (2006).
- (177) M. Nakayama, D. Kim, and H. Ishihara, *Phys. Rev. B* **74**, 073306 (2006).

- (178) M. Nakayama, H. Tanaka, M. Ando, and T. Uemura, Appl. Phys. Lett. **88**, 031909 (2006).
- (179) M. Nakayama, H. Tanaka, K. Masuko, T. Fukushima, A. Ashida, and N. Fujimura, Appl. Phys. Lett. **88**, 241908 (2006).
- (180) D. Kim, T. Shimomura, S. Wakaiki, T. Terashita and M. Nakayama, Physica B **376-377**, 741 (2006).
- (181) H. Ichida, K. Mizoguchi, D. Kim, Y. Kanematsua, and M. Nakayama, J. Lumin. **119-120**, 457 (2006).
- (182) D. Kim, T. Kuwabara, and M. Nakayama, J. Lumin. **119-120**, 214 (2006).
- (183) D. Miyazaki, K. Shiba, K. Soutsuka, and K. Matsushita, Optics Express **14**, 12760 (2006).
- (184) M. Sugisaki, H.-W. Ren, S.V. Nair, E. Tokunaga, K. Nishi, Y. Masumoto, and H.E. Ruda, Anisotropic optical response of InP self-assembled quantum dots studied by pump-probe spectroscopy, Phys. Rev., **B75**, 125315-1-9 (2007)
- (185) M. Sugisaki, K. Yanagi, R.J. Cogdell, and H. Hashimoto, Unified explanation for linear and nonlinear optical responses in β -carotene: a sub-20-fs degenerate four-wave mixing spectroscopic study, Phys. Rev., **B75**, 155110-1-11 (2007)
- (186) M. Fujiwara, M. Maruyama, M. Sugisaki, H. Takahashi, S. Aoshima, R.J. Cogdell, and H. Hashimoto, Determination of the d -tensor components of a single crystal of N -benzyl-2-methyl-4-nitroaniline, Jpn. J. Appl. Phys., Part 1, **46**, 1528-1530 (2007)
- (187) R. Fujii, N. Wakatake, S. Shimonaka, Q.-D. Chen, M. Sugisaki, A.T. Gardiner, R.J. Cogdell, and H. Hashimoto, Femtosecond time-resolved absorption spectra of photosynthetic membrane from purple bacterium *Blastochloris (Rhodospseudomonas) viridis*, Carotenoid Sci., **11**, 26-31(2007)
- (188) M. Sugisaki, K. Yanagi, and H. Hashimoto, Stimulated photon echo signals from β -carotene and its homologue, Carotenoid Sci., **11**, 37-46(2007)
- (189) H. Yano, N. Hashimoto, A. Handa, M. Nakagawa, K. Obara, O. Ishikawa, and T. Hata, Motions of quantized vortices attached to a boundary in alternating currents of superfluid ^4He , Phys. Rev. B, **75**, 012502(1-4) (2007)
- (190) A. Handa, M. Nakagawa, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Switching phenomena between laminar and turbulent flows of superfluid ^4He generated by a vibrating wire; N. Hashimoto, J. Low Temp. Phys., **148**, 299-303(2007)
- (191) R. Kado, H. Nakagawa, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Phase transition of superfluid ^3He in aerogel, J. Low Temp. Phys., **148**, 585-589(2007)
- (192) Y. Nago, K. Obara, R. Kado, H. Yano, O. Ishikawa, and T. Hata, Fourth sound measurement of superfluid ^3He in aerogel, J. Low Temp. Phys., **148**, 597-601(2007)
- (193) R. Goto, H. Yano, K. Obara, O. Ishikawa, and T. Hata, Control of turbulence in boundary layers of superfluid ^4He by filtering out remanent vortices, N. Hashimoto, Phys. Rev. B, **76**, 020504(R)(1-4) (2007)
- (194) H. Nakagawa, R. Kado, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Equal-spin-pairing superfluid phase of ^3He in an aerogel acting as an impurity, Phys. Rev. B, **76**, 172504(1-4) (2007)
- (195) M. Itazaki, K. Ueda, and H. Nakazawa, Carbonyl(η^5 -cyclopentadienyl)(3,5-dimethylpyridine- k N)(triethylsilyl)iron(II), Acta Crystallogr., **E63**, m1312 (2007).
- (196) R. K. Mahajan, R. Kaur, H. Miyake, and H. Tsukube, Zn(II) complex-based potentiometric sensors for selective determination of nitrate anion, Anal. Chim. Acta, **584**, 89 (2007).
- (197) Y. Morimoto, T. Okita, M. Takaishi, and T. Tanaka, Total synthesis and determination of the absolute configuration of (+)-intricatetraol, Angew. Chem., Int. Ed., **46**, 1132 (2007).
- (198) Y. Morimoto, H. Yata, and Y. Nishikawa, Assignment of the absolute configuration of the marine pentacyclic polyether (+)-enshuol by total synthesis, Angew. Chem., Int. Ed., **46**, 6481 (2007).

- (199) Y. Uruma, M. Sugiura, T. Harumoto, Y. Usuki, and H. Iio, Synthesis of fluorescent molecular probes specific for the receptor of blepharismone, a mating-inducing pheromone of the ciliate *Blepharisma japonicum*, *Bioorg. & Med. Chem.*, **15**, 1622 (2007).
- (200) T. Nishioka, S. Mitsui, I. Kinoshita, T. Koshiyama, and M. Kato, Observation of halide-induced conformational conversion of dinuclear copper complexes having a tetradentate polypyridine ligand with a p-xylene backbone, *Bull. Chem. Soc. Jpn.*, **80**, 1357 (2007).
- (201) H. Nakazawa, M. Itazaki, K. Kamata, and K. Ueda, Iron-complex-catalyzed C–C bond cleavage of organonitriles: catalytic methathesis reaction between H–Si and R–CN bonds to afford R–H and Si–CN bonds, *Chem.–Asian J.*, **2**, 882 (2007).
- (202) K. Okada, S. Beppu, K. Tanaka, M. Kuratsu, K. Furuichi, M. Kozaki, S. Suzuki, D. Shiomi, K. Sato, T. Takui, Y. Kitagawa, and K. Yamaguchi, Preparation, structure, and magnetic interaction of a Mn(hfac)₂-bridged [2-(3-pyridyl)(nitronyl nitroxide)–Mn(hfac)₂]₂ chain complex, *Chem. Commun.*, **24**, 2485 (2007).
- (203) H. Tsukube, Y. Suzuki, D. Paul, Y. Kataoka, and S. Shinoda, Dendrimer container for anion-responsive lanthanide complexation and "on–off" switchable near-infrared luminescence, *Chem. Commun.*, 2533 (2007).
- (204) T. Murata, Y. Morita, Y. Yakiyama, Y. Nishimura, T. Ise, D. Shiomi, K. Sato, T. Takui, and K. Nakasuji, Zwitterionic π -radical involving EDT-TTF-imidazole and F₄TCNQ: redox properties and self-assembled structure by hydrogen-bonds and multiple S \cdots S interactions, *Chem. Commun.*, 4009 (2007).
- (205) S. Shinoda, M. Ohashi, and H. Tsukube, "Pocket dendrimers" as nanoscale receptors for bimolecular guest accommodation, *Chem.–Eur. J.*, **13**, 81 (2007).
- (206) H. Tsukube, K. Yano, A. Ishida, and S. Shinoda, Lanthanide complex strategy for detection and separation of histidine-tagged proteins, *Chem. Lett.*, **36**, 554 (2007).
- (207) H. Tanaka, D. Shiomi, T. Ise, K. Sato, and T. Takui, Cytosine–guanine base pairing in a hydrogen-bonded complex of stable open-shell molecules with $S = 1$ spins, *CrystEngComm*, **9**, 767 (2007).
- (208) T. Nagataki, K. Ishii, Y. Tachi, and S. Itoh, Ligand effects on Ni^{II}-catalyzed alkane-hydroxylation with *m*-CPBA, *Dalton Trans.*, 1120 (2007).
- (209) Y. Kataoka, D. Paul, H. Miyake, S. Shinoda, and H. Tsukube, A Cl[–] anion-responsive luminescent Eu³⁺ complex with a chiral tripod: ligand substituent effects on ternary complex stoichiometry and anion sensing selectivity, *Dalton Trans.*, 2784 (2007).
- (210) H. Sugimoto, M. Tarumizu, H. Miyake, and H. Tsukube, Synthesis and characterization of bis(dithiolene) tungsten(VI), -(V), and -(IV) complexes and their reactivities in coupled electron–proton transfer: a new series of active site models of tungstoenzymes, *Eur.J. Inorg. Chem.*, 4663 (2007).
- (211) H. Sugimoto, H. Tano, R. Tajima, H. Miyake, H. Tsukube, H. Ohi, and S. Itoh, In-situ generation of oxo-sulfidobis(dithiolene)tungsten(VI) complexes: active-site models for the aldehyde ferredoxin oxidoreductase family of tungsten enzymes, *Inorg. Chem.*, **46**, 8460 (2007).
- (212) M. Kuratsu, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Magnetic interaction and phase transition to an antiferromagnet of tri- and di-oxytriphenylamine radical cation FeCl₄ salts, *Inorg. Chem.*, **46**, 10153 (2007).
- (213) A. Ogita, K. Matsumoto, K.-I. Fujita, Y. Usuki, Y. Hatanaka, and T. Tanaka, Synergistic fungicidal activities of amphotericin B and *N*-methyl-*N'*-dodecylguanidine: a constituent of polyol macrolide antibiotic niphimycin, *J. Antibiotics*, **60**, 27 (2007).
- (214) N. Mizuhara, Y. Usuki, M. Ogita, K.-I. Fujita, M. Kuroda, M. Doe, H. Iio, and T. Tanaka, Identification of phoslactomycin E as a metabolite inducing hyphal morphological abnormalities in *Aspergillus fumigatus* IFO 5840, *J. Antibiotics*, **60**, 762 (2007).

- (215) M. Murakami, M. Tanaka, T. Yatsunami, and N. Nakashima, Enhancement of anthracene fragmentation by circularly polarized intense femtosecond laser pulse, *J. Chem. Phys.*, **126**, 104304 (2007).
- (216) M. Tanaka, M. Murakami, T. Yatsunami, and N. Nakashima, Atomiclike ionization and fragmentation of a series of CH₃-X (X: H, F, Cl, Br, I, and CN) by an intense femtosecond laser, *J. Chem. Phys.*, **127**, 104314 (2007).
- (217) T. Yatsunami, M. Murakami, and N. Nakashima, Anisotropic bulletlike emission of terminal ethynyl fragment ions: ionization of ethynylbenzene-*d* under intense femtosecond laser fields, *J. Chem. Phys.*, **126**, 194316 (2007).
- (218) S. Shinoda, Nanoscale substrate recognition by porphyrin dendrimers with patched structures, *J. Inclusion Phenom. Macrocycl. Chem.*, **59**, 1 (2007).
- (219) H. Nakazawa, M. Itazaki, and M. Ohba, Molybdenum complexes bearing a diamino-substituted-phosphiteboron ligand: syntheses, structures, and reactivity involving the Mo-B, B-P, and B-H activation, *J. Organomet. Chem.*, **692**, 201 (2007).
- (220) T. Shinoda, T. Ishida, and Y. Ohfuné, Recent progress on squaric acid research in bioorganic fields, *J. Synth. Org. Chem. Jpn.*, **65**, 30 (2007).
- (221) H. Yoshino, G. C. Papavassiliou, and K. Murata, Low-dimensional organic conductors as thermoelectric materials, *J. Therm. Anal. Calorim.* **92**, 457 (2008).
- (222) K. Yokogawa, K. Murata, H. Yoshino, and T. Sasaki, Solidification of high-pressure medium Daphne 7373, *Jpn. J. Appl. Phys. Part. 1*, **46**, 3636 (2007).
- (223) K. Maekawa, T. Ise, D. Shiomi, K. Sato, and T. Takui, A guanine-substituted nitronyl nitroxide radical forming a one-dimensional ferromagnetic chain, *Org. Biomol. Chem.*, **5**, 1641 (2007).
- (224) T. Kubo, A. Shimizu, M. Uruichi, K. Yakushi, M. Nakano, D. Shiomi, K. Sato, T. Takui, Y. Morita, and K. Nakasuji, Singlet biradical character of phenalenyl-based Kekule hydrocarbon with naphthoquinoid structure, *Org. Lett.*, **9**, 81 (2007).
- (225) M. Kozaki, K. Akita, and K. Okada, Enhanced electron transfer by dendritic architecture: energy transfer and electron transfer in snowflake-shaped Zn porphyrin dendrimers, *Org. Lett.*, **9**, 1509 (2007).
- (226) T. Shinoda, E. Ikebe, K. Oe, K. Namba, M. Kawasaki, and Y. Ohfuné, Synthesis and absolute structure of manzacidin B, *Org. Lett.*, **9**, 1765 (2007).
- (227) M. Kozaki, K. Akita, S. Suzuki, and K. Okada, Construction of a rigid Zn porphyrin-C₆₀ dyad within dendritic structure: dendrimer effect on singlet energy transfer, *Org. Lett.*, **9**, 3315 (2007).
- (228) T. Nishioka, T. Shibata, and I. Kinoshita, Sugar-incorporated N-heterocyclic carbene complexes, *Organometallics*, **26**, 1126 (2007).
- (229) K. Fukumoto and H. Nakazawa, Silane-catalyzed reaction: *fac-mer* isomerization of [Mo(CO)₃(phosHITE)₃], *Organometallics*, **26**, 6505 (2007).
- (230) K. Sato, R. Rahimi, N. Mori, S. Nishida, K. Toyota, D. Shiomi, Y. Morita, A. Ueda, S. Suzuki, K. Furukawa, T. Nakamura, M. Kitagawa, K. Nakasuji, M. Nakahara, H. Hara, P. Carl, P. Hofer, and T. Takui, Implementation of molecular spin quantum computing by pulsed ENDOR technique: direct observation of quantum entanglement and spinor, *Physica E*, **40**, 363 (2007).
- (231) K. Hayakawa, T. Ise, D. Shiomi, K. Sato, and T. Takui, Stable iminonitroxide biradicals: building blocks for organic heterospin, heteromolecular complexes, *Polyhedron*, **26**, 1885 (2007).
- (232) Y. Kanzaki, D. Shiomi, T. Ise, K. Sato, and T. Takui, Magnetic interactions in *p*-phenylene-bis(nitronyl nitroxide) biradicals with large torsion angles, *Polyhedron*, **26**, 1890 (2007).
- (233) Y. Kanzaki, D. Shiomi, T. Ise, K. Sato, and T. Takui, Benzyl-phenyl ether derivatives of nitronyl nitroxide triradicals as a model for single-component organic molecule-based ferrimagnetics, *Polyhedron*, **26**, 1901 (2007).

- (234) H. Tamekuni, and Y. Teki, Design, synthesis and physical properties of the metal complexes using π -radical with photo-excited high spin state as a ligand, *Polyhedron*, **26**, 1984 (2007).
- (235) M. Yano, A. Fujiwara, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Amine-based organic high-spin systems; synthesis, electrochemical and spectroscopic studies of polyalkylated one-dimensional oligoaryl triamines, *Polyhedron*, **26**, 2008 (2007).
- (236) K. Tanaka, K. Furuichi, M. Kozaki, S. Suzuki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Preparation and magnetic properties of 4,6-bis(iminonitroxide)-substituted resorcinol and its Cu-complex, *Polyhedron*, **26**, 2021 (2007).
- (237) M. Yano, K. Kitagawa, M. Tatsumi, K. Sato, and T. Takui, *m*-Phenylenediamine-based high-spin dication diradicals: analysis of the decomposed products, *Polyhedron*, **26**, 2027 (2007).
- (238) N. Mihara and Y. Teki, The metal complexes using organic ligands with photo-excited high-spin states, *Polyhedron*, **26**, 2142 (2007).
- (239) M. Yano, M. Fujita, M. Miyake, M. Tatsumi, T. Yajima, O. Yamauchi, M. Oyama, K. Sato, and T. Takui, Synthesis and properties of a redox active ligand with bispicorylamino groups and its dinuclear complex, *Polyhedron*, **26**, 2174 (2007).
- (240) H. Tanaka, D. Shiomi, T. Ise, K. Sato, and T. Takui, Thymine-substituted nitronyl nitroxide biradical as a triplet ($S = 1$) component for bio-inspired molecule-based magnets, *Polyhedron*, **26**, 2230 (2007).
- (241) K. Maekawa, T. Ise, D. Shiomi, K. Sato, and T. Takui, Cytosine- and a guanine-substituted nitronyl nitroxide radicals as building blocks for generalized ferrimagnetic system, *Polyhedron*, **26**, 2347 (2007).
- (242) Y. Uruma, K. Sakamoto, K. Takumi, M. Doe, Y. Usuki, and H. Iio, Assignment of ^{13}C NMR spectrum for blepharismine C based on biosynthetic studies, *Tetrahedron*, **63**, 5548 (2007).
- (243) S. Nishida, Y. Morita, T. Ohba, K. Fukui, K. Sato, T. Takui, and K. Nakasuji, Control in spin-delocalization into the 2-substituted π -systems in 3-oxophenalenoxyl neutral radicals: evaluation by their dimeric structures and DFT calculations, *Tetrahedron*, **63**, 7690 (2007).
- (244) K. Sakaguchi, T. Okada, T. Yamada, and Y. Ohfuné, Palladium-catalyzed intramolecular olefin insertion reaction of α -alkenyl- α -acyloxytrialkylsilane. Synthesis of optically active carbocycles, *Tetrahedron Lett.*, **48**, 3925 (2007).
- (245) K. Sakaguchi, M. Yamamoto, Y. Watanabe, and Y. Ohfuné, Ester-enolate Claisen rearrangement of proline-containing α -acyloxy- α -vinylsilane. Synthesis of pyrrolidine-fused glutamate analogs, *Tetrahedron Lett.*, **48**, 4821 (2007).
- (246) T. Shinada, T. Ishida, K. Hayashi, Y. Yoshida, Y. Shigeri, and Y. Ohfuné, Synthesis of leucine-enkephalin analogs containing α -amino squaric acid, *Tetrahedron Lett.*, **48**, 7614 (2007).
- (247) T. Isobe, M. Doe, Y. Morimoto, K. Nagata, N. Masuoka, and A. Ohsaki, Biological activity tests of chemical constituents from two Brazilian labiatae plants, *Yakugaku Zasshi*, **127**, 389 (2007).
- (248) R. D. Rahimi, K. Sato, D. Shiomi, and T. Takui, Quantum information processing as studied by molecule-based pulsed ENDOR spectroscopy, *Modern Magnetic Resonance*, Graham A. Webb, Ed (Springer-Verlag), 643 (2007).
- (249) 杉本秀樹, モリブデンおよびタングステン含有酵素活性中心に関連する合成モデルの化学, *Bull. Jpn. Soc. Coord. Chem.*, **50**, 26 (2007).
- (250) 篠田哲史, 希土類錯体による水溶液中での分子・イオン認識, 化学工業—特集/最先端希土類研究と応用 (化学工業社), **58**, 753 (2007).
- (251) 三宅弘之, 築部 浩, 錯体化学と分子認識, 『分子認識と超分子』, 早下隆士, 築部浩 共編 (三共出版), 237 (2007).
- (252) 脇本辰郎, 東 恒雄, 放射状自由液膜流れの乱流遷移によるせん孔現象とせん孔の促進および抑制要因, 日本機械学会論文集 B 編, **73**, 1205 (2007).

- (253) 今西啓之,高田洋吾,脇坂知行, 農用電動車両を対象とした燃料電池ハイブリッドパワーシステムの高効率化の基礎的検討, 農業機械学会学会誌, Vol.69, No.1, (2007), pp.78-85.
- (254) T. Taniguchi, Y. Kaneko and S. Hashimoto, Fatigue Lives of a Ferritic Stainless Steel Containing Deformation Twins, *Key Eng. Mater.*, **353-358**, 283 (2007).
- (255) Y. Kaneko, M. Ishikawa and S. Hashimoto, ECCI Observation of Dislocation Structure Formed around an Intergranular Fatigue Crack in Copper, *Advanced Mater.Res.*, **26-28**, 1317 (2007).
- (256) Y. Kaneko, T. Sanda and S. Hashimoto, Microstructure of Ni/Cu and Ni-Co/Cu multilayers Produced by Electrodeposition Method, *Advanced Mater.Res.*, **26-28**, 1321 (2007).
- (257) Y. Kaneko, Y. Nishijima, T. Sanda and S. Hashimoto, Fatigue Life Enhancement by Surface Coating of Ni/Cu Multilayer Films, *Mater.Sci.Forum*, **561-565**, 2393 (2007).
- (258) Y. Ohno, J. Inotani, Y. Kaneko and S. Hashimoto, Subsurface Microstructure Induced by Sliding Wear in an Copper Single Crystal, *Mater.Sci.Forum*, **561-565**, 2407 (2007).
- (259) T. Hattori, Y. Kaneko and S. Hashimoto, Tribological Properties of Ni/Cu Multilayers, *Mater.Sci.Forum*, **561-565**, 2451 (2007).
- (260) 吉岡真弥, 西田幸平, 南齋征夫, 動的力学スペクトル測定を用いたポリメタクリル酸メチルの降状現象の解析, *材料*, **56**, 25 (2007).
- (261) T. Hasegawa, K. Mizoguchi, M. Nakayama, *Phys. Rev. B* **76**, 115323 (2007).
- (262) H. Ichida, Y. Kanematsu, K. Mizoguchi, D. Kim, and M. Nakayama, *Phys. Rev. B* **76**, 085417 (2007).
- (263) M. Nakayama, T. Nishioka, S.Wakaiki, G. Oohata, K. Mizoguchi, D. Kim, and K. Edamatsu, *Jpn. J. Appl. Phys.* **46**, L234 (2007).
- (264) D. Kim, S. Wakaiki, S. Komura, and M. Nakayama, *Appl. Phys. Lett.* **90**, 101918 (2007).
- (265) T. Hasegawa and M. Nakayama, *J. Appl. Phys.* **101**, 043512 (2007).
- (266) M. Nakayama, K. Mizoguchi, O. Kojima, T. Furuichi, A. Mizumoto, S. Saito, A. Shouji, and K. Sakai, *Phys. Status Solidi A* **204**, 518 (2007).
- (267) Y. Iguchi, T. Ishizuka, T. Yamada, S. Takagishi, K. Nomura, and M. Nakayama, *J. Crystal Growth*, **298**, 540 (2007).
- (268) T. Ishizuka, H. Doi, T. Katsuyama, J. Hashimoto, and M. Nakayama, *J. Crystal Growth* **298**, 116 (2007).
- (269) H. Takeuchi, Y. Yamamoto, Y. Kamo, T. Kunii, T. Oku, S. Wakaiki and M. Nakayama, *Eur. Phys. J. Appl. Phys.* **37**,119-122 (2007).
- (270) T. Hasegawa and M. Nakayama, *J. Lumin.* **122-123**, 841 (2007).
- (271) M. Nakayama, Y. Iguchi, K. Nomura, J. Hashimoto, T. Yamada and S. Takagishi, *J. Lumin.* **122-123**, 753 (2007).
- (272) K. Tomihira, D. Kim, and M. Nakayama, *J. Lumin.* **122-123**, 471 (2007).
- (273) H. Ichida, T. Shimomura, K. Mizoguchi, D. Kim, Y. Kanematsu, and M. Nakayama, *J. Lumin.* **122-123**, 396 (2007).
- (274) M. Fujiwara, K. Yamauchi, M. Sugisaki, A. Gall, B. Robert, R.J. Cogdell, and H. Hashimoto, Energy dissipation in the ground-state vibrational manifolds of β -carotene homologues: A sub-20-fs time-resolved transient grating spectroscopic study, *Phys. Rev.*, **B77**, 205118-1-10 (2008)
- (275) M. Fujiwara, K. Yamauchi, M. Sugisaki, A. Gall, B. Robert, R.J. Cogdell, and H. Hashimoto, Large third-order optical nonlinearity realized in symmetric nonpolar carotenoids, *Phys. Rev.*, **B78**, 161101(R)/1-4 (2008).
- (276) R. Fujii, S. Shimonaka, N. Uchida, A. T. Gardiner, R. J. Cogdell, M. Sugisaki, and H. Hashimoto, Construction of hybrid photosynthetic units using peripheral and core antennae from two different species of photosynthetic bacteria: Detection of the energy transfer from bacteriochlorophyll *a* in LH2 to bacteriochlorophyll *b* in LH1, *Photosynth. Res.*, **95**, 327-337(2008).

- (277) M. Sugisaki, M. Fujiwara, K. Yanagi, R. J. Cogdell, and H. Hashimoto, Four-wave mixing signals from β -carotene and its $n=15$ homologue, *Photosynth. Res.*, **95**, 299-308(2008).
- (278) M. Sugisaki, R. Fujii, R. J. Cogdell, and H. Hashimoto, Linear and nonlinear optical responses in bacteriochlorophyll *a*, *Photosynth. Res.*, **95**, 309-316(2008).
- (279) M. Sugisaki, M. Fujiwara, K. Yanagi, R. Fujii, R. J. Cogdell, and H. Hashimoto, Coherent spectroscopy of carotenoid and bacteriochlorophyll, in: *Photosynthesis. Energy of Sun: 14th International Congress on Photosynthesis Research 2007* (ed. J. F. Allen et al., Springer-Verlag, Berlin, Heidelberg, New York, Tokyo), 259-262(2008).
- (280) 橋本 秀樹, 杉崎 満, 「第6章 光合成研究最前線」, 巨視的量子現象とコヒーレンス (畑徹 編), 151-194(2008).
- (281) H. Yano, N. Hashimoto, R. Goto, K. Obara, O. Ishikawa, and T. Hata, Instability of quantized vortices attached to oscillating boundaries in superfluid ^4He , *J. Low Temp. Phys.*, **150**, 410-414(2008).
- (282) R. Kado, H. Nakagawa, K. Obara, H. Yano, O. Ishikawa, and T. Hata, A-B phase conversion and coexistence of superfluid ^3He in aerogel, *J. Low Temp. Phys.*, **150**, 472-475(2008).
- (283) Y. Nago, C. Kato, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Energy loss of fourth sound in superfluid ^3He within small pores, *J. Low Temp. Phys.*, **150**, 476-481(2008).
- (284) R. Goto, S. Fujiyama, H. Yano, Y. Nago, N. Hashimoto, K. Obara, O. Ishikawa, M. Tsubota, and T. Hata, Turbulence in boundary flow of superfluid ^4He triggered by free vortex rings, *Phys. Rev. Lett.*, **100**, 045301(1-4) (2008).
- (285) I. Akai, K. Miyanari, T. Shimamoto, A. Fujii, H. Nakao, A. Okada, K. Kanemoto, T. Karasawa, H. Hashimoto, Ishida, A. Yamada, I. Katayama, J. Takeda, and M. Kimura, Rapid energy transfer in a dendrimer having conjugated light-harvesting antennas, *New Journal of Physics*, **10**, 125024-1-22(2008).
- (286) M. Itazaki, M. Kamitani, and H. Nakazawa, [(Carbonyl)(η^5 -cyclopentadienyl)(triethylstannyl)(pyridine)iron(II)], *Acta Crystallogr.*, **E64**, m1578 (2008).
- (287) K. Murata, T. Shinada, Y. Ohfune, M. Hisada, A. Yasuda, H. Naoki, and T. Nakajima, Novel mastoparan protonectin analogs isolated from a solitary wasp, *Orancistrocerus drewseni drewseni*, *Amino Acids*, 389 (2008).
- (288) Y. Morita, A. Ueda, S. Nishida, K. Fukui, T. Ise, D. Shiomi, K. Sato, T. Takui, and K. Nakasuji, Curved aromaticity of corannulene-based neutral radical: crystal structure and 3D unbalanced delocalization of spin, *Angew. Chem. Int. Ed.*, **47**, 2035 (2008).
- (289) T. Sawai, K. Sato, T. Ise, D. Shiomi, K. Toyota, Y. Morita, and T. Takui, Macrocyclic high-spin ($S = 2$) molecule: spin identification of a sterically rigid metacyclophane-based nitroxide tetradical by two-dimensional electron spin transient nutation spectroscopy, *Angew. Chem. Int. Ed.*, **47**, 3988 (2008).
- (290) D.-M. S. Islam, Y. Sasaki, H. Kawauchi, M. Kozaki, Y. Araki, O. Ito, and K. Okada, Photoinduced electron-transfer and electron-mediating processes of fullerenes and phenothiazine oligomers in a polar solvent, *Bull. Chem. Soc. Jpn.*, **81**, 103 (2008).
- (291) Y. Fujiwara, M. Mangetsu, P. Yang, H. Kofujita, K. Suzuki, Y. Ohfune, and T. Shinada, A quinone isolated from the nest of *Vespa simillima* and its growth-inhibitory effect on rat liver cancer cells, *Biol. Pharm. Bull.*, **31**, 722 (2008).
- (292) K. Kitano, N. Kuwamura, R. Tanaka, R. Santo, T. Nishioka, A. Ichimura, and I. Kinoshita, Synthesis and characterization of tris(2-pyridylthio)methanido Zn complex with a Zn-C bond and DFT calculation of its one-electron oxidized species, *Chem. Commun.*, 1314 (2008).

- (293) Y. Kataoka, D. Paul, H. Miyake, T. Yaita, E. Miyoshi, H. Mori, S. Tsukamoto, H. Tatewaki, S. Shinoda, and H. Tsukube, Experimental and theoretical approaches toward anion-responsive tripod–lanthanide complexes: mixed-donor ligand effects on lanthanide complexation and luminescence sensing profiles, *Chem.–Eur. J.*, **14**, 5258 (2008).
- (294) H. Miyake, M. Hikita, M. Itazaki, H. Nakazawa, H. Sugimoto, and H. Tsukube, A chemical device that exhibits dual mode motions: dynamic coupling of amide coordination isomerism and metal-centered helicity inversion in a chiral cobalt(II) complex, *Chem.–Eur. J.*, **14**, 5393 (2008).
- (295) Y. Tsukahara, M. Hirotsu, S. Hattori, Y. Usuki, and I. Kinoshita, A Thiocalix[3]pyridine copper(I) complex as a highly active catalyst for the olefin aziridination reaction, *Chem. Lett.*, **37**, 452 (2008).
- (296) D. Nishida, M. Kusaba, T. Yatsunami, and N. Nakashima, Reduction of Eu^{3+} to Eu^{2+} by an intense femtosecond laser pulse in solution, *Chem. Phys. Lett.*, **465**, 238 (2008).
- (297) H. Sugimoto and H. Tsukube, Chemical analogues relevant to molybdenum and tungsten enzyme reaction centres toward structural dynamics and reaction diversity, *Chem. Soc. Rev.*, **37**, 2609 (2008).
- (298) F. Buonanno, L. Quassinti, M. Bramucci, C. Amantini, R. Lucciarini, G. Santoni, H. Iio, and C. Orteni, The protozoan toxin climacostol inhibits growth and induces apoptosis of human tumor cell lines, *Chemico-Biological Interactions*, **176**, 151 (2008).
- (299) H. Tsukube, Y. Noda, Y. Kataoka, H. Miyake, S. Shinoda, A. Kojima-Yuasa, Y. Nishida, and I. Matsui-Yuasa, Oligopyridine ligands derived from amino acid precursors: their Zn^{2+} complexation and effects on hepatic stellate cell functions, *Dalton Trans.*, 4038 (2008).
- (300) Y. Matsuo, M. Suzuki, M. Masuda, T. Iwai, and Y. Morimoto, Squalene-derived triterpene polyethers from the red alga *Laurencia omaezakiana*, *Helv. Chim. Acta*, **91**, 1261 (2008).
- (301) N. T. Kipassa, H. Okamura, M. Doe, Y. Morimoto, T. Iwagawa, and M. Nakatani, Three mexicanolides from the root bark of *entandrophragma angolense*, *Heterocycles*, **75**, 157 (2008).
- (302) T. Iwagawa, M. Miyazaki, Y. Yokogawa, H. Okamura, M. Nakatani, M. Doe, Y. Morimoto, and K. Takemura, Aplysinopsin dimers from a stony coral *Tubastraea aurea*, *Heterocycles*, **75**, 2023 (2008).
- (303) H. Tano, R. Tajima, H. Miyake, S. Itoh, and H. Sugimoto, Selenidobis(dithiolene)metal(IV) complexes (Metal M = Mo, W) potentially related to the nicotinic acid hydroxylase reaction center: redox aspects in electrochemistry and oxygen atom transfer from Me_3NO to M^{IV} centers, *Inorg. Chem.*, **47**, 7465 (2008).
- (304) H. Sugimoto, K. Suyama, K. Sugimoto, H. Miyake, I. Takahashi, S. Hirota, and S. Itoh, A new class of sulfido/oxo(dithiolene)–molybdenum(IV) complexes derived from sulfido/oxo-bis(tetrasulfido)molybdenum(IV) anions, *Inorg. Chem.*, **47**, 10150 (2008).
- (305) N. Mihara and Y. Teki, Electronic ground state, magnetic property, and photo-excited state of ferrocene substituted phenylanthracene verdazyl radical, *Inorg. Chim. Acta*, **361**, 3891 (2008).
- (306) S. Nakazawa, K. Sato, D. Shiomi, M. L. T. M. B. Franco, M. C. R. L. R. Lazana, M. C. B. L. Shohoji, K. Itoh, and T. Takui, Electronic and molecular structures of C_{60} -based polyanionic high-spin molecular clusters: direct spin identification and electron spin transient nutation spectroscopy for high-spin chemistry, *Inorg. Chim. Acta*, **361**, 4031 (2008).
- (307) R. K. Mahajan, R. Kaur, S. Shinoda, and H. Tsukube, Lanthanide metal complex-based membrane electrodes for sensing of biological amino alcohols, *J. Alloys Compd.*, **451**, 578 (2008).
- (308) H. Miyake, H. Kamon, I. Miyahara, H. Sugimoto, and H. Tsukube, Time-programmed peptide helix inversion of synthetic metal complex triggered by achiral NO_3^- anion, *J. Am. Chem. Soc.*, **130**, 792 (2008).
- (309) S. Nishida, Y. Morita, A. Ueda, T. Kobayashi, K. Fukui, K. Ogasawara, K. Sato, T. Takui, and K. Nakasuji, Curve-structured phenalenyl chemistry: synthesis, electronic structure and bowl-inversion barrier of a phenalenyl-fused corannulene anion, *J. Am. Chem. Soc.*, **130**, 14954 (2008).

- (310) T. Yatsushashi, S. Ichikawa, Y. Shigematsu, and N. Nakashima, High-order multiphoton fluorescence of organic molecules in solution by intense femtosecond laser pulses, *J. Am. Chem. Soc.*, **130**, 15264 (2008).
- (311) H. Nakai, T. Nonaka, Y. Miyano, M. Mizuno, Y. Ozawa, K. Toriumi, N. Koga, T. Nishioka, M. Irie, and K. Isobe, Photochromism of an organorhodium dithionite complex in the crystalline-state: molecular motion of pentamethylcyclopentadienyl ligands coupled to atom rearrangement in a dithionite ligand, *J. Am. Chem. Soc.*, **130**, 17836 (2008).
- (312) O. Matsui, K.-I. Fujita, H. Nakayama, M. Taniguchi, Y. Tarui, E. Hirasawa, Y. Usuki, and T. Tanaka, Isolation of an *Acromonium* sp. capable of liquefying cross-linked poly(γ -glutamic acid) hydrogels and the fungal enzyme involved in the disruption of γ -ray irradiation-mediated cross-linking, *J. Biosci. Bioeng.*, **105**, 422 (2008).
- (313) Y. Teki, H. Tamekuni, K. Haruta, J. Takeuchi, and Y. Miura, Design, synthesis, and uniquely electron-spin-polarized quartet photo-excited state of a π -conjugated spin system generated via the ion-pair state, *J. Mater. Chem.*, **18**, 381 (2008).
- (314) K. Fukumoto and H. Nakazawa, Geometrical isomerization of *fac/mer*-Mo(CO)₃(phosphite)₃ and *cis/trans*-Mo(CO)₄(phosphite)₂ catalyzed by Me₃SiOSO₂CF₃, *J. Organomet. Chem.*, **693**, 1968 (2008).
- (315) T. Namikawa, M. Kuratsu, M. Kozaki, T. Matsushita, A. Ichimura, K. Okada, A. Yoshimura, N. Ikeda, and K. Nozaki, Photoinduced electron transfer reactions of highly twisted 1-donor-substituted 2,4,6-triphenylpyridinium cations, *J. Photochem. Photobiol. A: Chem.*, **194**, 254 (2008).
- (316) S. Takahashi, K. Nozaki, M. Kozaki, S. Suzuki, K. Keyaki, A. Ichimura, T. Matsushita, and K. Okada, Photoinduced electron transfer of *N*-[(3- and 4-diarylamino)phenyl]-1,8-naphthalimide dyads: orbital-orthogonal approach in a short-linked D–A system, *J. Phys. Chem. A*, **112**, 2533 (2008).
- (317) T. Yatsushashi and N. Nakashima, Explosive desorption and fragmentation of molecular ion from solid fullerene by intense nonresonant femtosecond laser pulses, *J. Phys. Chem. A*, **112**, 5781 (2008).
- (318) H. Kawauchi, S. Suzuki, M. Kozaki, K. Okada, D.–M. S. Islam, Y. Araki, O. Ito, and K. Yamanaka, Photoinduced charge-separation and charge-recombination processes of fullerene[60] dyads covalently connected with phenothiazine and its trimer, *J. Phys. Chem. A*, **112**, 5878 (2008).
- (319) Y. Morita, S. Suzuki, K. Fukui, S. Nakazawa, H. Kitagawa, H. Kishida, H. Okamoto, A. Naito, A. Sekine, Y. Ohashi, M. Shiro, K. Sasaki, D. Shiomi, K. Sato, T. Takui, and K. Nakasuji, Thermochromism in an organic crystal based on the coexistence of σ - and π -dimers, *Nature Mater.*, **7**, 48 (2008).
- (320) H. Tsukube, K. Yano, and S. Shinoda, Lanthanide complex strategy for near-infrared luminescence sensing of glutamic acid and related bio-targets, *Luminescence*, **23**, 274 (2008).
- (321) Y. Morimoto, The Role of chemical synthesis in structure elucidation of oxasqualenoids, *Org. Biomol. Chem.*, **6**, 1709 (2008).
- (322) M. Kozaki, A. Uetomo, S. Suzuki, and K. Okada, A light-harvesting array composed of porphyrins and rigid backbones, *Org. Lett.*, **10**, 4477 (2008).
- (323) K. Sakaguchi, M. Ayabe, Y. Watanabe, T. Okada, K. Kawamura, T. Shinada, and Y. Ohfuné, Total synthesis of (–)-amathaspiramide F, *Org. Lett.*, **10**, 5449 (2008).
- (324) T. Matsumoto, T. Sasamori, K. Sato, T. Takui, and N. Tokitoh, Reduction of a kinetically stabilized silabenzene leading to the formation of the corresponding anion radical species, *Organometallics*, **27**, 305 (2008).
- (325) M. Shibue, M. Hirotsu, T. Nishioka, and I. Kinoshita, Ruthenium and rhodium complexes with thiolate-containing pincer ligands produced by C–S bond cleavage of pyridyl-substituted dibenzothiophenes, *Organometallics*, **27**, 4475 (2008).

- (326) N. T. Kipassa, T. Iwagawa, H. Okamura, M. Doe, Y. Morimoto, and M. Nakatani, Limonoids from the stem bark of *Cedrela odorata*, *Phytochemistry*, **69**, 1782 (2008).
- (327) K. Murata, K. Yokogawa, H. Yoshino, S. Klotz, P. Munsch, A. Irizawa, M. Nishiyama, K. Iizuka, T. Nanba, T. Okada, Y. Shiraga, and S. Aoyama, Pressure transmitting medium, Daphne 7474 solidifying at 3.7 GPa at room temperature, *Rev. Sci. Instrum.*, **79**, 085101 (2008).
- (328) K. Yoshioka, S. Tominaga, Y. Uruma, Y. Usuki, and H. Iio, Starter units of the biosynthesis of blepharismins: self-defense pigments of *Blepharisma japonicum*, *Tetrahedron*, **64**, 4103 (2008).
- (329) T. Yamada, K. Sakaguchi, T. Shinada, Y. Ohfuné, and V. A. Soloshonok, Efficient asymmetric synthesis of functionalized pyroglutamate core unit common to oxazolomycin neoxazolomycin using Michael reaction of nucleophilic glycine Schiff base with α,β -disubstituted acrylate, *Tetrahedron: Asymmetry*, **19**, 2789 (2008).
- (330) K. Sakaguchi, T. Okada, T. Shinada, and Y. Ohfuné, Au(I)-catalyzed efficient synthesis of α -acyloxy- α' -silyl ketones from α -acyloxy- α -alkynylsilanes, *Tetrahedron Lett.*, **49**, 25 (2008).
- (331) M. Kozaki, H. Tujimura, S. Suzuki, and K. Okada, Stepwise construction of a cross-shaped covalent assembly of dendrimers, *Tetrahedron Lett.*, **49**, 2931 (2008).
- (332) K. Oe, T. Shinada, and Y. Ohfuné, Short and stereoselective synthesis of manzacidins A and C, and their enantiomers, *Tetrahedron Lett.*, **49**, 7426 (2008).
- (333) S. Mameri, S. Shinoda, and H. Tsukube, Molecular recognition with designed heterocycles and their lanthanide complexes, heterocyclic supramolecules I, *Topics in Heterocyclic Chemistry*, K. Matsumoto, Ed (Springer-Verlag, Heidelberg, Germany), **17**, 1 (2008).
- (334) 築部浩, 魅力あふれる希土類錯体 (『リレー連載: 化学レビュー』), *化学*, **63**, 47 (2008).
- (335) 築部浩, 篠田哲史, 希土類錯体型分子認識ツールの設計と応用, 『希土類の材料技術ハンドブック』, 足立吟也監修, 足立吟也, 佐々木正元, 吉田紀史共編 (エヌ・ティイー・エス), 919 (2008).
- (336) 手木芳男, π 共役ラジカルの光励起状態と光誘起スピン整列 —有機ラジカルの励起状態を利用した複合機能発現の基礎研究—, *機能材料* (シーエムシー出版), **28**, 21 (2008).
- (337) 工位武治, 中澤重顕, 佐藤和信, 塩見大輔, 豊田和男, 有機ラジカル量子ビット —分子スピン量子コンピュータ/量子情報処理技術の開発—, *機能材料* (シーエムシー出版), **28**, 49 (2008).
- (338) 大船泰史, 坂口和彦, 品田哲郎, 生物活性物質合成を指向した α -置換アミノ酸類の不斉合成, *ファインケミカル* (シーエムシー出版), **37**, 22 (2008).
- (339) M. Higashine, K. Katoh, and T. Wakimoto, T. Azuma, Profiles of Liquid Droplets on Solid Plates in Gravitational and Centrifugal Fields, *Journal of JSEM*, **8** Special Issue, 49 (2008).
- (340) H. Kawakami, K. Yoshida, Y. Nishida, Y. Sato, and Y. Kikuchi, Antibacterial properties of metallic elements for alloying evaluated with application of JIS Z 2801:2000, *ISIJ Int.*, **48**, 1299 (2008).
- (341) H. Kawakami, and M. Watanabe, Change in thermomechanical behaviour in epoxy glasses aged under strain, *J. Appl. Polym. Sci.*, **107**, 2095 (2008).
- (342) 高田洋吾, 谷中悟史, 石井利長, 脇坂知行, エタノール直接発電型固体高分子燃料電池のアノード側流路内における流動と副生成物の挙動の解析, *日本機械学会論文集(B編)*, Vol.74, No.745, (2008), pp.2040-2048.
- (343) T. Hattori, Y. Kaneko and S. Hashimoto, Wear-induced microstructure in Ni/Cu nano-multilayers, *J.Mater.Sci.*, **43**, 3923 (2008).
- (344) Y. Kaneko, H. Sakakibara and S. Hashimoto, Microstructure and Vickers hardness of Co/Cu multilayers fabricated by electrodeposition, *J.Mater.Sci.*, **43**, 3931 (2008).
- (345) M. Nakayama and K. Sakaguchi, *Appl. Phys. Lett.* **93**, 261904 (2008).
- (346) G. Oohata, T. Nishioka, D. Kim, H. Ishihara, and M. Nakayama, *Phys. Rev. B* **78**, 233304 (2008).

- (347) T. Ishizuka, H. Doi, M. Shimazu, S. Takagishi, R. Yaginuma, and M. Nakayama
J. Crystal Growth **310**, 4786 (2008).
- (348) D. Kim, S. Okahara, Y. Shim, and M. Nakayama, Phys. Rev. B **78**, 153301 (2008)
- (349) H. Takeuchi, J. Yanagisawa, T. Hasegawa, and M. Nakayama, Appl. Phys. Lett. **93**, 081916 (2008).
- (350) M. Nakayama, S. Komura, T. Kawase, and D. Kim, J. Phys. Soc. Jpn. **77**, 093705 (2008).
- (351) D. Kim, T. Mishima, K. Tomihira, and M. Nakayama, J. Phys. Chem. C **112**, 10668 (2008).
- (352) D. Kim, K. Tomihira, S. Okahara, and M. Nakayama, J. Crystal Growth **310**, 4244 (2008).
- (353) M. Nakayama and K. Mizoguchi, Phys. Status Solidi C **5**, 2911 (2008).
- (354) H. Ichida, S. Wakaiki, K. Mizoguchi, D. Kim, Y. Kanematsu and M. Nakayama, J. Lumin. **128**, 1059 (2008).
- (355) T. Hasegawa, K. Mizoguchi, and M. Nakayama, J. Lumin. **128**, 1056 (2008).
- (356) M. Nakayama, S. Itoh, K. Mizoguchi, S. Saito, K. Akahane, N. Yamamoto, and K. Sakai, J. Lumin. **128**, 1043 (2008).
- (357) T. Hirao, T. Hasegawa, and M. Nakayama, J. Lumin. **128**, 960 (2008).
- (358) M. Nakayama, S. Ito, K. Mizoguchi, S. Saito, and K. Sakai, Appl. Phys. Express **1**, 012004 (2008).
- (359) T. Hasegawa, K. Mizoguchi, and M. Nakayama, Phys. Status Solidi C **5**, 203 (2008).
- (360) D. Miyazaki, Y. Ohno, and K. Matsushita, Optical Review **15**, 19 (2008).
- (361) M. Sugisaki, M. Fujiwara, S.V. Nair, H.E. Ruda, R.J. Cogdell, and H. Hashimoto,
Excitation-energy dependence of transient grating spectroscopy in β -caroten, Phys. Rev., **B80**,
035180/1-10 (2009).
- (362) D. Kosumi, T. Kusumoto, R. Fujii, M. Sugisaki, Y. Iinuma, N. Oka, Y. Takasue, T. Taira, M.
Iha, H.A. Frank, and H. Hashimoto, One- and two-photon pump-probe optical spectroscopic
measurements reveal the S_1 and intramolecular charge transfer states are distinct in fucoxanthin,
Chem. Phys. Lett., **483**, 95-100 (2009).
- (363) 超高速レーザー分光で見えてきた光合成アンテナ色素蛋白複合体の機能, 橋本 秀樹,
齊藤 圭亮, 藤井 律子, 杉崎 満, 化学工業 10 月号, 化学工業社, 38-49(2009)
- (364) 小澄 大輔, 楠本 利行, 杉崎 満, 橋本 秀樹, “カロテノイドの科学と最新応用技術“, 第
1 編 カロテノイド科学 第 6 章「カロテノイドの物性 I: 新しい電子状態を中心として」,
監修: 宮下和夫, シーエムシー出版, 63-77 (2009).
- (365) 杉崎 満, 橋本 秀樹, 吉澤 雅幸, “カロテノイドの科学と最新応用技術”, 第 1 編 カ
ロテノイド科学 第 7 章「カロテノイドの物性 II: 新しい分光法を用いたカロテノイドの
振動状態の研究」, 監修: 宮下和夫, シーエムシー出版, 78-99(2009).
- (366) 楠本利行, 杉崎 満, 橋本 秀樹, 柳 和宏, “カロテノイドの科学と最新応用技術”, 第
1 編 カロテノイド科学 第 8 章「カロテノイド科学の新展開」, 監修: 宮下和夫, シー
エムシー出版, 90-104 (2009).
- (367) M. Sugisaki, M. Fujiwara, R. Fujii, K. Nakagawa, M. Nango, R.J. Cogdell, and H.
Hashimoto, Transient grating spectroscopy in photosynthetic purple bacteria *Rhodobacter
sphaeroides* 2.4.1, J. Limun., **129**, 1908-1911(2009).
- (368) M. Fujiwara, M. Sugisaki, A. Gall, B. Robert, R.J. Cogdell, and H. Hashimoto, Ultrafast
optical responses of β -carotene and lycopene probed by sub-20 fs time-resolved coherent
spectroscopy, J. Limun., **129**, 1808-1912(2009).
- (369) M. Fujiwara, K. Yamauchi, M. Sugisaki, A. Gall, B. Robert, R. J. Cogdell, and H. Hashimoto,
Specific Channel of Energy Dissipation, in “Ultrafast Phenomena XVI”, Springer Series in
Chemical Physics (ed. P. Corkum et al., Springer-Verlag, Berlin, Heidelberg, New York, Tokyo),
367-369(2009).
- (370) H. Hashimoto, D. Kosumi, M. Sugisaki, M. Fujiwara, R. Fujii, and R.J. Cogdell, The possible
involvement of multiple 'dark' state in carotenoid photophysics, Carotenoid Sci., **14**,
6-13(2009).

- (371) M. Sugisaki, M. Fujiwara, D. Kosumi, R. Fujii, M. Nango, and H. Hashimoto, Transient grating signals from spheroidene bound to *Rba. sphaeroides* 2.4.1, *Carotenoid Sci.*, **14**, 70-76(2009).
- (372) M. Fujiwara, M. Sugisaki, A. Gall, B. Robert, R.J. Cogdell, and H. Hashimoto, Sub-20 fs time-resolved degenerate four-wave mixing spectroscopy of β -carotene and lycopene, *Carotenoid Sci.*, **14**, 80-83(2009).
- (373) M. Fujiwara, K. Yamauchi, M. Sugisaki, A. Gall, B. Robert, R.J. Cogdell, and H. Hashimoto, Third-order optical nonlinearity of β -carotene homologues, *Phys. Stat. Solidi (c)*, **6**, S31-S33(2009).
- (374) M. Sugisaki, M. Fujiwara, S.V. Nair, H.E. Ruda, R.J. Cogdell, and H. Hashimoto, Spectrally-resolved transient grating signals from β -carotene in benzene solution, *Phys. Stat. Solidi (c)*, **6**, S34-S37(2009).
- (375) R. Ishiguro, K. Izumina, Y. Sasaki, M. Kubota, O. Ishikawa and T Takagi, Growth of a Single Vortex line of $^3\text{He-A}$ in a Narrow Cylinder under Rotation, *J. Phys.: Conf. Ser.*, **150**, 032033(1-4)(2009).
- (376) K. Izumina, R. Ishiguro, M. Kubota, Y. Sasaki, T. Takagi and O. Ishikawa, Effect of the cooling speed through T_c on the formation of textures in superfluid $^3\text{He-A}$, *J. Phys.: Conf. Ser.*, **150**, 032034(1-4)(2009).
- (377) H. Yano, Y. Nago, R. Goto, K. Obara, O. Ishikawa, and T. Hata, Transition to quantum turbulence generated by an oscillating object in superfluid ^4He , *J. Phys.: Conf. Ser.*, **150**, 032125(1-4)(2009).
- (378) H. Yano, Y. Nago, R. Goto, K. Obara, O. Ishikawa, and T. Hata, Laminar-turbulent transition generated by an oscillating object in superfluid ^4He , *J. Phys.: Conf. Ser.*, **150**, 032126(1-4)(2009).
- (379) Y. Nago, M. Inui, R. Kado, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Vortex emission by a low-frequency vibrating wire in superfluid $^3\text{He-B}$, *J. Phys.: Conf. Ser.*, **150**, 032071(1-4)(2009).
- (380) C. Kato, Y. Nago, T. Matsukura, R. Kado, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Motion of ^3He quasiparticles in aerogel driven by fourth sound, *J. Phys.: Conf. Ser.*, **150**, 032039(1-4)(2009).
- (381) R. Kado, H. Nakagawa, K. Obara, H. Yano, O. Ishikawa, and T. Hata, In globally isotropic aerogel, A-B phase separation of superfluid ^3He in radial direction, *J. Phys.: Conf. Ser.*, **150**, 032036(1-4)(2009).
- (382) H. Yano, T. Ogawa, A. Mori, Y. Miura, Y. Nago, K. Obara, O. Ishikawa, and T. Hata, Transition to quantum turbulence generated by thin vibrating wires in superfluid ^4He , *J. Low Temp. Phys.*, **156**, 132-144(2009).
- (383) P. K. Mohanty et al., Measurement of some EAS properties using new scintillator detectors developed for the GRAPES-3 experiment, *Astropart. Phys.*, **31**, 24-36(2009)
- (384) P. Subramanian et al., Forbush decreases and turbulence levels at coronal mass ejection fronts, *A. & A.*, **494**, 1107-1118(2009).
- (385) K. Kanemoto, I. Akai, H. Hashimoto, T. Karasawa, N. Negishi, Y. Aso, Temperature dependence of intrachain photoluminescence of a long oligothiophene, *Physica Status Solidi (c)*, **6**, 193-196(2009).
- (386) I. Akai, K. Miyanari, T. Shimamoto, A. Fujii, H. Nakao, A. Okada, K. Kanemoto, T. Karasawa, A. Ishida, A. Yamada, I. Katayama, J. Takeda, and M. Kimura, Rapid energy transfer and its temperature dependence in pi-conjugated dendrimers, *Physica Status Solidi (c)*, **6**, 77-80(2009).
- (387) K. Kanemoto, M. Sugisaki, M. Fujiwara, T. Karasawa, H. Hashimoto, Ultrafast coherent vibronic oscillations in regioregular poly(3-alkylthiophene), *Physica Status Solidi (c)*, **6**, S46-S49(2009).

- (388) K. Kanemoto, M. Sugisaki, H. Hashimoto, I. Akai, T. Karasawa, N. Negishi, and Y. Aso, Intrachain Photoluminescence Dynamics of a Long Oligothiophene at Room Temperature, *Journal of Luminescence*, **129**, 1845-1848(2009).
- (389) K. Kanemoto, I. Akai, M. Sugisaki, H. Hashimoto, T. Karasawa, N. Negishi, Y. Aso, Temperature effects on quasi-isolated conjugated polymers as revealed by temperature-dependent optical spectra of 16-mer oligothiophene diluted in a solid matrix, *Journal of Chemical Physics*, **130**, 234909-1-7(2009).
- (390) K. Kanemoto, M. Yasui, D. Kosumi, A. Ogata, M. Sugisaki, T. Karasawa, I. Akai and H. Hashimoto, Morphology dependent carrier and exciton generations in regioregular poly(3-hexylthiophene) polymer diodes as revealed by bleaching spectroscopy, *Physical Review Letters*, **103**, 187402-1-4(2009).
- (391) Y. Tameda, et al., Trigger and data acquisition electronics of the Telescope Array fluorescence Detectors, *NIM A*, **609**, 227-234(2009).
- (392) H. Tokuno, et al., On site calibration for new fluorescence detectors of the telescope array experiment, *NIM A*, **601**, 364-371(2009).
- (393) Y. Ohfuné, K. Sakaguchi, and T. Shinada, Asymmetric synthesis of α,α -disubstituted α -amino acids: Strecker and Claisen approaches, *ACS Symposium Series*, **1009**, 57 (2009).
- (394) R. P. Ortiz, A. Facchetti, T. J. Marks, J. Casado, M. Z. Zgierski, M. Kozaki, V. Hernández, and J. T. L. Navarrete, Ambipolar organic field-effect transistors from cross-conjugated aromatic quaterthiophenes; comparisons with quinoidal parent materials, *Adv. Funct. Mater.*, **19**, 386 (2009).
- (395) K. Murata, T. Shinada, Y. Ohfuné, M. Hisada, A. Yasuda, H. Naoki, and T. Nakajima, Novel mastoparan and protonectin analogs isolated from a solitary wasp, *Orancistrocerus drewseni drewseni*, *Amino Acids*, **37**, 389 (2009).
- (396) Y. Morimoto, T. Okita, and H. Kambara, Total synthesis and determination of the absolute configuration of (+)-omaezakianol, *Angew. Chem., Int. Ed.*, **48**, 2538 (2009).
- (397) M. Itazaki, K. Ueda, and H. Nakazawa, Iron-catalyzed dehydrogenative coupling of tertiary silanes, *Angew. Chem. Int. Ed.*, **48**, 3313 (2009).
- (398) I. Matsumoto, I. Ciofini, P. P. Lainé, and Y. Teki, Intramolecular spin alignment within mono-oxidized and photoexcited anthracene-based π radicals as prototypical photomagnetic molecular devices: relationships between electrochemical, photophysical, and photochemical control pathways, *Chem.–Eur. J.*, **15**, 11210 (2009).
- (399) Y. Tachi, Y. Matsukawa, J. Teraoka, and S. Itoh, A stable Cu_2O_2 complex supported by an asymmetric dinucleating pentapyridine ligand involving an amide linkage, *Chem. Lett.*, **38**, 202 (2009).
- (400) Y. Yoshida, R. Miyamoto, T. Nishioka, H. Hashimoto, and I. Kinoshita, “Compressed” icelike structures between molecular films comparable with ice phase III, *Chem. Lett.*, **38**, 366 (2009).
- (401) K. Sugisaki, K. Toyota, K. Sato, D. Shiomi, M. Kitagawa, and T. Takui, *Ab initio* calculations of spin–orbit contribution to the zero-field splitting tensors of $n\pi^*$ excited states by the CASSCF method with MRMP2 energy correction, *Chem. Phys. Lett.*, **477**, 369 (2009).
- (402) M. Hirotsu, N. Kuwamura, I. Kinoshita, M. Kojima, Y. Yoshikawa, and K. Ueno, Steric, geometrical and solvent effects on redox potentials in salen-type copper(II) complexes, *Dalton Trans.*, **38**, 7678 (2009).
- (403) V. A. Soloshonok, T. Yamada, K. Sakaguchi, and Y. Ohfuné, Concise asymmetric synthesis of configurationally stable 4-trifluoromethyl thalidomide, *Future Med. Chem.*, **1**, 897 (2009).
- (404) H. Tsukube, K. Yano, and S. Shinoda, Near-infrared luminescence sensing of glutamic acid, aspartic acid and their dipeptides with tris(β -diketonato)lanthanide probes, *Helv. Chim. Acta*, **92**, 2488 (2009).

- (405) H. Sugimoto, K. Suyama, S. Tatemoto, H. Miyake, S. Itoh, C. Dong, J. Yang, and M. L. Kirk, Dioxomolybdenum(VI) complexes with ene-1,2-dithiolate ligands: synthesis, spectroscopy, and oxygen atom transfer reactivity, *Inorg. Chem.*, **48**, 10581 (2009).
- (406) H. Misaki, H. Miyake, S. Shinoda, and H. Tsukube, Asymmetric twisting and chirality probing properties of quadruple-stranded helicates: coordination versatility and chirality response of Na^+ , Ca^{2+} , and La^{3+} complexes with octadentate cyclen ligand, *Inorg. Chem.*, **48**, 11921 (2009).
- (407) S. Shinoda, M. Nishioka, and H. Tsukube, *In situ* generation of fluorescent macrocyclic europium(II) complexes via zinc reduction, *J. Alloys Compd.*, **488**, 603 (2009).
- (408) K. Fukumoto, T. Oya, M. Itazaki, and H. Nakazawa, N–CN bond cleavage of cyanamides by a transition-metal complex, *J. Am. Chem. Soc.*, **131**, 38 (2009).
- (409) A. Kunishita, M. Kubo, H. Sugimoto, T. Ogura, K. Sato, T. Takui, and S. Itoh, Mononuclear copper(II)–superoxo complexes that mimic the structure and reactivity of the active centers of PHM and D β M, *J. Am. Chem. Soc.*, **131**, 2788 (2009).
- (410) Y. Masuda, M. Kuratsu, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, Y. Hosokoshi, X.-Z. Lan, Y. Miyazaki, A. Inaba, and K. Okada, A new ferrimagnet based on a radical-substituted radical cation salt, *J. Am. Chem. Soc.*, **131**, 4670 (2009).
- (411) S. Suzuki, R. Sugimura, M. Kozaki, K. Keyaki, K. Nozaki, N. Ikeda, K. Akiyama, and K. Okada, Highly efficient photoproduction of charge-separated states in donor–acceptor-linked bis(acetylide) platinum complexes, *J. Am. Chem. Soc.*, **131**, 10374 (2009).
- (412) M. Ogita, A. Ogita, Y. Usuki, K.-I. Fujita, and T. Tanaka, Antimycin A-induced cell death depends on AIF translocation through NO production and PARP activation and is not involved in ROS generation, cytochrome *c* release and caspase-3 activation in HL-60 cells, *J. Antibiotics*, **62**, 145 (2009).
- (413) K. Sato, S. Nakazawa, R. Rahimi, T. Ise, S. Nishida, T. Yoshino, N. Mori, K. Toyota, D. Shiomi, Y. Yakiyama, Y. Morita, M. Kitagawa, K. Nakasuji, M. Nakahara, H. Hara, P. Carl, P. Hofer, and T. Takui, Molecular electron-spin quantum computers and quantum information processing: pulse-based electron magnetic resonance spin technology applied to matter spin-qubits, *J. Mater. Chem.*, **19**, 3739 (2009).
- (414) Y. Kataoka, S. Shinoda, and H. Tsukube, Transferrin–terbium complexes as luminescent pH sensing devices, *J. Nanosci. Nanotechnol.*, **9**, 655 (2009).
- (415) T. Iwagawa, K. Hashimoto, Y. Yokogawa, H. Okamura, M. Nakatani, M. Doe, Y. Morimoto, and K. Takemura, Cytotoxic biscebranes from the soft coral *Sarcophyton glaucum*, *J. Nat. Prod.*, **72**, 946 (2009).
- (416) T. Koto, K. Sato, D. Shiomi, K. Toyota, K. Itoh, E. Wasserman, and T. Takui, Random-orientation high-spin electron spin resonance spectroscopy and comprehensive spectral analyses of the quintet dicarbene and dinitrene with meta-topological linkers: origins of peculiar line-broadening in fine-structure ESR spectra in organic rigid glasses, *J. Phys. Chem. A*, **113**, 9521 (2009).
- (417) M. Tanaka, M. Kawaji, T. Yatsushashi, and N. Nakashima, Ionization and fragmentation of alkylphenols by 0.8–1.5 μm femtosecond laser pulses, *J. Phys. Chem. A*, **113**, 12056 (2009).
- (418) T. Yatsushashi and N. Nakashima, Ionization of anthracene followed by fusion in the solid phase under intense nonresonant femtosecond laser fields, *J. Phys. Chem. C*, **113**, 11458 (2009).
- (419) T. Tanaka, A. Ogita, Y. Usuki, and K.-I. Fujita, Selective inhibition of embryonic development in starfish by long-chain alkyl derivatives of UMP, TMP and AMP, *Nat. Prod. Res.*, **23**, 1572 (2009).
- (420) H. Azuma, Y. Yoshida, D. Paul, S. Shinoda, H. Tsukube, and T. Nagasaki, Cytochrome *c*-binding “*proteo-dendrimers*” as new types of apoptosis inhibitors working in HeLa cell systems, *Org. Biomol. Chem.*, **7**, 1700 (2009).

- (421) S. Suzuki, T. Takeda, M. Kuratsu, M. Kozaki, K. Sato, D. Shiomi, T. Takui, and K. Okada, A pyrene-dihydrophenazine bis(radical cation) in a singlet ground state, *Org. Lett.*, **11**, 2816 (2009).
- (422) M. Hamada, T. Shinada, and Y. Ohfuné, Efficient total synthesis of (–)-Kaitocephalin, *Org. Lett.*, **11**, 4664 (2009).
- (423) T. Kotaki, T. Shinada, K. Kaihara, Y. Ohfuné, and, H. Numata, Structure determination of a new juvenile hormone from a heteropteran insects, *Org. Lett.*, **11**, 5234 (2009).
- (424) M. Itazaki, M. Kamitani, K. Ueda, and H. Nakazawa, Syntheses and ligand exchange reaction of iron(IV) complexes with two different group 14 element ligands, Cp(CO)FeH(EEt₃)(E'E₃) (E, E' = Si, Ge, Sn), *Organometallics*, **28**, 3601 (2009).
- (425) M. Itazaki and H. Nakazawa, Reactivity of hydridomolybdenum complex having diamino-substituted phosphite ligand with Me₃SiOSO₂CF₃, *Phosphorus, Sulfur Silicon Relat. Elem.*, **184**, 1456 (2009).
- (426) M. Yano, Y. Okino, Y. Ichihara, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Organic high-spin systems; synthesis, electrochemical and spectroscopic studies of π -extended tetraaryl *m*-phenylenediamines, *Polyhedron*, **28**, 1764 (2009).
- (427) M. Yano, S. Tsuda, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Amine-based organic high-spin systems; a room-temperature-stable one-dimensional oligoaryl triamine-based trication, *Polyhedron*, **28**, 1883 (2009).
- (428) M. Yano, M. Manabe, M. Tatsumi, M. Oyama, K. Sato, and T. Takui, Synthesis and properties of a redox active starburst ligand with three bispicorylamino groups and its trinuclear complexes, *Polyhedron*, **28**, 1935 (2009).
- (429) Y. Masuda, M. Kuratsu, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Preparation and magnetic properties of verdazylsubstituted dihydrophenazine radical cation tetrachloroferrate salts, *Polyhedron*, **28**, 1950(2009).
- (430) K. Ishimori, M. Watanabe, T. Yaita, T. Kimura, T. Yamada, S. Shinoda, and H. Tsukube, Synergistic extraction of Am(III) and Eu(III) by tris(2-pyridylmethyl)amine with various anions in 1,2-dichloroethane, *Solvent Extraction and Ion Exchange*, **27**, 489 (2009).
- (431) H. Yoshida, T. Shinada, and Y. Ohfuné, Efficient synthesis of (*R*)- and (*S*)- α -(hydroxymethyl)pyroglutamic acid esters from L-proline, *Synthesis*, 3751 (2009).
- (432) H. Yoshino, G. C. Papavassiliou, and K. Murata, Thermoelectric figure of merit of τ -(EDO-*S,S*-DMEDT-TTF)₂(AuBr₂)_{1+y}, ($y \leq 0.875$) and (TMTSF)₂PF₆, *Synth. Met.*, **159**, 2387 (2009).
- (433) M. Eiraku Masaki, D. Paul, R. Nakamura, Y. Kataoka, S. Shinoda, and H. Tsukube, Chiral tripod approach toward multiple anion-sensing with lanthanide complexes, *Tetrahedron*, **65**, 2525 (2009).
- (434) K. Sakaguchi, M. Ayabe, Y. Watanabe, T. Okada, K. Kawamura, T. Shinada, and Y. Ohfuné, Total synthesis of (–)-amathaspiramide F, *Tetrahedron*, **65**, 10355 (2009).
- (435) T. Shinada, A. Yamazaki, Y. Kuniwa, K. Shimamoto, and Y. Ohfuné, Thiol addition to *t*-butyl methyl squarate. Efficient synthesis of novel sulfur-linked squaryl group-containing glutamate analogs, *Tetrahedron Lett.*, **50**, 4354 (2009).
- (436) Kazunobu Sato, Shigeaki Nakazawa, Robabeh D. Rahimi, Shinsuke Nishida, Tomoaki Ise, Daisuke Shiomi, Kazuo Toyota, Yasushi Morita, Masahiro Kitagawa, Patrick Carl, Peter Hofer, and Takeji Takui, Quantum computing using pulse-based electron-nuclear double resonance (ENDOR): molecular spin-qubits, *Molecular Realizations of Quantum Computing 2007* (Kinki University Series on Quantum Computing), M. Nakahara, Y. Ota, and R. Rahimi, Eds (World Scientific), 58 (2009).
- (437) 三宅弘之, スイッチング機能を有するキラル金属錯体の開発, 化学工業—特集/次世代材料を創成する錯体化学 (化学工業社), **60**, 601 (2009).

- (438) 品田哲郎, 独居性カリウドバチが昆虫を麻痺させる現象はどこまでわかってきたのか?, 化学と生物, **47**, 594 (2009).
- (439) 小寄正敏, デンドリマー集積による共役ネットワークの構築とその特性, 次世代共役ポリマーの超階層制御と革新機能, 赤木和夫編集 (シーエムシー出版), 211 (2009).
- (440) 品田哲郎, 昆虫が利用する生物間攻防分子, 生物の科学 遺伝, **63**, 70 (2009).
- (441) 築部浩, 分子認識と超分子金属錯体, 錯体化学選書5『超分子金属錯体』, 藤田 誠, 塩谷光彦 共編 (三共出版), 1 (2009).
- (442) 篠田哲史, 超分子光センシング, 超分子サイエンス&テクノロジー, 国武豊喜 監修, 有賀克彦, 秋吉一成, 坂本一民, 清水敏美, 鍋島達弥 共編 (エヌ・ティー・エス), 211 (2009).
- (443) プレイヤー智子, 築部浩 共編, Let's Start ケミストリー (三共出版), (2009).
- (444) 脇本辰郎, 西田謙佑, 加藤健司, 高温および低温気流による放射状自由液膜流の穿孔促進, 日本機械学会論文集 B 編, **75**, 268 (2009).
- (445) 加藤健司, 東根光善, 脇本辰郎, 増田良平, 回転円盤上の液滴の挙動に関する研究, 日本機械学会論文集 B 編, **75**, 796(2009).
- (446) 加藤健司, 有井悠介, 脇本辰郎, 乱流境界層中に噴出した気流からの気泡分離機構に関する研究 (単独気泡の分離機構), 日本機械学会論文集 B 編, **75**,1266(2009).
- (447) 加藤健司, 脇本辰郎, 谷 俊也, キャピラリージェット形状を利用した動的表面張力の測定法 (第1報, 噴流形状の理論解析), 日本機械学会論文集 B 編, **75**, 1420(2009).
- (448) 西田達史, 加藤健司, 脇本辰郎, 垂直円柱壁面に付着した液滴の転落体積, 日本機械学会論文集 B 編, **75**, 2273 (2009).
- (449) 脇本辰郎, 加藤健司, 界面活性剤水溶液における液膜噴流の分裂過程に関する研究, 日本機械学会論文集 B 編, **75**, 2440 (2009).
- (450) 加藤健司, 有井悠介, 脇本辰郎, 乱流境界層中に噴出した気流からの気泡分離機構に関する研究 (連続気柱からの気泡分離), 日本機械学会論文集 B 編, **75**, 1590(2009).
- (451) 脇本辰郎, 加藤健司, 東根光善, 微小な接触角の差を検出する光学的手法の開発, 実験力学, **9**, 324(2009).
- (452) 脇本辰郎, 加藤健司, 自由液膜流の変曲点不安定により形成されたかく乱波の三次元化と合体に関する研究, 実験力学, **9**, 318 (2009).
- (453) 脇本辰郎, 加藤健司, 放射状自由液膜流におけるかく乱波の非線形増幅特性, 実験力学, **9**, 330 (2009).
- (454) 高木健一, 川上洋司, 清水哲也, 菊地靖志, 佐藤嘉洋, 1.2 mass%N 高窒素ステンレス鋼の摩擦圧接, 高温学会誌, **35**, 137 (2009).
- (455) 脇坂知行, 高田洋吾, 東雅之, 酵母を利用したバイオ燃料電池の発電特性と性能向上策, 高温学会誌, Vol.35, No.5, (2009), pp.283-290.
- (456) 佐藤尚美, 兼子佳久, 橋本敏, 電気めっきにより作製した Co/Cu 多層膜の硬度と微視的構造の層厚さ依存性, 日本金属学会誌, **73**, 234 (2009).
- (457) 服部智哉, 兼子佳久, 橋本敏, 電気めっき法により作製した Co/Cu 多層膜の耐摩耗性の層厚さ依存性, 日本金属学会誌, **73**, 306 (2009).
- (458) Y. Kaneko, Y. Honda and S. Hashimoto, A Dislocation-Based Approach to Identify Fracture Process, IOP Conf.Series: Mater.Sci.Eng., **3**, 012019 (2009).
- (459) T. Taniguchi, Y. Kaneko and S. Hashimoto, ECCI Observations of Dislocation Structures around Fatigue Cracks in Ferritic Stainless Steel Single Crystals, IOP Conf.Series: Mater.Sci.Eng., **3**, 012020 (2009).
- (460) 吉岡真弥, 塚本欣司, Equal Channel Angular Extrusion がガラス状高分子の塑性変形挙動に及ぼす効果, 材料, **58**, 29 (2009).
- (461) D. Kim, K. Okazaki, and M. Nakayama, Phys. Rev. B **80**, 045322 (2009).
- (462) M. Nakayama, T. Hirao, and T. Hasegawa, J. Appl. Phys. **105**, 123525 (2009).

- (463) H. Takeuchi, J. Yanagisawa, J. Hashimoto, and M. Nakayama, *J. Appl. Phys.* **105**, 093539 (2009).
- (464) K. Mizoguchi, Y. Kanzawa, S. Saito, K. Sakai, and M. Nakayama, *Appl. Phys. Lett.* **94**, 171105 (2009).
- (465) G. Oohata, Y. Yokotsuji, D. Kim, H. Ishihara, and M. Nakayama, *J. Phys. Soc. Jpn.* **78**, 024702 (2009).
- (466) J. Hashimoto and M. Nakayama, *Phys. Status Solidi C* **6**, 358 (2009).
- (467) G. Oohata, T. Nishioka, D. Kim, H. Ishihara, and M. Nakayama, *Phys. Status Solidi C* **6**, 280 (2009).
- (468) T. Hasegawa, K. Mizoguchi, and M. Nakayama, *Phys. Status Solidi C* **6**, 264 (2009).
- (469) M. Sugisaki, M. Fujiwara, D. Kosumi, R. Fujii, M. Nango, R.J. Cogdell, and H. Hashimoto, Comparison of transient grating signals from spheroidene in an organic solvent and in pigment-protein complexes from *Rba. sphaeroides* 2.4.1, *Phys. Rev.*, **B81**, 245112/1-10(2010).
- (470) 杉崎 満, 小澄 大輔, 橋本 秀樹, カロテノイドの超高速光学応答「超高速レーザー分光で見えてきた光合成アンテナ色素蛋白複合体の機能」, 光化学協会会誌「光化学」41巻1号, 28-34 (2010).
- (471) S. Maruta, D. Kosumi, T. Horibe, R. Fujii, M. Sugisaki, R.J. Cogdell, and H. Hashimoto, Conjugation length dependence of excitation energy transfer pathway of purple bacterial photosynthetic antenna, *Phys. Stat. Solidi (b)*, **248**, 403-407(2010).
- (472) C. Kato, T. Matsukura, Y. Nago, K. Obara, H. Yano, O. Ishikawa, S. Higashitani, T. Hata, and K. Nagai, Frictional relaxation time of ^3He normal fluid component in aerogel obtained by fourth sound resonance, *J. Low Temp. Phys.*, **158**, 182–187(2010).
- (473) Y. Nago, T. Ogawa, A. Mori, Y. Miura, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Observation of remanent vortices attached to rough boundaries in superfluid ^4He , *J. Low Temp. Phys.*, **158**, 443–449(2010).
- (474) H. Yano, Y. Nago, R. Goto, K. Obara, O. Ishikawa, and T. Hata, Critical behavior of steady quantum turbulence generated by oscillating structures in superfluid ^4He , *Phys. Rev. B*, **81**, 220507(R)(1–4)(2010).
- (475) K. Obara, C. Kato, T. Matsukura, Y. Nago, R. Kado, H. Yano, O. Ishikawa, T. Hata, S. Higashitani, and K. Nagai, Frictional motion of normal-fluid component of superfluid ^3He in aerogel, *Phys. Rev. B*, **82**, 054521(1–7)(2010).
- (476) Y. Nago, M. Inui, R. Kado, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Vortex generation induced by low-frequency wire vibration in superfluid ^3He -B, *Phys. Rev. B*, **82**, 224511(1–7) (2010).
- (477) A. Oshima et al., The angular resolution of the GRAPES-3 array from the shadows of the Moon and the Sun, *Astropart. Phys.*, **33**, 97-107 (2010).
- (478) K. Kanemoto, A. Ogata, N. Inoue, T. Kusumoto, H. Hashimoto, I. Akai, and T. Karasawa, Direct optical probing of negative carriers from an operating [6,6]-phenyl C61 butyric acid methyl ester diode, *Applied Physics Letters*, **97**, 033307-1-3(2010).
- (479) A. Ueda, S. Nishida, K. Fukui, T. Ise, D. Shiomi, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, Three-dimensional intramolecular exchange interaction in a curved and nonalternant π -conjugated system: corannulene with two phenoxyl radicals, *Angew. Chem. Int. Ed.*, **49**, 1678 (2010).
- (480) A. Ueda, K. Ogasawara, S. Nishida, T. Ise, T. Yoshino, S. Nakazawa, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, A bowl-shaped *ortho*-semiquinone radical anion: quantitative evaluation of the dynamic behavior of structural and electronic features, *Angew. Chem. Int. Ed.*, **49**, 6333 (2010).
- (481) T. Koto, K. Sugisaki, K. Sato, D. Shiomi, K. Toyota, K. Itoh, E. Wasserman, P. M. Lahti, and T. Takui, High-spin nitrene fine-structure ESR spectroscopy in frozen rigid glasses: exact analytical expressions for the canonical peaks and a D-tensor gradient method for line broadening, *Appl. Magn. Reson.*, **37**, 703 (2010).
- (482) A. Ueda, K. Ogasawara, S. Nishida, K. Fukui, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, Air-stable curved π -radical based on corannulene: dynamic electronic-spin structure induced by temperature-dependent conformational changes, *Aust. J. Chem.*, **63**, 1627 (2010).

- (483) M. Kozaki, K. Akita, K. Okada, D.–M. S. Islam, and O. Ito, Photoinduced charge separation after excited energy transfer in snowflake-shaped Zn-porphyrin dendrimer with anthraquinone terminals: enhancement of the electron-transfer rates by “dendrimer effect”, *Bull. Chem. Soc. Jpn.*, **83**, 1223 (2010).
- (484) M. Itazaki, Y. Shigesato, and H. Nakazawa, Platinum complexes with diamino-substituted phosphorus ligands: synthesis, characterization, and their reactivity with a Lewis acid, *C. R. Chim.*, **13**, 943 (2010).
- (485) K. Maekawa, S. Nakazawa, H. Atsumi, D. Shiomi, K. Sato, M. Kitagawa, T. Takui, and K. Nakatani, Programmed assembly of organic radicals on DNA, *Chem. Commun.*, **46**, 1247 (2010).
- (486) S. Shinoda, K. Yano, and H. Tsukube, Combinatorial screening of lanthanide complex library for luminescence sensing of amino acids, *Chem. Commun.*, **46**, 3110 (2010).
- (487) H. Tsukube, Y. Noda, and S. Shinoda, Poly(arginine)-selective coprecipitation properties of self-assembling apoferritin and its Tb³⁺ complex: a new luminescent biotool for sensing of poly(arginine) and its protein conjugates, *Chem.–Eur. J.*, **16**, 4273 (2010).
- (488) H. Atsumi, K. Maekawa, S. Nakazawa, D. Shiomi, K. Sato, M. Kitagawa, T. Takui, and K. Nakatani, Noncovalent assembly of TEMPO radicals pair-wise embedded on a DNA duplex, *Chem. Lett.*, **39**, 556 (2010).
- (489) H. Sugimoto, H. Tano, H. Miyake, and S. Itoh, Seven-coordinate rhenium(III) complexes with a labile coordination site assembled on indium-doped tin-oxide (ITO) electrodes: catalytic reduction of dioxygen to hydrogen peroxide, *Chem. Lett.*, **39**, 986 (2010).
- (490) T. Umezawa, T. Shinada, and Y. Ohfuné, Synthesis of ¹³C-labeled 5,6,11-trideoxytetradotoxin, *Chem. Lett.*, **11**, 1281 (2010).
- (491) K. Sugisaki, K. Toyota, K. Sato, D. Shiomi, M. Kitagawa, and T. Takui, Spin–orbit contributions in high-spin nitrenes/carbenes: a hybrid CASSCF/MRMP2 study of zero-field splitting tensors, *ChemPhysChem*, **11**, 3146 (2010).
- (492) A. Inosaki, A. Yasuda, T. Shinada, Y. Ohfuné, H. Numata, and S. Shiga, Mass spectrometric analysis of peptides in brain neurosecretory cells and neurohemal organs in the adult blowfly, *Protophormia terraenovae*, *Comp. Biochem. Physiol., Part A: Mol. Integ. Phys.*, **155**, 190 (2010).
- (493) H. Tanaka, D. Shiomi, S. Suzuki, M. Kozaki, K. Okada, K. Sato, and T. Takui, Diaminotriazine-substituted nitronyl nitroxide: a novel building block for organic magnets having multiple hydrogen bonding substituents as structure-determining supramolecular synthons, *CrystEngComm*, **12**, 526 (2010).
- (494) M. Hirotsu, N. Ohno, T. Nakajima, C. Kushibe, K. Ueno, and I. Kinoshita, Synthesis and characterization of xanthene-bridged Schiff base dimanganese(III) complexes: bimetallic catalysts for asymmetric oxidation of sulfides, *Dalton Trans.*, **39**, 139 (2010).
- (495) N. Kuwamura, R. Kato, K. Kitano, M. Hirotsu, T. Nishioka, H. Hashimoto, and I. Kinoshita, Carbene–carbanion equilibrium for tris(2-pyridylthio)methanido Fe(II) complexes, *Dalton Trans.*, **39**, 9988 (2010).
- (496) T. Yoshimura, A. Matsuda, Y. Ito, S. Ishizaka, S. Shinoda, H. Tsukube, N. Kitamura, and A. Shinohara, Photoluminescent properties of chalcobromide-capped octahedral hexarhenium(III) complexes [$\{\text{Re}_6\text{Q}_{8-n}\text{Br}_n\}\text{Br}_6\]^{n-4}$ (Q = Se, $n = 1-3$; Q = S, $n = 1, 2$), *Inorg. Chem.*, **49**, 3473 (2010).
- (497) H. Sugimoto, S. Tatemoto, K. Suyama, H. Miyake, R. P. Mtei, S. Itoh, and M. L. Kirk, Monooxomolybdenum(VI) complexes possessing olefinic dithiolene ligands: probing Mo–S covalency contributions to electron transfer in dimethyl sulfoxide reductase family molybdoenzymes, *Inorg. Chem.*, **49**, 5368 (2010).

- (498) H. Sugimoto, H. Tano, K. Toyota, R. Tajima, H. Miyake, I. Takahashi, S. Hirota, and S. Itoh, Reduction of bis(dithiolene)oxo(disulfido)tungsten(VI) complex with dihydrogen related to the chemical function of the fourth tungsten-containing enzyme (WOR4) from *Pyrococcus furiosus*, *J. Am. Chem. Soc.*, **132**, 8 (2010).
- (499) Y. Morita, Y. Yakiyama, S. Nakazawa, T. Murata, T. Ise, D. Hashizume, D. Shiomi, K. Sato, M. Kitagawa, K. Nakasuji, and T. Takui, Triple-stranded metallo-helicates addressable as Lloyd's electron spin qubits, *J. Am. Chem. Soc.*, **132**, 6944 (2010).
- (500) A. Konishi, Y. Hirao, M. Nakano, A. Shimizu, E. Botek, B. Champagne, D. Shiomi, K. Sato, T. Takui, K. Matsumoto, H. Kurata, and T. Kubo, Synthesis and characterization of teranthene: a singlet biradical polycyclic aromatic hydrocarbon having Kekulé structures, *J. Am. Chem. Soc.*, **132**, 11021 (2010).
- (501) T. Mori, K. Okamoto, H. Endo, J. P. Hill, S. Shinoda, M. Matsukura, H. Tsukube, Y. Suzuki, Y. Kanekiyo, and K. Ariga, Mechanical tuning of molecular recognition to discriminate the single-methyl-group difference between thymine and uracil, *J. Am. Chem. Soc.*, **132**, 12868 (2010).
- (502) A. Shimizu, T. Kubo, M. Uruichi, K. Yakushi, Y. Hirao, M. Nakano, D. Shiomi, K. Sato, T. Takui, K. Matsumoto, H. Kurata, Y. Morita, and K. Nakasuji, Alternating covalent bonding interactions in a one-dimensional chain of a phenalenyl-based singlet biradical molecule having Kekulé structures, *J. Am. Chem. Soc.*, **132**, 14421 (2010).
- (503) S. Suzuki, T. Furui, M. Kuratsu, M. Kozaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Nitroxide-substituted nitronyl nitroxide and iminonitroxide, *J. Am. Chem. Soc.*, **132**, 15908 (2010).
- (504) A. Ogita, K.-I. Fujita, Y. Usuki, and T. Tanaka, Targeted yeast vacuole disruption by polyene antibiotics with a macrocyclic lactone ring, *Int. J. Antimicrob. Agents*, **35**, 89 (2010).
- (505) M. Tojo, S. Fukuoka, and H. Tsukube, Practical synthesis of *gem*-difluorides from cyclohexanone: synthesis of *gem*-bistrifluoroacetates and their reactions with fluoride nucleophiles, *J. Fluorine Chem.*, **131**, 29 (2010).
- (506) T. Hayashi, Y. Usuki, and H. Iio, 2-Fluoro-3-phenyl-allyltrimethylsilane: a new fluorinated reagent for Hosomi–Sakurai reaction, *J. Fluorine Chem.*, **131**, 709 (2010).
- (507) M. Hirashima, K. Tsuda, T. Hamada, H. Okamura, T. Furukawa, S. Akiyama, Y. Tajitsu, R. Ikeda, M. Komatsu, M. Doe, Y. Morimoto, M. Shiro, R. W. M. van Soest, K. Takemura, and T. Iwagawa, Cytotoxic isomalabaricane derivatives and a monocyclic triterpene glycoside from the sponge *Rhabdastrella globostellata*, *J. Nat. Prod.*, **73**, 1512 (2010).
- (508) D. Nishida, E. Yamade, M. Kusaba, T. Yatsushashi, and N. Nakashima, Reduction of Sm^{3+} to Sm^{2+} by an intense femtosecond laser pulse in solution, *J. Phys. Chem. A*, **114**, 5648 (2010).
- (509) A. Rosspeintner, M. Griesser, I. Matsumoto, Y. Teki, G. Li, S. F. Nelsen, and G. Gescheidt, EPR and ENDOR studies of dimeric paracyclophane radical cations and dications containing tri- and pentamethylene-bridged *p*-phenylene diamine units, *J. Phys. Chem. A*, **114**, 6487 (2010).
- (510) T. Yatsushashi and N. Nakashima, Formation and fragmentation of quadruply charged molecular ions by intense femtosecond laser pulses, *J. Phys. Chem. A*, **114**, 7445 (2010).
- (511) T. Yatsushashi, Y. Nakahagi, H. Okamoto, and N. Nakashima, Linear response of multiphoton reaction: three-photon cycloreversion of anthracene biplanemer in solution by intense femtosecond laser pulses, *J. Phys. Chem. A*, **114**, 10475 (2010).
- (512) T. Yatsushashi and N. Nakashima, Dissociation and multiply charged silicon ejection in high abundance from hexamethyldisilane, *J. Phys. Chem. A*, **114**, 11890 (2010).
- (513) K. Matsumoto, D. Inokuchi, Y. Hirao, H. Kurata, K. Sato, T. Takui, and T. Kubo, Synthesis and identification of a trimethylenemethane derivative π -extended with three pyridinyl radicals, *Org. Lett.*, **12**, 836 (2010).

- (514) T. Shinada, E. Ikebe, K. Oe, K. Namba, M. Kawasaki, and Y. Ohfuné, Synthesis and absolute structure of manzacidin B, *Org. Lett.*, **12**, 2170 (2010).
- (515) M. Itazaki, M. Kamitani, Y. Hashimoto, and H. Nakazawa, Synthesis, characterization, and crystal structure of germyl(phosphine)iron complexes, $\text{Cp}(\text{CO})\text{Fe}(\text{PPh}_3)(\text{GeR}_3)$ ($\text{R} = \text{Et}$, ^tBu , Ph), prepared from $\text{Cp}(\text{CO})\text{Fe}(\text{PPh}_3)(\text{Me})$ and HGeR_3 , *Phosphorus, Sulfur Silicon Relat. Elem.*, **185**, 1054 (2010).
- (516) H. Yoshino, H. Aizawa, K. Kuroki, G. C. Anyfantis, G. C. Papavassiliou, and K. Murata, Thermoelectric figure of merit of τ -type conductors of several donors, *Physica B*, **405**, S79 (2010).
- (517) Y. Masuda, H. Takeda, M. Kuratsu, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Radical-substituted dihydrophenazine radical cation salts: molecular packing structure and bulk magnetic property, *Pure Appl. Chem.*, **82**, 1025 (2010).
- (518) T. Shinada, M. Hamada, K. Miyoshi, M. Higashino, T. Umezawa, and Y. Ohfuné, Mild and catalytic transesterification reaction using K_2HPO_4 for the synthesis of methyl esters, *Synlett*, 2141 (2010).
- (519) T. Hayashi, Y. Usuki, Y. Wakamatsu, and H. Iio, Synthesis of (*E*)-1-benzyloxy-3-fluoro-1,3-butadiene: a novel fluorinated diene for Diels–Alder reactions, *Synlett*, 2843 (2010).
- (520) T. Okada, N. Oda, H. Suzuki, K. Sakaguchi, and Y. Ohfuné, Synthesis of optically active α -(allenyl)- and α -substituted- α -(allenyl)glycines, *Tetrahedron Lett.*, **51**, 3765 (2010).
- (521) 篠田哲史, 希土類錯体の近赤外発光を利用した基質センシング, *光化学*, **41**, 140 (2010).
- (522) 大船泰史, 有機合成と青いバラ, *有機合成化学協会誌*, **68**, 693 (2010).
- (523) 脇本辰郎, 加藤健司, 谷 俊也, キャピラリージェット形状を利用した動的表面張力の測定法 (第2報, 動的表面張力の測定), *日本機械学会論文集 B 編*, **76**, 291 (2010).
- (524) 加藤健司, 脇本辰郎, 住谷真宏, 傾斜平板法および光学手法を組み合わせた接触角の精密測定, *日本機械学会論文集 B 編*, **76**, 1508 (2010).
- (525) 加藤健司, 脇本辰郎, 増田良平, 超音波振動およびレーザーを用いた固体面上の液滴の駆動に関する研究, *日本機械学会論文集 B 編*, **76**, 2135 (2010).
- (526) 荒賀浩一, 松井良輔, 脇本辰郎, 村田圭治, 加藤健司, 界面活性剤水溶液の水平円管内流れに及ぼす微細気泡の影響, *実験力学*, **10**, 304 (2010).
- (527) K. Katoh and T. Wakimoto, A study on capillary flow under the effect of dynamic wetting, *Journal of JSEM*, **10** Special Issue, 62 (2010).
- (528) K. Katoh and T. Wakimoto, Characteristics of liquid film flowing around a horizontal circular cylinder (Film thickness and wave length of standing wave), *Journal of JSEM*, **10** Special Issue, 67 (2010).
- (529) K. Katoh, Y. Arii, and T. Wakimoto, Bubble formation from an air jet injected into a turbulent boundary layer (On a single bubble), *Journal of Fluid Science and Technology*, **5**, 528 (2010).
- (530) H. Kawakami, K. Kittaka, Y. Sato, and Y. Kikuchi, Bacterial adhesion and initiation of biofilms on the surface of copper containing stainless steel, *ISIJ Int.*, **50**, 133 (2010).
- (531) 高田洋吾, 中西志允, 荒木良介, 脇坂知行, PIV 測定と 3 次元数値解析による小型魚ロボット周りの水の流動状態と推進能力の検討, *日本機械学会論文集 (C 編)*, Vol.76, No.763, pp.665-672. (2010).
- (532) 高田洋吾, 荒木良介, 野々垣元博, 海老田一章, 石井利長, 脇坂知行, 小型・超軽量自立型固体高分子形燃料電池の開発と小型魚ロボットへの応用, *日本機械学会論文集 (B 編)*, Vol.76, No.764, pp.650-659 (2010).
- (533) 田尻智紀, 大神麗, 杉本和矢, 高田洋吾, 脇坂知行, 凹凸を含んだ路面上における小型ヒューマノイドロボットの歩行の安定化, *日本機械学会論文集 (C 編)*, Vol.76, No.772, pp.3622-3629 (2010).

- (534) Y. Takada, R. Araki, Y. Nakanishi, M. Nonogaki, K. Ebita, T. Wakisaka, Development of Small Fish Robots Powered by Small and Ultra-Light Passive-Type Polymer Electrolyte Fuel Cells, *Journal of Robotics and Mechatronics*, Vol.22, No.2, pp.150-157(2010).
- (535) Y. Takada, Y. Nakanishi, R. Araki, M. Nonogaki, T. Wakisaka, Effect of Material and Thickness about Tail Fins on Propulsive Performance of a Small Fish Robot, *Journal of Aero Aqua Bio-mechanisms*, Vol.1, No.1, pp.51-56(2010).
- (536) K. Mizoguchi, Y. Kanzawa, G. Oohata, S. Saito, K. Sakai, and M. Nakayama, *Jpn. J. Appl. Phys.* **49**, 120202 (2010).
T. Hasegawa, S. Okamoto, and M. Nakayama, *Physica E* **42**, 2648 (2010).
- (537) M. Nakayama, T. Hirao, and T. Hasegawa, *Physica E* **42**, 2644 (2010).
- (538) T. Kawase, S. Komura, K. Miyazaki, D. Kim, and M. Nakayama, *Physica E* **42**, 2567 (2010).
- (539) H. Takeuchi, J. Yanagisawa, S. Tsuruta, H. Yamada, M. Hata, and M. Nakayama, *Jpn. J. Appl. Phys.* **49**, 082001 (2010).
- (540) K. Miyazaki, D. Kim, T. Kawase, T. Kameda, and M. Nakayama, *Jpn. J. Appl. Phys.* **49**, 042802 (2010).
- (541) H. Takeuchi, J. Yanagisawa, J. Hashimoto, and M. Nakayama, *Phys. Status Solidi C* **7**, 1844 (2010).
- (542) J. Hashimoto, Y. Maeda, and M. Nakayama, *Appl. Phys. Lett.* **96**, 081910 (2010).
- (543) H. Takeuchi, J. Yanagisawa, and M. Nakayama, *Phys. Procedia* **3**, 1109 (2010).
- (544) D. Miyazaki, T. Honda, K. Ohno, T. Mukai, *J. Display Technol.* **6**, 548 (2010).
- (545) H. Takahashi, S. Miyatake, K. Yamada, and T. Aida, *J. SID* **18**, 501 (2010).
- (546) D. Kosumi, T. Kusumoto, R. Fujii, M. Sugisaki, Y. Iinum, N. Oka, Y. Takaesu, T. Taira, M. Iha, H. A. Frank, and H. Hashimoto, Ultrafast excited state dynamics of fucoxanthin: excitation energy dependent intramolecular charge transfer dynamics, *Phys. Chem. Chem. Phys.*, **13**, 10762–10770(2011).
- (547) D. Kosumi, S. Maruta, T. Horibe, M. Sugisaki, R. Fujii, R.J. Cogdell, and H. Hashimoto, A new ultrafast energy transfer pathway in a purple bacterial photosynthetic core antenna as revealed by femtosecond time-resolved spectroscopy, *Angew. Chem.*, **500**, 1097-1100(2011).
- (548) D. Kosumi, T. Kusumoto, R. Fujii, M. Sugisaki, Y. Iinuma, N. Oka, Y. Takaesu, T. Taira, M. Iha, H. A. Frank, and H. Hashimoto, Ultrafast S_1 and ICT state dynamics of a marine carotenoid probed by femtosecond one- and two-photon pump-probe spectroscopy, *J. Lumin.*, **131**, 515-518(2011).
- (549) M. Sugisaki, D. Kosumi, K. Saito, R. Fujii, R. J. Cogdell, and H. Hashimoto, Strongly coupled vibronic modes investigated by means of four-wave mixing spectroscopy, in: *Ultrafast Phenomena XVII* (ed. M. Chergui, et al., Oxford University press, Oxford, New York, Auckland), 502-504(2011).
- (550) D. Kosumi, S. Maruta, T. Kusumoto, R. Fujii, M. Sugisaki, M. Iha, H. A. Frank, and H. Hashimoto, Excitation energy dependence of the S_1 and ICT state dynamics in marine carotenoids studied by femtosecond one- and two-photon pump-probe spectroscopy, in: *Ultrafast Phenomena XVII* (ed. M. Chergui, et al., Oxford University press, Oxford, New York, Auckland), 562-564(2011).
- (551) M. Sugisaki, D. Kosumi, K. Saito, R.J. Cogdell, and H. Hashimoto, Control of the coherent vibronic oscillations in carotenoids by ultrashort laser pulses, *Phys. Stat. Solidi (c)*, **8**, 151-154(2011).
- (552) D. Kosumi, S. Maruta, R. Fujii, K. Kanemoto, M. Sugisaki, and H. Hashimoto, Ultrafast excited state dynamics of monomeric bacteriochlorophyll a , *Phys. Stat. Solidi (c)*, **8**, 92-95(2011).
- (553) Strong coherent coupling of vibronic oscillations in spheroidene, M. Sugisaki, D. Kosumi, K. Saito, R.J. Cogdell, and H. Hashimoto, *Physics Procedia*, **13**, 74-77(2011) .

- (554) S. Maruta, D. Kosumi, T. Horibe, R. Fujii, M. Sugisaki, R.J. Cogdell, and H. Hashimoto, Unusual enhancement of triplet carotenoid in pigment-protein complexes as revealed by femtosecond pump-probe spectroscopy, *Physics Procedia*, **13**, 58-61(2011).
- (555) K. Obara, C. Kato, S. Sasamoto, H. Yano, O. Ishikawa and T. Hata, Acoustic resonance of superfluid ^3He in parallel plates, *J. Low Temp. Phys.*, **162**, 190–195(2011).
- (556) Y. Nago, T. Ogawa, K. Obara, H. Yano, O. Ishikawa and T. Hata, Time-of-flight experiments of vortex rings propagating from turbulent region of superfluid ^4He at high temperature, *J. Low Temp. Phys.*, **162**, 322–328(2011).
- (557) K. Obara, C. Kato, S. Sasamoto, H. Yano, O. Ishikawa and T. Hata, Acoustic resonance of superfluid ^3He in parallel plates, *J. Low Temp. Phys.*, **162**, 190–195(2011).
- (558) Y. Nago, T. Ogawa, K. Obara, H. Yano, O. Ishikawa and T. Hata, Time-of-flight experiments of vortex rings propagating from turbulent region of superfluid ^4He at high temperature, *J. Low Temp. Phys.*, **162**, 322–328(2011).
- (559) K. Kanemoto, M. Yasui, D. Kosumi, M. Sugisaki, T. Karasawa and H. Hashimoto, Morphology dependent exciton formation in regioregular poly(3-alkyl)thiophenes, *Physica Status Solidi (c)*, **8**, 88-91(2011).
- (560) K. Kanemoto, M. Yasui, T. Higuchi, D. Kosumi, I. Akai, T. Karasawa, and H. Hashimoto, Spectroscopic investigation of excitons, photocarriers and bias-induced carriers in regioregular poly(3-alkylthiophene), *Physical Review B*, **83**, 205203-1-7(2011).
- (561) M. Hirotsu, A. Yogi, and I. Kinoshita, (η^6 -Benzene){2-[2-(*tert*-butylsulfanyl)phenyl]pyridine- κ^2N,S }chloridoruthenium(II) hexafluoridophosphate, *Acta Crystallogr.*, **E67**, m63, (2011).
- (562) T. Sawai, K. Sato, D. Shiomi, K. Toyota, Q. Wang, J.-S. Wang, Y. Li, G.-S. Wu, and T. Takui, Intramolecular hydrogen bonding in calix[4]arene-based nitroxide monoradical and biradical as studied by CW-ESR and pulse-ESR HYSCORE spectroscopy, *Appl. Magn. Reson.*, **41**, 337 (2011).
- (563) S. Shinoda and H. Tsukube, Luminescent lanthanide complexes as analytical tools in anion sensing, pH indication and protein recognition, *Analyst*, **136**, 431 (2011).
- (564) K. Nakao, K. Murata, T. Deguchi, K. Itoh, T. Fujita, M. Higashino, Y. Yoshioka, S. Matsumura, R. Tanaka, T. Shinada, Y. Ohfuné, and H. Matsuda, Xanthine oxidase inhibitory activities and crystal structures of methoxyflavones from *Kaempferia parviflora* rhizome, *Biol. Chem. Pharm. Bull.*, **34**, 1143 (2011).
- (565) M. Tojo, S. Fukuoka, and H. Tsukube, Mechanistic studies on fluorobenzene synthesis from 1,1-difluorocyclohexane via Pd-catalyzed dehydrofluoro–dehydrogenation, *Bull. Chem. Soc. Jpn.*, **84**, 333 (2011).
- (566) Y. Yoshida, R. Miyamoto, A. Nakato, R. Santo, N. Kuwamura, K. Gobo, T. Nishioka, M. Hirotsu, A. Ichimura, H. Hashimoto, and I. Kinoshita, Preparation and structural features of Cu(I)Cu(II) coordination polymers obtained by using tripodal complexes as bridging ligands, *Bull. Chem. Soc. Jpn.*, **84**, 600 (2011).
- (567) Y. Muto, Y. Tanabe, K. Kawai, Y. Okano, and H. Iio, Climacostol inhibits *Tetrahymena* motility and mitochondrial respiration, *Cent. Eur. J. Biol.*, **6**, 99 (2011).
- (568) S. Nishida, K. Kariyazono, A. Yamanaka, K. Fukui, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, Electronic stabilization effect of a spin-delocalized neutral radical: synthesis of an 8-cyano-6-oxophenalenoxyl derivative and quantitative evaluation of the electronic spin structure in terms of resonance structures, *Chem.–Asian J.*, **6**, 1188 (2011).
- (569) T. Tanaka, H. Inui, H. Kida, T. Kodama, T. Okamoto, A. Takeshima, Y. Tachi, and Y. Morimoto, Diastereoselective synthesis of the indeno-tetrahydropyridine core bearing a diaryl-substituted stereogenic quaternary carbon center of haouamine B, *Chem. Commun.*, **47**, 2949 (2011).

- (570) M. Itazaki, M. Kamitani, and H. Nakazawa, *trans*-Selective hydrogermylation of alkynes promoted by methyliron and bis(germyl)hydridoiron complexes as catalyst precursor, *Chem. Commun.*, **47**, 7854 (2011).
- (571) N. Kuwamura, K. Kitano, M. Hirotsu, T. Nishioka, Y. Teki, R. Santo, A. Ichimura, H. Hashimoto, L. J. Wright, and I. Kinoshita, Redox controlled, reversible rearrangement of a tris(2-pyridylthio)methyl ligand on nickel to an isomer with an “*N,S*-confused” 2-pyridylthiolate arm, *Chem.–Eur. J.*, **17**, 10708 (2011).
- (572) S. Suzuki, N. Itoh, K. Furuichi, M. Kozaki, D. Shiomi, K. Sato, T. Takui, H. Ohi, S. Itoh, and K. Okada, Synthesis and magnetic properties of dimethylmethylenebis(iminonitroxide) diradical, *Chem. Lett.*, **40**, 22 (2011).
- (573) T. Yatsuhashi, N. Uchida, and K. Nishikawa, Novel method of producing carbon nanoparticles on benzene/water interface with femtosecond laser plasma filament, *Chem. Lett.*, **41**, 722 (2011).
- (574) H. Sugimoto, R. Tajima, K. Toyota, H. Miyake, and S. Itoh, Redox reaction of bis(dithiolene)sulfidotungsten(IV) complex with elemental sulfur: functional analogs of polysulfide reductase of molybdoenzymes, *Chem. Lett.*, **40**, 1146 (2011).
- (575) S. Shinoda and H. Tsukube, Molecular recognition of cytochrome *c* by designed receptors for generation of *in vivo* and *in vitro* functions, *Chem. Sci.*, **2**, 2301 (2011).
- (576) T. Yatsuhashi, N. Mitsubayashi, M. Itsukashi, M. Kozaki, K. Okada, and N. Nakashima, Persistence of iodines and deformation of molecular structure in highly charged diiodoacetylene: anisotropic carbon ion emission, *ChemPhysChem*, **12**, 122 (2011).
- (577) M. Tadokoro, M. Nakamura, T. Anai, T. Shinoda, A. Yamagata, Yu Kawabe, K. Sato, D. Shiomi, T. Takui, and K. Isoda, Spin enhancement by grinding of Cu-TANC coordination polymer crystals showing d- π interactions, *ChemPhysChem*, **12**, 2561 (2011).
- (578) M. Hirotsu, C. Tsuboi, T. Nishioka, and I. Kinoshita, Carbon–sulfur bond cleavage reactions of dibenzothiophene derivatives mediated by iron and ruthenium carbonyls, *Dalton Trans.*, **40**, 785 (2011).
- (579) H. Sugimoto, H. Tano, K. Suyama, T. Kobayashi, H. Miyake, S. Itoh, R. P. Mtei, and M. L. Kirk, Chalcogenidobis(ene-1,2-dithiolate)molybdenum(IV) complexes (chalcogenide E = O, S, Se): probing Mo \equiv E and ene-1,2-dithiolate substituent effects on geometric and electronic structure, *Dalton Trans.*, 1119 (2011).
- (580) H. Sugimoto, H. Tano, H. Miyake, and S. Itoh, Generation of bis(dithiolene)dioxomolybdenum(VI) complexes from bis(dithiolene)monooxomolybdenum(IV) complexes by proton-coupled electron transfer in aqueous media, *Dalton Trans.*, **40**, 2358 (2011).
- (581) T. Shibata, H. Hashimoto, I. Kinoshita, S. Yano, and T. Nishioka, Unprecedented diastereoselective generation of chiral-at-metal, half sandwich Ir(III) and Rh(III) complexes *via* anomeric isomerism on “sugar-coated” N-heterocyclic carbene ligands, *Dalton Trans.*, **40**, 4826 (2011).
- (582) S. Shibata, S. Ito, M. Doe, R. Tanaka, H. Hashimoto, I. Kinoshita, S. Yano, and T. Nishioka, Dynamic behaviour attributed to chiral carbohydrate substituents of N-heterocyclic carbene ligands in square planar nickel complexes, *Dalton Trans.*, **40**, 6778 (2011).
- (583) Y. Yakiyama, T. Murata, T. Ise, D. Shiomi, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, Solution-stable triple-helicates of quaterimidazole: three-dimensional crystal structures and optical resolution by chiral-column HPLC, *Eur. J. Inorg. Chem.*, **2011**, 3438 (2011).
- (584) Y. Teki, M. Shirokoshi, S. Kanegawa and O. Sato, ESR study of light-induced valence tautomerism of a dinuclear Co complex, *Eur. J. Inorg. Chem.*, 3761 (2011).
- (585) M. Itazaki, A. Ichimura, and H. Nakazawa, Synthesis of silyl–molybdenum complexes connected by a 1,1'-metallocenylene unit and their electrochemical properties, *Eur. J. Inorg. Chem.*, 5496 (2011).

- (586) H. Kato, K. Sato, and T. Takui, Analysis of iodine-like (chlorine) flavor-causing components in Brazilian coffee with Rio flavor, *Food Sci. Technol. Res.*, **17**, 347 (2011).
- (587) M. Yutani, A. Ogita, K.-I. Fujita, Y. Usuki, and T. Tanaka, Evaluation of uridine 5'-eicosylphosphate as a stimulant of cyclic AMP-dependent cellular function, *Gen. Physiol. Biophys.*, **30**, 106 (2011).
- (588) M. Itazaki, Y. Shigesato, and H. Nakazawa, Synthesis, characterization, and crystal structure of *cis*-[Pt(Me)₂{PPh₂(OMe)}₂] and the conversion into *cis*-[Pt(OH)₂{PPh₂(OMe)}₂][OTf]₂, *Heteroat. Chem.*, **22**, 371 (2011).
- (589) T. Iwagawa, T. Kusatsu, K. Tsuha, T. Hamada, H. Okamura, T. Furukawa, S. Akiyama, M. Doe, Y. Morimoto, F. Iwase, and K. Takemura, Cytotoxic eunicellin-type diterpenes from the soft coral *Liophyton viscudium*, *Heterocycles*, **83**, 2149 (2011).
- (590) S. Shinoda, A. Mizote, M. Eiraku Masaki, M. Yoneda, H. Miyake, and H. Tsukube, Mixed-metal complexes incorporating platinum and lanthanide centers for selective binding and chirality sensing of succinates, *Inorg. Chem.*, **50**, 5876 (2011).
- (591) A. Uetomo, M. Kozaki, S. Suzuki, K. Yamanaka, O. Ito, and K. Okada, Efficient light-harvesting antenna with a multi-porphyrin cascade, *J. Am. Chem. Soc.*, **133**, 13276 (2011).
- (592) T. Kubo, Y. Katada, A. Shimizu, Y. Hirao, K. Sato, T. Takui, M. Uruichi, K. Yakushi, and R. Haddon, Synthesis, crystal structure and physical properties of sterically unprotected hydrocarbon radicals, *J. Am. Chem. Soc.*, **133**, 14240 (2011).
- (593) S. Shinoda, T. Noguchi, M. Ikeda, Y. Habata, and H. Tsukube, Luminescent double-decker type guanine octets with trivalent lanthanide cations: in situ self-assembling and stability evaluation in homogeneous organic media, *J. Inclusion Phenom. Macrocycl. Chem.*, **71**, 523 (2011).
- (594) T. Kotaki, T. Shinada, K. Kaihara, Y. Ohfuné, and H. Numata, Biological activities of juvenile hormone III skipped bisepoxide in last instar nymphs and adults of a stink bug, *Plautia stali*, *J. Insect Phys.*, **57**, 147 (2011).
- (595) M. Tojo, S. Fukuoka, and H. Tsukube, Mechanistic studies on fluorocyclohexene conversion to fluorobenzene under Pd-catalyzed dehydrogenation, *J. Mol. Cat. A: Chem.*, **337**, 89 (2011).
- (596) N. Mitsubayashi, T. Yatsushashi, and N. Nakashima, Formation of *p*-xylylene from *p*-xylene by a two-photon process and hexamethyl Dewar benzene from hexamethylbenzene by a one-photon process at 193 nm, *J. Photochem. Photobiol. A: Chem.*, **219**, 273 (2011).
- (597) S. Suzuki, M. Kozaki, K. Nozaki, and K. Okada, Recent progress in controlling photophysical processes of donor–acceptor junction molecules involving perilenediimides and borondipyromethens, *J. Photochem. Photobiol. C: Photochem. Rev.*, **12**, 269 (2011).
- (598) T. Yoshino, S. Nishida, K. Sato, S. Nakazawa, R. Rahimi, K. Toyota, D. Shiomi, Y. Morita, M. Kitagawa, and T. Takui, ESR and ¹H-, ¹⁹F-ENDOR/TRIPLE study of fluorinated diphenylnitroxides as synthetic bus spin-qubit radicals with client qubits in solution, *J. Phys. Chem. Lett.*, **2**, 449 (2011).
- (599) D. Shiomi, Y. Kanzaki, S. Okada, R. Arima, Y. Miyazaki, A. Inaba, R. Tanaka, K. Sato, and T. Takui, An enantiopair of organic ferromagnet crystals based on helical molecular packing of achiral organic radicals, *J. Phys. Chem. Lett.*, **2**, 3036 (2011).
- (600) T. Mori, K. Okamoto, H. Endo, K. Sakakibara, J. P. Hill, S. Shinoda, M. Matsukura, H. Tsukube, Y. Suzuki, Y. Kanekiyo, and K. Ariga, Mechanical tuning of molecular machines for nucleotide recognition at the air–water interface, *Nanoscale Res. Lett.*, **6**, 304 (2011).
- (601) Y. Morita, S. Suzuki, K. Sato, and T. Takui, Synthetic organic-spin chemistry for structurally well-defined open-shell graphene fragments, *Nature Chem.*, **3**, 197 (2011).
- (602) Y. Morita, S. Nishida, T. Murata, M. Moriguchi, A. Ueda, M. Satoh, K. Arifuku, K. Sato, and T. Takui, Organic tailored batteries materials using stable open-shell molecules with degenerate frontier orbitals, *Nature Mater.*, **10**, 947 (2011).

- (603) K. Fukumoto, M. Kasa, T. Oya, M. Itazaki, and H. Nakazawa, Dehydrogenative coupling of thiol with hydrosilane catalyzed by an iron complex, *Organometallics*, **30**, 3461 (2011).
- (604) R. Takada, M. Hirotsu, T. Nishioka, H. Hashimoto, and I. Kinoshita, Sulfur-bridged Ta–M (M = Mo, Cr) multinuclear complexes bearing a four-electron-reduced dinitrogen ligand, *Organometallics*, **30**, 4232 (2011).
- (605) K. Fukumoto and H. Nakazawa, *fac–mer* Isomerization of Mo(CO)₃(phosphite)₃ caused by interaction between phosphite oxygen and silane silicon, *Phosphorus, Sulfur Silicon Relat. Elem.*, **186**, 660 (2011).
- (606) S. Nakazawa, K. Sato, D. Shiomi, M. Yano, T. Kinoshita, M. L. T. M. B. Franco, M. C. R. L. R. Lazana, M. C. B. L. Shohoji, K. Itoh, and T. Takui, Organic polyanionic high-spin molecular clusters: topological-symmetry controlled models for organic ferromagnetic metals, *Phys. Chem. Chem. Phys.*, **13**, 1424 (2011).
- (607) T. Yatsuhashi, E. Murakami, and N. Nakashima, Fe^{z+} (z = 1–6) generation from ferrocene, *Phys. Chem. Chem. Phys.*, **13**, 4234 (2011).
- (608) T. Michinobu, S. Shinoda, T. Nakanishi, J. P. Hill, K. Fujii, T. N. Player, H. Tsukube, and K. Ariga, Langmuir monolayer of cholesterol-armed cyclen complex that can control enantioselectivity of amino acid recognition by surface pressure, *Phys. Chem. Chem. Phys.*, **13**, 4895 (2011).
- (609) K. Sugisaki, K. Toyota, K. Sato, D. Shiomi, M. Kitagawa, and T. Takui, *Ab initio* and DFT studies of the spin–orbit and spin–spin contributions to the zero-field splitting tensors of triplet nitrenes with aryl scaffolds, *Phys. Chem. Chem. Phys.*, **13**, 6970 (2011).
- (610) N. T. Kipassa, H. Okamura, T. Hamada, Y. Morimoto, M. Doe, T. Iwagawa, and M. Nakatani, Rings D-seco and B,D-seco tetranortriterpenoids from root bark of *Entandrophragma angolense*, *Phytochemistry*, **72**, 1854 (2011).
- (611) S. Shinoda, T. Maeda, H. Miyake, and H. Tsukube, Dynamically capped rotaxanes: metal coordination vs. acid–base pairing in the chiral end-capping, *Supramol. Chem.*, **23**, 244 (2011).
- (612) M. Higashino, N. Ikeda, T. Shinada, K. Sakaguchi, and Y. Ohfuné, Stereoselective *anti*-S_N2' Mitsunobu reaction of α -hydroxy- α -alkenylsilanes, *Tetrahedron Lett.*, **52**, 422 (2011).
- (613) T. Okada, K. Sakaguchi, T. Shinada, and Y. Ohfuné, Au-catalyzed cyclization of allenylsilanes. Regioselective conversion to 2-amino-4-silylmethylene- γ -butyrolactone, *Tetrahedron Lett.*, **52**, 5740 (2011).
- (614) T. Okada, K. Sakaguchi, T. Shinada, and Y. Ohfuné, Total synthesis of (–)-funebrine via Au-catalyzed regio- and stereoselective γ -butyrolactonization of allenylsilane, *Tetrahedron Lett.*, **52**, 5744 (2011).
- (615) 伊藤 宏, 篠田哲史, 海からウランを！:ウラニルイオンを捕まえるスーパー配位子の開発, *化学*, **66**, 62 (2011).
- (616) 大船泰史, 品田哲郎, 天然神経毒アミノ酸類の全合成, *化学工業*, **62**, 642 (2011).
- (617) 小寄正敏, 岡田恵次, 共役鎖内包型デンドリマーの合成と機能探索, *有機合成化学協会誌*, **69**, 1145 (2011).
- (618) 品田哲郎, チャバネアオカメムシにおける幼若ホルモン (JHSB3) の構造決定と害虫管理への応用の可能性, *植物防除*, **65**, 56 (2011).
- (619) K. Katoh, Y. Arii, and T. Wakimoto, Bubble formation from an air jet injected into a turbulent boundary layer (Bubble separation from a continuous jet), *Journal of Fluid Science and Technology*, **6**, 487(2011).
- (620) 重松孝昌, 加藤健司, 脇本辰郎, 吉岡真弥, 曾谷一慶, 縦スリット式直立消波工を利用した波力発電の試み, *土木学会論文集, B2 (海岸工学)*, **67**, 1231(2011).
- (621) 添本和彦, 脇本辰郎, 加藤健司, 高速エアジェットによる壁面付着微粒子除去に関する研究, *実験力学*, **11**, 35(2011).

- (622) T. Wakimoto and K. Katoh, Disintegration process of a fan liquid sheet formed with surfactant solution, *Journal of JSEM*, **11** Special Issue, 107(2011).
- (623) K. Katoh and T. Wakimoto, Characteristics of liquid film flowing around side wall of a horizontal circular cylinder (Separation of liquid film), *Journal of JSEM*, **11** Special Issue, 97(2011).
- (624) 高田洋吾, 荒木良介, 落合利紀, 田尻智紀, 脇坂知行, 小型魚ロボットにおける尾ひれの柔軟性が推進性能に及ぼす影響 (尾ひれの弾性変形を考慮した流体・構造連成計算による検討), 日本機械学会論文集(C編), Vol.77, No.778, pp.2351-2362(2011).
- (625) H. Ueno, K. Kakihata, Y. Kaneko, S. Hashimoto and A. Vinogradov, Enhanced fatigue properties of nanostructured austenitic SUS 316L stainless steel, *Acta Mater.*, **59**, 7060 (2011).
- (626) H. Ueno, K. Kakihata, Y. Kaneko, S. Hashimoto and A. Vinogradov, Nanostructurization assisted by twinning during equal channel angular pressing of metastable 316L stainless steel, *J.Mater.Sci.*, **46**, 4276 (2011).
- (627) 吉岡真弥, 岩本真里子, 単純な非線形力学模型により評価したエポキシガラスの等速延伸過程における緩和時間変化, *材料*, **60**, 51 (2011).
- (628) H. Takeuchi, S. Tsuruta, and M. Nakayama, *J. Appl. Phys.* **110**, 013515 (2011).
- (629) M. Nakayama, M. Kameda, T. Kawase, and D. Kim, *Phys. Rev. B* **83**, 235325 (2011).
- (630) T. Hasegawa, Y. Takagi, and M. Nakayama, *Phys. Rev. B* **83**, 205309 (2011).
- (631) H. Takeuchi, S. Tsuruta, and M. Nakayama, *Appl. Phys. Lett.* **96**, 151905 (2011).
- (632) M. Nakayama, K. Miyazaki, T. Kawase, and D. Kim, *Phys. Rev. B* **83**, 075318 (2011).
- (633) H. Takeuchi, J. Yanagisawa, S. Tsuruta, H. Yamada, M. Hata, and M. Nakayama, *J. Lumin.* **131**, 531 (2011).
- (634) T. Kawase, D. Kim, K. Miyazaki, and M. Nakayama, *Phys. Status Solidi B* **248**, 460 (2011)
- (635) M. Nakayama, J. Hashimoto, and Y. Maeda, *Phys. Status Solidi C* **8**, 372 (2011).
- (636) H. Takeuchi, J. Yanagisawa, S. Tsuruta, H. Yamada, M. Hata, and M. Nakayama, *Phys. Status Solidi C* **8**, 343 (2011).
- (637) S. Wakaiki, H. Ichida, K. Mizoguchi, D. Kim, Y. Kanemitsu, and M. Nakayama, *Phys. Status Solidi C* **8**, 116 (2011).
- (638) M. Sugisaki, D. Kosumi, K. Saito, R.J. Cogdell, and H. Hashimoto, Generation of coherently coupled vibronic oscillations in carotenoids, *Phys. Rev.*, **B85**, 245408/1-10(2012)
- (639) D. Kosumi, M. Kita, R. Fujii, M. Sugisaki, N. Oka, Y. Takaesu, T. Taira, M. Iha, and H. Hashimoto, Excitation energy-transfer dynamics of brown algal photosynthetic antennas, *J. Phys. Chem. Lett.*, **3**, 2659-2664(2012).
- (640) D. Kosumi, S. Maruta, T. Horibe, Y. Nagaoka, R. Fujii, M. Sugisaki, Richard J. Cogdell, and H. Hashimoto, Ultrafast excited state dynamics of spirilloxanthin in solution and bound to core antenna complexes: identification of the S* and T₁ states, *J. Phys. Chem.*, **137**, 064505/1-10(2012).
- (641) H. Yano, A. Nishijima, S. Yamamoto, T. Ogawa, Y. Nago, K. Obara, O. Ishikawa, M. Tsubota, and T. Hata, Generation and detection of vortex rings in superfluid ⁴He at very low temperature, *J. Phys.: Conf. Ser.*, **400**, 012085(1-4)(2012).
- (642) K. Obara, Y. Kimura, A. Fukui, C. Kato, Y. Nago, H. Yano, O. Ishikawa, and T. Hata, Anomalous sound absorption of finite amplitude sound in liquid ⁴He, *J. Phys.: Conf. Ser.*, **400**, 012057(1-4)(2012).
- (643) H. Tanaka et al., Studies of the energy spectrum and composition of the primary cosmic rays at 100-1000 TeV from the GRAPES-3 experiment, *J. of Phys. G: Nuclear and Particle Physics*, **39**, 025201(2012).
- (644) H. Tokuno et al., New air fluorescence detectors employed in the Telescope Array experiment, *NIM A*, **676**, 54-65(2012).

- (645) T. Abu-Zayyad et al., The surface detector array of the Telescope Array experiment, *NIM A*, **689**, 87-97(2012).
- (646) T. Abu-Zayyad et al., Search for anisotropy of ultra-high energy cosmic rays with the Telescope Array experiment *Ap. J.*, **757**, 26(2012).
- (647) T. Abu-Zayyad et al., The energy spectrum of Telescope Array's Middle Drum detector and the direct comparison to the High Resolution Fly's Eye experiment *Astropart. Phys.*, **39-40**, 109-119(2012).
- (648) K. Kanemoto, H. Matsuoka, Y. Ueda, K. Takemoto, K. Kimura, and H. Hashimoto, Displacement current induced by spin resonance in air-treated conjugated polymer diodes, *Physical Review B*, **86**, 125201-1-5(2012).
- (649) K. Kanemoto, S. Domoto, Y. Ohta, A. Ogata, and H. Hashimoto, Spectroscopic investigation of charge injection process in the bulk-heterojunction P3HT:PCBM solar cell, *Physica Status Solidi (c)*, **9**, 2395-2398 (2012).
- (650) M. Hirotsu, N. Kuwamura, I. Kinoshita, M. Kojima, and Y. Yoshikawa, Bis(μ_2 -4,7-dimethyl-4,7-diazadecane-1,10-dithiolato)trinickel(II) bis(perchlorate), *Acta Crystallogr.*, **E68**, m307 (2012).
- (651) S. Suzuki, A. Nagata, M. Kuratsu, M. Kozaki, R. Tanaka, D. Shiomi, K. Sugisaki, K. Toyota, K. Sato, T. Takui, and K. Okada, Trinitroxide-trioxytriphenylamine: spin-state conversion from triradical doublet to diradical cation triplet by oxidative modulation of a π -conjugated system, *Angew. Chem. Int. Ed.*, **51**, 3193 (2012).
- (652) U. Akira, H. Wasa, S. Suzuki, K. Okada, K. Sato, T. Takui, and Y. Morita, Chiral stable phenalenyl radical: synthesis, electronic-spin structure, and optical properties of [4]helicene-structured diazaphenalenyl, *Angew. Chem., Int. Ed.*, **51**, 6691 (2012).
- (653) S. Nakazawa, S. Nishida, T. Ise, T. Yoshino, N. Mori, R. D. Rahimi, K. Sato, Y. Morita, K. Toyota, D. Shiomi, M. Kitagawa, H. Hara, P. Carl, P. Hofer, and T. Takui, A synthetic two-spin quantum bit: *g*-engineered exchange-coupled biradical designed for controlled-NOT gate operations, *Angew. Chem. Int. Ed.*, **51**, 9860 (2012).
- (654) M. Yano, H. Takemoto, M. Tatsumi, H. Miyake, and H. Tsukube, Preferential crystallization of lanthanoid tris(beta-diketonates) with bridged bis(2-pyridylmethyl)amine ligands toward separation application, *Bull. Chem. Soc. Jpn.*, **85**, 490 (2012).
- (655) S. Shinoda, K. Terada, and H. Tsukube, Induced circular-dichroism chirality probes for selective amino acid detection through screening of a dynamic combinatorial library of lanthanide complexes, *Chem.–Asian J.*, **7**, 400 (2012).
- (656) M. Kuratsu, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, T. Kanzawa, Y. Hosokoshi, X.-Z. Lan, Y. Miyazaki, A. Inaba, and K. Okada, (Nitronyl nitroxide)-substituted trioxytriphenylamine radical cation tetrachlorogallate salt: a 2p-electron-based weak ferromagnet composed of a triplet diradical cation, *Chem.–Asian J.*, **7**, 1604 (2012).
- (657) H. Miyake, M. Ueda, S. Murota, H. Sugimoto, and H. Tsukube, Helicity inversion from left- to right-handed square planar Pd(II) complexes: synthesis of a diastereomer pair from a single chiral ligand and their structure dynamism, *Chem. Commun.*, **48**, 3721 (2012).
- (658) K. Fukumoto, A. Sakai, T. Oya, and H. Nakazawa, Desulfurization of *N,N*-dimethylthioformamide by hydrosilane with the help of an iron complex. Isolation and characterization of an iron-carbene complex as an intermediate of C=S double bond cleavage, *Chem. Commun.*, **48**, 3809 (2012).
- (659) M. Yano, K. Matsuhira, M. Tatsumi, Y. Kashiwagi, M. Nakamoto, M. Oyama, K. Ohkubo, S. Fukuzumi, H. Miki and H. Tsukube, "ON-OFF" switching of europium complex luminescence coupled with ligand redox process, *Chem. Commun.*, **48**, 4082 (2012).

- (660) H. Ito, H. Tsukube, and S. Shinoda, A chirality rewriting cycle mediated by a dynamic cyclen–calcium complex, *Chem. Commun.*, **48**, 10954 (2012).
- (661) H. Atsumi, K. Maekawa, S. Nakazawa, D. Shiomi, K. Sato, M. Kitagawa, T. Takui, and K. Nakatani, Tandem arrays of TEMPO and nitronyl nitroxide radicals with designed arrangements on DNA, *Chem.–Eur. J.*, **18**, 178 (2012).
- (662) Y. Maeda, H. Hashimoto, and T. Nishioka, Synthesis and reactivity of a platinum(II) complex with hydrosulfido ligands induced by a chelated *N*-heterocyclic carbene ligand, *Chem. Lett.*, **41**, 145 (2012).
- (663) S. Yamauchi, M. Tanabe, Y. Ohba, K. Sugisaki, K. Toyota, K. Sato, T. Takui, and I. Saltsman, Complete assignment of spin sublevels in the lowest excited triplet state of corrole compounds by time-resolved EPR spectroscopy, *Chem. Phys. Lett.*, **521**, 64 (2012).
- (664) K. Ariga, H. Ito, J. P. Hill, and H. Tsukube, Molecular recognition: from solution science to nano/materials technology, *Chem. Soc. Rev.*, **41**, 5800 (2012).
- (665) H. Miyake and H. Tsukube, Coordination chemistry strategies for dynamic helicates: time-programmable chirality switching with labile metal helicates and inert metal helicates, *Chem. Soc. Rev.*, **41**, 6977 (2012).
- (666) A. Kaneko, P. Sehgal, and H. Doe, Interfacial and aggregation properties of aqueous sodium *N*-dodecanoylsarcosinate solutions at different pH, *Colloid Polym. Sci.*, **290**, 323 (2012).
- (667) H. Kameo, S. Ishii, and H. Nakazawa, Synthesis of iridium complexes bearing $\{(o\text{-Ph}_2\text{PC}_6\text{H}_4)\}_3\text{E}$ type (E = Si, Ge, and Sn) ligand and evaluation of electron donating ability of group 14 elements E, *Dalton Trans.*, **41**, 8290 (2012).
- (668) H. Kameo, S. Ishii, and H. Nakazawa, Facile synthesis of rhodium and iridium complexes bearing a [PEP]-type ligand (E = Ge or Sn) *via* E–C bond cleavage, *Dalton Trans.*, **41**, 11386 (2012).
- (669) Y. Maeda, H. Hashimoto, and T. Nishioka, Sulfur containing platinum(II) complexes with *N*-heterocyclic carbene ligands obtained by reactions of a hydrosulfido complex, *Dalton Trans.*, **41**, 12038 (2012).
- (670) K. Katayama, M. Hirotsu, I. Kinoshita, and Y. Teki, Design, synthesis, magnetic properties of a π -radical ligand with photo-excited high-spin state and its Fe(II) complex. The first stage of a new strategy for LIESST materials, *Dalton Trans.*, **41**, 13465 (2012).
- (671) T. Seike, Y. Yamagishi, H. Iio, T. Nakamura, and C. Shimoda, Remarkably simple sequence requirement of the M-factor pheromone of *Schizosaccharomyces pombe*, *Genetics*, **191**, 815 (2012).
- (672) Y. Ohfuné, K. Oe, K. Namba, and T. Shinada, Total synthesis of manzacidins. An overview and perspective, *Heterocycles*, **85**, 2617 (2012).
- (673) M. Hirotsu, Y. Shimizu, N. Kuwamura, R. Tanaka, I. Kinoshita, R. Takada, Y. Teki, and H. Hashimoto, Anion-controlled assembly of four manganese ions: structural, magnetic, and electrochemical properties of tetramanganese complexes stabilized by xanthene-bridged Schiff base ligands, *Inorg. Chem.*, **51**, 766 (2012).
- (674) R. Naumov, M. Itazaki, M. Kamitani, and H. Nakazawa, Selective dehydrogenative silylation-hydrogenation reaction of divinylsiloxane with hydrosilane catalyzed by an iron complex, *J. Am. Chem. Soc.*, **134**, 804 (2012).
- (675) M. Kamitani, M. Itazaki, C. Tamiya, and H. Nakazawa, Regioselective double hydrophosphination of terminal arylacetylenes catalyzed by an iron complex, *J. Am. Chem. Soc.*, **134**, 11932 (2012).
- (676) A. H. Ahmed, M. Hamada, T. Shinada, Y. Ohfuné, L. Weerasinghe, P. P. Garner, and R. E. Oswald, The structure of (–)-kaitocephalin bound to the ligand binding domain of the (*S*)- α -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA)/glutamate receptor, GluA2, *J. Biol. Chem.*, **287**, 41007 (2012).

- (677) X. Zhang, S. Suzuki, M. Kozaki, and K. Okada, NCN Pincer Pt-complexes coordinated by (nitronyl nitroxide)-2-ide radical anion, *J. Am. Chem. Soc.*, **134**, 17866 (2012).
- (678) M. Kozaki, S. Morita, S. Suzuki, and K. Okada, Construction of dendritic covalent assemblies with rigid conjugated network, *J. Org. Chem.*, **77**, 9447 (2012).
- (679) M. Tanabe, H. Matsuoka, Y. Ohba, S. Yamauchi, K. Sugisaki, K. Toyota, K. Sato, T. Takui, I. Goldberg, I. Saltsman, and Z. Gross, Time-resolved electron paramagnetic resonance and phosphorescence studies of the lowest excited triplet states of Rh(III) corrole complexes, *J. Phys. Chem. A*, **116**, 9662 (2012).
- (680) Y. Kanzaki, D. Shiomi, K. Sato, and T. Takui, Biradical paradox revisited quantitatively: a theoretical model for self-associated biradical molecules as antiferromagnetically exchange-coupled spin chains in solution, *J. Phys. Chem. B*, **116**, 1053 (2012).
- (681) Y. Morimoto, Total synthesis of marine halogen-containing triterpene polyethers using regioselective 5-*exo* and 6-*endo* cyclizations and the stereochemistry, *J. Synth. Org. Chem., Jpn.*, **70**, 154 (2012).
- (682) E. Hosseini Lapasar, K. Maruyama, D. Burgarth, T. Takui, Y. Kondo, and M. Nakahara, Estimation of coupling constants of a three-spin chain: case study of Hamiltonian tomography with NMR, *New J. Phys.*, **14**, 013043 (2012).
- (683) T. Okada, A. Shimoda, T. Shinada, K. Sakaguchi, and Y. Ohfuné, Regioselective Prins cyclization of allenylsilanes. Stereoselective formation of multi-substituted heterocyclic compounds, *Org. Lett.*, **14**, 6130 (2012).
- (684) K. Fukumoto, A. A. Dahy, T. Oya, K. Hayasaka, M. Itazaki, N. Koga, and H. Nakazawa, O–CN bond cleavage of cyanates by a transition-metal complex, *Organometallics*, **31**, 787 (2012).
- (685) H. Kameo, S. Ishii, and H. Nakazawa, Synthesis and reactivity of rhodium complexes bearing [E(*o*-C₆H₄PPh₂)₃]-type tetradentate ligands (E = Si, Ge, and Sn), *Organometallics*, **31**, 2212 (2012).
- (686) M. Kamitani, K. Fukumoto, R. Tada, M. Itazaki, and H. Nakazawa, Catalytic synthesis of cyclic and linear germoxanes mediated by iron complex, *Organometallics*, **31**, 2957 (2012).
- (687) H. Kameo, Y. Hashimoto, and H. Nakazawa, Synthesis of rhodaboratranes bearing phosphine-tethered boranes: evaluation of the metal–boron interaction, *Organometallics*, **31**, 3155 (2012).
- (688) K. Kamata, A. Suzuki, Y. Nakai, and H. Nakazawa, Catalytic hydrosilylation of alkenes by iron complexes containing terpyridine derivatives as ancillary ligands, *Organometallics*, **31**, 3825 (2012).
- (689) H. Kameo, Y. Hashimoto, and H. Nakazawa, Synthesis of iridaboratranes bearing phosphine-tethered borane: reversible CO/PR₃ (R = Me, OMe, OEt) substitution reactions induced by a σ -electron-acceptor borane ligand, *Organometallics*, **31**, 4251 (2012).
- (690) H. Kameo and H. Nakazawa, Synthesis of a rhodium complexes featuring the Rh–H–B linkage via a hydride migration from rhodium to borane: study on the electronic deviation induced by the presence of the boron moiety, *Organometallics*, **31**, 7476 (2012).
- (691) M. Hirotsu, K. Santo, H. Hashimoto, and I. Kinoshita, Carbon- and sulfur-bridged diiron carbonyl complexes containing N,C,S-tridentate ligands derived from functionalized dibenzothiophenes: mimics of the [FeFe]-hydrogenase active site, *Organometallics*, **31**, 7548 (2012).
- (692) K. Ayabe, K. Sato, S. Nishida, T. Ise, S. Nakazawa, K. Sugisaki, Y. Morita, K. Toyota, D. Shiomi, M. Kitagawa, and T. Takui, Pulsed electron spin nutation spectroscopy of weakly exchange-coupled biradicals: a general theoretical approach and determination of the spin dipolar interaction, *Phys. Chem. Chem. Phys.*, **14**, 9137 (2012).
- (693) H. Yoshino, H. Nakada, S. J. Krivickas, H. Mori, G. C. Anyfantis, G. C. Papavassiliou, and K. Murata, Thermoelectric and thermal properties of novel τ -type organic conductors as thermoelectric materials, *Phys. Status Solidi C*, **9**, 1193 (2012).

- (694) T. Kotaki, T. Shinada, and H. Numata, Structure determination of a natural juvenile hormone isolated from a heteropteran insect, *Psyche*, Article ID 924256 (2012).
- (695) S. Shinoda, K. Terada, M. Eiraku Masaki, Y. Kataoka, and H. Tsukube, Ytterbium-substituted transferrin and lactoferrin for near-infrared luminescent pH indication, *New J. Chem.*, **36**, 1545 (2012).
- (696) K. Maruyama, D. Burgarth, A. Ishizaki, T. Takui, and K. B. Whaley, Application of indirect Hamiltonian tomography to complex systems with short coherence times, *Quant. Info. Comp.*, **12**, 763 (2012).
- (697) K. Kanemoto, A. Fukunaga, M. Yasui, D. Kosumi, H. Hashimoto, H. Tamekuni, Y. Kawahara, Y. Takemoto, J. Takeuchi, Y. Miura, and Y. Teki, Ultrafast photoexcitation dynamics of π -conjugated bodipy–anthracene–radical triad system, *RSC Adv.*, **2**, 5150 (2012).
- (698) T. Kodama, S. Harada, T. Tanaka, Y. Tachi, and Y. Morimoto, TIPSOTf-Promoted tandem reaction through rearrangement of epoxides into aldehydes with selective alkyl migration followed by the Prins-type cyclization to cyclopentanes, *Synlett*, **23**, 458 (2012).
- (699) A. Manabe, Y. Ohfuné, and T. Shinada, Stereoselective total syntheses of insect juvenile hormones JH 0 and JH I, *Synlett*, 1213 (2012).
- (700) T. Yamada, K. Okada, T. Shinada, Y. Ohfuné, and H. Hashimoto, Efficient synthesis of anhydrorhodovibrin and analogs, *Synlett*, 2980 (2012).
- (701) K. Kaihara, T. Kotaki, H. Numata, Y. Ohfuné, and T. Shinada, Structure–activity relationship of novel juvenile hormone, JHSB₃, isolated from the stink bug, *Plautia Stali*, *Tetrahedron*, **68**, 106 (2012).
- (702) M. Kato, E. Hashimoto, M. Kozaki, S. Suzuki, and K. Okada, Synthesis and properties of Zn-porphyrins with bipyridine-terminated side arms: large conformational change induced by metal complexation, *Tetrahedron Lett.*, **53**, 309 (2012).
- (703) K. Oe, T. Shinada, and Y. Ohfuné, Efficient total synthesis of manzacidin B, *Tetrahedron Lett.*, **53**, 3250 (2012).
- (704) 大船泰史, カイニン酸、ドウモイ酸, 藻類ハンドブック (エヌ・ティー・エス), 684 (2012).
- (705) 篠田哲史, 築部浩, トリス(β -ジケトナト)ランタノイド錯体の三元錯体形成特性を活用する分離分析システムの構築, *分析化学*, **61**, 169 (2012).
- (706) 伊藤宏, Review de Debut : 配位子修飾による希土類錯体の高次イメージング機能化, 有機合成化学協会誌, **70**, 276 (2012).
- (707) 脇本辰郎, 藤井亮介, 加藤健司, 界面活性剤水溶液における2次元自由液膜噴流の不安定特性, *混相流*, **25**, 511(2012).
- (708) 脇本辰郎, 小松雅洋, 加藤健司, サーモキャピラリー効果による自由液膜の穿孔に関する研究, *日本機械学会論文集 B 編*, **78**, 1083(2012).
- (709) K. Katoh and T. Wakimoto, Spontaneous dropping of liquid column in a tilted capillary pipe with an upper lid, *Journal of JSEM*, **12** Special Issue, 105(2012).
- (710) T. Wakimoto and K. Katoh, Suppression of Disintegration of Fan Liquid Sheet by Surfactant, *Journal of JSEM*, **12** Special Issue, 111(2012).
- (711) 荒賀浩一, 小見山修平, 脇本辰郎, 加藤健司, 界面活性剤水溶液の垂直上昇円管内流れに及ぼす微細気泡の影響, *実験力学*, **12**, 243(2012).
- (712) 添本和彦, 脇本辰郎, 森本隆史, 加藤健司, 高速エアジェットによる壁面付着微粒子除去に関する研究 (第2報 低流量型ノズルの性能評価), *実験力学*, **12**, 383(2012).
- (713) 高田洋吾, 中村毅志, 小山圭介, 脇坂知行, カメラ情報に基づく小型魚ロボットの自己位置推定, *日本マリンエンジニアリング学会誌*, Vol.47, No.3, pp.138-146 (2012).
- (714) 高田洋吾, 中村毅志, 小山圭介, 福崎昇, 田尻智紀, 脇坂知行, 小型魚ロボット FOCUS の目標追従と自己位置推定, *日本マリンエンジニアリング学会誌*, Vol.47, No.5 ,pp.108-113(2012).

- (715) 高田洋吾, 中村毅志, 小山圭介, 田尻智紀, 色情報に基づく小型魚ロボット FOCUS の目標物追従制御, 日本機械学会論文集(C編), Vol.78, No.792, pp.2924-2934(2012-8).
- (716) A. Vinogradov, M. Maruyama, Y. Kaneko and S. Hashimoto, Effect of dislocation hardening on monotonic and cyclic strength of severely deformed copper, *Philos.Mag.*, **92**, 666 (2012).
- (717) A. Vinogradov, T. Kawaguchi, Y. Kaneko and S. Hashimoto, Fatigue Crack Growth and Related Microstructure Evolution in Ultrafine Grain Copper Processed by ECAP, *Mater.Trans.*, **53**, 101 (2012).
- (718) 上盛広大, 兼子佳久, 傾斜組成を有する Ni-Cu めっき膜の作製とその硬さ, 日本金属学会誌, **76**, 309 (2012).
- (719) Y. Kaneko, N. Tabata, H. Ueno and A. Vinogradov, Thermal Stability of Microstructures of SUS316L Stainless Steel with Nanostructured Twins Induced by ECAP, *Proc.International Workshop on Bulk Nanostructured Metals*, 137 (2012).
- (720) H. Takeuchi, S. Tsuruta, and M. Nakayama, *AIP conf. Proc.* **1506**, 73 (2012).
- (721) Y. Kanatani, T. Kawase, D. Kim, and M. Nakayama, *Eur. Phys. J. B* **85**, 390 (2012).
- (722) T. Kawase, K. Miyazaki, D. Kim, and M. Nakayama, *J. Appl. Phys.* **112**, 0935125 (2012).
- (723) O. Kojima, K. Mizoguchi, and M. Nakayama, *J. Appl. Phys.* **112**, 043522 (2012).
- (724) H. Takeuchi, S. Tsuruta, and M. Nakayama, *Phys. Status Solidi C* **9**, 2610 (2012).
- (725) T. Kawase, D. Kim, and M. Nakayama, *Phys. Status Solidi C* **9**, 1797 (2012).
- (726) M. Nakayama, K. Miyazaki, T. Kawase, and D. Kim, *Phys. Procedia* **29**, 6 (2012).
- (727) H. Takeuchi, S. Tsuruta, H. Yamada, M. Hata, and M. Nakayama, *Phys. Procedia* **29**, 30 (2012).
- (728) H. Takeuchi, S. Asai, S. Tsuruta, and M. Nakayama, *Appl. Phys. Lett.* **100**, 242107 (2012).
- (729) M. Nakayama, Y. Kanatanai, T. Kawase, and D. Kim, *Phys. Rev. B* **85**, 205320 (2012).
- (730) T. Hasegawa, Y. Takagi, H. Takeuchi, H. Yamada, M. Hata, and M. Nakayama, *Appl. Phys. Lett.* **100**, 211902 (2012).
- (731) H. Yokota, K. Okazaki, K. Shimura, M. Nakayama, and D. Kim, *J. Phys. Chem. C* **116**, 5456 (2012).
- (732) T. Hasegawa, Y. Takagi, and M. Nakayama, *Appl. Phys. Express* **5**, 041202 (2012).
- (733) M. Nakayama and T. Kawabata, *J. Appl. Phys.* **111**, 053523 (2012).
- (734) H. Takahashi, K. Hirooka, and K. Yamada, *Proc. SPIE* 8288, 828824-1 (2012).
- (735) Y. Nago, A. Nishijima, H. Kubo, T. Ogawa, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Vortex emission from quantum turbulence in superfluid ^4He , *Phys. Rev. B* **87**, 024511(1-9) (2013).
- (736) H. Kubo, Y. Nago, A. Nishijima, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Time-of-flight measurements of vortices emitted from quantum turbulence in superfluid ^4He , *J. Low Temp. Phys.*, **171**, 466-472(2013).
- (737) A. Fukui, K. Kondo, C. Kato, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Enhancement of magnetization in liquid ^3He at aerogel interface, *J. Low Temp. Phys.*, **171**, 245-250(2013).
- (738) T. Kunimatsu, H. Nema, R. Ishiguro, M. Kubota, T. Takagi, Y. Sasaki, and O. Ishikawa, Textures of Rotating Superfluid He-3-A in a Single Narrow Cylinder, *J. Low Temp. Phys.*, **171**, 280-286(2013).
- (739) 矢野英雄, 坪田誠, 物体の運動で発現する量子乱流, 日本物理学会誌, **68**, 734-738(2013)
- (740) D. Kosumi, K. Nakagawa, S. Sakai, Y. Nagaoka, S. Maruta, M. Sugisaki, T. Dewa, M. Nango, and H. Hashimoto, Ultrafast intramolecular relaxation dynamics of Mg- and Zn-Bacteriochlorophyll *a*, *J. Chem. Phys.*, **139**, 034311/1-8(2013).
- (741) T. Abu-Zayyad et al., The cosmic-ray energy spectrum observed with the surface detector of the Telescope Array experiment, *Ap. J.*, **768**, L1(2013).
- (742) T. Abu-Zayyad et al., The energy spectrum of ultra-high-energy cosmic rays measured by the Telescope Array FADC fluorescence detectors in monocular mode, *Astropart. Phys.*, **48**, 16-24(2013).

- (743) T. Abu-Zayyad et al., Upper limit on the flux of photons with energies above 1019 eV using the Telescope Array surface detector, *Phys. Rev. D*, **88**, 112005(2013).
- (744) T. Abu-Zayyad et al., Correlations of the arrival directions of ultra-high energy cosmic ray with extragalactic objects as observed by the Telescope Array experiment, *Ap. J.*, **777**, 88(2013).
- (745) K. P. Arunbabu et al., High-rigidity Forbush decreases: due to CMEs or shocks?, *A. & A.*, **555**, A139(2013).
- (746) S. K. Gupta et al., Measurement of arrival time of particles in extensive air showers using TDC32, *Experimental Astronomy*, **35**, 507-526(2013).
- (747) P. K. Mohanty et al., Solar diurnal anisotropy measured using muons in GRAPES-3 experiment in 2006, *Pramana*, **81**, 343(2013).
- (748) S. Suzuki, K. Yoshida, M. Kozaki, and K. Okada, Syntheses and structures of tris(*N*-phenothiazinyl)borane and its radical cation, *Angew. Chem. Int. Ed.*, **52**, 2499 (2013).
- (749) A. Ueda, S. Suzuki, K. Yoshida, K. Fukui, K. Sato, T. Takui, K. Nakasuji, and Y. Morita, Hexamethoxyphenalenyl as a possible quantum spin simulator: an electronically stabilized neutral π radical with novel quantum coherence owing to extremely high nuclear spin degeneracy, *Angew. Chem. Int. Ed.*, **52**, 4795 (2013).
- (750) A. Shimizu, R. Kishi, M. Nakano, D. Shiomi, K. Sato, T. Takui, I. Hisaki, M. Miyata, and Y. Tobe, Indeno[2,1-*b*]fluorene: a 20- π -electron hydrocarbon with very low-energy light absorption, *Angew. Chem. Int. Ed.*, **52**, 6076 (2013).
- (751) Y. Kawanaka, A. Shimizu, T. Shinada, R. Tanaka, and Y. Teki, Using stable radicals to protect pentacene derivatives from photogradation, *Angew. Chem. Int. Ed.*, **52**, 6643 (2013).
- (752) M. Yamamoto, T. Horibe, Y. Nishisaka, S. Suzuki, M. Kozaki, R. Fujii, M. Doe, M. Nango, K. Okada, and H. Hashimoto, Re-association of All-*trans*-3,4-dihydroanhydrorhodovibrin with LH1 subunits isolated from *Rhodospirillum Rubrum*: selective binding of all-*trans* isomer from the mixture of *cis*- and *trans*-isomers, *Bull. Chem. Soc. Jpn.*, **86**, 121 (2013).
- (753) H. Atsumi, S. Nakazawa, C. Dohno, K. Sato, T. Takui, and K. Nakatani, Ligand-induced electron spin-assembly on a DNA tile, *Chem. Commun.*, **49**, 6370 (2013).
- (754) H. Ito, H. Tsukube, and S. Shinoda, Chirality transfer in propeller-shaped cyclen–calcium(II) complexes: metal-coordinating and ion-pairing anion procedures, *Chem.–Eur. J.*, **19**, 3330 (2013).
- (755) K. Singh, D. Sareen, P. Kaur, H. Miyake, and H. Tsukube, Materials-based receptors: design principle and applications, *Chem.–Eur. J.*, **19**, 6914 (2013).
- (756) A. Karimata, H. Kawachi, S. Suzuki, M. Kozaki, N. Ikeda, K. Keyaki, K. Nozaki, K. Akiyama, and K. Okada, Photoinduced charge separation of 10-phenyl-10*H*-phenothiazine-2-phenylanthraquinone dyad bridged by bicyclo[2.2.2]octane, *Chem. Lett.*, **42**, 794 (2013).
- (757) M. Kozaki, S. Suzuki, and K. Okada, Dendritic light-harvesting antennas with excitation energy gradients, *Chem. Lett.*, **42**, 1112 (2013).
- (758) S. Shinoda, Dynamic cyclen–metal complexes for molecular sensing and chirality signaling, *Chem. Soc. Rev.*, **42**, 1825 (2013).
- (759) T. Sato, H. Yamaga, S. Kashima, Y. Murata, T. Shinada, C. Nakano, and T. Hoshino, Identification of novel sesterterpene/triterpene synthase from *Bacillus clausii*, *ChemBioChem*, **14**, 822 (2013).
- (760) S. Nishida, Y. Yamamoto, T. Takui, and Y. Morita, Organic rechargeable batteries with tailored voltage and cycle performance, *ChemSusChem*, **6**, 794 (2013).
- (761) H. Kameo, S. Ishii, and H. Nakazawa, Si–C bond cleavage by hydride complexes of rhodium and iridium: comparison of Si–C(sp²) and Si–C(sp³) activation, *Dalton Trans.*, **42**, 4663 (2013).

- (762) K. Hayasaka, K. Fukumoto, and H. Nakazawa, Dehydrogenative desulfurization of thiourea derivatives to give carbodiimides, using hydrosilane and an iron complex, *Dalton Trans.*, **42**, 10271 (2013).
- (763) M. Hirotsu, K. Kawamoto, R. Tanaka, Y. Nagai, K. Ueno, Y. Teki, and I. Kinoshita, Titanium and manganese complexes supported by a xanthene-bridged bis(tripodal N₂O₂) ligand: isomerization, intramolecular hydrogen bonding and metal-binding ability, *Dalton Trans.*, **42**, 12220 (2013).
- (764) Y. Yasuno, M. Hamada, T. Yamada, T. Shinada, and Y. Ohfuné, Stereoselective synthesis of (*E*)- α,β -dehydroamino acid esters, *Eur. J. Org. Chem.*, 1884 (2013).
- (765) K. Kameo, H. Nakazawa, and R. H. Herber, Crystal structure and metal atom dynamics of the dimethyl stannane complex $\{o\text{-(Ph}_2\text{P)C}_6\text{H}_4\}_2\text{Sn(CH}_3)_2$, *J. Mol. Struct.*, **1054–1055**, 321 (2013).
- (766) T. Yatsuhashi, N. Nakashima, and J. Azuma, Coulomb explosion of dichloroethene geometric isomers at 1 PWcm⁻², *J. Phys. Chem. A*, **117**, 1393 (2013).
- (767) N. Nakashima, K. Yamanaka, and T. Yatsuhashi, Reduction of Yb(III) to Yb(II) by two-color two-photon excitation, *J. Phys. Chem. A*, **117**, 8352 (2013).
- (768) C.-K. Kang, K. Yamada, Y. Usuki, A. Ogita, K.-I. Fujita, and T. Tanaka, Visualization analysis of the vacuole-targeting fungicidal activity of amphotericin B against the parent strain and an ergosterol-less mutant of *Saccharomyces cerevisiae*, *Microbiology*, 159, 939 (2013).
- (769) K. Ayabe, K. Sato, S. Nakazawa, S. Nishida, K. Sugisaki, T. Ise, Y. Morita, K. Toyota, D. Shiomi, M. Kitagawa, S. Suzuki, K. Okada, and T. Takui, Pulsed electron spin nutation spectroscopy for weakly exchange-coupled multi-spin molecular systems with nuclear hyperfine couplings: a general approach to bi- and triradicals and determination of their spin dipolar and exchange interactions, *Mol. Phys.*, **111**, 2767 (2013).
- (770) S. Shinoda, Apo-transferrin-ytterbium complex as an NIR luminescent pH indicator, *NIR news*, **24**, 7 (2013).
- (771) Y. Morimoto, E. Takeuchi, H. Kambara, T. Kodama, Y. Tachi, and K. Nishikawa, Biomimetic epoxide-opening cascades of oxasqualenoids triggered by hydrolysis of the terminal epoxide, *Org. Lett.*, **15**, 2966 (2013).
- (772) K. Fukumoto, A. Sakai, K. Hayasaka, and H. Nakazawa, Desulfurization and H-migration of secondary thioamides catalyzed by an iron complex to yield imides and their reaction mechanism, *Organometallics*, **32**, 2889 (2013).
- (773) K. Kobayashi, M. Hirotsu, and I. Kinoshita, Skeletal modification of benzothiophene mediated by iron carbonyls: insertion of terminal alkynes with migration of amino and alkoxy groups, *Organometallics*, **32**, 5030 (2013).
- (774) S. Suzuki, Y. Matsumoto, M. Tsubamoto, R. Sugimura, M. Kozaki, K. Kimoto, M. Iwamura, K. Nozaki, N. Senju, C. Urugami, H. Hashimoto, Y. Muramatsu, A. Konno, and K. Okada, Photoinduced electron transfer of platinum bipyridine diacetylides linked by triphenylamine- and naphthaleneimide-derivatives and its application to photoelectric conversion systems, *Phys. Chem. Chem. Phys.*, **15**, 8088 (2013).
- (775) A. Tashiro, S. Kanegawa, O. Sato, and Y. Teki, ESR study of light-induced valence tautomerism of a Co mononuclear complex: [Co(phen)(3,5-DTBSQ)(3,5-DTBCat)], *Polyhedron*, **66**, 167 (2013).
- (776) R. Sugimura, S. Suzuki, M. Kozaki, K. Keyaki, K. Nozaki, H. Matsushita, N. Ikeda, and K. Okada, Photoinduced charge separation of phenothiazine–platinum–naphthalene diimide triads linked by twisted phenylene bridges, *Res. Chem. Intermed.*, **39**, 185 (2013).
- (777) M. Kozaki, Y. Ninomiya, S. Suzuki, and K. Okada, Allosteric regulation of the ligand-binding ability of Zn–porphyrin by metal complexation, *Tetrahedron Lett.*, **54**, 3658 (2013).

- (778) T. Kodama, S. Aoki, S. Kikuchi, T. Matsuo, Y. Tachi, K. Nishikawa, and Y. Morimoto, A convergent total synthesis of antiplasmodial C_2 symmetric (+)-ekeberin D₄, *Tetrahedron Lett.*, **54**, 5647 (2013).
- (779) S. Shinoda and H. Tsukube, Lanthanide substitution of iron-containing transferrin, lactoferrin, and ferritin toward development of luminescent reporter proteins, *Encyclopedia of Metalloproteins*, R. H. Kretsinger, V. N. Uversky, and E. A. Permyakov, Eds. (Springer), Chap. 220 (2013).
- (780) Takeji Takui, Shigeaki Nakazawa, Hideto Matsuoka, Ko Furukawa, Kazunobu Sato, and Daisuke Shiomi, Molecular-based exchange-coupled high-spin clusters: conventional, high-field/high-frequency and pulse-based electron spin resonance of molecule-based magnetically coupled systems, *EPR of Free Radicals in Solids II, Trends in Methods and Applications*, A. Lund and M. Shiotani, Eds (Springer), 71 (2013).
- (781) Kazunobu Sato, Shigeaki Nakazawa, Shinsuke Nishida, Robabeh D. Rahimi, Tomohiro Yoshino, Yasushi Morita, Kazuo Toyota, Daisuke Shiomi, Masahiro Kitagawa, and Takeji Takui, Novel applications of ESR/EPR: quantum computing/quantum information processing, *EPR of Free Radicals in Solids II, Trends in Methods and Applications*, A. Lund and M. Shiotani, Eds (Springer), 163 (2013).
- (782) 三宅弘之, 分子認識から始まる動的分子プログラミング～錯体化学を基盤としたキラリティー誘起と反転スイッチング, *化学*, **68**, 46 (2013).
- (783) 鈴木修一, 安定高スピン π 電子系の創出と物性開拓, 高次 π 空間の創発と機能開発, 赤阪健, 大須賀篤弘, 福住俊一, 神取秀樹編集 (シーエムシー出版), 96 (2013).
- (784) 梶間由幸, 世良佳彦, 白杵克之助, 飯尾英夫, 織毛虫の生命現象を司る鍵物質, *有機合成化学協会誌*, **71**, 207 (2013).
- (785) 脇本辰郎, 吉岡真弥, 重松孝昌, 加藤健司, 縦スリット式直立消波工を利用した波力発電システムの開発 (水車ならびに屈曲板を利用した発電機構), *実験力学*, **13**, 60(2013).
- (786) 脇本辰郎, 佐藤雄三, 加藤健司, レーザー照射によるぬれ性の変化を利用した壁面上の液滴駆動 (液滴駆動の力学メカニズム) *実験力学*, **13**, 19(2013).
- (787) K. Soemoto, T. Wakimoto, and K. Katoh, Removal of fine particles on a wall by high-frequency turbulence added air flow, *International Journal of Flow Control*, **5**, 47(2013).
- (788) 高田浩太郎, 重松孝昌, 加藤健司, 脇本辰郎, 吉岡真弥, 円柱群を用いた新たな消波工の開発に関する実験的研究, *土木学会論文集 B2 (海岸工学)*, **69**, 996(2013).
- (789) 田尻智紀, 高田洋吾, 川合忠雄, 車輪移動機構を持つ農用ロボットの自律作業用経路作成, *農業機械学会誌*, Vol. 75, No.3, pp.175-180(2013-5).
- (790) Y. Takada, N. Fukuzaki, T. Ochiai, T. Tajiri, T. Wakisaka, Evaluation of Artificial Caudal Fin for Fish Robot with Two Joints by Using Three-dimensional Fluid-structure Simulation, *Advances in Mechanical Engineering*, Hindawi Publishing Co., Vol. 2013, Article ID: 310432, pp.9(2013-4).
- (791) 田尻智紀, 高田洋吾, 川合忠雄, 視覚障害者の移動支援に有効な不整地環境の立体占有格子地図作成, *ライフサポート*, Vol.25, No. 4, pp.116-123(2013-12).
- (792) 高田洋吾, 桐本浩介, 田尻智紀, 川合忠雄, 立体的な環境で活動できる橋梁検査ロボットの開発 (永久磁石式移動機構の走行性能評価), *日本機械学会論文集 (C編)*, Vol.79, No.805, pp.3135-3146 (2013-9).
- (793) R. Takeda, Y. Kaneko, D.L. Merson and A. Vinogradov, Cluster Analysis of Acoustic Emissions Measured during Deformation of Duplex Stainless Steels, *Mater.Trans.*, **54**, 532 (2013).
- (794) Y. Kaneko, S. Hayashi and A. Vinogradov, Cyclic Response of SUS316L Stainless Steel Processed by ECAP, *Mater.Trans.*, **54**, 1612 (2013).

- (795) 吉岡真弥, 横山雄一郎, エポキシガラスの非線形応力-ひずみ挙動に及ぼす架橋密度の影響, 材料, **62**, 22 (2013).
- (796) N. Shigekawa, J. Liang, and N. Watanabe, Proc. 39th IEEE Photovoltaic Specialists Conference (2013) 2470-2473.
- (797) J. Liang, T. Miyazaki, M. Morimoto, S. Nishida, and N. Shigekawa, J. Appl. Phys. **114**, 183703 (2013).
- (798) J. Liang, M. Morimoto, S. Nishida, and N. Shigekawa, Physics Status Solidi C **10**, 1644 (2013).
- (799) J. Liang, S. Nishida, M. Morimoto, and N. Shigekawa, Electronics Letters **49**, 830 (2013).
- (800) J. Liang, T. Miyazaki, S. Nishida, M. Morimoto, N. Watanabe, and N. Shigekawa, Appl. Phys. Express **6**, 021801 (2013).
- (801) D. Kim, H. Yokota, T. Taniguchi, and M. Nakayama, J. Appl. Phys. **114**, 154304 (2013).
- (802) M. Nakayama and J. Nanoelectron, Optoelectron. **8**, 415 (2013).
- (803) M. Nakayama, S. Asai, H. Takeuchi, O. Ichikawa, and M. Hata, Appl. Phys. Lett. **103**, 141109 (2013).
- (804) S. Wakaiki, H. Ichida, T. Kawase, K. Mizoguchi, D. Kim, M. Nakayama, and Y. Kanemitsu, Eur. Phys. J B **86**, 387 (2013).
- (805) M. Nakayama, T. Yamashita, and T. Hasegawa, J. Cryst. Growth **378**, 61 (2013).
- (806) S. Tsuruta, H. Tekuchi, H. Yamada, M. Hata, and M. Nakayama, J. Appl. Phys. **113**, 143502 (2013).
- (807) S. Tsuruta, H. Takeuchi, and M. Nakayama, J. Phys: Conf. Ser. **417**, 012051 (2013).
- (808) T. Kawase, K. Miyazaki, D. Kim, and M. Nakayama, Eur. Phys. J. B **86**, 69 (2013).
- (809) M. Nakayama, M. Kameda, T. Kawase, and D. Kim, Eur. Phys. J. B **86**, 32 (2013).
- (810) H. Bu, H. Kikunaga, K. Shimura, K. Takahasi, T. Taniguchi, and D. Kim, Phys. Chem. Chem. Phys. **15**, 2903 (2013).
- (811) T. Shirafuji, J. Ueda, A. Nakamura, S. -P. Cho, N. Saito, and O. Takai, Jpn. J. Appl. Phys. **52**, 126202 (2013).
- (812) T. Shirafuji, Y. Noguchi, T. Yamamoto, J. Hieda, N. Saito, O. Takai, A. Tsuchimoto, K. Nojima, and Y. Okabe, Jpn. J. Appl. Phys. **52**, 125101 (2013).
- (813) T. Shirafuji, Y. Himeno, N. Saito, and O. Takai, J. Photopolym. Sci. Technol. **26**, 507 (2013).
- (814) T. Shirafuji and Y. Himeno, Jpn. J. Appl. Phys. **52**, 11NE03 (2013).
- (815) T. Shirafuji and A. Nakamura, Trans. Mater. Res. Soc. Jpn. **38**, 321 (2013).
- (816) Y. Maeda, D. Miyazaki, T. Mukai and S. Maekawa, Opt. Express **21**, 27074 (2013).
- (817) D. Miyazaki, N. Hirano, Y. Maeda, S. Yamamoto, T. Mukai, and S. Maekawa, Appl. Opt. **52**, A281 (2013).
- (818) D. Kosumi, R. Fujii, M. Sugisaki, N. Oka, M. Iha, and H. Hashimoto, Characterization of the intramolecular transfer state of marine carotenoid fucoxanthin by femtosecond pump-probe spectroscopy, Photosynth. Res., **121**, 61-68(2014).
- (819) D. Kosumi, T. Kajikawa, K. Yano, S. Okumura, M. Sugisaki, K. Sakaguchi, S. Katsumura, and H. Hashimoto, Roles of allene-group in an intramolecular charge transfer character of a short fucoxanthin homolog as revealed by femtosecond pump-probe spectroscopy, Chem. Phys. Lett., **602**, 75-79(2014).
- (820) D. Kosumi, T. Kajikawa, S. Okumurai, M. Sugisaki, K. Sakaguchi, S. Katsumura, and H. Hashimoto, Elucidation and control of an intramolecular charge transfer property of fucoxanthin by a modification of its polyene chain length, J. Chem. Phys. Lett., **5**, 792-797(2014).
- (821) 光合成反応における励起エネルギー移動ダイナミクス, 橋本 秀樹, 小澄 大輔, 藤井律子, 杉崎 満, 日本光学会会誌「光学」43 卷 6 号, 249(9)-259(19)(2014)
- (822) S. Oda, Y. Wakasa, H. Kubo, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Observations of vortex emissions from superfluid ⁴He turbulence at high temperatures, J. Low Temp. Phys., **175**, 317-323(2014).

- (823) K. Obara, H. Ohmura, C. Kato, H. Yano, O. Ishikawa, and T. Hata, Development of a fiber-optic probe hydrophone for a cryogenic liquid, *J. Low Temp. Phys.*, **175**, 464–470(2014).
- (824) T. Hata, T. Matsumoto, K. Obara, H. Yano, O. Ishikawa, A. Handa, S. Togitani, and T. Nishitani, Development and comparison of two types of cryogen-free dilution refrigerator, *J. Low Temp. Phys.*, **175**, 471–479(2014).
- (825) T. Kunimatsu, H. Nema, R. Ishiguro, M. Kubota, T. Takagi, Y. Sasaki, and O. Ishikawa, Manipulating textures of rotating superfluid ^3He -A phase in a single narrow cylinder, *Phys. Rev. B*, **90**, 214525(1–6)(2014).
- (826) Y. Kimura, T. Kunimatsu, K. Obara, H. Yano, T. Hata, T. Takagi, and O. Ishikawa, Investigation of half-quantum vortex in superfluid ^3He -A phase, *J. Phys.: Conf. Ser.*, **568**, 012006(1–5)(2014).
- (827) Y. Wakasa, S. Oda, Y. Chiba, K. Obara, H. Yano, O. Ishikawa, and T. Hata, Vortex emissions from quantum turbulence generated by vibrating wire in superfluid ^4He at finite temperature, *J. Phys.: Conf. Ser.*, **568**, 012027(1–6)(2014).
- (828) R. U. Abbasi et al., Indications of intermediate-scale anisotropy of cosmic rays with energy greater than 57 EeV in the northern sky measured with the surface detector of the Telescope Array experiment, *Ap. J.*, **790**, L21(2014).
- (829) A. Aab et al., Searches for large-scale anisotropy in the arrival directions of cosmic rays detected above energy of 1019 eV at the Pierre Auger Observatory and the Telescope Array, *Ap. J.*, **794**, 172(2014).
- (830) B. K. Shin et al., Gain monitoring of telescope array photomultiplier cameras for the first 4 years of operation, *NIM A*, **768**, 96(2014).
- (831) K. Kanemoto, and S. Domoto, Spectroscopic investigations on Stark components observed in photoinduced absorption measurements for dye-sensitized solar cells, *Thin Solid Films*, **554**, 226–229(2014).
- (832) K. Kanemoto, Y. Ohta, S. Domoto and H. Hashimoto, Charge Injection Process in Polymer: Fullerene Composite Diodes Studied by Spectroscopic Techniques Combined with Bias Application, *Organic Electronics*, **15**, 1958–1964(2014).
- (833) K. Kanemoto, S. Domoto and H. Hashimoto, Origin of Stark Signals Induced by Continuous Photoirradiation for Working Dye-Sensitized Solar Cells Revealed by Photoinduced Absorption Measurements, *Journal of Physical Chemistry C*, **118**, 17260-17265(2014).
- (834) K. Kanemoto, H. Nakatani and S. Domoto, Determination of photocarrier density under continuous photoirradiation using spectroscopic techniques as applied to polymer: fullerene blend films, *Journal of Applied Physics*, **116**, 163103-1-7(2014).
- (835) A. Ito, A. Shimizu, N. Kishida, Y. Kawanaka, D. Kosumi, H. Hashimoto, and Y. Teki, Excited-state dynamics of pentacene derivatives with stable radical substituents, *Angew. Chem. Int. Ed.*, **53**, 6715 (2014).
- (836) Y. Usuki, Y. Wakamatsu, M. Yabu, and H. Iio, Access to fluorine-containing asparagine and glutamine analogues via palladium-catalyzed formate reduction, *Asian J. Org. Chem.*, **3**, 1270 (2014).
- (837) A. Renzetti, N. Koga, and H. Nakazawa, Si–CN bond cleavage of silylcyanides by an iron catalyst. A new route of silylcyanide formation, *Bull. Chem. Soc. Jpn.*, **87**, 59 (2014).
- (838) R. Tanimoto, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Synthesis and magnetic properties of nitronyl nitroxides with an adjacent chiral group, *Bull. Chem. Soc. Jpn.*, **87**, 314 (2014).
- (839) T. Shibahara, K. Kawamoto, A. Matsuura, H. Takagi, T. Nishioka, I. Kinoshita, and H. Akashi, Removal of two hydrogen atoms from ketones or aldehyde: reaction of a sulfur-bridged incomplete cubane-type molybdenum cluster with acetone, acetaldehyde, acetylacetone, ethyl acetoacetate, and acetophenone, *Bull. Chem. Soc. Jpn.*, **87**, 459 (2014).

- (840) Y. Ninomiya, M. Kozaki, S. Suzuki, and K. Okada, Allosteric regulation of the ligand-binding ability of zinc porphyrins with sterically bulky shielding units by metal complexation, *Bull. Chem. Soc. Jpn.*, **87**, 1195 (2014).
- (841) M. Kamitani, M. Ito, M. Itazaki, and H. Nakazawa, Effective dehydrogenation of 2-pyridylmethanol derivatives catalyzed by an iron complex, *Chem. Commun.*, **50**, 7941 (2014).
- (842) R. Tanimoto, S. Shuichi, M. Kozaki, and K. Okada, Nitronyl nitroxide as a coupling partner: Pd-mediated cross-coupling of (nitronyl nitroxide-2-ido)(triphenylphosphine)gold(I) with aryl halides, *Chem. Lett.*, **43**, 678 (2014).
- (843) Y. Imanaka, H. Hashimoto, I. Kinoshita, and T. Nishioka, Incorporation of a sugar unit into a C–C–N pincer Pd complex using click chemistry and its dynamic behavior in solution and catalytic ability for Suzuki–Miyaura coupling in water, *Chem. Lett.*, **43**, 687 (2014).
- (844) T. Kodama, S. Aoki, T. Matsuo, Y. Tachi, K. Nishikawa, and Y. Morimoto, Biomimetic total synthesis of (–)-neroprofufol and (+)-ekeberin D4 triggered by hydrolysis of terminal epoxides, *Chem. Lett.*, **43**, 1662 (2014).
- (845) G. Suzuki, A. Minami, M. Shimaya, T. Kodama, Y. Morimoto, H. Oguri, and H. Oikawa, Analysis of enantiofacial selective epoxidation catalyzed by flavin-containing monooxygenase Lsd18 involved in ionophore polyether lasalocid biosynthesis, *Chem. Lett.*, **43**, 1779 (2014).
- (846) Y. Usuki, T. Deguchi, and H. Iio, A new concise synthesis of (+)-ipomeamarone, (–)-ngaione, and their stereoisomers, *Chem. Lett.*, **43**, 1882 (2014).
- (847) N. M. Magdaong, D. M. Niedzwiedzki, J. A. Greco, H. Liu, K. Yano, T. Kajikawa, K. Sakaguchi, S. Katsumura, R. R. Birge, and H. A. Frank, Excited state properties of a short π -electron conjugated peridinin analogue, *Chem. Phys. Lett.*, **593**, 132 (2014).
- (848) D. Kosumi, T. Kajikawa, K. Yano, S. Okumura, M. Sugisaki, K. Sakaguchi, S. Katsumura, and H. Hashimoto, Roles of allene-group in an intramolecular charge transfer character of a short fucoxanthin homolog as revealed by femtosecond pump–probe spectroscopy, *Chem. Phys. Lett.*, **602**, 75 (2014).
- (849) H. Ito and S. Shinoda, Chirality sensing and size discrimination of anions by macrotricyclic cyclen–disodium complexes, *ChemistryOpen*, **3**, 238 (2014).
- (850) H. Miyake, K. Terada, and H. Tsukube, Lanthanide tris(β -diketonates) as useful probes for chirality determination of biological amino alcohols in vibrational circular dichroism: ligand to ligand chirality transfer in lanthanide coordination sphere, *Chirality*, **26**, 293 (2014).
- (851) K. Katayama, M. Hirotsu, I. Kinoshita, and Y. Teki, Synthesis, magnetic properties and dynamic behavior of cobalt complexes with an anthracene containing dioxolene ligand, *Dalton Trans.*, **43**, 13384 (2014).
- (852) S. Suzuki, H. Yokoi, M. Kozaki, Y. Kanzaki, D. Shiomi, K. Sato, T. Takui, and K. Okada, Synthesis and properties of a bis[(nitronyl nitroxide)-2-ido radical anion]–palladium complex, *Eur. J. Inorg. Chem.*, **28**, 4740 (2014).
- (853) K. Fukumoto, A. Sakai, T. Murai, and H. Nakazawa, Transformation of RN=CHPh to R(R'₃Si)NCH₂Ph in the catalytic desulfurization of secondary thioamide with R'₃SiH promoted by an iron complex, *Heteroat. Chem.*, **25**, 607 (2014).
- (854) Y. Maeda, H. Hashimoto, I. Kinoshita, and T. Nishioka, π -Back-bonding interaction depending on the bridging chain lengths of chelated N-heterocyclic carbene platinum units in heterometallic trinuclear complexes affecting their electrochemical property, *Inorg. Chem.*, **53**, 661 (2014).
- (855) P. Ravat, Y. Teki, Y. Ito, E. Gorelik, and M. Baumgarten, Breaking the semi-quinoid structure: spin-switching from strongly coupled singlet to polarized triplet state, *Chem.–Eur. J.*, **20**, 12041 (2014).

- (856) T. Furui, S. Suzuki, M. Kozaki, D. Shiomi, K. Sato, T. Takui, K. Okada, E. V. Tretyakov, S. E. Tolstikov, G. V. Romanenko, and V. I. Ovcharenko, Preparation and magnetic properties of metal-complexes from *N-t-butyl-N-oxidanyl-2-amino-(nitronyl nitroxide)*, *Inorg. Chem.*, **53**, 802 (2014).
- (857) N. Nakashima, K. Yamanaka, A. Itoh, and T. Yatsushashi, Ionic valence change of metal ions in solution by femtosecond laser excitation accompanied by white-light laser, *Chin. J. Phys.*, **52**, 504 (2014).
- (858) T. Ozaki, P. Zhao, T. Shinada, M. Nishiyama, and T. Kuzuyama, Cyclolavandulyl skeleton biosynthesis via both condensation and cyclization catalyzed by an unprecedented member of the *cis*-isoprenyl diphosphate synthase superfamily, *J. Am. Chem. Soc.*, **136**, 4837 (2014).
- (859) M. Ito, M. Itazaki, and H. Nakazawa, Selective boryl silyl ether formation in the photoreaction of bisboryloxide/boroxine with hydrosilane catalyzed by a transition-metal carbonyl complex, *J. Am. Chem. Soc.*, **136**, 6183 (2014).
- (860) I. Barskaya, E. Tretyakov, R. Sagdeev, V. Ovcharenko, E. Bagryanskaya, K. Maryunina, T. Takui, K. Sato, and M. Fedin, Photoswitching of a thermally unswitchable molecular magnet $\text{Cu}(\text{hfac})_2\text{L}^{\text{i-Pr}}$ evidenced by steady-state and time-resolved electron paramagnetic resonance, *J. Am. Chem. Soc.*, **136**, 10132 (2014).
- (861) A. Karimata, S. Suzuki, M. Kozaki, K. Kimoto, K. Nozaki, H. Matsushita, N. Ikeda, K. Akiyama, D. Kosumi, H. Hashimoto, and K. Okada, Direct observation of hole shift and characterization of spin states in radical ion pairs generated from photoinduced electron transfer of (phenothiazine)_{*n*}-anthraquinone (*n* = 1, 3) dyads, *J. Phys. Chem. A*, **118**, 11262, (2014).
- (862) D. Kosumi, T. Kajikawa, S. Okumura, M. Sugisaki, K. Sakaguchi, S. Katsumura, and H. Hashimoto, Elucidation and control of an intramolecular charge transfer property of fucoxanthin by a modification of its polyene chain length, *J. Phys. Chem. Lett.*, **5**, 792 (2014).
- (863) K. Oe, Y. Ohfuné, and T. Shinada, Short total synthesis of (–)-kainic acid, *Org. Lett.*, **16**, 2550 (2014).
- (864) M. Kamitani, Y. Nishiguchi, R. Tada, M. Itazaki, and H. Nakazawa, Synthesis of Fe–H/Si–H and Fe–H/Ge–H bifunctional complexes and their catalytic hydrogenation reaction toward nonpolar unsaturated organic molecules, *Organometallics*, **33**, 1532 (2014).
- (865) M. Hirotsu, K. Santo, C. Tsuboi, and I. Kinoshita, Diiron carbonyl complexes bearing an N,C,S-pincer ligand: reactivity toward phosphines, heterolytic Fe–Fe cleavage, and electrocatalytic proton reduction, *Organometallics*, **33**, 4260 (2014).
- (866) H. Kameo, T. Kawamoto, S. Sakaki, and H. Nakazawa, Can one σ^* -antibonding orbital interact with six electrons of Lewis bases? Analysis of a multiply interacting σ^* orbital, *Organometallics*, **33**, 5960 (2014).
- (867) H. Kameo, T. Kawamoto, S. Sakaki, D. Bourissou, and H. Nakazawa, Synthesis, geometry, and bonding nature of heptacoordinate compounds of silicon and germanium featuring three phosphine donors, *Organometallics*, **33**, 6557 (2014).
- (868) K. Katayama, M. Hirotsu, I. Kinoshita, and Y. Teki, Synthesis, magnetic properties and dynamic behavior of cobalt complexes with an anthracene-containing dioxolene ligand, *Dalton Trans.*, **43**, 13384 (2014).
- (869) K. Sugisaki, K. Toyota, K. Sato, D. Shiomi, M. Kitagawa, and T. Takui, An *ab initio* MO study of heavy atom effects on the zero-field splitting tensors of high-spin nitrenes: how the spin–orbit contributions are affected, *Phys. Chem. Chem. Phys.*, **16**, 9171 (2014).
- (870) K. Maeda, Y. Kuniwa, Y. Ohfuné, S. Ishiguro, K. Suzuki, K. Murata, H. Matsuda, and T. Shinada, Solid phase synthesis of α -amino squaric acid-containing peptides, *RSC Adv.*, **4**, 50639 (2014).
- (871) H. Miyake, Supramolecular chirality in dynamic coordination chemistry, *Symmetry*, **6**, 880 (2014).

- (872) S. Okumura, T. Kajikawa, K. Yano, K. Sakaguchi, D. Kosumi, H. Hashimoto, and S. Katsumura, Straightforward synthesis of fucoxanthin short-chain derivatives via modified-Julia olefination, *Tetrahedron Lett.*, **55**, 407 (2014).
- (873) A. Manabe, Y. Ohfuné, and T. Shinada, Toward the total synthesis of tetrodotoxin: stereoselective construction of the 7-oxanorbornane intermediate, *Tetrahedron Lett.*, **55**, 6077 (2014).
- (874) K. Singh, P. Kaur, H. Miyake, and H. Tsukube, Supramolecular chemistry strategies for naked-eye detection and sensing, *Synergy in Supramolecular Chemistry*, T. Nabeshima, Ed (CRC Press), 301 (2014).
- (875) 伊藤亮孝, リジッドな環境下における遷移金属錯体の光化学物性, *Bull. Jpn. Soc. Coord. Chem.*, **63**, 46 (2014).
- (876) 手木芳男, 励起状態高スピン化学とそのスピントロニクスへの展望, *CSJ カレントレビュー*『スピン化学が拓く分子磁性の新展開:設計から機能化まで』, 日本化学会編, **16**, 55 (2014).
- (877) K. Katoh and T. Wakimoto, Adhesive force due to a thin liquid film between two smooth surfaces (Wringing Mechanism of Gage Blocks), *Journal of JSEM*, **14** Special Issue, 36(2014).
- (878) 伊藤高啓, 蛭田将司, 志村亮太, 加藤健司, 脇本辰郎, 山本恭史, 野田進, 動的接触角に与える接触線加速度運動の影響の実験的解明, *日本機械学会論文集 B 編*, **80**, FE0004 (2014).
- (879) 森本真司, 高田浩太郎, 重松孝昌, 脇本辰郎, 吉岡真弥, .遊水室内への水車の設置が消波工の反射特性に及ぼす影響と獲得動力に関する研究, *土木学会論文集 B2(海岸工学)*, **70**, 1296 (2014).
- (880) H. Kawakami, T. Hayashi, H. Nishikubo, A. Morikawa, S. Suzuki, Y. Sato, and Y. Kikuchi, Effects of surface contamination and hypochlorite wipe cleaning on antibacterial activity of a copper alloyed antibacterial stainless steel, *Biocontrol Sci.*, **19**, 73 (2014).
- (881) Y. Takada, K. Koyama, T. Usami, Position Estimation of Small Robotic Fish Based on Camera Information and Gyro Sensors, *Robotics*, Vol.3, No.2, pp.149-162(2014-4).
- (882) Y. Kaneko and T. Sugimoto, EBSD Analysis of Microstructure Evolution of Pure Iron Subjected to Sliding Wear and Related Change in Vickers Microhardness, *Mater. Trans.*, **55**, 85 (2014).
- (883) Y. Kaneko, R. Tomita and A. Vinogradov, Low-cycle fatigue of Fe-20%Cr alloy processed by equal- channel angular pressing, *IOP Conf. Series: Mater.Sci.Eng.*, **63**, 012160 (2014).
- (884) 吉岡真弥, エポキシ樹脂の非線形粘弾性挙動に及ぼす分子架橋密度の影響, 『架橋の反応・構造制御と分析 事例集』, (技術情報協会), 51 (2014).
- (885) M. Nakayama, K. Murakami, Y. Furukawa, and D. Kim, *Appl. Phys. Lett.* **105**, 021903 (2014).
- (886) M. Kawakami, T. Kawase, D. Kim, and M. Nakayama, *Opt. Mater.* **36**, 1622 (2014).
- (887) Y. Furukawa, H. Takeuchi, and M. Nakayama, *J. Phys. Soc. Jpn.* **83**, 054709 (2014).
- (888) T. Hasegawa, R. Kishimoto, Y. Takagi, T. Kawase, D. Kim, and M. Nakayama, *Appl. Phys. Express* **7**, 032003 (2014).
- (889) S. Matsuura, Y. Mitsumori, H. Kosaka, K. Edamatsu, K. Miyazaki, D. Kim, M. Nakayama, G. Oohata, H. Oka, H. Ajiki, and H. Ishihara, *Phys. Rev. B* **89**, 035317 (2014).
- (890) M. Nakayama, Y. Furukawa, K. Maeda, T. Yoshimura, H. Uga, and N. Fujimura, *Appl. Phys. Express* **7**, 023002 (2014).
- (891) J. Liang, S. Nishida, T. Hayashi, M. Arai, and N. Shigekawa, *Appl. Phys. Lett.* **105**, 151607 (2014).
- (892) N. Shigekawa, J. Liang, M. Morimoto, and S. Nishida, *Electrochem. Soci. Transaction* **64** (5) 235 (2014).
- (893) J. Liang, S. Nishida, M. Arai, and N. Shigekawa, *Appl. Phys. Lett.* **104**, 161604 (2014).
- (894) N. Shigekawa, J. Liang, N. Watanabe, and A. Yamamoto, *Phys. status solidi C* **11**, 644 (2014).
- (895) S. Nishida, J. Liang, M. Morimoto, N. Shigekawa, and M. Arai, *Materials Science Forum* 778-780, 718 (2014).

- (896) N. Shigekawa, M. Morimoto, S. Nishida, and J. Liang, *Jpn. J. Appl. Phys.* **53**, 04ER05 (2014).
- (897) T. Shirafuji and T. Murakami, *Jpn. J. Appl. Phys.* **54**, 01AC03 (2014).
- (898) A. Nomura, Y. Himeno, K. Tanaka, and T. Shirafuji, *Plasma Phys. Technol.* **1**, 147 (2014).
- (899) Y. Himeno, Y. Ogura, and T. Shirafuji, *J. Phys. Conf. Ser.* **518**, 021021 (2014).
- (900) T. Shirafuji, A. Nomura, and Y. Himeno, *Plasma Chem. Plasma Process.*, **34**, 523 (2014).
- (901) T. Shirafuji, A. Nakamura, and F. Tochikubo, *JPS Conf. Proc.* **1**, 015058 (2014).
- (902) T. Shirafuji, A. Nakamura, and F. Tochikubo, *Jpn. J. Appl. Phys.* **53**, 03DG04 (2014).
- (903) T. Shirafuji, Y. Ogura, and Y. Himeno, *Jpn. J. Appl. Phys.* **53**, 010211 (2014).
- (904) N. Tonouchi, D. Kosumi, M. Sugisaki, M. Nango, and H. Hashimoto, How do surrounding environments influence the electronic and vibronic dynamics of photosynthetic pigments?, *Photosynth. Res.*, **124**, 77-86(2015).
- (905) H. Hashimoto, M. Sugisaki, and M. Yoshizawa, Ultrafast time-resolved vibrational spectroscopies of carotenoids in photosynthesis, *Biochim. Biophys. Acta Bioenergetics*, **1847**, 69-78(2015).
- (906) T. Abu-Zayyad et al., Energy spectrum of ultra-high energy cosmic rays observed with the Telescope Array using a hybrid technique, *Astropart. Phys.*, **61**, 93-101(2015).
- (907) R. U. Abbasi et al., A northern sky survey for point-like sources of EeV neutral particles with the telescope array experiment, *Ap. J.*, **804**, 133(2015).
- (908) R. U. Abbasi et al., Study of Ultra-High Energy Cosmic Ray composition using Telescope Array's Middle Drum detector and surface array in hybrid mode, *Astropart. Phys.*, **64**, 49(2015).
- (909) R. U. Abbasi, et al., Measurement of the proton-air cross section with Telescope Array's Middle Drum detector and surface array in hybrid mode, *Phys. Rev. D*, **92**, 032007(2015).
- (910) H. Kojima et al., Measurement of the radial density gradient of cosmic ray in the heliosphere by the GRAPES-3 experiment, *Astropart. Phys.*, **62**, 21-29(2015).
- (911) T. Takahashi, K. Kanemoto, M. Kanenobu, Y. Okawauchi and H. Hashimoto, Direct monitoring of bias-dependent variations in the exciton formation ratio of working organic light emitting diode, *Scientific Reports*, **5**, 15533(2015).
- (912) K. Katoh, T. Wakimoto, Y. Yamamoto and T. Ito, Dynamic wetting behavior of a triple-phase contact line in several experimental systems, *Experimental Thermal and Fluid Science*, **60**, 354 (2015).
- (913) 加藤健司, 南亮輔, 脇本辰郎, 植田芳昭, 井口学, 液中に侵入する固体球後方に形成される残留気泡体積, *混相流*, **28**, 547(2015).
- (914) N. Imajo, Y. Takada, and M. Kashinoki, Development and Evaluation of Compact Robot Imitating a Hermit Crab for Inspecting the Outer Surface of Pipes, *Journal of Robotics*, Vol. 2015, Article ID 312780, 7 Pages (2015).
- (915) Y. Zhao, M. Fukuhara, T. Usami, Y. Takada, Performance of Very Small Robotics Fish Equipped with CMOS Camera, *Robotics*, Vol. 4, Issue 4, pp. 421-434 (2015-8).
- (916) M. Nakayama, K. Murakami, and D. Kim, *J. Phys.: Conf. Ser.* **619**, 012015 (2015).
- (917) J. Liang, S. Shimizu, S. Nishida, N. Shigekawa, and M. Arai, *ECS Solid State Lett.* **4**, Q55 (2015).
- (918) N. Shigekawa, J. Liang, R. Onitsuka, T. Agui, H. Juso, and T. Takamoto, *Jpn. J. Appl. Phys.* **54**, 08KE03 (2015).
- (919) S. Nishida, J. Liang, T. Hayashi, N. Shigekawa, and M. Arai, *Jpn. J. Appl. Phys.* **54**, 030210 (2015).
- (920) M. Morimoto, J. Liang, S. Nishida, and N. Shigekawa, *Jpn. J. Appl. Phys.* **54**, 030212 (2015).
- (921) J. Liang, L. Chai, S. Nishida, M. Morimoto, and N. Shigekawa, *Jpn. J. Appl. Phys.* **54**, 030211 (2015).
- (922) Y. Furukawa and M. Nakayama, *J. Phys.: Conf. Ser.* **619**, 012005 (2015).
- (923) T. Watanabe, H. Yokota, M. Nakayama, and D. Kim, *J. Phys.: Conf. Ser.* **619**, 012024 (2015).
- (924) H. Bu, H. Yokota, K. Shimura, K. Takahashi, T. Taniguchi, and D. Kim, *Chem. Lett.* **44**, 200 (2015).
- (925) H. Bu, T. Watanabe, M. Hizume, T. Takagi, S. Sobue, S. Kawai, E. Okuno, and D. Kim, *Mater. Res. Express* **2**, 036202 (2015).

- (926) D. Kim, S. Tomita, K. Ohshiro, T. Watanabe, T. Sakai, I. Chang, and H. D. Kim, Nano Letters, accepted.
- (927) M. Nakayama, T. Ohno, and Y. Furukawa, J. Appl. Phys. **117**, 134306 (2015).
- (928) M. Nakayama, S. Nakamura, H. Takeuchi, A. Koizumi, and Y. Fujiwara, Appl. Phys. Lett. **106**, 012102 (2015).
- (929) Y. Maeda, D. Miyazaki, and S. Maekawa, Appl. Opt. **54**, 4109 (2015).