## **Photo-Molecular Science**

- H. OKAMOTO, "Picosecond Infrared Absorption Spectroscopy in the Fingerprint Region (Spectrum Gallery)," *J. Spectrosc. Soc. Jpn.* **62**, 174–176 (2013). (in Japanese)
- T. NARUSHIMA, S. HASHIYADA and H. OKAMOTO, "Strong Localized Optical Activity in Two-Dimensional Metal Nanostructures: Near-Field Circular Dichroism Imaging," *J. Surf. Sci. Soc. Jpn.* **35**, 312–318 (2014). (in Japanese).
- K. OHMORI, "Quantum Superrotor," Physics 7, 29 (2014).
- M. NAGASAKA and N. KOSUGI, "Basics and Development of Soft X-Ray Absorption Spectroscopy," in *CSJ Current Review 14 Synchrotron Radiation for Forefront of Chemistry*, The Chemical Society of Japan, Ed., Kagaku Dojin; Kyoto, Chapter 10 (2014). (in Japanese)
- **H.** YAMANE, "Correlating Electronic and Geometric Structures of Organic Films and Interfaces by Means of Synchrotron Radiation Based Techniques," *J. Vac. Soc. Jpn.* **56**, 11–17 (2013). (in Japanese)
- H. YUZAWA and H. YOSHIDA, "Direct Functionalization of Aromatic Ring on Platinum-Loaded Titanium Oxide Photocatalyst," *Chem. Lett.* (*Highlight Review*) 42, 1336–1343 (2013).
- **H.** YUZAWA and **H.** Y OSHIDA, "Direct Introduction of OH Group to sp<sup>2</sup>-Carbon on Platinum-Loaded Titanium Oxide Photocatalyst," *Top. Catal.* **57**, 984–994 (2014).
- M. KATOH, "Terahertz Light Source Based on Synchrotron Radiation," in *Frontiers in Optical Methods—Nano-Characterization and Coherent Control*, K. Shudo, I. Katayama and S. Ohno, Eds., Springer Series in Optical Sciences 180, Springer, ISSN 0342-4111, pp. 187–196 (2014).
- T. TAIRA, M. TSUNEKANE, K. KANEHARA, S. MORISHIMA, N. T AGUCHI and A. SUGIURA, "7. Promise of Giant Pulse Micro-Laser for Engine Ignition," *J. Plasma Fusion Res.* 89, pp. 238–241 (2013). (in Japanese)
- T. TAIRA, "Giant Micro-Photonics for Advanced Measurement and Analysis," JJACG, 40, pp. 175–183 (2013). (in Japanese)
- Y. LU and T. TAIRA, "Introduction: Nonlinear Optics (NLO) 2013 Feature," Opt. Mater. Express 4, pp. 41-42 (2014).
- Y. JEONG, S. JIANG, K. GALLO, T. SÜDMEYER, M. HEHLEN and T. TAIRA, "Focus Issue Introduction: Advanced Solid-State Lasers (ASSL) 2013," *Opt. Express* 22, 8813–8820 (2014).
- T. TAIRA, H. FURUTANI, C. GUO, E. WINTNER, F. AKAMATSU, R. LUCHT and K. W ASHIO, "Focus Issue Introduction: Laser Ignition Conference," *Opt. Express* 22, pp. A564–A566 (2014).
- T. TAIRA, "Laser Engine Ignition," Rev. Laser Eng. 42, pp. 299–305 (2014). (in Japanese)
- T. TAIRA, "Preface to Special Issue on State of the Art "Laser Ignition,"" Rev. Laser Eng. 42, p. 372 (2014). (in Japanese)
- M. TSUNEKANE and T. TAIRA, "Practical Solid-State Lasers for Laser Ignition," Rev. Laser Eng. 42, pp. 394–399 (2014). (in Japanese)
- R. BHANDARI and T. TAIRA, "Laser Ignition Spin-Off: Giant Pulse UV Microchip Laser," Rev. Laser Eng. 42, pp. 400–403 (2014). (in Japanese)
- T. FUJI, "Single-Shot Broadband Mid-IR Spectra Measured in the Visible via Upconversion," Laser Foucs World 49, 9 (2013).

## **Materials Molecular Science**

- T. YOKOYAMA and K. EGUCHI, "Anisotropic Thermal Expansion and Cooperative Invar/Anti-Invar Effects in MnNi Alloy," *Photon Factory Activity Report Part A: Highlights and Facility Report 2012*, p. 22–23 (2013).
- T. YOKOYAMA and K. EGUCHI, "Origin of Non-Thermal Expansion Property of Invar Alloys," PF News 31(3),14-18 (2013). (in Japanese)
- M. HIRAMOTO, "Bandgap Science for Organic Solar Cells," in *Artificial Photosynthesis—Cutting Edge Technology for System Integration*—, S. FUKUZUMI, Ed., CMC Publishing, Chap. 9.1, 211–220 (2013). (in Japanese)
- M. HIRAMOTO, M. KUBO and N. ISHIYAMA, "Bandgap Science for Organic Solar Cells," *Gekkan Optronics*, 384, 50-54 (2013). (in Japanese)
- M. HIRAMOTO, "pn-Control of Organic Semiconductors and Solar Cell Application," Molecular Electronics and Bioelectronics, 25, 81–86 (2014). (in Japanese)
- T. KAJI, "Crystallization of Donor: Acceptor Blended Films of Organic Thin-film Solar Cells by Co-Evaporant Induced Crystallization Method," *Molecular Electronics and Bioelectronics*, 24, 230–235 (2013). (in Japanese)
- **D. JIANG, S. JIN, Y. XU and X. LIU**, "Design, Synthesis, and Functions of Conjugated Microporous Polymers," in *Nanoporous Materials: Synthesis and Applications*, Taylor & Francis Books, Chapter 2 (2013).

## Life and Coordination-Complex Molecular Science

- H. YAGI and K. KATO, "Functional Roles of Glycoconjugates in the Maintenance of Stemness of Neural Stem Cells," *Seikagaku* 85, 1012–1016 (2013). (in Japanese)
- Y. ZHANG, T. YAMAGUCHI and K. KATO, "New NMR Tools for Characterizing the Dynamic Conformations and Interactions of Oligosaccharides," *Chem. Lett.* 42, 1455–1462 (2013).
- Y. KAMIYA, T. SATOH and K. KATO, "Recent Advances in Glycoprotein Production for Structural Biology: Toward Tailored Design of Glycoforms," *Curr. Opin. Struct. Biol.* 26, 44–53 (2014).
- Y. FURUTANI and H. KANDORI, "Hydrogen-Bonding Changes of Internal Water Molecules upon the Actions of Microbial Rhodopsins Studied by FTIR Spectroscopy," *Biochim. Biophys. Acta, Bioenergetics* **1837**, 598–605 (2014).
- M. YOSHIDA and S. MASAOKA, "Hydrogen and Oxygen Evolution from Water Promoted by Metal Complexes," in *CSJ Current Review 15—BioHydrongen Energy*, Kagaku-Dojin Publishing Co., Inc.; Kyoto, pp. 100–108 (2014). (in Japanese)
- S. MASAOKA, "Water Oxidation Catalyzed by Transition Metal Complexes," Kagaku Kogyo, 65, 194-199 (2014). (in Japanese)

## **Research Center of Integrative Molecular Systems**

- A. SHABANI, M. MOHSENI, S. JANG, A. ISHIZAKI, M. PLENIO, P. REVENTROST, A. ASPURU-GUZIK, J. CAO, S. LLOYD and R. SILBEY, "Open Quantum System Approach to Biological Systems," in *Quantum Effects in Biology*, M. MOHSENI, Y. OMAR, G. ENGEL and M. B. PLENIO, Eds., Cambridge University Press; Cambridge, pp. 15–47 (2014).
- Y. SHIKANO, "Foundational Questions Institute Essay Contest," Butsuri, 69, 326 (2014).
- Y. SHIKANO, "On Signal Amplification from Weak-Value Amplification," in *Kinki University Series on Quantum Computing V olume 9* "Physics, Mathematics, and All that Quantum Jazz," S. TANAKA, M. BANDO and U. GUNGORDU, Eds., World Scientific; Singapore, pp. 91–100 (2014).
- **H. M. YAMAMOTO**, "Sheathed Nanowires Aligned by Crystallographic Periodicity: A Possibility of Cross-Bar Wiring in Three-Dimensional Space," *CrystEngComm* **16**, 2857–2868 (2014).
- H. M. YAMAMOTO, "World's First Organic Superconducting Transistor," Parity, 29, pp. 46-50 (2014). (in Japanese)
- H. M. YAMAMOTO and N. TAJIMA, "Characterization of Organic Thin Films by Electric Measurements (Hall effect)," in *Handbook of Thin Film Characterization Technology*, Technosystem Co.,Ltd.; Tokyo, pp. 418–419 (2013). (in Japansese)
- **H.** SAKURAI, "Still Puzzling Golden Cross Coupling Reactions: Carbon–Carbon Bond Formation Reactions Using Gold Nanoclusters," *KAGAKU*, **68**(10), p. 72–73 (2013). (in Japanese)
- R. N. DHITAL and H. SAKURAI, "Oxidative Coupling of Organoboron Compounds," Asian J. Org. Chem. 3, 668-684 (2014).