

REVIEW ARTICLES AND TEXTBOOKS

Department of Theoretical Studies

Z. SLANINA, K. KOBAYASHI and S. NAGASE, "Computing Temperature Development of Five Isomers of Ca@C₇₂," in *Fullerenes and Nanotubes: The Building Blocks of Next Generation Nanodevices*, D. M. Guldi, P. V. Kamat and F. D'Souza, Eds., The Electrochemical Society, Inc.; Pennington, **13**, pp. 582–590 (2003).

Z. SLANINA, K. KOBAYASHI and S. NAGASE, "Excited Electronic States and Production Optimizations for Promising Nano-Agents," in *NANOTECH 2003, Technical Proceedings of the 2003 Nanotechnology Conference and Trade Show*, Nano science and Technology Institute; Cambridge, **3**, pp. 504–507 (2003).

K. KOBAYASHI and S. NAGASE, "Nano-Sized Molecules," in *The Fifth Series of Experimental Chemistry: Vol. 12 Computational Chemistry* (in Japanese), Maruzen; Tokyo, pp. 217–224 (2004).

T. WAKAHARA, T. AKASAKA, K. KOBAYASHI and S. NAGASE, "The Science of Endohedral Metallofullerenes," in *Supramolecular Science* (in Japanese), N. Nakashima, Ed., Kagaku Doujin; Kyoto, pp.407–416 (2004).

K. KOBAYASHI and S. NAGASE, "Are the Properties of Endohedral Metallofullerenes Controllable by Exohedral Addition?" *Bull. Soc. Nano Sci. Tech.* **2**, 23–28 (2004).

Y. OKAMOTO, "Metropolis algorithms in generalized ensemble," in *The Monte Carlo Method in the Physical Sciences: Celebrating the 50th Anniversary of the Metropolis Algorithm*, J. E. Gubernatis, Ed., American Institute of Physics; Melville, pp. 248–260 (2003).

Y. OKAMOTO, "Computer Simulations of Protein Folding," in *Molecular Biology for Mathematicians, Condensed Matter Research (BUSSEI KENKYU)* (in Japanese), **81**, 93–119 (2003).

Y. OKAMOTO, "Generalized-ensemble algorithms: enhanced sampling techniques for Monte Carlo and molecular dynamics simulations," *J. Mol. Graphics Modell.* **22**, 425–439 (2004).

F. HIRATA, *Molecular Theory of Solvation*, Kluwer-Springer Academic; Dordrecht, pp.1–358 (2003).

S. -H. CHONG, "Dynamical Processes in Solution," in *Molecular Theory of Solvation*, F. Hirata, Ed., Kluwer-Springer Academic; Dordrecht, pp. 277–344 (2003).

H. TORII, "Computational methods for analyzing the intermolecular resonant vibrational interactions in liquids and the noncoincidence effect of vibrational spectra," in *Novel Approaches to the Structure and Dynamics of Liquids: Experiments, Theories and Simulations*, J. Samios and V. A. Durov, Eds, Kluwer; Dordrecht, pp. 343–360 (2004).

Department of Molecular Assemblies

T. NAKAMURA, *Electric and Magnetic Properties: The fifth Series of Experimental Chemistry: Volume 7* (in Japanese), Maruzen; Tokyo (2004).

T. NAITO, "Fundamental Electric Measuring Instruments," in *Electric and Magnetic Properties: The fifth Series of Experimental Chemistry: Volume 7* (in Japanese), Maruzen; Tokyo, chapter **2**, pp. 33–39 (2004).

Department of Computational Molecular Science

S. OKAZAKI, "Molecular Dynamics Simulation of Nano Mechanics," in *Nano Mechanics of Atom and Molecule* (in Japanese), S. Morita, Ed., Maruzen, pp.65–73 (2003).

S. OKAZAKI, "Theory of Nano Mechanics for Biomolecules," in *Nano Mechanics of Atom and Molecule* (in Japanese), S. Morita, Ed., Maruzen, pp.189–193 (2003).

S. OKAZAKI, "Simulation Chemistry," in *Handbook of Chemistry—Applied Chemistry* (in Japanese), Chemical Society of Japan, Ed., Maruzen, pp.515–517 (2003).

M. NAGAOKA and S. OKAZAKI, "Molecular Simulation," in *Experimental Chemistry 12* (in Japanese), Chemical Society of Japan, Ed., Maruzen, pp.315–365 (2004).

A. MORITA, "Mass Accommodation at Liquid-Vapor Interfaces—Interaction between Molecular Dynamics Calculation and Heterogeneous Uptake Experiment," *Ensemble* (in Japanese) **25**, 7–9 (2004).

A. MORITA, "Non-Empirical Simulation and Theoretical Analysis of Surface Sum Frequency Generation Spectroscopy," *J. Vac. Soc. Jpn.* (in Japanese) **47**, 503–508 (2004).

Coordination Chemistry Laboratories

K. MASHIMA, “Organometallic Complexes of Niobium and Tantalum,” in *The Fifth Series of Experimental Chemistry*, **21**, 94–107 (2004).

K. TANAKA, “Oxidative activation of water by metal complex,” in *Sentan Kagaku Shirizu*, **5**, 124–131 (2003).

Research Center for Molecular-scale Nanoscience

T. OGAWA, “Recent progress in electric properties of single molecules,” *Electrochemistry* (in Japanese) **71**, 952–955 (2003).

T. OGAWA, “Recent topics of electronic conduction in single molecules,” *Solid Physics* (in Japanese), 609–616 (2004).

H. TADA, “Organic Transistors,” in *Nanotechnology Handobook* (in Japanese), Ohmsha, **Vol.1**, pp.157–161 (2003).

H. TADA, “Evaluation of Carrier Mobilities of Organic Semiconductors,” in *Organic Transistors: Structure, Properties towards Practical Applications* (in Japanese), K. Kudo, Ed. Technical information institute CO., LTD, pp.190–209 (2003).

H. TADA, “Evaluation of Carrier Mobilities of Organic Films,” in *MATERIAL STAGE* (in Japanese), Technical information institute CO., LTD, **3**, 9–13 (2003).

H. TADA, “Molecules on Silicon,” in *The Advance Chemistry Series VI* (in Japanese), The Chemical Society of Japan, Ed., Maruzen, pp. 123–219 (2004).

H. TADA, “Structure and orientation of organic films prepared by molecular beam,” in *Basic and Advanced Surface Science—New Edition* (in Japanese), Surface Science Society of Japan, Ed., NTS Inc, pp. 1191–1194 (2004).

T. HIRAO and H. SAKURAI, “Oxidation Reaction by Other Oxidants,” in *The Fifth Series of Experimental Chemistry Volume 17: Synthesis of Organic Compounds V—Oxidation Reaction* (in Japanese), Y. Ishii, Ed., Maruzen; Tokyo, 154–173 and 176–178 (2004).

H. SAKURAI, “Catalytic Reaction Using Gold Nano Particles,” *Organomet. News* (in Japanese) 100–100 (2004).

K. WATANABE, N. TAKAGI and Y. MATSUMOTO, “Time-Domain Observations of the Vibrational Mode of a Surface Adsorbate Layer by Time-resolved Second Harmonic Generation,” *J. Vac. Soc. Jpn.* **47**, 412–417 (2004).

Y. TANIMOTO, “Studies of Magnetic Field Effects on Chemical and Physical Processes Using Vertical High Magnetic Field,” *Technical Report of IEICE* (in Japanese) **EMJC-2003-138**, 73–76 (2004).

M. WAKASA and Y. TANIMOTO, “Control of Catalytic Reaction Using a Magnetic Field,” *Catalysis* (in Japanese) **46**, 224–229 (2004).

UVSOR Facility

M. KATOH, “Successful Commissioning of UVSOR-II,” *Synchrotron Radiation News* **Vol. 16**, 33–38 (2003).

M. KATOH, “Construction and Commissioning of UVSOR-II,” *J. Jpn. Society for Synchrotron Radiation Research* (in Japanese) **Vol.17**, 10–16 (2004).

Okazaki Institute for Integrative Bioscience

K. KINOSITA, Jr., K. ADACHI and H. ITOH, “Rotation of F₁-ATPase: How an ATP-Driven Molecular Machine May Work,” in *Annual Review of Biophysics and Biomolecular Structure*, Douglas C. Rees, Ed., ANNUAL REVIEWS; Palo Alto, **33**, 245–268 (2004).

S. AONO, H. NAKAJIMA, T. OHTA and T. KITAGAWA, “Resonance Raman and Ligand Binding Analysis of the Oxygen-Sensing Signal Transducer Protein HemAT from *Bacillus subtilis*,” *Methods in Enzymology* **381**, 618–628 (2003).

S. AONO, “Biochemical and Biophysical Properties of the CO-Sensing Transcriptional Activator CooA,” *Acc. Chem. Res.* **36**, 825–831 (2003).

T. UCHIDA and T. KITAGAWA, “UV/Vis Absorption, Infrared and Raman Spectroscopy,” in *PROTEIN, NUCLEIC ACID AND ENZYME* (in Japanese), **49**, 1693–1699 (2004).

S. AONO, H. NAKAJIMA, T. OHTA and T. KITAGAWA, “Resonance Raman and Ligand Binding Analysis of the Oxygen-Sensing Signal Transducer Protein HemAT from *Bacillus subtilis*,” *Methods in Enzymology* **381**, 618–628 (2003).