Poster Sessions

Poster Session I
December 20, 2009 (Sunday)
13:40 - 16:00  Poster Presentation (Odd Poster Numbers)

Poster Session II
December 21, 2009 (Monday)
13:40 - 16:00  Poster Presentation (Even Poster Numbers)
List of Posters

P001  NMR and Structural Studies of Telomere Binding Protein, CEH-37 from Caenorhabditis elegans.
*SunJin Moon; Jihye Yun; Weontae Lee (Department of Biochemistry, Yonsei University)

P002  Refolding Dynamics of Stretched Biopolymers upon Force-Quench
*Changbong Hyeon¹; Greg Morrison²,³; David L. Pincus³; D. Thirumalai³
(¹Department of Chemistry, Chung-Ang University; ²School of Engineering and Applied Science, Harvard University; ³Biophysics Program, Institute for Physical Science and Technology, University of Maryland)

P003  Theoretical Study on the Aggregation Mechanism of Aβ(1-42) peptides Using Targeted Molecular Dynamics Simulation
*Sihyun Ham; Chewook Lee (Sookmyung Women’s University)

P004  Modeling the protein fluctuations by a multiscale method
*Wenfei Li¹; Shoji Takada¹,² (¹Department of Biophysics, Kyoto University; ²CREST, Japan Science and Technology Agency.)

P005  Single Point Mutation Effects of FAS1 Domain 4 in Relation to Corneal Dystrophy Using Molecular Dynamics Simulation
*Mirae Park; Chewook Lee; Sihyun Ham (Nano/Bio computational chemistry lab, Department of Chemistry, Sookmyung Women’s University)

P006  Efficient Conformation Search for Proteins
*Seokmin Shin¹; Won-joon Son¹; Soonmin Jang² (¹Department of Chemistry, Seoul National University; ²Department of Chemistry, Sejong University)

P007  DOCKING AND MOLECULAR DYNAMICS SIMULATION STUDIES OF TRANSIENT RECEPTOR POTENTIAL VANILLOID 1 WITH RESINIFERATOXINE
*Sun Choi¹; Jin Hee Lee¹; Yoonji Lee¹; Jeewoo Lee²
(¹College of Pharmacy, Division of Life and Pharmaceutical Sciences, and National Core Research Center for Cell Signaling and Drug Discovery, Ewha Womans University; ²Research Institute of Pharmacuetic)
P008  NMR Structure Determination by Conformational Space Annealing
*Jinhyuk Lee¹; Jinwoo Lee²; Jooyoung Lee¹  (¹School of Computational Sciences and Center for In Silico Protein Sciences, Korea Institute for Advanced Study; ²Department of Mathematics, Kwangwoon University)

P009  DYNAMIC PATHWAY EXPLORATIONS VIA ACTION-DERIVED MOLECULAR DYNAMICS
In-Ho Lee  (Korea Research Institute of Standards and Science  <KRISS>)

P010  Pressure effects on reaction dynamics of photosensor protein TePixD
*Kunisato Kuroi¹; Keisuke Tanaka¹; Yusuke Nakasone¹; Koji Okajima²,³; Masahiko Ikeuchi²; Satoru Tokutomi³; Masahide Terazima¹  
(¹Department of Chemistry, Graduate School of Science, Kyoto University; ²The University of Tokyo; ³Osaka Prefecture University)

P011  Protein Dynamics in Dihedral Angle Space
*Akinori Kidera; Satoshi Omori; Sotaro Fuchigami  (Yokohama City University)

P012  Thermodynamic integration based on molecular dynamics simulation combined with 3D-RISM theory
*Tatsuhiko Miyata; Yasuhiro Ikuta; Fumio Hirata  (Institute for Molecular Science)

P013  The properties required for the binding before folding mechanism of the intrinsically disordered mutants of Staphylococcal nuclease
Masayoshi Onitsuka; Hironari Kamikubo; Yoichi Yamazaki; *Mikio Kataoka  
(Graduate School of Materials Science, Nara Institute of Science and Technology)

P014  Extraction of the regions encoded foldability and/or functionability from dihydrofolate reductase by a systematic alanine insertion
*Rumi Shiba¹; Hironari Kamikubo¹; Mika Umeyama¹; Sayaka Tsukasa¹; Yoichi Yamazaki¹; Masahiro Iwakura²; Mikio Kataoka¹  
(¹Graduate School of Materials Science, Nara Institute of Science and Technology; ²Protein Design Research Group, Institute for Biological Resources and Functions, National Institute of Advanced Industrial Science and Technology)
P015 Structural Characterization of the Intrinsically Disordered Mutants of Staphylococcal Nuclease by Electron Paramagnetic Resonance Spectroscopy
*Hiroki Sawada¹; Madhu S. Budamagunta²; Hironari Kamikubo¹; Yoichi Yamazaki¹; Mariko Yamaguchi¹; John C. Voss²; Mikio Kataoka¹
(¹Graduate School of Materials Science, Nara Institute of Science and Technology; ²Department of Biochemistry and Molecular Medicine, School of Medicine, University of California, Davis)

P016 Laser-induced Propagation and Destruction of Amyloid Fibrils
*Yuji Goto¹; Hisashi Yagi¹; Daisaku Ozawa¹,²; Hironobu Naiki²
(¹Institute for Protein Research, Osaka University; ²Faculty of Medical Sciences, University of Fukui)

P017 GLOBAL AND LOCAL DYNAMICS IN THE MICROSECOND FOLDING OF DIHYDROFOLATE REDUCTASE
*Munehito Arai¹; Masahiro Iwakura¹; C. Robert Matthews²; Osman Bilsel²
(¹Institute for Biological Resources and Functions, AIST; ²University of Massachusetts Medical School)

P018 Structure of the encounter complex in the coupled folding and binding of pKID
*Munehito Arai¹,²; H. Jane Dyson²; Peter E. Wright² (¹Institute for Biological Resources and Functions, AIST; ²The Scripps Research Institute)

P019 Mutational robustness of a protein revealed by comprehensive single amino-acid substitutions of dihydrofolate reductase
*Akiko Yokota; Munehito Arai; Hisashi Takahashi; Chiori Yamane; Tatsuyuki Takenawa; Masahiro Iwakura (Institute for Biological Resources and Functions, AIST)

P020 Simple Dark-Field Microscopy with Nanometer Spatial Precision and Microsecond Temporal Resolution
Hiroshi Ueno¹; So Nishikawa²; *Ryota Iino¹; Kazuhito V. Tabata¹; Shouichi Sakakihara¹; Toshio Yanagida²; Hiroyuki Noji¹
(¹Institute of Scientific and Industrial Research, Osaka University; ²Graduate School of Frontier Biosciences, Osaka University)
P021 Simulation of pulsed field gradient NMR spectra of diffusive motion of lipids and drugs restricted by a spherical vesicle. A Monte Carlo study
*Noriyuki Yoshii; Emiko Okamura (Faculty of Pharmaceutical Sciences, Himeji Dokkyo University)

P022 Theoretical Study on LMCT Absorption of Catechol Dioxygenase and Its Functional Models
*Naoki Nakatani; Yoshihide Nakao; Hirofumi Sato; Shigeyoshi Sakaki (1Department of Molecular Engineering, Graduate School of Engineering, Kyoto University; 2Fukui Institute for Fundamental Chemistry, Kyoto University)

P023 First observation of pure lateral diffusion of lipid molecules in a bilayer vesicle by pulsed field gradient NMR spectroscopy
*Emiko Okamura; Noriyuki Yoshii (Faculty of Pharmaceutical Sciences, Himeji Dokkyo University)

P024 Local structure characterization of staphylococcal nuclease by lifetime measurement of tryptophan triplet state
*Mariko Yamaguchi; Yoichi Yamazaki; Hironari Kamikubo; Mikio Kataoka (Graduate School of Materials Science, Nara Institute of Science and Technology)

P025 Visualization of Mobility of Zinc Finger Proteins inside Cells
*Miki Imanishi; Tatsuya Morisaki; Shiroh Futaki; Yukio Sugiura (1Institute for Chemical Research, Kyoto University; 2Faculty of Pharmaceutical Sciences, Doshisha Women’s University)

P026 Protein Fluctuation Characterized by Linear Compressibility
Norihiro Tadaki; Takanori Uzawa; Takeshi Uchida; *Koichiro Ishimori (Department of Chemistry, Faculty of Science, Hokkaido University)

P027 Light-induced conformational change and dissociation reaction of a blue light photoreceptor PixD
*Keisuke Tanaka; Yusuke Nakasone; Koji Okajima; Masahiko Ikeuchi; Satoru Tokutomi; Masahide Terazima (1Department of Chemistry, Graduate school of Science, Kyoto University; 2The University of Tokyo; 3Osaka Prefecture University)
P028 STRUCTURE AND FUNCTION OF GroEL-GroES-NUCLEOTIDE COMPLEXES STUDIED BY H/D EXCHANGE TECHNIQUE
Atsushi Mukaiyama¹; Takashi Nakamura¹; Tapan K. Chaudhuri¹; *Koki Makabe¹; Kunihiro Kuwajima¹,² (¹Okazaki Institute for Integrative Bioscience; ²Sokendai)

P029 The molten globule state and its biological function in alpha-lactalbumin
*Takashi Nakamura¹; Koki Makabe¹,²; Tomoyasu Aizawa³; Keiichi Kawano⁴; Makoto Demura³; Kunihiro Kuwajima¹,² (¹Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences; ²Department of Functional Molecular Science, The Graduate University for Advanced Studies; ³Division of Life Science, Graduate School of Life Science, Hokkaido University; ⁴Department of Biological Sciences, Grad)

P030 Kinetics of light-induced DNA repair and releasing process of (6-4) photolyase monitored by time-resolved diffusion measurement
*Masato Kondoh¹; Kenichi Hitomi²; Junpei Yamamoto³; Takeshi Todo⁴; Elizabeth D. Getzoff²; Shigenori Iwai³; Masahide Terazima¹ (¹Kyoto Univ. Science; ²Scripps.; ³Osaka Univ. technology; ⁴Osaka Univ. medicine)

P031 Solvation effets of structure-stability of human telomere
*Yutaka Maruyama; Fumio Hirata（Theoretical Molecular Science II, Institute for Molecular Science）

P032 Microsecond-resolved single-molecule time traces of protein folding by a line-illuminated confocal microscopy
*Hiroyuki Oikawa¹,²; Kiyoto Kamagata¹; Satoshi Takahashi¹,² (¹Institute of Multidisciplinary Research for Advanced Materials, Tohoku University; ²CREST, JST)

P033 Long-time observation of a single molecule trapped in a capillary cell: application for protein folding
*Kiyoto Kamagata¹; Yuji Goto²; Satoshi Takahashi¹,³ (¹Institute of Multidisciplinary Research for Advanced Materials, Tohoku University; ²Institute for Protein Research, Osaka University; ³CREST, JST)

P034 Elucidating dynamics of nuclear proteins
Kenji Sugase（Suntory Institute for Bioorganic Research）
P035  **POLD4 reduction and genomic instability induction in small cell lung cancer**  
Qin Miao Huang¹; Shuta Tomida¹; Yuji Masuda²; Chinatsu Arima¹; Hirotaka Osada¹; Yasushi Yatabe⁴; Tomohiro Akashi⁵; Kenji Kamiya²; Takashi Takahashi¹; *Motoshi Suzuki¹  
¹Division of Molecular Carcinogenesis, Nagoya University Graduate School of Medicine; ²Research Institute for Radiation Biology and Medicine, Hiroshima University; ³Division of Molecular Oncology, Aichi Cancer Center Research Institute; ⁴Department of Pathology and Molecular Diagnosis, Aichi Cancer

P036  **REARRANGEMENTS IN THE KCSA CYTOPLASMIC DOMAIN UNDERLIE ITS GATING**  
*Minako Hirano; Yuko Takeuchi; Takaaki Aoki; Toshio Yanagida; Toru Ide  
(Graduate School of Frontier Biosciences, Osaka University)

P037  **Modulation of protein collective motions by loop mutation**  
Shin-ichi Tate (Department of Mathematical and Life Sciences, School of Science, Hiroshima University)

P038  **Fluorescence Correlation Spectroscopy Approach toward Observing Fluctuations of Biological Molecules**  
*Kunihiko Ishii; Tahei Tahara (RIKEN)

P039  **Effects of actin mutation on processive and non-processive myosin motility**  
*Tomotaka Komori¹; Hiroaki Takagi²; Masatoshi Nishikawa³; Atsuko H. Iwane¹; Toshio Yanagida¹  
¹Graduate school of Frontier Biosciences, Osaka university; ²Nara medical school; ³Graduate school of sciences, Hiroshima university

P040  **Single Molecule Tracking in Supported Planar Lipid Bilayer on Oxide Surfaces**  
*Ryugo Tero¹²; Gen Sazaki³; Toru Ujihara⁴; Tsuneo Urisu¹²  
¹Institute for Molecular Science; ²Graduate University for Advanced Studies; ³Hokkaido University; ⁴Nagoya University

P041  **Conformational fluctuation of lipid molecules, monoacylglycerol, in lamellar phase of lyotropic liquid crystals**  
*Yasuhisa Yamamura; Shin Nakada; Airi Katagiri; Maika Iwami; Syuma Yasuzuka; Kazuya Saito  
(Department of Chemistry, Graduate School of Pure and Applied Sciences, University of Tsukuba)
Volume fluctuation of biomolecules as revealed by isothermal compressibility
*Tadashi Kamiyama; Eri Kanaoka; Takayoshi Kimura (School of Science and Engineering, Kinki University)

Theoretical study of electronic structure of wet-DNA
*Norio Yoshida1,2; Fumio Hirata1,2 (1Institute for Molecular Science; 2The Graduate University for Advanced Studies)

Hybrid liposomes inhibit the growth of primary effusion lymphoma in vitro and in vivo
*Tomomi Towata1,2; Yuji Komizu1; Shinya Suzu2; Yoko Matsumoto1; Ryuichi Ueoka1; Seiji Okada2 (1Division of Applied Life Science Graduate School of Engineering, Sojo University; 2Division of Hematopoiesis center for AIDS Research)

Extraction of the structural element of SNase-like domain in Human p100 by Alanine Insertion Analysis
*Yoko Ogawa; Hironari Kamikubo; Chikako Komeda; Mariko Yamaguchi; Yoichi Yamazaki; Mikio Kataoka (Graduate School of Materials Science, Nara Institute of Science and Technology 〈NAIST〉)

Incorporation of fluorescent nonnatural amino acids into proteins and its application to FRET analysis of protein structures
Yasunori Tokuda; Naoki Shozen; *Takahiro Hohsaka (School of Materials Science, Japan Advanced Institute of Science and Technology)

FRET analysis of protein structural changes by double-incorporation of nonnatural amino acids labeled with fluorophore and quencher
*Issei Iijima; Takahiro Hohsaka (School of Materials Science, Japan Advanced Institute of Science and Technology)

Theory of excitation energy transfer in donor-mediator-acceptor systems
Akihiro Kimura (Department of Physics, Graduate School of Science, Nagoya University)
P049  Apo and Nickel-bound Forms of the Pyrococcus Horikoshii Species of the Metalloregulatory Protein: NikR Characterized by Molecular Dynamics Simulations

*Daniel J. Sindikara; Adrian E. Roitberg; Kenneth M. Merz, Jr

(1Department of Physics, School of Science, Nagoya University; 2Department of Chemistry, University of Florida)

P050  Significance of enzyme fluctuation in the lock-key mechanism between xanthine oxidoreductase and Febuxostat

*Hiroshi Fujisaki; Hiroto Kikuchi; Tadaomi Furuta; Ken Okamoto; Takeshi Nishino

(1Department of Physics, Nippon Medical School; 2RIKEN; 3Department of Biochemistry and Molecular Biology, Nippon Medical School)

P051  Simultaneous optical and electrical recording of single drug bindings to single ion channel proteins

*Toru Ide; Minako Hirano (Graduate School of Frontier Biosciences, Osaka University)

P052  ER Glycan Processing under Molecular Crowding Conditions

*Hikaru Matsushima; Yukishige Ito; Kiichiro Totani

(1Department of Materials and Life Science, SEIKEI University; 2RIKEN Advanced Science Institute)

P053  CONFORMATION REFOLDING DYNAMICS OF A PHOTOSensor PROTEIN; PHOTOTROPIN USING THE REVERSE PHOTOREACTION

*KAWAGUCHI Yuko; NAKASONE Yusuke; JIKIHARA Kazunori; TOKUTOMI Satoru; TERAZIMA Masahide

(1Department of Chemistry, Kyoto University; 2Research Institute for Advanced Science and Technology, Osaka Prefecture University)

P054  Spectroscopic analysis of Induced circular dichroism of 3,6-disubstituted carbazole derivatives interacting with DNA

*Norie Inukai; Junpei Yuasa; Tsuyoshi Kawai

(Graduate School of Materials Science, Nara institute of Science and Technology)
Crowding effect on the reaction dynamics of a blue light receptor; TePixD
*Tsuguoyoshi Toyooka¹; Keisuke Tanaka¹; Yusuke Nakasone¹; Koji Okajima²,³; Msahiko Ikeuchi³; Satoru Tokutomi²; Masahide Terazima¹
(¹Department of Chemistry, Kyoto University; ²Department of Biological Science, Osaka Prefecture University; ³Department of Life Sciences (Biology), Tokyo University)

Spectroscopic analysis of circular-polarized luminescence of proteins labeled with europium complexes
*Junpei Yuasa; Yasuchika Hasegawa; Tsuyoshi Kawai (Graduate School of Materials Science, Nara Institute of Science and Technology)

Regulating the conformation of prion protein through ligand binding
*Norifumi Yamamoto; Kazuo Kuwata (Center for Emerging Infectious Diseases, Gifu University)

Single molecule observation of the ligand binding dynamics of maltose binding protein doubly labeled by a cell free system
Akihiro Yamamori¹,²; Kiyoto Kamagata²,³; Issei Iijima⁴; Takahiro Hohsaka⁴; Yuji Goto¹; *Satoshi Takahashi²,³
(¹Institute for Protein Research, Osaka University, ²Institute of Multidisciplinary Research for Advanced Materials, Tohoku University; ³CREST, JST; ⁴Japan Advanced Institute of Science and Technology)

Theoretical study of molecular recognition mechanism in the mouse-Olfactory Receptor by using 3D-RISM theory
*Yasuomi Kiyota¹; Norio Yoshida¹,²; Fumio Hirata¹,² (¹Department of Physical Science, SOKENDAI; ²Institute for Molecular Science)

Temperature and pressure effects on an alanine dipeptide studied by generalized-ensemble molecular dynamics simulations
*Yoshiharu Mori; Yuko Okamoto (Department of Physics, School of Science, Nagoya University)
P061  **Inhibitory Effects of Hybrid Liposomes Including Polyunsaturated Fatty Acids on the Growth of Tumor Cells in Vitro**  
*Koichi Goto; Yoshihiro Tanaka; Yoko Matsumoto; Ryuichi Ueoka  
(Graduate Course of Applied Life Science, Sojo University)

P062  **New Mechanism of Proton transport through the Influenza A M2 channel: 3D-RISM Study**  
Saree Phongphanphanee¹; *Norio Yoshida¹²; Fumio Hirata¹²  
(¹Institute for Molecular Science; ²The Graduate University for Advanced Studies)

P063  **Nanotherapy with hybrid liposomes for human breast tumors along with apoptosis in vitro and in vivo**  
*Hideaki Ichihara; Shinya Shimoda; Yoko Matsumoto; Ryuichi Ueoka  
(Division of Applied Life Science, Graduate School of Engineering, Sojo University)

P064  **Enhanced structural fluctuations in biomolecular systems by generalized-ensemble simulations**  
Yuko Okamoto  
(Department of Physics, Nagoya University)

P065  **Membrane targeted nanotherapy with hybrid liposomes for colon tumor cells leading to apoptosis**  
*Yuji Komizu; Yoko Matsumoto; Ryuichi Ueoka  
(Graduate Course of Applied Life Science, Sojo University)

P066  **Molecular mechanism of long-range synergetic color tuning between multiple amino acid residues in conger rhodopsin**  
*Hiroshi Watanabe¹; Yoshiharu Mori¹; Takahisa Yamato¹²  
(¹Department of Physics, Nagoya Univ; ²CREST,JST)

P067  **Comparative studies of conformational fluctuation of ubiquitin-like proteins by high pressure NMR**  
*Ryo Kitahara¹²; Koichi Kato³⁴; and Kazuyuki Akasaka²⁵  
(¹Colleges of Life Science and Pharmaceutical Sciences, Ritsumeikan University; ²RIKEN HarimaInstitute; ³Institute for Molecular Science, National Institutes of Natural Sciences; ⁴Graduate School of Pharmaceutical Sciences, Nagoya City University; ⁵High Pressure Protein Research Center, Kinki Univ)
First Principle Theory for pK(a) Prediction at Molecular Level: pH Effects Based on Explicit Solvent Model

*Kentaro Kido; Hirofumi Sato¹; Shigeyoshi Sakaki¹,² (¹Department of Molecular Engineering, Graduate School of Engineering, Kyoto University; ²Fukui Institute for Fundamental Chemistry, Kyoto University)

Effect of cations on G-quadruplex structure and fluctuation of telomeric DNA

*Taku Matsushita¹; Masahiro Ohgidani¹; Masayuki Takeda¹; Osamu Tanoue¹; Yutaka Maruyama²; Fumio Hirata²; Ryuichi Uëoka¹ (¹Graduate School of Engineering, Sojo University; ²Institute for Molecular Science)

Multi-Dimensional Simulated-Tempering Algorithm for Peptide systems

*Ayori Mitsutake¹; Yuko Okamoto² (¹Department of Physics, Keio University; ²Department of Physics, Nagoya University)

Electron Tunneling in Complex I of the Electron Transport Chain

*Tomoyuki Hayashi; Alexei Stuchebrukhov (Department of Chemistry, University of California)

Sequence Dependencies of DNA Deformability and Hydration in the Minor Groove

*Yoshiteru Yonetani; Hidetoshi Kono (Computational Biology Group, Japan Atomic Energy Agency)

Morphological analysis of polyamine-lipid/DNA complexes as effective gene carriers

*Takehisa Dewa¹; Kiyoshi Kato¹; Misa Uchida¹; Ayumi Sumino¹; Tomohiro Asai²; Naoto Oku²; Hideo Fujimoto¹; Mamoru Nango¹ (¹Nagoya Institute of Technology; ²University of Shizuoka)

Population Analysis of Giant Vesicles Containig PCR Systems

*Kentaro Suzuki; Mieko Tamura; Kensuke Kurihara; Koh-ichiroh Shohda; Tadashi Sugawara (Department of Basic Science, The University of Tokyo)
**P075**  
**Streaming potential revealed Ion Distributions in the Open Structure of KcsA Potassium Channel**  
Masayuki Iwamoto; *Shigetoshi Oiki (Department of Molecular Physiology and Biophysics, University of Fukui)

**P076**  
**Bridging the sulfides: A study on the redox dependency of protein disulfide isomerase structure and dynamics**  
*Olivier Serve1,2; Yukiko Kamiya1,2; Aya Maeno3; Michiko Nakano2,3; Chiho Murakami3; Hiroaki Sasakawa2,3; Yoshiki Yamaguchi3,4; Takushi Harada3; Eiji Kurimoto3; Maho Yagi-Utsumi3; Tsuyoshi Iguchi5; Kenji Inaba6; Jun Kikuchi7; Osamu Asami8; Tsutomu Kajino9; Toshihiko Oka9; Masayoshi Nakasako9,10; Koichi Kato1,2,3  
(1Okazaki Institute for Integrative Bioscience; 2Institute for Molecular Science, National Institutes of Natural Sciences; 3Graduate School of Pharmaceutical Sciences, Nagoya City University; 4Structural Glycobiology Team, Systems Glycobiology Research Group, Chemical Biology Department, Advanced Research Institute, RIKEN; 5Bioscience Research Laboratory, Fujiya Co., Ltd.; 6Medical Institute of Bioregulation, Kyushu University; 7RIKEN Plant Science Center, 8Toyota Central R&D Labs. Inc.; 9Department of Physics, Faculty of Science and Technology, Keio University; 10RIKEN Harima Institute)

**P077**  
**Molecular Fluctuations in Extensively Simplified BPTI Variants Examined by X-ray Crystallography**  
*Yutaka Kuroda; Monirul M. Islam (Dept of Biotech and Life Science, TUAT)

**P078**  
**Single-molecule detection of transmembrane helices incorporated into unilamellar vesicles**  
*Yoshiaki Yano; Katsumi Matsuzaki  
(Graduate School of Pharmaceutical Sciences, Kyoto University)

**P079**  
**Dynamics of di-ubiquitin as studied by NMR spectroscopy**  
*Takashi Hirano1; Maho Yagi1,2; Tsunehiro Mizushima1; Ryo Kitahara3; Koichi Kato1,2 (1Nagoya City University; 2National Institutes of Natural Sciences; 3Ritsumeikan University)

**P080**  
**NMR studies of intrinsically disordered proteins involved in neurodegenerative disorders**  
Maho Yagi1,2; Yoshiki Yamaguchi2,3; *Koichi Kato1,2  
(1National Institutes of Natural Sciences; 2Nagoya City University; 3RIKEN)
Adsorption-induced protein unfolding observed by x-ray reflection
*Yohko F. Yano; Tomoya Uruga2; Hajime Tanida2; Hidenori Toyokawa2; Yasuko Terada2; Masafumi Takagaki2; and Hironori Yamada3 (1Research organization of Science & Engineering, Ritsumeikan University; 2Japan Synchrotron Radiation Research Institute; 3Department of Photonics, Ritsumeikan University)

Analysis of Mutation Effect on Helix Interactions by Replica-Exchange Monte Carlo Simulation
*Koichi Sugimoto1; Hironori Kokubo2; Yuko Okamoto1 (1Department of Physics, Nagoya University; 2Department of Chemistry, University of Houston)

REACTION OF PHOTOTROPIN AT HIGH PRESSURES: A TRIAL TO DETECT FLUCTUATION OF INTERMEDIATES
*Francielle Sato1; Kunisato Kuroi1; Yoshiumi Kimura1; Daisuke Matsuoka2; Kazunori Zikihara2, Satoru Tokutomi2, Masahide Terazima1 (1Department of Chemistry, Graduate School of Science, Kyoto University; 2Department of Biological Science, Graduate School of Science, Osaka Prefecture University)

Secondary-structure-forming tendencies of peptides using a new backbone-torsion energy term
*Yoshitake Sakae; Yuko Okamoto (Department of Physics, Nagoya University)

Folding of apomyoglobin studied by rapid mixing methods.
*Takuya Mizukami1; Kosuke Maki (1Graduate School of Science, Nagoya University)

The reduced activity of nucleoside diphosphate kinase-A through sequential conformational changes induced by oxidation
* Dong Hae Shin; Mi-Sun Kim; Kong-Joo Lee (College of Pharmacy, Division of Life and Pharmaceutical Sciences, Ewha Womans University)

DYNAMIC Ca²⁺-DEPENDENT STIMULATION OF VESICLE FUSION BY MEMBRANE-ANCHORED SYNAPTOTAGMIN 1
Han-Ki Lee1; Zengliu Su2; Changbong Hyeon3; Yeon-Kyun Shin2; *Tae-Young Yoon1 (1Department of Physics, KAIST; 2Department of Biochemistry, Biophysics, and Molecular Biology, Iowa State University; 3Department of Chemistry, Chung-Ang University)