

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 Morrison^{2,3}; 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 A β (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 Takada^{1,2} (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 Pharmaceutic)

- 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 Okajima^{2,3}; 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 Ozawa^{1,2}; 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 Arai^{1,2}; 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)
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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 Nakatani¹; Yoshihide Nakao¹; Hirofumi Sato¹; Shigeyoshi Sakaki^{1,2}
(¹Department of Molecular Engineering, Graduate School of Engineering, Kyoto University; ²Fukui Institute for Fundamental Chemistry, Kyoto University)
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*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 Imanishi¹; Tatsuya Morisaki¹; Shiroh Futaki¹; Yukio Sugiura²
(¹Institute for Chemical Research, Kyoto University; ²Faculty of Pharmaceutical Sciences, Doshisha Women's University)
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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 Tanaka¹; Yusuke Nakasone¹; Koji Okajima^{2,3}; Masahiko Ikeuchi²; Satoru Tokutomi³; Masahide Terazima¹ (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 Kuwajima^{1,2} (¹Okazaki Institute for Integrative Bioscience; ²Sokendai)
- P029 **The molten globule state and its biological function in alpha-lactalbumin**
*Takashi Nakamura¹; Koki Makabe^{1,2}; Tomoyasu Aizawa³; Keiichi Kawano⁴; Makoto Demura³; Kunihiro Kuwajima^{1,2} (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 effects 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 Oikawa^{1,2}; Kiyoto Kamagata¹; Satoshi Takahashi^{1,2}
(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 Takahashi^{1,3}
(¹Institute of Multidisciplinary Research for Advanced Materials, Tohoku University; ²Institute for Protein Research, Osaka University; ³CREST, JST)
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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 Osada³; 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)
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*Minako Hirano; Yuko Takeuchi; Takaaki Aoki; Toshio Yanagida; Toru Ide
(Graduate School of Frontier Biosciences, Osaka University)
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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)
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*Ryugo Tero^{1,2}; Gen Sasaki³; Toru Ujihara⁴; Tsuneo Urisu^{1,2} (¹Institute for Molecular Science; ²Graduate University for Advanced Studies; ³Hokkaido University; ⁴Nagoya University)
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*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)

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*Tadashi Kamiyama; Eri Kanaoka; Takayoshi Kimura (School of Science and Engineering, Kinki University)
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*Norio Yoshida^{1,2}; Fumio Hirata^{1,2} (¹Institute for Molecular Science; ²The Graduate University for Advanced Studies)
- P044 **Hybrid liposomes inhibit the growth of primary effusion lymphoma in vitro and in vivo**
*Tomomi Towata^{1,2}; 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)
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*Yoko Ogawa; Hironari Kamikubo; Chikako Komeda; Mariko Yamaguchi; Yoichi Yamazaki; Mikio Kataoka (Graduate School of Materials Science, Nara Institute of Science and Technology <NAIST>)
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Yasunori Tokuda; Naoki Shozen; *Takahiro Hohsaka (School of Materials Science, Japan Advanced Institute of Science and Technology)
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*Issei Iijima; Takahiro Hohsaka (School of Materials Science, Japan Advanced Institute of Science and Technology)
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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. Sindhikara¹; Adrian E. Roitberg²; Kenneth M. Merz, Jr²
(¹Department of Physics, School of Science, Nagoya University; ²Department of Chemistry, University of Florida)
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*Hiroshi Fujisaki^{1,2}; Hiroto Kikuchi¹; Tadaomi Furuta²; Ken Okamoto³; Takeshi Nishino³
(¹Department of Physics, Nippon Medical School; ²RIKEN; ³Department of Biochemistry and Molecular Biology, Nippon Medical School)
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*Toru Ide; Minako Hirano (Graduate School of Frontier Biosciences, Osaka University)
- P052 **ER Glycan Processing under Molecular Crowding Conditions**
*Hikaru Matsushima¹; Yukishige Ito²; Kiichiro Totani¹
(¹Department of Materials and Life Science, SEIKEI University; ²RIKEN Advanced Science Institute)
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*KAWAGUCHI Yuki¹; NAKASONE Yusuke¹; JIKIHARA Kazunori²; TOKUTOMI Satoru²; TERAZIMA Masahide¹
(¹Department of Chemistry, Kyoto University; ²Research Institute for Advanced Science and Technology, Osaka Prefecture University)
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*Norie Inukai; Junpei Yuasa; Tsuyoshi Kawai
(Graduate School of Materials Science, Nara Institute of Science and Technology)

- P055 **Crowding effect on the reaction dynamics of a blue light receptor; TePixD**
*Tsuguyoshi Toyooka¹; Keisuke Tanaka¹; Yusuke Nakasone¹; Koji Okajima^{2,3}; 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)
- P056 **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)
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*Norifumi Yamamoto; Kazuo Kuwata (Center for Emerging Infectious Diseases, Gifu University)
- P058 **Single molecule observation of the ligand binding dynamics of maltose binding protein doubly labeled by a cell free system**
Akihiro Yamamori^{1,2}; Kiyoto Kamagata^{2,3}; Issei Iijima⁴; Takahiro Hohsaka⁴, Yuji Goto¹; *Satoshi Takahashi^{2,3}
(¹Institute for Protein Research, Osaka University, ²Institute of Multidisciplinary Research for Advanced Materials, Tohoku University; ³CREST, JST; ⁴Japan Advanced Institute of Science and Technology)
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*Yasuomi Kiyota¹; Norio Yoshida^{1,2}; Fumio Hirata^{1,2} (¹Department of Physical Science, SOKENDAI; ²Institute for Molecular Science)
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*Yoshiharu Mori; Yuko Okamoto (Department of Physics, School of Science, Nagoya University)

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*Koichi Goto; Yoshihiro Tanaka; Yoko Matsumoto; Ryuichi Ueoka
(Graduate Course of Applied Life Science, Sojo University)
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Saree Phongphanphanee¹; *Norio Yoshida^{1,2}; Fumio Hirata^{1,2} (¹Institute for Molecular Science; ²The Graduate University for Advanced Studies)
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*Hideaki Ichihara; Shinya Shimoda; Yoko Matsumoto; Ryuichi Ueoka
(Division of Applied Life Science, Graduate School of Engineering, Sojo University)
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Yuko Okamoto (Department of Physics, Nagoya University)
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*Yuji Komizu; Yoko Matsumoto; Ryuichi Ueoka (Graduate Course of Applied Life Science, Sojo University)
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*Hiroshi Watanabe¹; Yoshiharu Mori¹; Takahisa Yamato^{1,2}
(¹Department of Physics, Nagoya Univ; ²CREST,JST)
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*Ryo Kitahara^{1,2}; Koichi Kato^{3,4}; and Kazuyuki Akasaka^{2,5}
(¹Colleges of Life Science and Pharmaceutical Sciences, Ritsumeikan University; ²RIKEN Harima Institute; ³Institute for Molecular Science, National Institutes of Natural Sciences; ⁴Graduate School of Pharmaceutical Sciences, Nagoya City University; ⁵High Pressure Protein Research Center, Kinki Univ)

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*Kentarō Kido; Hirofumi Sato¹; Shigeyoshi Sakaki^{1,2} (¹Department of Molecular Engineering, Graduate School of Engineering, Kyoto University; ²Fukui Institute for Fundamental Chemistry, Kyoto University)
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*Taku Matsushita¹; Masahiro Ohgidani¹; Masayuki Takeda¹; Osamu Tanoue¹; Yutaka Maruyama²; Fumio Hirata²; Ryuichi Ueoka¹ (¹Graduate School of Engineering, Sojo University; ²Institute for Molecular Science)
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*Ayori Mitsutake¹; Yuko Okamoto² (¹Department of Physics, Keio University; ²Department of Physics, Nagoya University)
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*Tomoyuki Hayashi; Alexei Stuchebrukhov (Department of Chemistry, University of California)
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*Yoshiteru Yonetani; Hidetoshi Kono (Computational Biology Group, Japan Atomic Energy Agency)
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*Takehisa Dewa¹; Kiyoshi Kato¹; Misa Uchida¹; Ayumi Sumino¹; Tomohiro Asai²; Naoto Oku²; Hideo Fujimoto¹; Mamoru Nango¹
(¹Nagoya Institute of Technology; ²University of Shizuoka)
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*Kentarō Suzuki; Mieko Tamura; Kensuke Kurihara; Koh-ichiroh Shohda; Tadashi Sugawara (Department of Basic Science, The University of Tokyo)

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Masayuki Iwamoto; *Shigetoshi Oiki (Department of Molecular Physiology and Biophysics, University of Fukui)

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*Olivier Serve^{1,3}; Yukiko Kamiya^{1,3}; Aya Maeno³; Michiko Nakano^{2,3}; Chiho Murakami³; Hiroaki Sasakawa^{2,3}; Yoshiki Yamaguchi^{3,4}; Takushi Harada³; Eiji Kurimoto³; Maho Yagi-Utsumi³; Tsuyoshi Iguchi⁵; Kenji Inaba⁶; Jun Kikuchi⁷; Osamu Asami⁸; Tsutomu Kajino⁸; Toshihiko Oka⁹; Masayoshi Nakasako^{9,10}; Koichi Kato^{1,2,3}

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*Yutaka Kuroda; Monirul M. Islam (Dept of Biotech and Life Science, TUAT)

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*Yoshiaki Yano; Katsumi Matsuzaki

(Graduate School of Pharmaceutical Sciences, Kyoto University)

P079 **Dynamics of di-ubiquitin as studied by NMR spectroscopy**

*Takashi Hirano¹; Maho Yagi^{1,2}; Tsunehiro Mizushima¹; Ryo Kitahara³; Koichi Kato^{1,2} (¹Nagoya City University; ²National Institutes of Natural Sciences; ³Ritsumeikan University)

P080 **NMR studies of intrinsically disordered proteins involved in neurodegenerative disorders**

Maho Yagi^{1,2}; Yoshiki Yamaguchi^{2,3}; *Koichi Kato^{1,2}

(¹National Institutes of Natural Sciences; ²Nagoya City University; ³RIKEN)

- P081 **Adsorption-induced protein unfolding observed by x-ray reflection**
*Yohko F. Yano; Tomoya Uruga²; Hajime Tanida²; Hidenori Toyokawa²; Yasuko Terada²; Masafumi Takagaki²; and Hironari Yamada³ (¹Research organization of Science & Engineering, Ritsumeikan University; ²Japan Synchrotron Radiation Research Institute; ³Department of Photonics, Ritsumeikan University)
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*Koichi Sugimoto¹; Hironori Kokubo²; Yuko Okamoto¹ (¹Department of Physics, Nagoya University; ²Department of Chemistry, University of Housotn)
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*Francielle Sato¹; Kunisato Kuroi¹; Yoshihumi 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)
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*Yoshitake Sakae; Yuko Okamoto (Department of Physics, Nagoya University)
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*Takuya Mizukami¹; Kosuke Maki (¹Graduate School of Science, Nagoya University)
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* Dong Hae Shin; Mi-Sun Kim; Kong-Joo Lee (College of Pharmacy, Division of Life and Pharmaceutical Sciences, Ewha Womans University)
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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)