

**International Symposium on
Protein Structures:
Stability, Interaction and Dynamics**

December 17-18, 2009

**Department of Materials Science
Nara Institute of Science and Technology
Program for Enhancing Systematic Education in Graduate Schools**

Program

December 17

Thursday

~14:00 Registration

Opening Ceremony

14:00~14:05 **Mr. Hiroki Sawada** (Department of Materials Science, NAIST)

14:05~14:10 **Prof. Mikio Kataoka** (Chair of Education, Department of Materials Science, NAIST)

Session 1

14:10~14:55 Chair: **Ms. Rumi Shiba** (Department of Materials Science, NAIST)

Prof. Aihua Xie (Department of Physics, Oklahoma State University, USA)

Impact of internal and external charges on the structure and dynamics of Photoactive Yellow Protein

14:55~15:40 Chair: **Ms. Rumi Shiba** (Department of Materials Science, NAIST)

Prof. Yasuhisa Mizutani (Department of Chemistry, Graduate School of Science, Osaka University, Japan)

Ultrafast protein dynamics of photoactive proteins following photoisomerization: time-resolved resonance Raman studies

15:40~16:00 Coffee Break

Session 2

16:00~16:45 Chair: **Mr. Keitaro Shinkawa** (Department of Materials Science, NAIST)

Prof. Shyamalava Mazumdar (Tata Institute of Fundamental Research, India)

The CuA center of cytochrome c oxidase of thermostable bacteria: Protonation induced conformational dynamics and the origin of thermostability

16:45~17:30 Chair: **Mr. Takuya Yamada** (Department of Materials Science, NAIST)

Prof. Andrew Woolley (Department of Chemistry, University of Toronto, Canada)

Designing photo-switchable proteins

18:00~ Banquet

December 18

Friday

Session 3

- 10:00~10:20 Chair: **Ms. Yoko Ogawa** (Department of Materials Science, NAIST)
Dr. Shigeo Yamaguchi (Department of Materials Science, NAIST)
Low-barrier hydrogen bond in Photoactive Yellow Protein
- 10:20~11:05 Chair: **Mr. Hiroki Sawada** (Department of Materials Science, NAIST)
Prof. Wouter D. Hoff (Department of Microbiology and Molecular Genetics, Oklahoma State University, USA)
Using photoactive yellow protein to explore energy surfaces for protein folding and function
- 11:05~11:50 Chair: **Mr. Hiroki Sawada** (Department of Materials Science, NAIST)
Prof. Hyotcherl Ihee (Center for Time-Resolved Diffraction, Department of Chemistry, Graduate School of Nanoscience & Technology, KAIST, Korea)
Protein structural dynamics visualized by pump-probe time-resolved X-ray crystallography and liquidography
- 11:50~13:15 Symposium Photo and Lunch Break

Session 4

- 13:15~14:15 Poster Session (room F105)
- 14:15~15:00 Chair: **Ms. Yoko Hattori** (Department of Materials Science, NAIST)
Prof. Zhong-Xian Huang (Department of Chemistry, Fudan University, China)
Metalloprotein design and structure-function conversion
- 15:00~15:45 Chair: **Mr. Makoto Amagai** (Department of Materials Science, NAIST)
Prof. Shun Hirota (Department of Materials Science, NAIST)
Investigation and regulation of protein and peptide structural changes
- 15:45~16:30 Chair: **Ms. Chie Imai** (Department of Materials Science, NAIST)
Prof. Lucia Banci (CERM & Department of Chemistry, University of Florence, France)
Proteins import and metal transport in mitochondria in a Mechanistic Systems Biology approach

Closing Ceremony

- 16:30~16:35 **Prof. Shun Hirota** (Chair of the Systematic Education Program, Department of Materials Science, NAIST)
- 16:35~16:40 **Ms. Ari Dwi Nugraheni** (Department of Materials Science, NAIST)