

## 3. Theses

Theses written based on the PF experiments.

Doctor of Science

HIRAKI, Toshiki (Yokohama City Univ.)

“Crystal Structure of the Single Molecular Biological Clock Protein *Ease A4* from *Bombyx mori*”

The main part of this work was carried out at NW12A.

Doctor of Engineering

KIM, Myung Im (Kyoto Univ.)

“A Study on Fddd Microdomain Structure in Diblock Copolymer”

The main part of this work was carried out at BL-15A.

Doctor of Science

MAH, Vicky (Univ. Calgary)

“Heavy Metal-Glutathione Complex Formation”

The main part of this work was carried out at BL-10B, 9A and 12C.

Doctor of Engineering

INUKAI, Manabu (Nagoya Univ.)

“Spectroscopic Study on Cluster Structure in Two-Dimensional Quasicrystal”

The main part of this work was carried out at BL-2C.

Doctor of Engineering

YAMASAKI, Yuichi (The Univ. of Tokyo)

“Magnetoelectricity in Multiferroic Oxides”

The main part of this work was carried out at BL-4C.

Doctor of Science

BUSBONGTHONG, Suntharee (Tokyo Inst. of Tech.)

“Hydrogen Bonds in the Crystals of Keggin-Type Polyoxometalates with a Series of Alkylammonium Cations”

The main part of this work was carried out at NW2A.

Doctor of Science

SAKAMAKI, Masako (Chiba Univ.)

“Studies of Magnetism, Transport and Adsorption Phenomena using X-Ray Spectroscopy”

The main part of this work was carried out at BL-7A and 11A.

Doctor of Science

RAHIGHI, Simin (SOKENDAI)

“Structural and Biochemical Studies on Ubiquitin Signaling in the NF- $\kappa$ B Pathway”

The main part of this work was carried out at BL-17A, 5A, 6A and NW12A.

Doctor of Science

YAMAUCHI, Touru (The Univ. of Tokyo)

“High Pressure Study on Quasi-One-Dimensional Vanadium Oxides Charge Order, Superconductivity and Related Phenomena in  $\beta$ -Vanadium Bronzes”

Doctor of Science

SUGIYAMA, Kanako (Yokohama City Univ.)

“Structural Insight into the Essential PB1-PB2 Subunit Contact of Influenza Virus RNA Polymerase”

The main part of this work was carried out at BL-17A.

Doctor of Engineering

OHARA, Kazuaki (The Univ. of Tokyo)

“Construction of Reaction Field and Molecular Recognition in Porous Coordination Networks”

The main part of this work was carried out at NW2A.

Doctor of Science

YAMADA, Teppei (Kyushu Univ.)

“Study on Proton Conduction in Coordination Polymers through Hydrogen Bond Networks”

The main part of this work was carried out at BL-1B and 8B

Doctor of Science

TAKANO, Yuta (Univ. of Tsukuba)

“Syntheses and Characterizations of Active Fullerene Derivatives”

The main part of this work was carried out at BL-8B.

Doctor of Engineering

YOSHIDA, Masaaki (The Univ. of Tokyo)

“Electrochemical and Spectroscopic Studies on Mechanism of Photocatalytic Overall Water Splitting”

The main part of this work was carried out at BL-12C.

Doctor of Engineering

HISATOMI, Takashi (The Univ. of Tokyo)

“Development and Kinetic Assessment of Photocatalysts for Water Splitting Reaction”

The main part of this work was carried out at BL-9A.

Doctor of Engineering

FUJIMORI, Takashi (Kyoto Univ.)

“Formation of Chlorinated Aromatics Promoted by Trace Metal Compounds in Fly Ash at Municipal Solid Waste Incinerator”

The main part of this work was carried out at BL-9A and 11B.

Doctor of Engineering

SEKIYAMA, Naotaka (Kyoto Univ.)

“Structural Analysis of Ubiquitin and Ubiquitin-Like Protein Receptors”

The main part of this work was carried out at BL-17A.

Doctor of Engineering

SAWADA, Tomohisa (The Univ. of Tokyo)

“The Conformation Control of Biomolecule Fragments in Self-Assembled Hydrophobic Cavities”

The main part of this work was carried out at NW2A.

Doctor of Engineering

YAMAUCHI, Yoshihiro (The Univ. of Tokyo)

“Engineering Discrete Stacks of Aromatic Molecules via Self-Assembly”

The main part of this work was carried out at NW2A.

Doctor of Engineering

KOJIMA, Keisuke (The Univ. of Tokyo)

“Characterization of Heavy Metals Speciation in Combined Sewer Sediments and Overflows”

The main part of this work was carried out at BL-12C.

Doctor of Engineering

SUZUKI, Kosuke (The Univ. of Tokyo)

“Creation of Functional Nanospaces with Self-Assembled Coordination Spheres”

The main part of this work was carried out at NW2A.

Doctor of Engineering

MIYAMOTO, Takeshi (Hokkaido Univ.)

“A Study for Revealing the Origins of the Properties of Advances Functional Materials using Quatum Beams”

The main part of this work was carried out at BL-11B and NW10A.

Doctor of Engineering

KOMORIDA, Yuki (Kyushu Inst. of Tech.)

“Study of Magneto-Structural Correlation in Magnetic Nanoparticle under Hydrostatic Pressure”

The main part of this work was carried out at BL-1B and 8B

Doctor of Engineering

HAMABE, Yusuke (Tohoku Univ.)

“Investigation of Surface Fine Structure of NiMo Hydrodesulfurization Catalysts using Newly Constructed EXAFS Chamber”

The main part of this work was carried out at BL-9C and NW10A.

Doctor of Engineering

TANAKA, Hisanori (Univ. of Tsukuba)

“Development of Catalyst and Elucidation of Promoter Effect for Partial Oxidation of Methane and Preferential Oxidation of CO”

The main part of this work was carried out at BL-9C, 12C and NW10A.

Doctor of Engineering

LI, Yingjie (Tottori Univ.)

“XAFS Study of Amorphous Ce-Ru System”

The main part of this work was carried out at BL-9A, 9C and NW10A.

Doctor of Engineering

SUZUKI, Kosuke (Gunma Univ.)

“Upgrade of X-Ray Magnetic Diffraction Experimental System and Observation of Spin Density Distribution of YTiO<sub>3</sub>”

The main part of this work was carried out at BL-3C.

Doctor of Engineering

HAYASHI, Hiroyuki (Kyoto Univ.)

“Structure and Magnetism of Mn-doped  $\gamma$ -Ga<sub>2</sub>O<sub>3</sub>”

The main part of this work was carried out at BL-11A.

Doctor of Engineering

KAWASAKI, Takuro (Univ. of Tsukuba)

“Crystal Structure and Electron Density Distribution of Layered Compounds M<sub>x</sub>TiS<sub>2</sub> (M=Mn, Co, Ni)”

The main part of this work was carried out at BL-9A.

Doctor of Engineering

OTSUKA, Emiko (Yokohama Natl. Univ.)

“Swelling and Mechanical Properties of Physically Crosslinked PVA Gel Prepared by a Cast-Drying Method”

The main part of this work was carried out at BL-10C.

Doctor of Engineering

MORI, Hiroyuki (Gifu Univ.)

“Thermotropic Cubic Phases Formed by 1,2-Bis(4'-*n*-alkoxybenzoyl)hydrazines (BABH-*n*)”

The main part of this work was carried out at BL-15A.

Doctor of Agriculture

YAMAMURA, Akihiro (The Univ. of Tokyo)

“Crystal Structure of Two D-Pantoyl Lactone Synthesizing Enzymes, CPR-C1 and CPR-C2”

The main part of this work was carried out at NW12A and NE3A.

Doctor of Agriculture

KATSUYAMA, Yohei (Hokkaido Univ.)

“Production of Unnatural Plant Polyketides by Exploiting Microorganisms”

The main part of this work was carried out at NW12A.

Doctor of Agriculture

TAKEDA, Kosei (Ehime Univ.)

“The Study on Rare Sugars Production using D-Arabinose Isomerase; Catalytic Reaction Mechanism of D-Arabinose Isomerase Based on X-Ray Structure”

The main part of this work was carried out at NW12A, 5A, 6A and 17A

Doctor of Pharmacy

ARIMORI, Takao (Kumamoto Univ.)

“Structural Basis of Multiple Mechanisms of Substrate Recognition and Hydrolysis Reaction by Human NUDT5”

The main part of this work was carried out at BL-5A and NW12A.

Doctor of Pharmacy

MIYATA, Masanori (Kumamoto Univ.)

“Biochemical and Structural Studies of Glu54 Variant TTR and EGCG-V30M TTR Complex Provide Insight into the Development of New Therapeutic Compound for FAP”

The main part of this work was carried out at BL-9C, 12C and NW10A.

Doctor of Science

KANEKO, Takuma (Chiba Univ.)

“X-Ray Absorption Fine Structure Study of Mono and Triiodide Complexes in Aqueous Solution”

The main part of this work was carried out at BL-9A and NW10A.

Doctor of Science

OTSUBO, Kazuya (Kyushu Univ.)

“Studies on Crossover between One and Two Dimensional Electronic States of Halogen-Bridged Mixed-Valence Transition-Metal Complexes”

The main part of this work was carried out at BL-1B, 4C and 8B.

Doctor of Science

MAKIURA, Rie (Kyushu Univ.)

“Construction and Development of Functional Nanostructures”

The main part of this work was carried out at BL-1B, 4C and 8B.

Doctor of Science

ABE, Nobuyuki (Tohoku Univ.)

“Magnetic-Field Control of Electric Polarization in Helimagnetic Ferroelectrics”

The main part of this work was carried out at BL-3A.

Doctor of Science

HARA, Kodai (Yokohama City Univ.)

“Crystal Structure of Human REV7 in Complex with a Human REV3 Fragment and Structural Implication of the Interaction between DNA Polymerase  $\zeta$  and REV1”

The main part of this work was carried out at BL-5A.

Doctor of Science

ODAKE, Shoko (The Univ. of Tokyo)

“Spectroscopic Estimations of Natural Diamond Formation Conditions and Microscopic Characterization of Laser Machining of Artificial Nano-Polycrystalline Diamond”

The main part of this work was carried out at BL-4A.

Doctor of Science

JOGO, Kaori (Kyushu Univ.)

“Isotope Compositions and Occurrence of Secondary Minerals in Primitive Meteorites: Constraints on Timescale and Formation Process of Chondrite Parent Bodies”

The main part of this work was carried out at BL-3A.

Doctor of Science

TASAKI, Yuiko (Tokyo Inst. of Tech.)

“Ice Chromatography Methodological Developments and Characterization of Water-Ice”

The main part of this work was carried out at BL-7C

Doctor of Science

NOGAWA, Hiroyuki (The Univ. of Tokyo)

“Elucidation of Carrier Generation Mechanism in TiO<sub>2</sub>-Based Transparent Conducting Oxides”

The main part of this work was carried out at BL-2C and 7A.

Doctor of Science

UEMURA, Yohei (The Univ. of Tokyo)

“The Dynamic Changes in the Structures and Electronic States of Supported Metal Catalysts in Redox Processes Characterized by Time-Resolved X-Ray Absorption Fine Structure (XAFS)”

The main part of this work was carried out at BL-9A, 9C, NW10A and NW2A.

Doctor of Science

NAKAYAMA, Kosuke (Tohoku Univ.)

“Bulk Electronic Structure of High- $T_c$  Cuprate Superconductors Studied by Angle-Resolved Photoemission Spectroscopy”

The main part of this work was carried out at BL-28A.

Doctor of Science

MOCHIZUKI, Izumi (Yokohama City Univ.)

“Formation and Electronic Structure of Metal Adsorbed Semiconductor Surfaces”

The main part of this work was carried out at BL-18A and 7B.

Doctor of Science

KISHIMOTO, Yuji (Yamagata Univ.)

“Development of Hard X-Ray Polarimeter PHENEX and Polarization Observation with Balloon-Borne Experiment”

The main part of this work was carried out at BL-1B, 4C and 8B.

Doctor of Science

KIDA, Hiroshi (Kyoto Univ.)

“Structural Studies of Prefoldin, a Molecular Chaperone”

The main part of this work was carried out at NW12A.

Doctor of Science

SHIRAISHI-OHNUMA, Rei (Tohoku Univ.)

“Deformation and Lattice Preferred Orientation of Mantle Minerals at High Pressure and Temperature”

The main part of this work was carried out at BL-14C2 and NE7A.

Doctor of Science

TANIMOTO, Yasunori (SOKENDAI)

“Observation of Dust-Trapping Phenomena and Experimental Research on their Causes in Electron Storage Rings”

The main part of this work was carried out at PF-AR.

Doctor of Science

NISHI, Masayuki (Kyushu Univ.)

“Mechanisms and Kinetics of the Pyroxene-Garnet Transformation: Implications for Subducting Plate and Ascending Diamond”

The main part of this work was carried out at BL-14C2.

Doctor of Science

KIRIHARA, Yoichi (SOKENDAI)

“Study on an Expansion of Electron and Photon Transport Calculation Code EGS5 toward Low and High Energy”

The main part of this work was carried out at BL-14C1.