

APPENDIX

Program

The International Workshop on the History of Chemistry “Transformation of Chemistry from the 1920s to the 1960s” (IWHC 2015 Tokyo)

*March 2-4, 2015, Tokyo Institute of Technology,
West Building No.9*

March 2, Monday

12:30 – **Registration**

14:00 – 15:30 **Opening Ceremony (Chair: Masanori Kaji)**

14:00 – 14:30 **Opening Address: Yasu Furukawa** (Nihon University, Japan)

14:30 – 15:30 **Keynote Lecture (1): (Chair: Masanori Kaji)**

Jeffrey Johnson (Villanova University, USA) “From Bio-organic Chemistry to Molecular and Synthetic Biology: Fulfilling Emil Fischer’s Dream.”

15:30 – 15:45 Coffee Break

15:45 – 16:45 **Session 1: From Local Products to Global Chemistry (Chair: Hiroaki Tanaka)**

Masanori Kaji (Tokyo Institute of Technology, Japan), “The Transformation of Organic Chemistry in Japan: From Majima Riko to the Third International Symposium on the Chemistry of Natural Products.”

***Victoria Lee** (Max-Planck Institute for the History of Science, Germany), “Screening for Gifts: Japanese Glutamic Acid Fermentation.”

16:45 – 17:00 Coffee Break

17:00 – 18:00 **Session 2: Preserving the Chemical Heritage (Chair: Masao Uchida)**

Susanne Rehn-Taube (Deutsches Museum, Germany), “The Nuclear Fission Table in the Deutsches Museum: A Special Piece of Science History on the Eve of World War II.”

Ronald Brashear (Chemical Heritage Foundation, USA), “Preserving the Heritage of Modern Chemistry.”

18:15 – **Reception**

March 3, Tuesday

8:30 – **Registration**

9:00 – 10:00 **Session 3 (1): Internationalizing Chemistry and the Chemical Community (Chair: Brigitte Van Tiggelen)**

Masanori Wada (Tokyo Institute of Technology, Japan), “The Two International Congresses Held in Tokyo in the 1920s: The Rise of the First Generation of Japanese Scientists.”

Danielle M. Fauque (University of Paris Sud, France), “Jean Gérard, Secretary General and Driving Force of the International Chemical Conferences between the Wars.”

10:00 – 10:15 Coffee Break

10:15 – 11:45 **Session 3 (2): Internationalizing Chemistry and the Chemical Community (Chair: Jeffrey Johnson)**

Yoshiyuki Kikuchi (The Graduate University for Advanced Studies, Japan), “San-ichiro Mizushima and the Reconfiguration of the International Relations of Japanese Chemistry.”

Keiko Kawashima (Nagoya Institute of Technology, Japan), “Female Scientists Whom Nobuo Yamada Encountered: Early Years of Radio Chemistry and the Radium Institute.”

Evan Hepler-Smith (Princeton University, USA), “Changing Names and Naming Change: Transformations in the ‘International Machinery’ of Chemical Information.”

11:45 – 13:00 Lunch

13:00 – 14:00 **Keynote Lecture (2): (Chair: Yasu Furukawa)**

Mary Jo Nye (Oregon State University, USA) “A Career at the Center: Linus Pauling and the Transformation of Chemical Science in the Twentieth Century.”

14:00 – 14:15 Coffee Break

14:15 – 15:15 **Session 4: Interface between Chemistry and Biology (Chair: Togo Tsukahara)**

Kevin Fujitani (Ohio State University, USA), “A Child of Many Fathers: The Question of Credit for the Discovery of Thiamine, 1884-1936.”

Pnina G. Abir-Am (Brandeis University, USA), “Pauling’s ‘Boys’ and the Mystery of DNA Structure: On Mentorship in Structural Chemistry and Molecular Biology.”

15:15 – 16:00 Coffee Break

16:00 – 17:30 **Session 5: Instruments and Measurements (Chair: Carsten Reinhardt)**

Pierre Laszlo (École polytechnique, France & Université de Liège, Belgium), “Structure of the NMR Revolution.”

Mari Yamaguchi (The University of Tokyo, Japan), “Pursuit of Accurate Measurements: Gas Electron Diffraction from the 1930s to the 1960s.”

Makoto Yamaguchi (Japan), “Development of Vibrational Spectroscopy of Polyatomic Molecules in the 1930s and Its Implication to the Emergence of ‘Molecular Science’.”

18:00 – **Reception**

March 4, Wednesday

8:30 – **Registration**

9:00 – 10:30 **Session 6: Making Theories and Making Methods (Chair: Mary Jo Nye)**

Yasu Furukawa (Nihon University, Japan), “From Fuel Chemistry to Quantum Chemistry: Kenichi Fukui and the Rise of the Kyoto School.”

***Buhm Soon Park** (Korea Advanced Institute of Science and Technology, Korea), “A ‘Marriage of Poor Theory and Good Experiment’?: The Origins of the Woodward-Hoffmann Rules.”

Carsten Reinhardt (Chemical Heritage Foundation, USA), “Physical Methods in the Twentieth Century between Disciplines and Cultures.”

10:30 – 10:45 Coffee Break

10:45 – 11:45 **Keynote Lecture (3): (Chair: Yoshiyuki Kikuchi)**

***Ernst Homburg** (Maastricht University, The Netherlands) “On Molecules, Men, and Mirrors: Different Ways to Write a History of the Chemical Industry.”

11:45 – 12:45 Lunch

12:45 – 14:15 **Session 7: Synthesis and Production (Chair: Masanori Wada)**

Takashi Mine (Japan), “The Small-Scale Ammonia Production of China in the Day of Mao Zedong.”

Ian D. Rae (Australia), “‘Ideal’ Gases: Anaesthetics in the Heart of the Twentieth Century.”

Galina Shyndriayeva (King’s College, UK), “Perfume at the Forefront of Macrocyclic Compound Research: From Switzerland to Du Pont.”

14:15 – 15:15 Coffee Break

14:20 – 15:00 A Visit to the University Museum

15:15 – 16:45 **Session 8: Interface between Chemistry and Physics (Chair: Yoshiyuki Kikuchi)**

Shintaro Furuya (Tokyo Institute of Technology, Japan), “Polanyi’s Physical Adsorption: One of the Early Theories of Quantum Chemistry.”

Jeremiah James (Ludwig-Maximilian University, Germany), “From Physical Chemistry to Chemical Physics, 1913-1941.”

Noboru Hirota (Kyoto University, Japan), “Robert Mulliken and His Influence on Japanese Physical Chemistry.”

16:45 – 17:00 **Closing Remarks: Makoto Ohno** (Aichi Prefectural University, Japan)

18:45 – 21:00 **Banquet** (Happo-en, 1-1-1 Shirokanedai, Minato-ku, Tokyo)

March 5, Thursday

Optional Tour in Tokyo

Note: Papers with * are not included in this proceedings due to various circumstances.