

ISSN 0023-6071

BULLETIN OF THE INSTITUTE FOR CHEMICAL RESEARCH

KYOTO UNIVERSITY

Vol. 66, No. 4

*Commemoration Issue Dedicated to
Professor Tatsuo Ooi
On the Occasion of His Retirement*

Published bi-monthly by

THE INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY
KYOTO, JAPAN

January 1989

(Bull. Inst. Chem. Res., Kyoto Univ.)

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History of Publications

| Term | Vol. | Title | Published |
|-----------------------------|--------------|--|-----------------|
| Jan., 1929- Dec., 1947 | 1-16 | 化学研究所講演集 (The Reports of the Institute for Chemical Research) | Indeterminately |
| April, 1933 | — | 10 Jahre Institut für chemische Forschung (化学研究所創立十周年記念号) | — |
| March, 1949- Dec., 1949 | 17-19 | 化研講演集 (The Reports of the Institute for Chemical Research) | Indeterminately |
| March, 1950- Sept., 1952 | 20-30 | 化学研究所報告 (Bulletin of the Institute for Chemical Research) | Quarterly |
| Dec., 1951 | — | The Commemoration Volume for the Silver Jubilee (化学研究所創立二十五周年記念号) | — |
| Jan., 1953 onwards | 31 No. 1- | Bulletin of the Institute for Chemical Research (化学研究所報告) | Bi-monthly |
| Nov., 1966 | 44 No. 6 | Special Issue on the Commemoration of the Fortieth Anniversary (化学研究所創立四十周年記念号) | — |
| Nov., 1976 | 54 No. 6 | Special Issue on the Commemoration of the Fiftieth Anniversary (化学研究所創立五十周年記念号) | — |



大井龍夫教授
Professor Dr. Tatsuo Ooi

Emeritus Professor Tatsuo Ooi

On March 31, 1988, Professor Tatsuo Ooi, head of the Research Division for Physical Chemistry of Enzymes of the Institute for Chemical Research, Kyoto University, retired after twenty years of service to the University, and the following day, he was honored with the title of Emeritus Professor of Kyoto University. Professor Ooi began his service at Nagoya University in 1953, the year of discovery of the DNA double helix. During his fifteen years at Nagoya University and his later years at Kyoto University (1968–1988), biological science evolved from rather basic ideas to the highly sophisticated level of understanding. Thus, Professor Ooi not only had the opportunity to work during this exciting age in the bioscience, but he also possesses the distinction of being one of the most outstanding contributors to the development of the theoretical aspects of biopolymers.

Professor Ooi was born in Nagano on the 16th of September, 1924. He earned a bachelor's degree in physics from Nagoya University in 1947 and was awarded a doctorate in 1961 for his studies on the physical chemistry of biopolymer solutions. At Nagoya University, he made a great effort on the development of a new field of science, biophysics, as a staff of the Department of Physics. His studies on polyelectrolytes and muscle proteins had a great impact on the progress of this field in Japan.

On his second visit to Cornell University (U.S.A.) in 1966, he was introduced to electronic computers; he immediately recognized their versatility and potential, not only for performing the complex numerical calculations required for the study of biological macromolecules but also for the storage of vast amounts of protein and nucleic acid sequence data. Following his appointment as Professor at Kyoto University in 1968, he led the effort to establish a Computer Facility in the Institute for Chemical Research and his initiative resulted in the (DNA Database of Japan, DDBJ). His later research contributions include the invention of "distance maps" for visualization of protein tertiary structures on two-dimensional planes, energy calculation of macromolecules, predictive methods for protein folding and secondary structure based on sequence homology, etc. Most recently, he proposed an elegant method to treat the hydration of biomolecules, a method which finally solves a long-standing difficulty in the treatment of the effects of water on conformation.

Professor Ooi's superiority as a teacher, insight into science, and warm hospitality not only have attracted and stimulated many young and talented students but also have won him the respect and admiration of many friends and colleagues. Among his numerous professional activities, he has served as President of the Biophysical Society of Japan and presided over the Sixth International Congress on Biophysics (Kyoto 1978) and other international meetings. He has served as visiting professor at Cornell University and other institutions, and has given many invited lectures around the world.

On the occasion of his retirement, the friends, present and former associates and students of Professor Tatsuo Ooi take sincere pleasure in dedicating this collection of papers in honor of his long and devoted contributions to his Institute and to science.

Mitsuru Takanami

Mitsuru Takanami
Director
Institute for Chemical Research
Kyoto University

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京都大学
化学研究所図書室 行

京都大学化学研究所報告 第66卷 第4号

平成元年 2月21日 印刷

【非売品】

平成元年 2月28日 発行

京都府宇治市五ヶ庄

京都大学化学研究所

編集兼発行人

高浪 満

〒553 大阪市福島区吉野1丁目2番7号

印刷所

日本印刷出版株式会社

電話 (06) (441) 6594番(代表)

印刷者

小林 積造