

BULLETIN OF THE INSTITUTE
FOR CHEMICAL RESEARCH

KYOTO UNIVERSITY

Vol. 31 No. 3

Published bi-monthly by

THE INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY
KYOTO, JAPAN

May, 1953

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

INSTITUTE FOR CHEMICAL RESEARCH
KYOTO UNIVERSITY

Director

Senji UCHINO

Members of Council

Kiyoshi ABE	Rempei GOTO	Masao HORIO
Katashi INOUE	Yoshiyuki INOUE	Masayoshi ISHIBASHI
Tatsuo KARIYONE	Hideo KATAGIRI	Kiichi KIMURA
Ren KIMURA	Shinjiro KODAMA	Kinsuke KONDO
Sango KUNICHIKA	Hisateru MITSUDA	Risaburo NAKAI
Ryuzaburo NOZU	Ryohei ODA	Kikuo OGIU
Ichiro SAKURADA	Nobuji SASAKI	Ikutaro SAWAI
Hiroshi SAWAMURA	Sakae SHIMIZU	Keiichi SHISHIDO
Eiji SUITO	Isamu TACHI	Hideo TAKAKI
Seishi TAKAGI	Tetsuro TANAKA	Sankichi TAKEI
Yoshimasa TAKEZAKI	Waichiro TSUJI	Hideki YUKAWA

Editors

Junzo EBIHARA	Naokazu KOIZUMI	Risaburo NAKAI
Gisaburo TABUCHI	Yoshimasa TAKEZAKI	Teiji TSURUTA

Treasurers

Hideo KANO Yagoro KAWAI

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, 1938	—	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

C O N T E N T S

Review

- Ryohei, ODA: Joint Reaction, Transjointing and Stabilization of the Intermediate Products. 145

Original Reports

1. Shizuo UEDA Fukuju TSUJI, Akira WATANABE, and Kazuo NISHIZAWA: Study on Surface Electricity. (XV). On Counter U-effect 178
2. Hideo TAKAKI, Masashige KOYAMA, and Hidekiyo FUJIHIRA: X-Ray Studies on Cast Structure of 4% Si-Steel in the Light of Anisotropy of the Rate of Crystal Growth 182
3. Teiji TSURUTA: Michael and Some Related Reactions 190

Abstracts of Papers

1. Toshio AZUMA, Kunihiko TSUMORI, and Sakae SHIMIZU: On the Back-scattering of the Electrons from Co and Na 201
2. Takuji YANABU and Masateru SONODA: Trial Construction of the Small Betatron. (I). Pole Face Angle Determination for the Focusing Magnetic Field 202
3. Toshio AZUMA and Kiichi KIMURA: On the Beta-and Gamma-Spectrum of Cs¹³⁷ 204
4. Kiichi KIMURA, Ryutaro ISHIWARI, Masakatsu SAKISAKA, Isao KUMABE, Sukeaki YAMASHITA and Kozo MIYAKE: On the Reaction of O¹⁶ by Fast Neutrons. (I) 204
5. Masateru SONODA, Hiroshi KUBO and Kazusuke SUGIYAMA: On the Characteristics of the External Cathode Counter 206
6. Shu NAKAYAMA, Kunihiko TSUMORI and Sakae SHIMIZU: Radioactive Determination of Potassium in Plant Ashes..... 207
7. Kiyoshi ABE, Tetsuro TANAKA and Koji UO: Study on High Dielectric Constant Ceramics. (XVII). Coupled Vibrations in Electrostrictive Vibrators 208
8. Kiyoshi ABE, Tetsuro TANAKA, Shigeru MIURA and Akira MURATA: Study on High Dielectric Constant Ceramics. (XVIII). BaTiO₃ Ceramic Vibrator as a Filter Element 211
9. Eiji SUITO and Kazuyoshi TAKIYAMA: Formation and Aging of Precipitates. (III). Electron Microscopic Investigation of Barium Sulfate Precipitates in Alcohol Solution 213

10.	Isao KUSHIMA, Tsuyoshi AMANUMA and Akira FUJIWARA: Studies on the Zinc-Ferrite. On the Relation between the Temperature of Preparation of the Fe_2O_3 and its Activity of Zinc-Ferrite Formation	215
11.	Junji FURUKAWA and Tsutomu OHMAE: On the Density Distribution of Fluidized Bed and the Miscibility of Different Fluidized Particles	216
12.	Kimio TARAMA, Makoto KUMADA and Akira TAKETA: On the Rate of Alcoholysis of Hydrosilanes	217
13.	Teiji TSURUTA, Ken-ichi SASAKI and Junji FURUKAWA: Iodine Catalyzed Aromatic Bromination. (II). Bromination of Toluene	219
14.	Junji FURUKAWA, Tatsuo ANDO and Mitsuru YOKOYAMA: Reactivity of Acetylene in Vinylether Synthesis	220
15.	Kiyohisa FURUKAWA, Yasuo WADA and Ryohei ODA: The Synthesis and Chemical Behaviours of Dioxaspiroheptane	222
16.	Kazuhiro TERAMURA, Hiroshi ITAGAKI and Ryohei ODA: Studies on the Synthesis and Reactions of Ethyl α -Formylstearate	223
17.	Ryozo MAKI, Yoshio ISHIDA, Kunio SATAKE and Ryohei ODA: Joint Reaction by Formaldehyde	224
18.	Yasuhiko NUKUSHINA and Ichiro SAKURADA: On Flexibility of the Cellulose Molecules in Dilute Solution	227
19.	Chugo KUJIRAI: Photochemistry of Cellulose. (III). Effect of Wavelength under Consideration of Effect of Oxygen	228
20.	Yusaku FUKUDA and Hideya MIZUKAMI: Fundamental Studies on Cooking of Wood. (IV). Soda Cooking	228
21.	Masao HORIO and Michihiro TAKAHAMA: Study on the Continuous Alkali Cellulose Shredder.....	229
22.	Wataru FUNASAKA, Shigeru KAJIYAMA and Seiji TAMAI: Studies on Coal Sulfur. Behaviour of Coal Sulfur in Carbonisation of Anthracite ...	230
23.	Hideo KATAGIRI, Masayuki IKEMIYA and Hideo AN-YOJI: Effect of the Composition of Steep Liquor upon Barley-Malting	232

編 集 後 記

化研報告も御覧の通り、本号から綜報以下すべて英文となりました。これで本誌の価値も更に高められることと期待しております。勿論、編集者の力量不足のため不備の点も少からず目につきます。本誌をより立派なものにするために、皆様の御協力と御叱正とを切に希望する次第です。尙、昨秋行われました定期講演会の要旨の掲載は本号を以つて一応おわりました。次号には後藤教授の綜報をはじめ、多数の斬新な原報が掲載される予定です。御期待下さい。

(鶴 田)

化学研究所報告第31巻第3号

昭和 28 年 5 月 25 日 印刷
昭和 28 年 5 月 30 日 発行 (非 売 品)

大阪府高槻市古曾部
京都大学化学研究所

編集兼発行人 内 野 仙 治

京都市上京区寺之内通小川西入

印 刷 所 山 代 印 刷 株 式 会 社

京都市上京区寺之内通小川西入

印 刷 者 山 代 多 三 郎

京 都 大 学
化学研究所報告

第 31 卷 第 3 号

(通卷第 33 集)

1953 年 5 月

綜 報

Ryohei ODA : Joint Reaction, Transjointing and Stabilization of
the Intermediate Products 145

原 報

1. Shizuo UEDA, Fukuju TSUJI, Akira WATANABE and Kazuo
NISHIZAWA : Study on Surface Electricity. (XV). On Counter
U-effect 178
 2. Hideo TAKAKI, Masashige KOYAMA and Hidekiyo FUJIHIRA :
X-ray Studies on Cast Structure of 4% Si-Steel in the Light of
Anisotropy of the Rate of Crystal Growth 182
 3. Teiji TSURUTA : Michael and Some Related Reactions 190
- 研 究 報 告 (1~23) 201~235

京 都 大 学 化 学 研 究 所

(化研報 31 卷 3 号)