## **Report of Meeting**

## **6TH JAPANESE CALORIMETRY CONFERENCE**

The 6th Japanese Calorimetry Conference was held on November 19–20, 1970, in Shakai Fukushi Kaikan, Yokohama. It was sponsored by the Kantoh Branch of the Chemical Society of Japan and other societies.

The program consisted of the following papers:

- High Temperature Differential Scanning Calorimeter H. UCHIDA, M. MOMOTA, T. SUGIYAMA\*, N. MIYAMOTO AND A. HIROSE (Rigaku Denki Co., Ltd., Thermal Analysis Development Group)
- Differential Scanning Calorimeter for Rapid Heating and Cooling Y. SHIMURA, H. UCHIDA, S. SAKAKURA, M. MOMOTA\*, N. MIYAMOTO AND T. SUGIYAMA (Rigaku Denki Co., Ltd., Thermal Analysis Development Group)
- A Micro DTA-TGA Apparatus HIROSHI OKAMOTO\* (Sinku Riko Co., Ltd.)
- Effects of Net Cover of Sample Pan on Thermal Analysis and its Applications H. UCHIDA, K. TAKAHASHI\*, Y. FURUYA, H. SEKI AND M. MOMOTA (Rigaku Denki Co., Ltd., Thermal Analysis Development Group)
- Rocking DTA for Liquid Samples SATOHIRO TANAKA\* (Government Chemical Industrial Research Institute, Tokyo)
- A Newer Method of Reaction Kinetics from Thermogravimetry RYOZO KATO, YUKIMASA MURAKAMI\* AND AKIKAZU MAESONO (Sinku Riko Co., Ltd.)
- Calorimetry for Liquid Metals AKIRA YAZAWA\* (The Research Institute of Mineral Dressing and Metallurgy, Tohoku University, Sendai, Japan)
- Invited Paper: Thermal Transitions in Ferroelectrics SHOZO SAWADA\* (Department of Physics, College of Science, Tokyo Institute of Technology)
- The Simultaneous Measurement of Heat Capacity and Weight Change NAOYUKI YOSHIDA\*, MASAKAZU YAMAKAWA AND SEIZO NAGASAKI (AGNE Research Center of Technology)

# A Simultaneous Measurement Apparatus of DTA, Dilatometry and Electric Resistance Thermal Analysis

TAKAO KAWAI AND NOBUYUKI SUMI\* (Sinku Riko Co., Ltd.)

- Simultaneous DTA-GC Apparatus and Its Application HIROMI ARIMOTO, SHINICHI OHURA\* AND KIYOTSUGU YAMADA (Scientific & Industrial Instrument Div. Shimazu Seisakusho Ltd.)
- A New Design of Evolved Gas Analysis Apparatus TAKAYUKI OKINO, SHINICHI OHURA\* AND MICHIO MARUTA (Scientific & Industrial Instrument Div. Shimazu Seisakusho Ltd.)
- Thermo-Mechanical Analyzer for High Polymer and its Application H. UCHIDA\*, I. OZIMA AND K. TOSHIMA (Rigaku Denki Co., Ltd., Thermal Analysis Development Group)

Apparatus of Thermal Expansion and Softening Point Measurements and its Application

KATSUO EHARA\* (Tokyo Institute of Technology)

- The Differential Thermal Analysis Peak PAUL DONALD GARN,\* Ph. D., F.A.I.C. (The University of Akron)
- On a New Method of Thermal Compensation in Conduction Calorimeter. KAZUO AMAYA\*, (Government Chemical & Industrial Research Institute, Tokyo), SEIICHI HAGIWARA AND MAKOTO SUZUKI (Applied Electric Laboratory, Ltd).
- Trial Manufacture of Conduction Calorimeter with Heat Compensation MAKOTO SUZUKI\*, SEIICHI HAGIWARA (Applied Electric Laboratory, Ltd.) AND KAZUO AMAYA (Government Chemical Industrial Research Institute, Tokyo)
- An Apparatus for the Measurement of Heat of Solution TSUTOMU KOIDE AND KAZUHIRO SAWADA\* (The Kyoiku University)
- An Isothermal Displacement Calorimeter MURAKAMI SACHIO, TANAKA REUI\* AND FUJISIRO RYOICHI (Department of Chemistry, Faculty of Science, Osaka City University)
- Heats of Mixing in the Liquid State; Te+Se, Te+S, and Se+S TAKASHI MAEKAWA<sup>\*</sup>, TOSHIO YOKOKAWA AND KICHIZO NIWA (Department of Chemistry, Faculty of Science, Hokkaido University)
- Effect of Organic Cation Exchange on Heat of Immersion of Polyphosphates MAKOTO HATTORI<sup>\*</sup>, FUMIKO SHINKAI, SATOSHI HIROSE AND MASAMI TANAKA (Department of Applied Chemistry, University of Osaka Prefecture)
- Heats of Immersion of Various BeO Powders TAKAYASU IKEGAMI, SINICHI MATSUDA AND HIROSIGE SUZUKI (National Institute for Researches in Inorganic Materials)
- Heats of Mixing of Dilute Solutions. I. Water-1,3-Butanediol System TAKAGI SADAO, NISHINO HIROHISA\*, YAMAMOTO YOSHIHIRO AND TAKAHASHI KOHICHI (Kinki University, Faculty of Science and Technology, Department of Chemistry)

### MEETING REPORT

Heats of Mixing of Binary Solutions. IV. Heats of Mixing and NMR Spectra in Binary Solutions of Methanol with Pyridine Derivatives

HIDEKAZU TOUHARA\*, KOICHIRO NAKANISHI AND NOBUATSU WATANABE (Department of Industrial Chemistry, Faculty of Engineering, Kyoto University)

Thermochemical Properties of Acetone-Cyclohexanol Mixture at 25 °C SACHIO MURAKAMI\* (Department of Chemistry, Faculty of Science, Osaka City University) AND G. C. BESON (Division of Chemistry, National Research Council of Canada)

Heats of Mixing of N,N-disubstituted Amide and Nonpolar Solvent Systems OSAMU KAKIMOTO\* AND RYOICHI FUJISHIRO (Department of Chemistry, Faculty of Science, Osaka City University)

Studies on Dehydration Processes of the Hydrated Salts by the Water Vapor Controlled DTA Apparatus

MASAO TANIGUCHI, HIROYUKI MORIGUCHI\* AND SYOJI SHIMIZU (Tokyo Institute of Technology, Gunma Technical College)

Thermochemical Properties of Several Alums RYOKICHI TSUCHIYA (Kanazawa University, Faculty of Science), HISAYA OKI (Fukui University, Faculty of Education) AND YOSHITAKE YOSHIMURA\* (Fukui Technical College)

Kinetics of Pyrolysis of  $HgCr_2X_4$  (X=S or Se) in Vacuum by Thermogravimetry YASUO WADA\* AND KOHEI AMETANI (*RCA Research Laboratories, Inc., Tokyo*)

Differential Scanning Calorimeter Patterns of Flue-cured Tobacco Leaves SHIGERU ESAKI\*, MOTOO TAKI AND HARUYO KOSUGE (The Hatano Tobacco Experiment Station Japan Monopoly Corporation)

Studies on Diglycerides by the Differential Scanning Calorimetry. I. The Determination of Heat of Fusion and Polymorphism of 1,2- and 1,3-Dipalmitin

MITSUMASA TAKASAGO\*, KAZUO HORIKAWA AND SHINROKU MASUYAMA (The Osaka Municipal Technical Research Institute)

A Study on Catalytic Hydrogenation of Aromatic Compounds under High Pressure by Differential Thermal Analysis

HIRONORI ITOH\*, MASAO KARAUSHI, KAZUO MAKINO, MASATAKA MAKABE, GEN TAKEYA (Faculty of Engineering, Hokkaido University) AND SHIGERU UEDA (Government Industrial Development Laboratory, Hokkaido)

Thermal Analysis of High Polymers

KAN-ICHIRO TAKAMIZAWA (Department of Applied Science, Faculty of Engineering, Kyushu University)

Thermal Analysis in Polymerization ITARU MITA (Institute of Space and Aeronautical Sciences, University of Tokyo)

Thermochim. Acta, 3 (1971) 159-164

- Superheating of Extended-Chain Crystal of Polyethylene YOHJI MAEDA\* AND HISAAKI KANETSUNA (*Research Institute for Polymers and Textiles*)
- Thermal Analysis of Lamellar Thickening during Isothermal Crystallization TORU KAWAI\*, MASAHIRO HOSOI (Tokyo Institute of Technology) AND KENJI KAMIDE (Textile Research Laboratories, Asahi Chemical Company)
- Change in Fine Structures of Polyolefines during Isothermal Crystallization KENJI KAMIDE\*, KEIEO KASHIMA (Textile Research Laboratory, Asahi Chemical Industry Co., Ltd.) AND KUNIO OHNO (Plastics Application Laboratory, Asahi Chemical Industry Co., Ltd.)
- DTA of Polyoxymethylene obtained by Radiation-induced Polymerization in Solid State

YOSHIAKI NAKASE\* AND ISAMU KURIYAMA (Takasaki Radiation Chemistry Research Establishment JAERI)

- Differential Thermal Analysis of Crystalline Lysozyme TOSHIHARU TAKIZAWA\* (Department of Physics, Faculty of General Studies, Gunma University) AND YASUHIRO MIYOSHI (Department of Botany, Faculty of Science, Tokyo University)
- Studies on Aromatic Polymers and Oligomers by DSC and TG ITARU MITA\*, RIKIO YOKOTA AND HIROTARO KAMPE (Institute of Space and Aeronautical Sciences, University of Tokyo)
- Hydrogen Bond Effects on Glassy State of Random Copolyamide TATSUKO HATAKEYAMA\* AND HISAAKI KANETSUNA (Research Institute for Polymers and Textiles)
- Temperature Dispersion Measurement of Dielectric Loss of Highpolymers by DTA Method

R. KANEKO, Y. FUKUMITSU<sup>\*</sup> AND J. AOYAGI (Tokyo University of Agriculture and Technology)

The Phase Equilibrium of the Cellulose Derivatives Systems by DTA Method TAKASHI OKUI\*, AKIHIRO KAGEMOTO, KOZO TADA (Department of Chemistry, Osaka Institute of Technology) AND YOSHIHIRO BABA (Osaka City of Hygeine)

Study on the Upper Critical Solution Temperature of the Polystyrene-Methylcyclohexane by DTA Method

MITSUO FUKUDA\*, AKIHIRO KAGEMOTO, KOZO TADA (Department of Chemistry, Osaka Institute of Technology) AND YOSHIHIRO BABA (Osaka City of Hygeine)

Transition in Solution of Polyvinyl Acetate in Toluene SATORU MASHIMO\*, YOSHIO OTSUBO AND KENICHI HIGASHI (School of Science and Engineering, Waseda University)

#### MEETING REPORT

Calorimetric Study on the Interactions of n-Paraffi	ns with	Xylene	Isomers	and	with
Decalin Isomers					
SATOSHI MORIMOTO (Research Institute for Pe	olvme <mark>r</mark> s	and Te:	xtiles)		

- Calorimetry: Heat Capacity of PEG-Water Systems FUMIO KAWAIZUMI\* AND YUKATA MIYAHARA (Department of Chemical Engineering, Faculty of Engineering, Nagoya University)
- The Heats of Dilution of the Polyethylene Oligomer-Alcohol System ICHIRO SAIHARA, YASUNORI ITOI\* AND AKIHIRO KAGEMOTO (Department of Chemistry, Osaka Institute of Technology)
- The Heat of Dissociation of the Hemoglobin MASARU TAKEMURA\*, AKIHIRO KAGEMOTO (Department of Chemistry, Osaka Institute of Technology) AND YOSHIHIRO BABA (Osaka City of Hygeine)

Enthalpy of Vaporization of Ethylene Glycol Derivatives at 25.0 °C. II. Ethylene Glycol Monoethers

KAZUHITO KUSANO (Faculty of Engineering, Miyazaki University) AND INGEMAR WADSÖ (Termokemiska Laboratoriet, Kemicentrum, Lunds Universitet)

The Generalized Theory of Conduction Calorimeter T. OZAWA AND K. KANARI\* (Electrotechnical Laboratory)

Determination of Thermal Conductivity of Solid Materials by means of Hot Wire Method

ISAO UEI AND KUNIO HAYASHI\* (Department of Chemistry, Kyoto Institute of Technology)

Phase Study at High Temperature

TETSUZO ATODA AND YOSHIHIKO SASA\* (The Institute of Physical and Chemical Research)

The Analysis of Heat Leak in the Measurement of Specific Heat at High Temperature (II)

KEIJI NAITO, NAOKI KAMEGASHIRA, AND JUN KITAGAWA (Department of Nuclear Engineering, Faculty of Engineering, Nagoya University)

An Improved Adiabatic Calorimeter for Condensed Gases. Thermodynamic Properties of Nitrous Oxide from 2.6-186 °K

TOORU ATAKE\* AND HIDEAKI CHIHARA (Department of Chemistry, Faculty of Science, Osaka University)

Heat Capacity of Antimony Tribromide

**TETSUZO** ATODA AND KUNIKO TAKEYAMA\* (The Institute of Physical and Chemical Research)

Measurement of Thermal Properties of  $U_4O_9$  near the Transition Point MASAYUKI KAMIMOTO<sup>\*</sup>, MASAYUKI MURABAYASHI, YOICHI TAKAHASHI AND TAKASHI MUKAIBO (Department of Nuclear Engineering, Faculty of Engineering, University of Tokyo)

Thermal	Properties	of 1	Nickel(II)	Complexes	of Schiff	Bases:	Ni(3-CH <sub>3</sub>	O-SAL ·	iso-
$C_{3}H_{7})_{2}$	and Ni(H-S	AL	$\cdot$ methyl) <sub>2</sub>						

NAOTO ARAI\*, MICHIO SORAI AND SYUZO SEKI (Department of Chemistry, Faculty of Science, Osaka University)

- Thermal Properties of Glassy Crystals. Heat Capacities of Cycloheptanol KEIICHIRO ADACHI\*, HIROSHI SUGA AND SYŪZŌ SEKI (Department of Chemistry, Faculty of Science, Osaka University)
- The Heat Capacity and Phase Transition of Hexammine Nickel Halides TAKASUKE MATSUO\*, HIROSHI SUGA AND SYŪZŌ SEKI (Department of Chemistry, Faculty of Science, Osaka University)

### Announcements

### GORDON CONFERENCES

Two Gordon Conferences of overlapping interest will be held on adjacent weeks this coming winter in California. The first Gordon Conference on Liquid Crystals will be held January 17–22, 1972, at the Miramar Hotel in Santa Barbara, California. The chairman of this meeting is Professor Roger S. Porter, Head, Polymer Science and Engineering, University of Massachusetts, Amherst, Massachusetts 01002. The following week, January 24–28, 1972, at the same location, the Winter Gordon Conference on Polymers will be held; the chairman of this meeting is Dr. Fred E. Bailey, Chemicals and Plastics, Union Carbide Corporation, P. O. Box 8361, South Charleston, West Virginia 25303. General information concerning all Gordon Conferences may be obtained from the Director, Dr. Alexander M. Cruickshank, c/o Pastore Chemical Laboratory, University of Rhode Island, Kingston, Rhode Island 02881.

The Third Annual Meeting of the North American Thermal Analysis Society will be held on February 7 and 8, 1972 at the Convention Center in Waco, Texas, U.S.A. The purpose of the meeting is to discuss theory, new developments, and practical applications of all types of methods of thermal analysis. A concurrent exposition of thermal instruments is also planned for the conference.

Papers for the conference are now being solicited on thermoanalytical topics and persons wishing to present a paper should immediately contact W. R. Bandi at U. S. Steel Research Center, Monroeville, Pa. 15146, U.S.A., for additional information.