

Events

THE SEVENTH NATIONAL CALORIMETRY CONFERENCE IN JAPAN

The Society of Calorimetry and Thermal Analysis (Japan) has organized the seventh annual Calorimetry Conference in Nagoya City on November 25 and 26, 1971. Five special lectures and 77 contributed papers were presented at two sessions. Dr. J. J. Fritz, Professor of Pennsylvania State University, was invited to this Conference, and contributed a paper entitled "Calorimetry at high magnetic fields and very low temperatures".

The new officers (1971/72) were elected at the business meeting.

Chairman: Prof R. Fujishiro (Osaka City University)

Chairman-Elect: Prof. H. Kambe (University of Tokyo)

Ex-chairman: Prof. Y. Otsubo (Waseda University)

Secretary: Dr. T. Ozawa (Electrotechnical Laboratory)

Treasurer: Prof. R. Otsuka (Waseda University)

Editor: Dr. H. Kanetsuna (Research Institute for Polymer and Textiles)

The Society edited a new volume of "Calorimetry, Thermometry and Thermal Analysis, 1971", which is available from KAGAKU GIMUTSU-SHA, 1-15 Edobashi, Nihonbashi, Tokyo, Japan. Price: Y 1,500 per volume.

The following papers were presented:

High temperature quantitative electro thermal analyzer

N. MIYAMOTO and H. UCHIDA

(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)

Apparatus for observation and microphotograph in thermal analysis and application

H. SEKI, K. TAKAHASHI, M. MOMOTA, Y. FURUYA, A. HIROSE and H. UCHIDA

(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)

Thermal dispersion measurements of dielectric loss of polymers by DTA methods

R. KANEKO, Y. FUKUMITSU and J. AOYAGE

(Faculty of Technology, Tokyo Univ. of Agriculture and Technology)

A TGA-EGA apparatus with a cold trap type gas sampler

K. ISHIKAWA, M. ICHIHASHI and T. TEZUKA

(Sinku Rico Co., Ltd.)

Effluent gas analysis with DTA-GC combination technique

K. YAMADA, T. SAITO and A. TSUYAMA
(Shimazu Seisakusho Co., Ltd.)

Simultaneous TG: DTA and mass-spectrometry

T. SENDA, H. UCHIDA
(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)
and F. NAKAO
(Matsushita Communication Industrial Co., Ltd.)

Analysis of polymer compounds by a DTA combined system gas chromatograph-mass spectrometer

A. TSUYAMA, T. SAITO, S. TAKAHASHI, T. TAKEDA, K. KAGEYAMA and T. MURATA
(Shimazu Seisakusho Co., Ltd.)

Calorimetry at high magnetic fields and very low temperatures

J. J. FRITZ
(Dept. of Physical Chemistry, Pennsylvania State Univ.)

High temperature measurement in science and industry

T. NOGUCHI
(Government Industrial Research Institute, Nagoya)

Problems of temperature measurement in thermogravimetry

M. MARUTA, M. SAKAGUCHI and S. OURA
(Shimazu Seisakusho Co., Ltd.)

Problems on the measurements of micro DTA and micro TG (Decomposition of organic compounds)

Y. FURUYA, M. MOMOTA, K. TAKAHASHI, H. SEKI, A. HIROSE and H. UCHIDA
(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)

The application of thermobalance for isothermal measure to the kinetics of the decomposition of polymers and thermostability of polymers for building

T. KOYAMA, T. SENDA and H. UCHIDA
(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)

Application of differential thermal analysis to synthetic organic chemistry

H. MITOBUCHI
(The Faculty of Engineering, Hiroshima Univ.)

Non-isothermal kinetics of diffusion

T. OZAWA
(Electrotechnical Laboratory Tanashi, Tokyo)

Analysis of reaction process by specific heat measurement

N. YOSHIDA and T. OKAMURA
(A G N E Research Center)

Development of a system of computer aided triplet calorimetry for liquid phase reaction analysis

I. TAKASHIMA
(Science Univ. of Tokyo)

Data acquisition system for thermal analyzer

H. YUI, R. KATO, H. OKAMOTO and A. MAEZONO
(Shinku Rico Co., Ltd.)

A study of the thermal degradation in various atmospheric conditions

R. KATO, T. SAKAMOTO and K. ISHIKAWA
(Shinku Rico Co., Ltd.)

Mechanochemical effect on thermal decomposition of solids

S. TAKAGI and Y. UEDA
(Dept. of Chemistry, Faculty of Science and Technology, Kinki Univ.)

Effect of additives on thermal decomposition of magnesium carbonate trihydrate and basic magnesium carbonate

G. HASHIZUME and K. AMITA
(Industrial Research Institute, Hyogo Pref.)

DTA studies on the thermal reaction of $cis\text{-}[\text{Co}(\text{en})_2(\text{H}_2\text{O})\text{Cl}]\text{Br}_2 \cdot \text{H}_2\text{O}$ to $cis\text{-}$ and $trans\text{-}[\text{Co}(\text{en})_2\text{BrCl}]\text{Br}$ in solid-phase

C. SATO and R. TAKAHASHI
(Dept. of Chemistry, Faculty of Science, Hirosaki Univ.)

Thermal properties of glassy liquid crystals

K. TSUJI, M. SORAI and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Calorimetric study of glassy crystal, III. Heat capacity of crystal and glassy crystal of cyclohexene

O. HAIDA, H. SUGA and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Heat capacity and phase transition of stannous chloride dihydrate crystals

T. MATSUO, K. KITAMURA, M. OGUNI, H. SUGA and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

*Heat capacity of $\text{NH}_4(\text{ClCH}_2\text{COO})_2$ between 12 and 300°K
Transition at 119.7°K*

A. INABA and H. CHIHARA
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Low-temperature heat capacity of $[\text{Cr}_4(\text{OH})_6(\text{en})_6](\text{SO}_4)_3 \cdot 10\text{H}_2\text{O}$ crystal and spin-spin interaction

M. SORAI and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Specific heat anomaly in the phase transformation of $\text{U}_4\text{O}_9\text{-y}$

H. INABA, J. KITAGAWA and K. NAITO
(Dept. of Nuclear Engineering, Faculty of Engineering, Nagoya Univ.)

Metastable phase of Na_2SO_4

T. WATANABE and S. IWAI
(Tokyo Institute of Technology, Material Research Lab.)

Determination of thermal conductivity of granular materials by dispersion method

I. UEI and K. HAYASHI
(Dept. of Chemistry, Kyoto Institute of Technology)

Measurement of effective thermal conductivity of moist granular bed

S. OHTANI, N. YAMAKAWA and A. ENDO
(Dept. of Chemical Engineering, Tohoku Univ.)

An estimation method for effective thermal conductivities of wet granular materials

R. TOEI, M. OKAZAKI, I. ITO and Y. OKAMOTO
(Dept. of Chemical Engineering, Kyoto Univ.)

Measurement of thermal diffusivity at high temperature by the scanning temperature method

K. NAITO, H. INABA and Y. NODA
(Dept. of Nuclear Engineering, Faculty of Engineering, Nagoya Univ.)

AC-temperature calorimetry of metals at low temperature

T. SUZUKI
(Dept. of Physics, Faculty of Science, Kyoto Univ.)

An adiabatic scanning calorimeter

K. NAITO, H. INABA
(Dept. of Nuclear Engineering, Faculty of Engineering, Nagoya Univ.)
and Y. SAITO, H. ARIMA
(Daini-Seikosha Co., Ltd.)

High precision rotating bomb calorimeter

M. SAKIYAMA, T. NAKANO and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Automatic bomb calorimeter

M. SASAKI
(National Research Institute for Pollution and Resources)
and T. OKINO, K. ITO and Y. KUNIMATSU
(Shimazu Seisakusho Co., Ltd.)

Conduction calorimeter with heat compensation, II

M. SUZUKI
(Applied Electric Lab., Ltd.)
and K. AMAYA
(Government Chemical Industrial Research Institute, Tokyo, Japan)

Polymerization calorimeter

M. SUZUKI
(Applied Electric Lab., Ltd.)
and I. KURIYAMA and Y. NAKASE
(Japan Atomic Energy Research Institute, Takasaki)

An idealized model of conduction calorimeter

S. TANAKA
(Government Chemical Industrial Research Institute, Tokyo)

Construction of a conduction microcalorimeter having short time constant and some experimental results

K. KUSANO
(Faculty of Engineering, Miyazaki Univ.)

Heat capacities of solid polyoctamethylene oxide

S. YOSHIDA, H. SUGA and S. SEKI
(Dept. of Chemistry, Faculty of Science, Osaka Univ.)

Heat of fusion of poly(tetramethylene oxide)

A. TAKAHASHI and K. ITO
(Dept. of Applied Chemistry, Nagoya Univ.)

Thermodynamic properties of single crystals for molecular weight fractions of linear polyethylene

K. TAKAMIZAWA, Y. URABE and T. OKUDAIRA
(Dept. of Applied Science, Faculty of Engineering, Kyushu Univ.)

Physical properties and structures of silk. V. Calorimetric study of β -coil transition in silk fibroin

J. MAGOSHI
(Sericultural Experiment Station)
and S. MORIMOTO
(Research Institute for Polymers and Textiles)

Thermal analysis on isothermal crystallization of semicrystalline polymers

K. KAMIDE, T. OGATA and K. KASHIMA
(Textile Research Lab., Asahi Chemical Industry Co., Ltd.)

Studies on endothermal peak observed near the glass transition temperature

K. HIYOSHI and T. SHIMURA
(Industrial Research Institute of Kanagawa Pref.)

On the DSC measurement and analysis of the data

T. TAKAHAMA and S. ICHIHARA
(Plastics Research Lab., Mitsubishi Petrochemical Co.)

Some problems on differential scanning calorimetry of melting phenomena of high polymers

— A report of results of measurement on common samples by research group on thermal properties of polymers

H. KANETSUNA
(Research Institute for Polymers and Textiles)

Application of thermal analysis (high pressure DTA and gas flow DTA) to the study of industrial catalysts

T. ISHII
(Dept. of Applied Chemistry, Faculty of Engineering, Hokkaido Univ.)

TMA measurements on oriented polyethylene samples

H. NAKAGAWA, K. EHARA and T. KAWAI
(Tokyo Institute of Technology)

Studies on thermal relaxation of residual stress

K. HIYOSHI, Y. MATUMOTO and T. SHIMURA
(Industrial Research Institute of Kanagawa Pref.)

TMA instrument and its application

K. TOSHIMA, I. OJIMA and H. UCHIDA
(R & D Group for Thermal Analysis, Rigaku Denki Co., Ltd.)

Solid transition of low-molecular organic compounds by DSC

H. KAMBE, K. HORIE and S. SUZUKI
(Institute of Space and Aeronautical Science, Univ. of Tokyo)

Particle size effects on the phase transition of p-chloro-benzamide

T. KOIDE, K. SAWADA and M. TSUJINO
(The Kyoiku Univ. of Osaka, Lab. of Physical Chemistry)

The thermal properties of optical activity compound. I. Thermal analysis of mandelic acid by using differential thermal analysis

Y. FUJITA, Y. BABA, A. KAGEMOTO and K. TADA
(Dept. of General Education, Osaka Institute of Technology)

Freezing point determination of yttrium oxide

T. NOGUCHI and T. YAMADA
(Government Industrial Research Institute, Nagoya)

Measurement of the eutectic temperature and its composition in the system BeO—ThO₂ by means of DTA

T. SATA and T. TAKAHASHI
(The Research Lab. of Engineering Materials, The Tokyo Institute of Technology)

Investigation of radical crosslinking reactions by DSC

I. MITA, K. HORIE, M. MURAOKA and H. KAMBE
(Institute of Space and Aeronautical Science, Univ. of Tokyo)

The heat of polymerization of styrene in benzene solution by using differential thermal analysis

T. KUDO, Y. BABA and A. KAGEMOTO
(Dept. of General Education, Osaka Institute of Technology)

Study of antioxidants by DSC

T. MATSUURA, T. AKATSU and Y. KATO
(Ibaragi Electrical Communication Lab.)

Kinetic analysis of thermogravimetric data. Pyrolysis of SCP Black Liquors

K. NAGAYA
(Technical Research Lab., Hitachi Shipbuilding and Engineering Co., Ltd.)

The differential scanning calorimetry of bright-yellow and Matsukawa tobacco

S. ESAKI
(The Hatano Tobacco Experiment Station, Japan Monopoly Corp.)

An isothermal displacement calorimeter and its tests by standard systems

R. TANAKA, S. MURAKAMI and R. FUJISHIRO
(Dept. of Chemistry, Faculty of Science, Osaka City Univ.)

Heats of mixing for N,N-dimethylpropionamide (DMP) cyclohexane and benzene systems at 25° C

H. UKIBE, R. TANAKA and R. FUJISHIRO
(Dept. of Chemistry, Faculty of Science, Osaka City Univ.)

Heats of mixing for the carbon tetrachloride— isomeric dichloroethylene mixtures

S. MURAKAMI, R. TANAKA and R. FUJISHIRO
(Dept. of Chemistry, Faculty of Science, Osaka City Univ.)

The thermodynamic properties of n-butanol + isomeric butanol mixtures at 25°C

S. MURAKAMI
(Dept. of Chemistry, Faculty of Science, Osaka City Univ.)
and V. T. LAM and G. C. BENSON
(Division of Chemistry, National Research Council of Canada)

Heats of mixing of dilute solutions. II. 1,4-Butanediol + water systems

H. NISHINO, N. OTODA and S. TAKAGI
(Dept. of Chemistry, Faculty of Science and Technology, Kinki Univ.)

Study on the behavior of solution properties of nicotine by using differential scanning calorimeter and a twin micro-calorimeter

H. ABE, F. TAKAOKA, Y. BABA and A. KAGEMOTO
(Dept. of General Education, Osaka Institute of Technology)

Calorimetric study on the phase separation of polymer solution: Polyethyleneoxide—toluene—n-heptane system

S. MORIMOTO and N. OHTANI
(Research Institute for Polymers and Textiles)

Low temperature specific heat of alloys

S. NOGUCHI
(Dept. of Applied Physics, Nagoya Univ.)

The heat of solution of vitamin B₁ and artificial gastric juice system

T. YAMADA and A. KAGEMOTO
(Dept. of General Education, Osaka Institute of Technology)
and H. YAMAGUCHI
(Research Lab., Tanabe Seiyaku Co., Ltd.)

The salt effect of aqueous cellulose derivatives solution by using differential thermal analysis

T. ASO, Y. BABA, A. KAGEMOTO and K. TADA
(Dept. of General Education, Osaka Institute of Technology)

Heat of immersion of surface-treated polyphosphates in benzene and methanol

M. HATTORI, S. HIROSE and M. TANAKA
(Dept. of Applied Chemistry, Univ. of Osaka Pref.)

Heat of immersion of alkali metaphosphates in benzene, toluene and p-xylene

M. HATTORI, Y. KAGITANI and M. TANAKA
(Dept. of Applied Chemistry, Univ. of Osaka Pref.)

Heats of formation of the xylene isomer clathrates with tetrakis (4-methylpyridine)nickel(II) dithiocyanate

I. KONDO and R. SATO
(Meisei Univ.)

Measurement of dissociation constant and heat of dissociation of weak acid by thermometric titrimetry

M. NAKANISHI and S. FUJIEDA
(Dept. of Chemistry, Ochanomizu Univ.)

Thermal analysis on disintegration and dissolution of medicinal preparations by solution calorimetry

S. TAKAGI and T. KIMURA

(Dept. of Chemistry, Faculty of Science and Technology, Kinki Univ.)

Measurements of the temperature and concentration distributions, and the radiation intensities of flames

A. SATO, S. SUGIYAMA

(Faculty of Engineering, Nagoya Univ.)

and M. HASATANI

(Faculty of Engineering, Gifu Univ.)

Surface temperature of materials with heat transfer processes (Part I, Measurement by contact method)

S. OHTANI, A. ENDO and Y. CHIBA

(Dept. of Chemical Engineering, Tohoku Univ.)

Surface temperature of materials with heat transfer processes (Part II, Measurement by non-contact method)

S. OHTANI, N. YAMAKAWA and S. TANNO

(Dept. of Chemical Engineering, Tohoku Univ.)

Non-contact method of measuring temperature by using anisotropic crystals

K. AMAYA

(Government Chemical Industrial Research Institute, Tokyo, Japan)

Simplified thermo-meter by silicon diode

H. OSAKI and T. SATO

(Nagoya Dengensha)

NEWS FROM ITALY

A series of lessons organized by the Dupont were held in Milan from the 27th to the 29th March, 1972.

Lectures were given by Professor D'Ascenzo, Professor Biader-Cepidor and by Dr. Manz (Dupont) on the following subjects: Introduction to thermoanalysis; Phenomena related to thermal analyses; Application and interpretation of thermoanalytical analyses; Application of thermoanalysis to the study of polymers.

Symposium on the quantitative determination of clay minerals organized by the Italian Group of AIPEA was held on the 14th–15th April, 1972, at Modena (Italy). Prof. L. Tomadin of Bologna gave a lecture on the possibilities of quantitative determination of clay minerals with X-rays. Prof. G. Lombardi gave a lecture on the possibility of semiquantitative determination of clay minerals with thermal analysis, discussing in detail all the aspects of the problem.

A meeting on thermal analysis organized by the Italian Group of ICTA was held at Rome on the 13th of May with the participation of Dr. R. C. Mackenzie. Dr. R. C. Mackenzie delivered a lecture on usual and unusual DTA techniques. Other papers were presented by Italian researchers and, moreover, a meeting on Nomenclature was held. This is the third Symposium that the Italian Group organized in the last two years of its activity.

G. Lombardi