

The Second International Symposium
on
the New Frontiers of Thermal Studies of Materials

November 25-27, 2001



Tokyo Institute of Technology
Founded 1881

Sogo-Kenkyu-Kan
(The 80th Anniversary Memorial Center)
Nagatsuta Campus
Tokyo Institute of Technology
Nagatsuta-cho, Midori-ku, Yokohama, Japan

2nd Announcement

<http://thermo.rlem.titech.ac.jp/sympo/>

The Second International Symposium on the New Frontiers of Thermal Studies of Materials

Organized by

Materials and Structures Laboratory, Tokyo Institute of Technology

Under the Auspices of

The Japan Society of Calorimetry and Thermal Analysis
and

The Society of Promotion for Calorimetry and Thermal Analysis, Japan

With the Consent of

Japan Society for Safety Engineering	The Japan Society of Applied Physics
The Society of Chemical Engineers, Japan	The Society of Polymer Science, Japan
The Carbon Society of Japan	The Electrochemical Society of Japan
Japan Oil Chemists' Society	Japanese Liquid Crystal Society
The Chemical Society of Japan	The Japan Institute of Metals
Japan Society for Environmental Chemistry	The Crystallographic Society of Japan
The Japan Federation of Engineering Societies	The Atomic Energy Society of Japan
The Mineralogical Society of Japan	The Society of Rubber Industry, Japan
The Society of Materials Science, Japan	The Biophysical Society of Japan
The Pharmaceutical Society of Japan	The Ceramic Society of Japan
The Iron and Steel Institute of Japan	Japan Society of Thermophysical Properties
The Japanese Society for Biomaterials	The Surface Science Society of Japan
The Physical Society of Japan	The Japan Society for Analytical Chemistry
Japan Society for Bioscience, Biotechnology, and Agrochemistry	
The Mining and Materials Processing Institute of Japan	
The Society of Fiber Science and Technology, Japan	

Organizing Committee

Chairman

Tooru Atake (Mater. & Struct. Lab., Tokyo Inst. of Technol.)

Executive Committee

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Tetsuya Hasegawa (Mater. & Struct. Lab., Tokyo Inst. of Technol.)

Hitoshi Kawaji (Mater. & Struct. Lab., Tokyo Inst. of Technol.)

Masaharu Oguni (Grad. School of Sci. & Eng., Tokyo Inst. of Technol.)

Toshimasa Hashimoto (Grad. School of Sci. & Eng., Tokyo Inst. of Technol.)

Masataka Wakihara (Grad. School of Sci. & Eng., Tokyo Inst. of Technol.)

Scope

The symposium will consider the new frontiers and burgeoning fields of thermal studies of materials. A variety of new functional materials, such as high temperature superconductors, solid state ionics, fullerenes and other inorganic and organic substances, will be discussed from the viewpoint of thermal studies. The relationship between the structure and physical properties will be covered with strong emphasis on the phase transition and glass transition mechanisms. New techniques such as nano-calorimetry will be discussed. The invited lectures given by distinguished scientists will also cover the thermal stabilities, phase relationships, and molecular motions in new functional materials.

The symposium will be held under the auspices of The Japan Society of Calorimetry and Thermal Analysis (Chairman: Michio SORAI) and The Society of Promotion for Calorimetry and Thermal Analysis, Japan (Chairman: Shigeru YAMAUCHI).

Symposium Site

Sogo-Kenkyu-Kan (The 80th Anniversary Memorial Center) in Nagatsuta
Campus, Tokyo Institute of Technology

4259 Nagatsuta-cho, Midori-ku, Yokohama, 226-8503 JAPAN

TEL: +81-45-924-6042, 6055

(5 min walk from Suzukakedai Station of Tokyu Den'entoshi Line)

Tentative Time Table

Nov. 25 (Sun)	Nov. 26 (Mon)	Nov. 27 (Tue)
	9:00 Registration	9:00 Registration
	9:30 Opening ceremony	9:40 Plenary lectures
	10:00 Plenary lectures	
	10:40-11:10 coffee break	10:20-10:50 coffee break
	11:10 Plenary lectures	10:50 Plenary lectures
	11:50 Poster preview (#1-41 odd number)	11:50 Poster preview (#2-42 even number)
	12:10-13:30 lunch	12:10-13:30 lunch
	13:30 Poster preview (#43-85 odd number)	13:30 Poster preview (#44-84 even number)
	13:50 Poster (odd number)	13:50 Poster (even number)
15:00-18:00 Registration	15:30 Plenary lectures	15:30 Plenary lectures
	16:10-16:40 coffee break	16:10-16:40 coffee break
	16:40 Plenary lectures	16:40 Plenary lectures
18:00-20:00 Welcoming party	17:40 Plenary discussion	17:20 Plenary discussion
	18:10-20:10 Banquet	18:50 Closing ceremony

Symposium Registration

The conference registration desk will be located at the convention place of Sogo-Kenkyu-Kan (The 80th Anniversary Memorial Center), Nagatsuta Campus, Tokyo Institute of Technology. It will be open on Sunday, Nov. 25 from 3:00 pm to 8:00 pm and during the symposium from 9:00 am to 6:00 pm. The welcoming party will be held on Sunday from 6:00 pm to 8:00 pm at the same place.

Each participant will receive the abstracts booklet, a name badge and the information about the area. Please wear your name badge at all symposium events.

Registration Fees

	by Oct. 31, 2001	[after Oct. 31, 2001]
Active participant:	¥10,000	[¥12,000]
Student:	¥ 5,000	[¥6,000]

The registration covers:

- Admission to the scientific sessions
- Abstracts booklet
- Coffee, soft drinks during the breaks
- Banquet
- Welcoming party

Please send the registration form by October 31.

Accommodation

"Seminar Plaza - Suzukakedai"; 1 min walk from Suzukakedai station of Tokyu Den'entoshi Line and 5 min walk from the Symposium Site. ¥6,930 for single per one night including tax and service charge (TEL: 81-42-799-1121, FAX: 81-42-799-1171).

"Livable Square Minami Machida"; 15 min walk from the Symposium Site, or 5 min walk from the next station (Minamimachida station of Tokyu Den'entoshi Line) of the Symposium Site (Suzukakedai station). ¥6,825 for single per one night including tax and service charge (TEL: 81-42-799-0109, FAX: 81-42-799-0281).

"Central Hotel Machida"; 20 min railway from the Symposium Site (Suzukakedai station). 5 min walk from Machida station of JR Yokohama Line (transfer at Nagatsuta station from Tokyu Den'entoshi Line). ¥6,500 for single per one night including tax and service charge (TEL: 81-42-720-3011, FAX: 81-42-720-3022).

"Aobadai Forum"; 10 min railway from the Symposium Site (Suzukakedai station). 3 min walk from Aobadai station of Tokyu Den'entoshi Line. ¥7,854 (A-type), ¥8,478 (B-type) for single per one night including tax and service charge (TEL: 81-45-985-2109, FAX: 81-45-985-2108).

Social Event

Symposium banquet will be held on November 26th (18:30 ~ 20:30) at the conference site. Free admission for registered participants.

Climate

Weather in Yokohama in November is normally dry with temperatures between 10 - 20 .

How to Reach the Symposium Site

Participants from abroad are recommended to fly to Tokyo International Airport (Narita), and then make the connection to TIT Nagatsuta campus.

Many trains (Keisei Line and JR Line) and airport limousine buses connect Narita airport to downtown Tokyo. The recommended routes are

(1) Airport limousine bus from Airport to Tokyo City Air Terminal (TCAT)
2,900 Yen, 70 min.

+

Walk from TCAT to Suitenguumae station (Subway Hanzomon Line): about 5 min.

+

Subway Hanzomon Line from Suitenguumae station to Suzukakedai station. (Tokyu Den'entoshi Line connected directly to the Subway Hanzomon Line). Please get off at Suzukakedai station of Tokyu Den'entoshi Line. (Express for Chuorinkan passes Suzukakedai station. Please change to a local train at Nagatsuta station.). Seminar Plaza - Suzukakedai is only 1 min walk from Suzukakedai station.

490 Yen, 60 min

(2) Keisei Narita Line from Narita station to Ueno station.

Limited Express-reserved seat (Skyliner) 1,920 Yen, 60 min
or Express 1,000 Yen, 80 min

+

Walk from Ueno station (Keisei Line) to Ueno station (Subway Ginza Line): about 5 min.

+

Subway Ginza Line from Ueno station to Omotesando station.
Change the Subway Line from Ginza Line to Hanzomon Line at Omotesando station.

Subway Hanzomon Line from Omotesandou station to Suzukakedai station (Tokyu Den'entoshi Line connected directly to the Subway Hanzomon Line). Please get off at Suzukakedai station of Tokyu Den'entoshi Line. (Express for Chuorinkan passes Suzukakedai station. Please change to a local train at Nagatsuta station.). Seminar Plaza - Suzukakedai is only 1 min walk from Suzukakedai station.

490 Yen, 70 min (Ueno to Suzukakedai)

Presentation

The official language of the symposium is English.

There will be invited lectures and poster presentations. Invited lectures will be additionally presented during poster sessions. This will allow further in-depth discussion.

Transparencies

Transparencies for overhead projector should be handled by the presenter her/himself.

PC projector

The LCD projector that can be connected to personal computers will be available. Presenters who want to use it should contact the organizing committee before the symposium.

Poster

Posters should be designed to fit area 180 cm high × 120 cm wide and to be easily readable from a distance of 2 m. Poster room will be open on Nov. 25 from 3:00 pm to 8:00 pm, and Nov. 26 and 27 from 9:00 am to 8:00 pm where all posters should be displayed all the time. The presence of one author is required for at least one hour during the designated poster session.

Before poster session a short poster preview will be held. Each presenter will have 1 min to introduce herself/himself and show maximum 2 OHP that best represent the work.

Proceedings

Full-length papers will be published by Kluwer Academic Publishers in the Journal of Thermal Analysis and Calorimetry. Those who present papers are invited to submit manuscripts for the proceedings. All manuscript will be carefully reviewed in regular manner by two independent referees. Please submit your manuscript to the Symposium Chairman by November 19, 2001.

Deadlines

Abstract: October 31, 2001

Registration and Payment: October 31, 2001

Manuscript for Proceedings: November 19, 2001 or at the symposium site
at latest

Further Inquiries

Professor Tooru Atake, Symposium Chairman

Materials and Structures Laboratory

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4259 Nagatsuta-cho, Midori-ku

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URL: <http://thermo.rlem.titech.ac.jp/sympo/>

Related Meeting

Before the Symposium period, the 37th Japanese Conference on Calorimetry and Thermal Analysis will be held in Sendai.

Those who wish to attend the meeting should contact the chairman.

The 37th Japanese Conference on Calorimetry and Thermal Analysis

November 20(Tu)-22(Thu), 2001

Sendai International Center
Aobayama, Aoba-ku, Sendai 980-0856
TEL: +81-22-265-2450

Tentative Program

Nov. 26 (Mon)

- 9:30-10:00 **Opening ceremony** T. Atake, presiding
Eiichi Yasuda (Director, Materials and Structures Laboratory, Tokyo Institute of Technology)
Ichiro Hatta (Chairman, The Japan Society of Calorimetry and Thermal Analysis)
Hiroo Inokuchi (Professor Emeritus, The University of Tokyo; National Space Development Agency of Japan)
Edgar F. Westrum, Jr. (Professor, Department of Chemistry, The University of Michigan)
- 10:00-10:20 **Plenary lecture 1 (p-13)**
Thermal characteristics in a nanometer scale
Ichiro Hatta (Dept. Appl. Phys, Nagoya Univ., Japan)
- 10:20-10:40 **Plenary lecture 2 (p-45)**
Microscale temperature measurement by scanning thermal microscopy
Osamu Nakabeppu (Dept. Mechanical Sci. & Eng., Tokyo Inst. Technol., Japan)
- 10:40-11:10 **coffee break**
- 11:10-11:30 **Plenary lecture 3 (p-17)**
The role of dynamic calorimetry in the development of new materials: the case of a magentocaloric material
Yoon Hee Jeong (Dept. Phys., Pohang Univ. Sci. Technol., Korea)
- 11:30-11:50 **Plenary lecture 4 (p-39)**
Principle and application of temperature wave analysis
Junko Morikawa (Dept. Organic & Polymeric Mater., Tokyo Inst. Technol., Japan)
- 11:50-12:10 **Poster preview (#1-41 odd numbers)**
- 12:10-13:30 **lunch**
- 13:30-13:50 **Poster preview (#43-85 odd numbers)**
- 13:50-15:30 **Poster presentation (odd numbers)**
- 15:30-15:50 **Plenary lecture 5 (p-71)**
Mapping the energy landscapes of complex liquids by calorimetric study of hyperquenched glassy samples
C. Austen Angell (Dept. Chem. & Biochem., Arizona State Univ., USA)

- 15:50-16:10 Plenary lecture 6 (p-51)
Development of cooperativity in the molecular dynamics of glass-formers: synergy of thermodynamics and intermolecular coupling
K.L. Ngai (Naval Research Laboratory, USA)
- 16:10-16:40 coffee break
- 16:40-17:00 Plenary lecture 7 (p-23)
A one-dimensional model for thermal conductivity
Kazuo Kitahara (Dept. Phys., Inter. Christian Univ., Japan)
- 17:00-17:20 Plenary lecture 8 (p-61)
Steady state thermodynamics - Proposal of a new thermodynamic framework for steady heat conduction
Hal Tasaki (Dept. Phys., Gakushuin Univ., Japan)
- 17:20-17:40 Plenary lecture 9 (p-25)
Mixing schemes in ternary aqueous solutions: A thermodynamic approach
Yoshikata Koga (Dept. Chem., Univ. British Columbia, Canada)
- 17:40-18:10 Plenary discussion J. Boerio-Goates and S. Stølen,
presiding
- 18:10-20:10 Banquet (Stand-up buffet dinner)

Nov. 27 (Tue)

- 9:40-10:00 Plenary lecture 10 (p-18)
Three-dimensional structure and thermal stability of enzyme-(stereo-isomeric inhibitor) complex
Shun-ichi Kidokoro (Dept. Bioeng., Nagaoka Univ. Technol., Japan)
- 10:00-10:20 Plenary lecture 11 (p-40)
A novel calorimetric method for the characterization of water adsorbed on “soft” biopolymer surfaces
P. Westh (Dept. Chem., Roskilde Univ., Denmark)
- 10:20-10:50 coffee break
- 10:50-11:10 Plenary lecture 12 (p-50)
Oxide melt solution calorimetry of rare earth containing ternary oxides: techniques, problems, crosschecks, successes
Alexandra Navrotsky (Dept. Chem. Eng. & Mater. Sci., Univ. California Davis, USA)

- 11:10-11:30 Plenary lecture 13 (p-80)
The role of materials thermodynamics in developments of high temperature electrochemical devices
Harumi Yokokawa (Natl. Inst. Adv. Ind. Sci. Technol., Japan)
- 11:30-11:50 Plenary lecture 14 (p-8)
Adiabatic heat capacity measurements - A useful tool to show low temperature phenomena in materials
J. Boerio-Goates (Dept. Chem. & Biochem., Brigham Young Univ., USA)
- 11:50-12:10 Poster preview (#2-42 even numbers)
- 12:10-13:30 lunch
- 13:30-13:50 Poster preview (#44-84 even numbers)
- 13:50-15:30 poster presentation (even numbers)
- 15:30-15:50 Plenary lecture 15 (p-28)
Calorimetric study of nanocrystallization in amorphous oxides
Jili Málek (Joint Lab. Solid State Chem, Acad. Sci. Czech Repub. Univ. Pardubice, Czech)
- 15:50-16:10 Plenary lecture 16 (p-6)
Calorimetric study of magnetic ordering in molecular magnetic materials
Ramon Burriel (Inst. Ciencia Mater. Aragon, Univ. Zaragoza, Spain)
- 16:10-16:40 coffee break
- 16:40-17:00 Plenary lecture 17 (p-56)
Enthalpy, volume and structural relaxation in glass-forming silicate melts
Pascal Richet (Inst. Phys. Globe, Paris, France)
- 17:00-17:20 Plenary lecture 18 (p-64)
Pressure and temperature induced connectivity changes in the glass-forming tetrahedral network compound GeSe₂
Svein Stølen (Dept. Chem., Univ. Oslo, Norway)
- 17:20-18:50 Plenary discussion J. Boerio-Goates and S. Stølen, presiding
- 18:50 Closing ceremony T. Atake, presiding

Posters (* invited paper)

p-1

Effects of doped Li on thermal behavior of PAS electrode for Li ion battery

N. Ando, S. Tasaki, Y. Hato, C. Marumo, Y. Natsume, A. Ito and K. Tanaka (Kyoto Univ.)

p-2

A model for the fragility of the melts

M. Aniya (Kumamoto Univ.)

p-3

Phase transition of CuTe

M. Arai, T. Sakuma, T. Atake and H. Kawaji (Ibaraki Univ.)

p-4

Thermoelectric properties of Ru_2Si_3 prepared by SPS method

Y. Arita, S. Mitsuda and T. Matsui (Nagoya Univ.)

p-5

Phase transition and the halogen-substitution effect on its properties in crystalline pyridinium tetrahalogenoaurate(III)

H. Fujimori, T. Asaji, M. Hanaya and M. Oguni (Nihon Univ.)

p-6*

Calorimetric study of magnetic ordering in molecular magnetic materials

R. Burriel (Univ. Zaragoza)

p-7

Enthalpies of dilution of mono-, di- and poly-alcohols in dilute aqueous solutions

M. Fujisawa, M. Maeda, S. Takagi and T. Kimura (Kinki Univ.)

p-8*

Adiabatic heat capacity measurements - A useful tool to show low temperature phenomena in materials

J. Boerio-Goates (Brigham Young Univ.)

p-9

Microstructural control of α -silicon nitride ceramics to improve thermal conductivity

K. Furuya, F. Munakata, K. Matsuo, Y. Akimune, Y. Jiping and A. Okada (Nissan Motor Co. Ltd.)

p-10

Molecular dynamics study of dynamical heterogeneity in ion conducting glasses

J. Habasaki and Y. Hiwatari (Tokyo Inst. Technol.)

p-11

Characterization of structural phase transitions of $\text{Ba}_{2-x}\text{Sr}_x\text{In}_2\text{O}_5$ with thermal analysis and high temperature X-ray diffraction

T. Hashimoto, M. Yoshinaga, Y. Ueda, K. Komazaki and K. Asaoka (Nihon Univ.)

p-12

Hydrogen added carbothermic reduction of iron-manganese oxide with thermal analysis

T. Hashizume, K. Terayama, T. Shimazaki, H. Itoh and Y. Okuno (Toyama Univ.)

p-13*

Thermal characteristics in a nanometer scale

I. Hatta (Nagoya Univ.)

p-14

Thermal property and ionic conductivity of polymer electrolyte plasticized with PEG-borate ester

K. Hasumi, Y. Kato, S. Yokoyama, T. Yabe, H. Ikuta, Y. Uchimoto and M. Wakihara (Tokyo Inst. Technol.)

p-15

DTA measurements of Fe₂O₃ nanoparticle system

Y. Ichianagi and Y. Kimishima (Yokohama Natl. Univ.)

p-16

Thermal analysis of a microscopic region using the micro thermal probe technique

Y. Imaishi, T. Yamane, T. Tanikawa, T. Hosoi, K. Ishikiriya and M. Todoki (Toray Res. Center, Inc.)

p-17*

The role of dynamic calorimetry in the development of new materials: the case of a magnetocaloric material

Y.H. Jeong (Pohang Univ. Sci. Technol.)

p-18*

Three-dimensional structure and thermal stability of enzyme-(stereo-isomeric inhibitor) complex

S. Kidokoro, M. Senda, T. Senda and T. Ogi (Nagaoka Univ. Technol.)

p-19

Oxide ion conductivity of (Ba, Sr, La)₂(In, M)₂O_y (M=Y, Zr, Ce, Mg)

K. Kakinuma, H. Yamamura and T. Atake (Kanagawa Univ.)

p-20

The metastable cholic acid obtained by the elimination of guest molecules from crystalline inclusion-complexes

T. Kimura and S. Takagi (Kinki Univ.)

p-21

Excess enthalpies of some cyanide compounds + methyl methylthiomethyl sulfoxide or + dimethyl sulfoxide at 298.15 K

T. Kimura, T. Matsushita, K. Suzuki and S. Takagi (Kinki Univ.)

p-22

Terahertz time-domain spectroscopic study of ferroelectrics

H. Kitahara, N. Tsumura, M.W. Takeda, T. Yamaguchi, S. Kojima and S. Nishizawa (Shinshu Univ.)

p-23*

A one-dimensional model for thermal conductivity

K. Kitahara (Intl. Christian Univ.)

p-24

Length scale of the glass transition studied by impulsive stimulated thermal scattering

M. Kobayashi, Y. Tsujimi and T. Yagi (Hokkaido Univ.)

p-25*

Mixing schemes in ternary aqueous solutions: A thermodynamic approach

Y. Koga (Univ. British Columbia)

p-26

Anharmonicity and fragility in lithium borate glasses

M. Kodama and S. Kojima (Sojo Univ.)

p-27

Structural study of perovskite materials at various temperatures

Y. Kuroiwa, S. Aoyagi, A. Sawada, E. Nishibori, M. Takata, M. Sakata and J. Harada (Okayama Univ.)

p-28*

Calorimetric study of nanocrystallization in amorphous oxides

J. Malek and T. Mitsuhashi (Univ. Pardubice)

p-29

Thermoelectric properties of uranium containing skutterudites $U_yFe_xCo_{4-x}Sb_{12}$

T. Matsui, T. Ogawa, Y. Arita and T. Nagasaki (Nagoya Univ.)

p-30

Heat capacities of $(R, R')AlO_3$ ($R, R' = Y, La, Lu$) crystals

T. Kyomen and M. Itoh (Tokyo Inst. Technol.)

p-31

Isotopically controlled film formation by mass-separated high-current, low-energy ion beam deposition

T. Matsui, T. Nagasaki, T. Hayashi, Y. Hukuda and Y. Kobayashi (Nagoya Univ.)

p-32

Rubber elasticity in the introductory thermodynamics course

T. Matsuo, A. Inaba and O. Yamamuro (Osaka Univ.)

p-33

Enthalpies of mixing of enantiomers in solution

T. Matsushita, F. Akhtar, T. Kamiyama and T. Kimura (Kinki Univ.)

p-34

Combinatorial synthesis and characterization of $Ca_3Co_4O_9$ thin films

H. Minami, K. Itaka, H. Kawaji and H. Koinuma (Tokyo Inst. Technol.)

p-35

High temperature heat capacities of titanium and ruthenium oxides

T. Mitsuhashi, A. Watanabe and K. Sakai (Natl. Inst. Mater. Sci.)

p-36

Magnetic-field-dependent heat capacity of $Ni(OH)_2$ nanocluster in amorphous SiO_2

Y. Miyazaki, Y. Ichiyanagi, Y. Kimishima and M. Sorai (Osaka Univ.)

p-37

Heat capacities and magnetic phase transitions of low-dimensional metal-assembled complexes, $[NEt_4][Mn(salen)]_2[Fe(CN)_6]$, $K[Mn(3-MeOsalen)]_2[Fe(CN)_6]$, and $[NEt_4]_2[Mn(acacen)][Fe(CN)_6]$

Y. Miyazaki, T. Sakakibara, Q. Wang, Q.-S. Yu, T. Matsumoto, N. Matsumoto and M. Sorai (Osaka Univ.)

p-38

Influence of nano-structure on electrolytic properties in CeO₂ based system
T. Mori, J. Drennan, Y. Wang, J.-G. Li and T. Ikegami (Natl. Inst. Mater. Sci.)

p-39*

Principle and application of temperature wave analysis
J. Morikawa and T. Hashimoto (Tokyo Inst. Technol.)

p-40*

A novel calorimetric method for the characterization of water adsorbed on “soft” biopolymer surfaces

P. Westh and K. Liltorp (Roskilde Univ.)

p-41

Feffoelectric phase transition in Pb_{2x}Sn_{2(1-x)}P₂Se₆ system
K. Moriya, T. Yamada, K. Sakai, S. Yano, T. Matsuo and Y. Vysochanskii (Gifu Univ.)

p-42

Crystallization of amorphous molecular systems under effect of dopant

M. Murai, H. Nakayama and K. Ishii (Gakushuin Univ.)

p-43

Thermochemistry of platinum hydrous oxide

Y. Nagano (Osaka Univ.)

p-44*

Thermodynamics and kinetics on steam-splitting over potassium aluminosilicate electrolyte

K. Nagase, M. Itoh and A. Watanabe (Tohoku Univ.)

p-45*

Microscale temperature measurement by scanning thermal microscopy

O. Nakabeppu and T. Suzuki (Tokyo Inst. Technol.)

p-46

Thermal expansion and phase transition of Zr_{1-x}Hf_xW₂O₈ solid solution

N. Nakajima, Y. Yamamura and T. Tsuji (Japan Adv. Inst. Sci. Technol.)

p-47

Heat capacity measurements of mechanically alloyed PbWO₄

T. Nakanishi, S. Takai, T. Tojo, H. Kawaji, T. Atake and T. Esaka (Tottori Univ.)

p-48

Structural Relaxation and glass transition of vapor-deposited amorphous molecular films -
Studies with optical interference and transmission

H. Nakayama, T. Okamura and K. Ishii (Gakushuin Univ.)

p-49

Low-temperature heat capacity measurements of organic conductors and superconductors

Y. Nakazawa, K. Kanoda, K. Saito and M. Sorai (Osaka Univ.)

p-50*

Oxide melt solution calorimetry of rare earth containing ternary oxides: techniques, problems, crosschecks, successes

A. Navrotsky (Univ. California, Davis)

p-51*

Development of cooperativity in the molecular dynamics of glass-formers: synergy of thermodynamics and intermolecular coupling

K.L. Ngai (Naval Res. Lab.)

p-52

Detection of water- polar solvent interaction using melting process of eutectic
Y. Nishimoto and Y. Kaneki (Kanagawa Univ.)

p-53

Glass transition behaviors of liquid sec-butylcyclohexane confined within nano-scale pores of silica gel

M. Ogino, M. Hanaya and M. Oguni (Tokyo Inst. Technol.)

p-54

Rotational states of the ammonium ion in cubic lattice

Y. Ozaki (Nagoya Inst. Tech.)

p-55

Morphological and structural change of nano-pored alumina membrane above 1200 K

R. Ozao, H. Yoshida and T. Inada (North Shore Col. SONY Inst.)

p-56*

Enthalpy, volume and structural relaxation in glass-forming silicate melts

P. Richet (Inst. Phys. Globe, Paris)

p-57

Thermodynamic implication of dependence of entropy of mesomorphic transition on chain-length

K. Saito and M. Sorai (Osaka Univ.)

p-58

Low-temperature heat capacity of tetramethylsilane monolayers adsorbed on graphite and MgO

N. Sakisato, A. Inaba and T. Matsuo (Osaka Univ.)

p-59

Apparent complex heat capacity including the effects of heat flow accompanying the irreversible process

Y. Saruyama and A. Toda (Kyoto Inst. Technol.)

p-60

Evolution of water vapor from indium-tin-oxide thin films fabricated by various deposition processes

S. Seki, T. Aoyama, Y. Sawada, M. Ogawa, M. Sano, N. Miyabayashi, H. Yoshida, Y. Hoshi, M. Ide and A. Shida (Tokyo Inst. Polytechnics)

p-61*

Steady state thermodynamics - Proposal of a new thermodynamic framework for steady heat conduction

S. Sasa and H. Tasaki (Gakushuin Univ.)

p-62

Characterization of thermal properties of porous silicon film/silicon using photoacoustic technique

Q. Shen and T. Toyoda (Univ. Electro-Communications)

p-63

Excess enthalpies of water + some aliphatic alcohols at 273.15 K

T. Suzuki, T. Oshida, K. Yoshida and T. Kimura (Kinki Univ.)

p-64*

Pressure and temperature induced connectivity changes in the glass-forming tetrahedral network compound GeSe₂

S. Stolen and T. Grande (Oslo Univ.)

Redox energetics of perovskite-related oxides

E. Bakken, T. Norby and S. Stolen (Oslo Univ.)

p-65

Molecular dynamics study on lattice defects and heat capacity of LiCr_{1/6}Mn_{1/6}O₄

M. Tachibana, T. Tojo, H. Kawaji, T. Atake, N. Morita, H. Ikuta, Y. Uchimoto and M. Wakihara (Tokyo Inst. Technol.)

p-66

Molecular dynamics simulation of vitreous silica structure

A. Takada, G.D. Price and C.R.A. Catlow (Asahi Glass Co., Ltd.)

p-67

Thermodynamic properties of mixture of 1,3-dioxane and 1,4-dioxane at 298.15K

T. Takigawa and K. Tamura (Osaka Inst. Technol.)

p-68

Thermodynamic properties of binary mixtures of cyclohexane, 2-butanone, 1,4-dioxane, and 1,2-dimethoxyethane: Density and sound velocity measurement

K. Tamura and T. Yamasawa (Osaka City Univ.)

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Thermal study on the effect of impurity on the glacial phase of triphenyl phosphite

I. Tanabe, K. Takeda and K. Murata (Naruto Univ. Educ.)

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