

内外情報

★第32回アメリカカロリメトリー会議

(32nd Annual Calorimetry Conference)

1977年7月6日～8日

カナダ・ケベック州 Sherbrooke にて

1. Combustion and adsorption methods
2. Heats of reactions
3. Titrations and flow techniques
4. Heat capacity: solids, solutions, polymer, biopolymers.
5. Calorimetry in extreme conditions: high pressure and temperature
6. New apparatus and techniques
7. Data treatment.

参加希望者は報告(20分)のアブストラクトを下記
chairmanまで至急送られたい。

Professor Stanley Gill, Chemistry Department
University of Colorado, Boulder, Colorado 80309
U.S.A.

★第1回チェコスロバキアカロリメトリー会議

(First Czechoslovak Conference on Calorimetry)

チェコスロバキア科学アカデミー及び化学会主催の第1回カロリメトリー会議が1977年8月30日～9月2日にわたり、プラハ近郊の Libliceにおいて開催される。次の4つがこの会議の主題となる。

1. 結晶の熱容量、エンタルピー、転移熱の測定、とくに相転移現象の動力学的研究
2. 化学吸着、固体表面反応のカロリメトリー、吸着分子の挙動と化学吸着機構の研究
3. 混合熱、希釈熱、蒸発熱など液体系のカロリメトリー
4. 測定法、装置、オートメーション、極端条件下のカロリメトリー

興味ある方は下記に連絡されたい。

Dr. M. Smišek
Institute of Inorganic Chemistry
Czechoslovak Academy of Sciences
Hlavova 2030
128 40 Prague 2
Czechoslovakia

★第5回国際熱分析会議 (ICTA V)

1977年8月1日～6日、国立京都国際会館にて。

1. 理論および装置
2. 無機化合物の熱分析

3. 有機化合物および高分子の熱分析

4. 地学における熱分析

5. 応用科学における熱分析

6. 热量測定、反応系、非反応系

連絡先

〒113 東京都文京区湯島1-5-31 第一金森ビル
日本熱測定学会内 第5回国際熱分析会議

★第5回化学熱力学国際会議

開催日が変更されましたのでご注意下さい。

(Fifth International Conference on Chemical Thermodynamics)

International Union of Pure and Applied Chemistry および Swedish National Committee for Chemistry 共催。
1977年8月23～26日に Ronneby (Sweden) にて開催の予定。

- 主題:(1) 物理的変化の熱力学(熱容量、相転移など)
(2) 化学変化の熱力学
(3) 電解質および非電解質水溶液の熱力学
(4) 生物熱力学

RonnebyはBaltic Seaに面した Sweden 南部の風光明媚な小都市で国際学会に必要な諸設備は完備している。日本からは Copenhagen 経由のルートが便利であろう。今回は1977年5月に Braunschweigで“Thermodynamik flüssiger und gasförmiger Mischungen”に関する学会が開催されることを考慮して、液体混合物の熱力学は主題から外されている。本会議では①総合講演(4～6), ②ポスターセッション(4), ③討論セッションが予定されている。このうちポスターセッションは当会議では始めての試みで、大きい部屋に複数の報告者が表、グラフ、写真などを一定時間提示し、一般参加者は自由に移動して、報告者との十分な議論を保証しようというもので、欧米での経験では一般に好評である。

(詳細は Science 184, 1361 (1974) を参照されたし)
ポスターセッションでの報告希望者は1977年5月15日までに200字以内のアブストラクトを提出のこと。

連絡先:

Dr Stig Sunner, Dr Ingemar Wadsö⁵
Fifth International Conference on Chemical Thermodynamics, Chemical Center,
Lund University, P.O.B. 740,
S-22007 Lund, Sweden

熱測定

★ 31st ANNUAL CALORIMETRY CONFERENCE

Argonne National Laboratory
Sept. 29 Oct. 2, 1976

PROGRAM

Session I - Plenary Session

1976 Huffman Lecture

Titration calorimetry- A method for all solutions
J. J. Christensen, Brigham Young University.
Plenary Lecture in thermochemistry and thermodynamics
of biological systems
Introduction: N. Langerman
Plenary lecture: The thermodynamics of a self-
assembling protein system
T. S. Walther

Session II A - Thermochemistry of Actinides

R. Wood, Presiding

Solution calorimetric study of magnesium uranate
J. Boerio, H. R. Hoekstra, P. A. G. O'Hare
Thermodynamic properties of UH_3 , UD_3 and UT_3 from 0
to 700 K
H. E. Flotow

Sodium uranium (V) trioxide, Na_2UO_5 : Heat capacity
and thermodynamic properties from 5 to 350 K
W. G. Lyon, D. W. Osborne, H. E. Flotow, H.
R. Hoekstra

The high temperature enthalpies of uranium and
plutonium nitrides and carbides
F. L. Oetting

Enthalpies of formation of cesium chloro- and
bromoneupentates
J. Fuger

A new approach to the determination of the thermo-
dynamic properties of non-stoichiometric refractory
oxides at high temperatures
R. J. Ackermann, E. G. Rauh

Session II B - Calorimetric Studies of Protein Systems

S. Gill, Presiding

Acylation of α -chymotrypsin; Thermodynamic behavior
of ionization processes
D. W. Bolen, J. L. Slichtom

Specific heat and specific volume of aqueous organic
solutions and α -chymotrypsin and several derivatives
C. Jolicoeur, J. Boileau, P. A. Ledue, R. Lumry,
E. de Medicis, A. Losurdo, W. Y. Wnn, J. C. Mercier
Heats of dilution of hemoglobin A and S
W. A. Tisel, B. E. Hedlund, A. Rosenberg

Calorimetric studies of group modified proteins
B. R. Streenathan, C. J. Martin, M. A. Marini

Session III A - Thermodynamics and Thermochemistry of Aqueous Systems

C. Criss, Presiding

An equation of state describing hydrophobic interactions
S. J. Gill, I. Wadso

The solubility of halogen containing gases in water,
5 to 40°C
D. Peterson, R. Battino

Thermodynamic properties of ternary aqueous systems
J. E. Desnoyers, G. Perron

Thermodynamic studies of water + tetrahydrofuran
mixtures
O. Kiyohara, G. C. Benson

Heat capacities of aqueous electrolyte eight 1:1
electrolytes and C_p for ionization of water at 298K
P. P. Singh, E. M. Woolley, K. G. McCurdy,
L. G. Hepler

Measurement of heat contents of $NaCl-H_2O$ solutions
at temperatures to 1000K and pressures to 2 kilobars
R. B. Kasper, A. Navrotsky

Recent thermodynamic studies on the origin of substit-
uent effects in organic acid
H. P. Hopkins

Session III B - Development and Analysis of Calorimetric Equipment

B. Cassel, Presiding

A refrigerant-11 calorimeter for measurement of steady
-state powers
H. P. Stephens

A heat conduction calorimeter for the measurement of
solid heat producing samples

R. M. Hart, L. D. Hansen, J. J. Christensen
A new backmixed vessel for isothermal titration
calorimeters

T. C. Hanson, B. D. Smith

A computer controlled isothermal and isoperibol
calorimeter system

L. D. Hansen, J. J. Christensen, D. J. Eatough
R. M. Hart, R. Jaffe

Measurement limits of solution calorimeters

R. M. Hart, L. D. Hansen, J. J. Christensen,
D. J. Eatough, R. Jaffe

On the response time of tronac isothermal calorimeters
L. D. Hansen, J. J. Christensen, D. J. Eatough,
R. M. Hart, R. Jaffe

Session IV A - Thermodynamic and Thermochemistry of Interacting Systems

I. Wadso, Presiding

Calorimetric investigation of the interaction of metal
ions with cyclic polyesters

R. M. Izatt, J. S. Bradshaw, J. J. Christensen,
T. E. Jensen, L. D. Hansen, J. Lamb

The interaction of metal ions with cyclic polyethers
in molten solvents

J. Lamb, R. M. Izatt, B. L. Haymore,
J. J. Christensen

A thermodynamic description of the self-association
of flavin mononucleotide

N. Langerman, M. Gozalez

Thermodynamics of aromatic heterocyclic base-nucleic
acid intercalation reactions

E. A. Lewis

Thermodynamic studies of deoxyuridylate binding to
thymidylate synthetase

N. V. Beaudette, R. L. Kisliuk, Y. Gaumont,

N. Langerman

Calorimetric studies of Mg^{++} and P_i Binding to Na-K
ATPase and Ca ATPase

Y. Kuriki, J. Halsey, R. Biltonen, E. Racker

Session IV B - Thermodynamics and Thermochemistry of Non-Aqueous Systems

C. Jolicoeur, Presiding

Partial molal heat capacities of tetraalkylammonium
bromides in anhydrous methanol

C. M. Criss

Heat of mixing data as a function of pressure for
the system cyclohexane - hexane

J. J. Christensen, B. Witt, L. D. Hansen,

D. J. Eatough, R. M. Izatt

Determination of excess volumes in the cyclohexane
+ benzene and the cyclohexane + n-hexane systems with
a vibrating tube densimeter

J. R. Goates, J. B. Ott, J. F. Moellmer

The excess thermodynamic functions for mixtures of
n-hexane with cyclohexane

J. B. Ott, J. R. Goates, R. J. Moss, D. W. Farrell

Session V - Symposium on Low Temperature Calorimetry Including Biological Materials

Opening Remarks

D. Osborne, Symposium Chairman

The low-temperature heat capacity of fcc Ti-Pb-Bi
alloys and its relation to superconducting properties

F. Hermans, J. D. Boyer, N. E. Phillips

Recent low-temperature calorimetry of orientational
disorder in crystals

E. F. Westrum, Jr.

Magnetism and heat capacity of transition metal alloys

R. Kuentzler

Low temperature calorimetry of protein models :
homopeptides

L. X. Finegold

Thermal properties of biopolymers over a wide temper-
ature range, including liquid helium temperatures

E. L. Andronikashvili, G. M. Mrevlishvili

Session VI A - Enthalpy of Formation

Y. T. Chia, Presiding

The enthalpy of formation of strontium monoxide

I. J. Brink, C. E. Holley, Jr.

Experimental measurement of the enthalpy of formation
of liquid and crystalline 9, 10-dihydrophenanthrene

W. D. Good, S. H. Lee

The enthalpy of formation of praseodymium trifluoride

by fluorine bomb calorimetry

R. G. Pennell, G. K. Johnson, W. N. Hubbard

内外情報

Enthalpy and heat-capacity measurements on molypdenum (NBS calorimetric standard reference material No.781) in the temperature range 273 to 2800K

D. A. Ditmars, A. Cezairelyan, S. Ishihara,

T. B. Douglas

A calorimetric investigation of alloy systems of tin and lead with basic metals

A. Borsese, G. Borzone, A. Calabretta, S. Delfino,

R. Ferro

Session VIB - Technical Development

D. Eatough, presiding

A highly-linear variable rate pump for biological flow microcalorimetry

B. G. Barisas

A flow-through rapid response densitometer

L. D. Hansen, B. Witt, J. L. Oliphant

Carbon and graphite monofilaments as an in-line electron beam energy monitor

D. V. Keller, D. A. Rice

Session VII - A Symposium on Computerized Data Banks in Chemistry and thermodynamics

Opening Remarks

W. Hubbard, Symposium Chairman

The national resource for computation in chemistry

A. C. Wahl

A survey of active computerized physico-chemical numerical data systems

J. Hilsentrath

Computer handling of thermodynamic data for interactive use to determine equilibrium levels or fo/no-go situations in real or hypothetical processes

G. P. Jones

Progress and problems in the creation use and upkeep of a thermochemical data-bank

Session VIII - Symposium on Calorimetric Studies of Interacting Systems

Introduction: N. Langerman,
L. G. Hepler, Symposium Chairman

Some aspects of the study of micro-organisms by microcalorimetry

A. E. Beezer

Thermochemical and thermokinetic studies of reactions catalyzed by the nitrogen reducing enzyme nitrogenase

G. D. Watt

Thermochemistry and enzyme properties

J. A. Rupley

Calorimetric investigation of inorganic ions in solution

R. Arnek

Applications of flow and ampoule calorimetry to reactions in aqueous solution

L. G. Hepler

Session IXA - The use of Calorimetry as an Analytical Tool

P. Ross, Presiding

A calorimetric investigation of the growth of the luminescent bacteria *beneckeae harveyi* and photo-bacterium *leiognath*

P. McIlvaine, N. Langerman

The effects of oxygen depletion and antibiotics on the calorimetry of microbial growth

J. S. Binford, Jr., R. R. Dow, L. F. Binford

Calorimetric studies of normal and transformed tissue cultures

T. E. Jensen, D. J. Eatough, J. J. Christensen,

R. M. Izatt

Microcalorimetric characterization of microbial activity in soil

K. Ljungholm, B. Noren, R. Skold, I. Wadso

Automated batch calorimetric analysis of food contaminants and pesticide residues

E. D. Brown, S. K. Chattpadhyay, J. E. Snell,

L. Cernoholovak

Use of calorimetry to study acid species in air particulate samples

D. J. Eatough, T. E. Jensen, R. M. Izatt,

L. D. Hansen

Session IXB - Heat Capacity Measurements

J. Andrews, Presiding

Description and analysis of a differential scanning calorimeter based on the heat-leak principle

D. B. Mountcastle, J. Suurkuusk, M. Halsey,

R. L. Biltonen

User evaluation of a differential scanning calorimeter

R. W. Carling, J. J. Bartel

Transformation of the excess heat capacity function of macromolecules into thermodynamic parameters describing the partition function of the system

E. Freire, R. L. Biltonen

Heat capacities of the lighter lanthanide trifluorides from 5 to 350 K

W. G. Lyon, D. W. Osborne H. E. Flotow

Heat effects upon annealing deformed 304L austenitic stainless steel

R. K. Stout, C. R. Brooks

The effect of selected cadmium and zinc dopant ions upon the magnetic disordering temperature and enthalpy of synthetic Fe_3O_4

J. J. Bartel R. W. Carling

★ Program of Symposium on Thermal Analysis New Techniques-New Application

1975年9月23日～25日

Kraków, Poland

Verschiedene neue thermogravimetrische Anwendungen auf dem Gebiete der Metallurgie, Mineralogie und anorganischen Chemie, H. Wiedemann

Application of the thermal analysis in the hydrometallurgy of zinc and aluminium, W. Riesenkampf, M. Styczyńska, W. Zabinicki

Analysis of DTA curves of melting of metals, Z. S. Kolenda, J. Horwitz, A. Penkai

Application of thermal analysis for the determination of the phase composition of nitrides exclusions in high strength steels, A. Fornáski, I. Sheybali, J. Drobník

Ein neues Gerät für quantitative DTA und einige Anwendungen in der organischen Chemie, K. Vogel

Investigation of thermal properties of polyvinyl carbazole and its derivatives, J. Fielichowski, E. Morawiec

DTA investigation of phase equilibria in liquid crystalline systems, M. Wleń, T. Drózdka

DTA of the γ -irradiated, glassy methylcyclohexane, J. Kroch, E. Saajdzinska, K. Świątkowska

Application of thermal analysis for the investigation of reactivity and degree of curing of some electro-insulating lacquers, T. Juszkisza

The application of thermal analysis in the investigation of mineral raw materials for orthophosphoric acid production, K. Koził

Thermal analysis of the clathrate and complex compounds of nickel thiocyanate and picolines and its use in preparative separation of picolines, W. Kamińska, J. Gzarecki

Determination of kinetic parameters of the thermal dissociation of acetylacetones of the transition metals of the IV period, J. Masłowska, J. Baranowski

Kinetic constants of the thermal decomposition of coal, S. Heilpern

Thermal dissociation of the basic aluminium-ammonium sulphate in vacuum, B. Fijewska, J. Fijalka

Thermogravimetry of the products of precipitation of goethite.

Influence of the shape and composition of crucibles on the thermogravimetric curve of $\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$, E. Krzyżanowska, E. Zduńcik

Phase transformations of the compounds of MBr-UBr systems (M=Li, K, Rb, Cs), M. Szczęśniak, M. Wiśniewski

Synthesis of polyhalite, J. Wajer

Decomposition of SiC by feldspar fluxes at high temperatures, J. Rzechińska, A. Fisiak

Influence of the raising of maturation temperature of concrete on its carbonisation, J. Majchrzak-Laurow

Application of DTA to the testing of degree of carbonisation of concrete elements covered with ceramic plates, I. Stebnicka, P. Wesniewski

★NATAS/76 Program

(Sixth North American Thermal Analysis Society Conference)

1976年6月20日～23日

Princeton University, New Jersey

Plenary Lecture

H. J. Maitlis, Ontario Research Foundation, Canada
"Environmental Applications for Thermal Analysis"

1976 Mettler Award Lecture

P. K. Gallagher, Bell Laboratories, Murray Hill, New Jersey
"Some Contributions of Thermal Analysis to the Study of Catalysis"

Session 1 ; New Techniques

Torsional Pendulum and Torsional Braid Analyses of Polymeric Materials, C. K. Willham

Recent Advances in Thermogravimetric Analysis of Polymer and Elastomer Formulation, B. Cassel

A Thermal Evolution-Differential Trapping-Mass Spectrometric Technique for Polymer Characterization, J. Chiu, A. Beattie

Direct Analysis of Polymer Pyrolysis Using Laser Microprobe Techniques, R. M. Lum

Techniques for Studying the Pyrolysis of Polymers at Very High Heating Rates, E. Miller, J. F. Martin, H. Wang

Session 2 ; The Application of Thermal Analysis to the Study of Biological Systems

Thermal Techniques in Biomembrane and Lipoprotein Research.
I. Thermal Studies in Membrane Biology-Differential Scanning Calorimetry, E. L. Melshior, J. M. Stein

Thermal Techniques in Biomembrane and Lipoprotein.
II. Thermal Studies in Membrane Biology-Differential Scanning Dilatometry, P. J. Scavitt, J. M. Stein

Thermal Techniques in Biomembrane and Lipoprotein.
III. Thermal Studies of Lipoprotein Structure, M. T. Walsh, J. M. Stein

Applications of a Novel Differential Scanning Calorimeter Based on the Heat Conduction Principle to the Study of Biological System, J. B. Mountcastle

Theoretical and Experimental Differential Scanning Calorimetric Studies of Enzyme-Substrate Reactions, L. F. Whiting, P. W. Carr

Session 3 ; Polymers and Organic Materials

Total Thermal Analysis of Polymers, R. L. Blaine

Characterization of Polymeric Electrical Insulators by Thermal Analysis, J. L. Haberfeld, J. F. Johnson, J. Tanaka

Kinetics of Epoxy Resin Polymerization Using Differential Scanning Calorimetry, P. Payer, W. D. Bascom

A New Series of Liquid Crystal Compounds.

I. Thermal Properties of 4-Alkyl-4'-Cyanostolanes, R. J. Cox, R. C. Gaskill, J. F. Johnson, R. J. Cleek

A New Series of Liquid Crystal Compounds.

II. Thermal Properties of 4-Alkyl-4'-Cyanostilbenes, R. J. Cox, R. C. Gaskill, J. F. Johnson, R. J. Cleek

Session 4 ; General

Detection Noncorning Systems in the Determination of Purity by Differential Scanning Calorimetry, J. D. McCarr

Effect of Thermal Transport Mechanisms on the Thermal Decomposition of Calcium Carbonate, P. K. Gallagher, D. W. Johnson, Jr., R. M. Cawdwell

Phase Diagram for the Ternary System LiCl-CaCl₂-CaCrO₄, R. P. Clark

Thermal Characteristics of Desensitizing Waxes for Use with Explosives, J. Harris

Effect of Different Carbons on Ignition Temperature and Activation Energy of Black Powder, A. D. Kirshenbaum

High Temperature Thermal Analysis, A. F. Baker

Session 5 ; Joint Symposium with ASTM Committee E-37 on Thermoanalytical Test Methods

Some Applications of Thermal Analysis to or Replacement for ASTM Testing Standards, W. F. Grunow

Thermoanalytical Methods in Vulcanizate Analysis.

I. DSC and the Heat of Sulphur Vulcanization, P. W. Brazier

Thermoanalytical Methods in Vulcanizate Analysis.
II. Derivative Thermogravimetric Analysis, J. W. Brazier

A Standardization Procedure for Purity Determination by Differential Scanning Calorimetry, A. F. Grunow

★第7回全ソビエト連邦熱測定学会プログラム

(1977年1月31日～2月3日)

於 モスクワ, ロモノーソフ記念国立モスクワ大学

化学部

(阪大理 崎山 総訳)

Plenary lectures

1. Ya. I. Gerasimov, "Perspectives of progress in chemical thermodynamics during the 10-th five-year plan".

2. V. A. Medvedev and I. L. Khodakovskii, "Thermodynamic studies needed for the selection of key thermodynamic quantities".

3. D. Wagman (U.S.A.), "Problems on the establishment of consistent thermodynamic data system".

4. I. B. Rabinovich, "Progress in thermodynamics of organic compounds in U.S.S.R.".

5. S. Sunner (Sweden), "Problems in Combustion Calorimetry".

6. I. N. Galiperin, "Recent status and tendencies in differential calorimetry".

7. V. Zelenkevich (Poland), "Dynamic properties of a calorimetric system".

8. G. N. Gusekov and G. A. Krestov, "Problems in the non-linear theory of differential scanning calorimetry".

9. L. V. Gurvich, "Recent progress in statistical-dynamical calculation of thermodynamic functions of gases".

10. E. F. Westrum, Jr. (U.S.A.), "The latest attainment in thermodynamics of pnictides and chalcogenides of transition metals".

11. Z. V. Mogutov, "Thermochemistry of decomposition reaction of solid solution of super-saturated a-iron".

Section 1. Thermodynamics of inorganic compounds.

1-1. V. M. Lazarev, Yu. Ya. Suponitskin and M. Kh. Karapet'yants, "Thermodynamic properties of gadolinium orthomolybdate".

1-2. Yu. D. Tret'yakov, Ya. A. Kesler, and I. V. Gordeev, "Enthalpies of formation of chalcogenide spinels".

1-3. Yu. D. Tret'yakov, A. V. Rozantsev, Ya. A. Kesler, I. V. Gordeev, and T. Z. Komm, "Thermodynamics of rare earth aluminates".

1-4. V. S. Pervov, V. Ya. Leonidov and A. G. Muravina, "A New determination of enthalpy of formation of nickelous difluoride".

1-5. V. Ya. Leonidov, O. M. Gaisinskaya and V. S. Pervov, "On the possibility of correlating enthalpy of formation with composition in the system wolfram-boron".

1-6. N. V. Chelovskaya, A. N. Kornilov, V. I. Zhelankin and G. P. Shveikin, "On the possibility of determining heat of formation of transition metal carbides from heat of combustion data of the onycarbides".

1-7. I. M. Ushakova, A. N. Kornilov, "Some methodological problems in thermodynamics of inorganic compounds".

1-8. T. Kh. Azizov, A. S. Abbasov, F. M. Mustafaev and I. Ya. Aliev, "Determination of enthalpies of formation of Ce₃Te₃, Dy₂S₃, Dy₂Se₃, Dy₂Te₃, Yb₂S₃ and Yb₂Se₃".

1-9. N. I. Madkevich, L. E. Gorsh, "Enthalpy of formation of silicon disulfide".

1-10. Yu. G. Stenin, V. A. Titov, N. N. Zhamskaya, A. I. Titov and G. A. Kokovin, "Calorimetric and vapor pressure studies on the system: tin-iodine".

1-11. V. A. Titov, Yu. G. Stenin, N. N. Zhamskaya, A. I. Titov and G. A. Kokovin, "Calorimetric and vapor pressure studies on the system: tin-bromine".

1-12. N. M. Gamanovich, V. P. Glybin, G. I. Novikov, "Standard enthalpy of formation of ruthenium trichloride and oxychloride".

1-13. Yu. G. Blasov, P. P. Antonov and B. L. Seleznev, "Calorimetric determination of heat of formation of solid solution KF-RbF".

1-14. Yu. S. Kozlov, N. A. Vatolin, O. V. Demidovich and Yu. B. Mal'tsev, "Calorimetric studies at high temperatures of liquid alloy of niobium".

- 1-15. Yu. S. Esin, S. P. Kolesnikov and P. V. Gel'd "Enthalpy of formation of Si-Cr alloy".
 1-16. O. I. Ostrovski, A. Ya. Stomakhin, E. Ditrikh and V. A. Grigoryan, "Heats of solution of aluminium, silicon and titanium into Fe-Cr and Ni-Cr alloys".
 1-17. B. M. Mogutnov and N. G. Shaposhnikov, "Calorimetric studies on the decomposition of super-saturated solid solution in Ge-Co-Mo alloy".
 1-A. V. Zelenkevich, T. Krechmer and A. Zelenkevich (Poland), "Application of calorimetric method to the determination of chromium content in some kinds of highly alloyed steel".
 1-18. N. M. Aristova, L. A. Kucherenko and V. A. Trodkina, "Calorimetric studies on the defect formation process in solid solution Ni-Al".
 1-19. Yu. F. Yurchenko and E. N. Bludilin, "Enthalpy change of metals during formation of dislocation ensemble".
 1-20. K. S. Krasnov, "Thermodynamic calculations on energetically characteristic molecules and radicals of complex halides".
 1-21. A. I. Volkov, V. N. Yaglov and G. I. Novikov, "Standard enthalpies of formation of some phosphates".
 1-22. Yu. N. Matyushin, T. S. Kon'kova, E. A. Moroshchenko, V. K. Isupov, N. N. Aleinikov, Yu. A. Lekedev, B. L. Korsunskii and F. I. Dubovichkii, "Enthalpies of formation of alkali metal peroxenates".
 1-23. A. V. Suvorov, "Standard thermodynamic properties of some inorganic adducts".
- Section II. Thermodynamics of organic compounds.
- 2-1. V. A. Aleshina, M. P. Kozina and G. L. Gal'chenko, "Enthalpies of formation of α -3,4- and β -3,4- epoxycatanate".
 2-2. N. D. Lebedeva, B. L. Ryadnenko, N. N. Kiseleva and L. F. Nazarova, "Enthalpies of formation of isopropenylacetylene and isopropenylidiacetylene".
 2-3. L. N. Dityat'eva and V. P. Kolesov, "Enthalpies of formation of complex ester of aliphatic perfluoroacids".
 2-4. N. D. Lebedeva, S. L. Dobychin, N. M. Gutner and V. L. Ryadnenko, "Approximate evaluation method for ΔH_f° contribution in fluorinated alkanes by pair correlation".
 2-5. T. F. Vacil'eva, V. I. Kotov, "Heats of combustion of dimethyl amides and dimethylalkylamides".
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- 6-11. N. A. Korepanova and G. M. Orlova, "Heat capacity of chalcogenide glass in the glass transition region".
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