

Events

SYMPOSIUM ON THERMAL ANALYSIS, BOMBAY, 1971

The 1st Symposium on Thermal Analysis in India was held at Bhabha Atomic Research Centre, Bombay, India on 11–12 May, 1971, under the auspices of the Indian National Science Academy.

The following lectures were delivered:

Calorimetry

Knudsen and Langmuir vaporization studies in a high temperature vacuum microbalance
D. Chakrabartty and V. V. Dadape
(National Chemical Laboratory, Poona-8)

Thermal studies of anhydrous potassium ferrocyanide
H. V. Keer, C. Deenadas, R. V. G. Rao and A. B. Biswas
(Department of Chemistry, Indian Institute of Technology, Powai, Bombay-76)

Behaviour of the specific heat in the critical region of the binary liquid system carbondisulphide-acetonitrile
K. Govindarajan, B. Viswanathan and S. V. Subramanyam
(Department of Physics, Indian Institute of Science, Bangalore-12)

Critical phenomena in methanol–heptane system: coexistence curve, critical opalescence and specific heat anomaly
B. Viswanathan, S. V. Subramanyam and E. S. R. Gopal
(Department of Physics, Indian Institute of Science, Bangalore-12)

Phase transitions

Differential thermal analysis of precipitation in Al–Cu–Mg system
V. K. Singhal, E. M. Kurian and R. V. Tamhankar
(Defence Metallurgical Research Laboratory, Hyderabad-23)

Second order transformation in liquid metals and alloys — DTA study
R. Kumar and G. Mishra
(National Metallurgical Laboratory, Jamshedpur)

Thermal expansion coefficient of some low melting point alloys
L. J. Balasundaram and A. N. Sinha
(National Metallurgical Laboratory, Jamshedpur)

Thermal analysis of Mg–Sn and Al–Zn–Sn alloys
A. K. Nayak
(National Metallurgical Laboratory, Jamshedpur)

DTA in the study of kinetics of crystallization of glasses
R. L. Thakur and S. Thiagarajan
(Central Glass and Ceramic Research Institute, Calcutta)

Thermal analysis of magnetic transitions in $\text{KNi}_x\text{Zn}_{1-x}\text{F}_3$ compounds

H. V. Keer, C. Deenadas and A. B. Biswas

(Department of Chemistry, Indian Institute of Technology, Bombay-76)

Thermal behaviour of thalious perchlorate

G. Aravamudan, A. S. Giridharan, M. R. Udupa and M. Raghuchandra Kini

(Department of Chemistry, Indian Institute of Technology, Madras-36)

The phase transformation in alkali perchlorates

S. R. Yoganarasimhan and S. K. Syal

(Department of Chemistry, Indian Institute of Technology, New Delhi-29)

Studies on the phase transformations of sodium sulphate by dilatometric and high temperature X-ray diffractometric techniques

Q. R. Goyal and A. C. Momin

(Chemistry Division, Bhabha Atomic Centre, Bombay-85)

Phase transformation in sodium sulphate

Q. R. Goyal, V. V. Deshpande and M. D. Karkhanavala

(Chemistry Division, Bhabha Atomic Research Centre, Bombay-85)

Orthorhombic-hexagonal phase transformation in lanthanum chromium(III) oxide

A. M. George and A. C. Momin

(Chemistry Division, Bhabha Atomic Research Centre, Bombay-85)

Crystallographic transition in lanthanum copper(I) oxide

A. M. George and V. V. Deshpande

(Chemistry Division, Bhabha Atomic Research Centre, Bombay-85)

Instrumentation

A vacuum adiabatic calorimeter for specific heat studies in liquid mixtures near their critical points

B. Viswanathan, K. Govindarajan and R. D. Gambhir*

(Department of Physics, Indian Institute of Science, Bangalore-12 *Now at the Department of Chemistry, Indian Institute of Technology, Bombay-76)

A precision thermostat for the study of critical phenomena

M. V. Lele,* P. Chandrasekhar, K. Govindarajan, B. Viswanathan and E. S. R. Gopal

(Department of Physics, Indian Institute of Science, Bangalore-12. *Central Instruments & Services Laboratory, I. I. Sc., Bangalore-12.)

Studies on iso-differential thermal analysis

E. M. Kurian and R. V. Tamhankar

(Defence Metallurgical Research Laboratory, Hyderabad-23)

Thermal analysis by solar furnaces (A review)

A. J. Dankgre (Department of Chemistry, University of Poona, Poona-7)

General

Differential thermal analysis of active carbon ash

Mir Aneesuddin, P. Narayanchar, P. Basavesawara Rao and E. R. Saxena

(Regional Research Laboratory, Hyderabad-9, A.P.)

Thermal analysis of cobalt oxide powders

S. Kameswari and R. V. Tamhankar

(Defence Metallurgical Research Laboratory, Hyderabad-23)

The effect of anion impurities on the structure and texture of magnesia-alumina system

S. Kameswari and R. V. Tamhankar

(Defence Metallurgical Research Laboratory, Hyderabad-23)

Application of differential thermal and thermogravimetric techniques to the study of Fe_2O_3 and $\text{Fe}_2\text{O}_3\text{—Cr}_2\text{O}_3$ type conversion catalysts

B. R. Arora, N. K. Mandal, R. L. Chowdhury, N. C. Ganguli and S. P. Se

(Planning & Development Division, The Fertilizer Corporation of India Ltd., Sindri, Bihar)

Application of differential thermal analysis for the assessment of fertilizer raw materials

H. Roy and B. K. Banerjee

(Planning & Development Division, The Fertilizer Corporation of India Ltd., Sindri, Bihar)

Thermogravimetric study of the kinetic parameters of dehydroxylation of certain clay minerals in pure systems and in admixtures

N. G. Dave and I. Masood

(Central Building Research Institute, Roorkee)

Reaction kinetics by thermo-analytical techniques. Thermal decomposition of potassium bicarbonate

E. M. Kurian and R. V. Tamhankar

(Defence Metallurgical Research Laboratory, Hyderabad-23)

Mass spectrometric studies of thermal decomposition of solids

P. T. Rajagopalan and V. S. Venkatasubramanyan

(Central Instruments and Services Laboratory, Indian Institute of Science, Bangalore-12)

Studies on thermal decomposition of ammonium vanadate, ammonium molybdate and ammonium tungstate

I. K. Bhatnagar and D. K. Chakrabarty

(Department of Chemistry, Indian Institute of Technology, Bombay-76)

The effect of nitrate salts on the thermal behavior of amylose

D. H. Desai, C. K. Patel, K. C. Patel and R. D. Patel

(Department of Chemistry, Sardar Patel University, Vallabh Vidyanagar, Dist. Kaira, Gujarat)

Differential thermal analysis in the development of building materials

K. P. Kacker and R. C. Satiya

(Central Building Research Institute, Roorkee)

Thermal analysis investigations of sand-lime bricks

S. P. Garg and M. Rai

(Central Building Research Institute, Roorkee)

DTA studies on some mineral phases

P. K. Chatterjee, D. P. Bahl and I. Ray

(Central Petrological Laboratories, Geological Survey of India, Calcutta-13)

An investigation of the solid state reaction between manganese carbonate and molybdenum oxide by TGA and DTA

P. Rajaram, B. Viswanathan, M. V. C. Sastri and V. Srinivasan

(Department of Chemistry, Indian Institute of Technology, Madras-36)

Isolation of thallium(I) diaquodioxalato dioxouranium(VI) and its thermal behaviour
G. Aravamudan, T. B. Kalyana Venkataraman, A. S. Ciridharan and M. Raghuchandra Kini
(Department of Chemistry, Indian Institute of Technology, Madras-36)

The thermal decomposition of octa co-ordinated metal cyanide complexes
Wahid U. Malik and J. P. Jain*
(Department of Chemistry, University of Roorkee, Roorkee (U.P.) *Present address:
F. R. Division, C.B.R.I., Roorkee (U.P.)

THIRD INTERNATIONAL CONFERENCE ON THERMAL ANALYSIS

The IIIrd ICTA Conference was held in Davos (Switzerland) on 23—28 August 1971.
The full text of the lectures will be published before long.

The following lectures were delivered on the meeting:

Plenary lectures

Thermal analysis in earth sciences: experience and expectations
J. W. Smith
(Laramie Energy Res. Center Laramie, Wyoming, USA)

The automation of thermal analysis instrumentations: differential thermal analysis and thermogravimetry
W. W. Wendlandt
(University of Houston, Texas, USA)

Non-isothermal kinetics
J. Sesták
(Institute of Solid State Physics, Prague, CSSR)

A survey of multiple transitions and relaxations in organic high polymeres
R. F. Boyer
(Dow Chemical Co., Midland, Mich., USA)

Calculation of phase boundaries by thermochemical methods in contrast to thermal analysis
O. Kubaschewski
(National Physical Lab., Teddington, England)

Advances in instrumentation

Fast differential thermal analysis
B. Wunderlich and S. M. Wolpert
(Rensselaer Polytech. Inst. Troy, N. Y., USA)

A new DTA-system
W. Perron
(Mettler Instrumente AG, Greifensee, Switzerland)

Theoretical consideration of micro sample differential thermal analysis
K. Sato and J. Akiyama
(Shimadzu Seisakusho Ltd., Kyoto, Japan)

Low temperature DTA — a survey

J. P. Redfern and B. L. Treherne
(Stanton Redcroft Limited, London, England)

Constant sensitivity quantitative differential thermal analysis: development and evaluation

W. W. Wendlandt and J. R. Williams
(University of Houston, Texas, USA)

A new system for sub-ambient temperature differential thermal analysis (Range -196° to $+500^{\circ}\text{C}$)

I. C. H. May
(BP Chem. International Ltd., Epsom, Surrey, England)

A multichannel analyzer system in DTA curves recording. Graphical versus digital data

G. Graziani and L. Loreto
(Istituto di Mineralogia Università, Roma, Italy)

Effects of gas environment upon the calorimetric calibration constant of DTA cells

E. L. Dosch
(Tech. Equipment Corporation Denver, Colorado, USA)

Zerlegbarer, universeller DTA-Meßkopf

J. Klingner
(Netzsch Gerätebau GMBH, Selb, BRD)

Instrumental limitations upon the measurement of temperature and rate of energy production by differential scanning calorimetry (DSC)

J. H. Flynn
(National Bureau of Standards, Washington, USA)

The evaluation of catalysts by pressure DSC

G. Neumann and W. E. Collins
(E. I. du Pont de Nemours and Co., Wilmington, Delaware, USA)

Mesures de chaleur de réaction en analyse enthalpique différentielle

H. Chavanel, M. Couach and E. Bonjour
(LCR-Progil Service LMP, Decines, Centre d'Etudes Nucléaires, Grenoble, France)

Quasi-isothermal thermogravimetry

F. Paulik and J. Paulik
(Techn. University, Budapest, Hungary)

Simultaneous TG and X-ray measurements. Method and applications

H. G. Wiedemann
(Mettler Instrumente AG, Greifensee, Switzerland)

Accurate thermogravimetry at very high temperatures

E. Steinheil
(Max-Planck-Inst. für Metallforschung, Stuttgart, BRD)

Operating experience with a multispecimen weighing device

J. M. Ferguson, R. Fuller and D. Mortimer
(Central Electricity Res. Lab., Leatherhead, England)

Low-cost micro-TG at high rates of heating

J. W. Youren and D. A. Smith
(Queen Mary College, Mile End Road, London, England)

Measurement of pressures over 8 decades with the aid of the electromagnetic microbalance
C. H. Massen, J. A. Poulis, B. Schubart and E. Knothe
(Techn. Univ. Eindhoven, Sartorius-W., Göttingen, BRD)

A device for simultaneous determination of mass flow and reaction force of a gas stream from a heated sample

Th. Gast
(Technical University, Berlin, BRD)

The analysis of thermogravimetric curves using an analogue simulation language

M. A. Hughes and R. Hart
(University Bradford, England)

Investigation of evaporation by thermogravimetry

Z. Adonyi
(Techn. Univ., Budapest, Hungary)

Eine neue DSC-Methode

M. Linseis
(Linseis Meßgeräte GmbH, Selb, BRD)

Design considerations in advanced systems for differential scanning calorimetry

M. J. O'Neill and A. P. Gray
(Perkin-Elmer Corp., Norwalk, Conn., USA)

Differential scanning calorimetry at 150 atm. pressure

B. Wunderlich and R. C. Bopp
(Rensselaer Polytechn. Inst., Troy, N. Y., USA)

A new unit for simultaneous DTA-Mass-Spectrometric analysis

H. J. Madoc Jonse, M. L. Aspinall, E. L. Charsley and J. P. Redfern
(Stanton Redcroft Ltd., England)

Analyseur thermique pour le dosage simultané du SO₂ et du CO₂

F. Chantret
(Centre d'Etudes Nucléaires Fontenay-aux-Roses, France)

Tandem thermogravimetric analyzer — Time-of-flight mass spectrometer system designed for toxicological evaluation of nonmetallic materials

G. A. Kleineberg and D. L. Geiger
(Aerospace Medical Res Lab., Wright-Patterson AFB, Ohio, USA)

How is an acceptable nomenclature system achieved?

R. C. Mackenzie
(Macaulay Inst. for Soil Res., Craigiebuckler, Aberdeen, Scotland)

Application of a Scan-programmer to control quadrupole mass spectrometers

A. Clinckemaillie and C. Hofmann
(Balzers AG, Balzers, Liechtenstein)

The calibration and interpretation of data from a constant volume, mass spectrometer, thermal analysis system

J. Dollimore and B. H. Harrison
(University Salford, Lancs., England)

Determination of kinetic parameters from a single thermogram

M. McCarty, Jr., V. PaiVerneker and J. N. Maycock
(Div. of Martin Marietta Corp., Baltimore, Maryland, USA)

Neue Methode und Vorrichtung für die reaktionskinetische Interpretation thermogravimetrischer Meßergebnisse

P. K. Dávid and E. Zelenyánszki

(Forschungsinst. d. Elektroindustrie, Budapest, Hungary)

Activation energy of a thermolysis; conditions for a significant measurement

J. Rouquerol and F. Rouquerol

(Centre de Microcalorim. et Thermochim. du CNRS, Marseille, France)

Determination of activation energies for diffusion-controlled agglomeration reactions in metals by differential thermal analysis

J. G. Rasmussen

(Techn. Univ. of Denmark, Lyngby, Denmark)

The optimization of instrumental parameters in thermal analytical techniques for sensitivity accuracy and convenience of data presentation

R. A. Baxter

(Du Pont de Nemours and Co., Wilmington, Delaware, USA)

Data acquisition in thermal analysis

D. Amstutz

(Mettler Instrumente AG, Greifensee, Switzerland)

Reaction differential thermal analysis

R. Bárta and D. Jakubeková

(Res. Inst. Build. Const., Bratislava, CSSR)

A new interpretation of DTA curves at quantitative investigations

L. G. Berg, M. I. Kozhukov and V. P. Egunov

(State University, Kazan, Polytechn. Inst. Kuibyshev, USSR)

Peak areas and heats of transition of DTA temperature standards

R. C. Mackenzie and P. F. S. Ritchie

(Macaulay Inst. for Soil Res. Craigiebuckler, Aberdeen, Scotland)

Easy method for the evaluation of peak areas

L. A. Garcia-Ramos, M. Montagut and J. M. Amigó

(Inst. Quím. de Sarriá, Barcelona, Spain and Crist. Min., Univ. Barcelona, Spain)

Apparatus for periodic thermal analysis (PTA)

I. Proks, I. Zlatovsky and K. Adamkovicová

(Inst. Inorg. Chem., Slovak Academy of Sciences, Bratislava, CSSR)

A simultaneous ETA-DTA equipment

W. D. Emmerich and V. Balek

(Netzsch Gerätebau GmbH, Selb, BRD)

Investigation of bauxites by thermo-gas-titrimetry

J. Paulik and F. Paulik

(Techn. University, Budapest, Hungary)

The measurement of thermal diffusivity by three methods

V. V. Mirkovich

(Mines and Resources, Ottawa, Ontario, Canada)

On a sequential measuring system of diffusivity vs. temperature

K. Y. Nunogaki, T. Nakajima and S. Baba

(Sanki Engineering Ltd., Kyoto, Japan)

Differential thermocouple up to 2450°C and thermographical investigation of refractory silicides

Yu. A. Kocherzhinsky

(Inst. of Metal Physics, Academy of Sciences, Ukraine, Kiev—142, USSR)

Application of TGA in physical-chemical investigations

E. K. Koehler, A. I. Leonov and E. Shvaiko-Shvaikovskii

(Inst. of Silicate Chem., USSR Academy of Sciences, Leningrad, USSR)

Inorganic chemistry

Thermogravimetric studies of the high temperature thermodynamic properties of nonstoichiometric cerium oxides

O. T. Sørensen

(Danish Atomic Energy Commission, Risø, Denmark)

The reduction of mixed oxide catalysts containing cobalt and molybdenum oxides on γ -alumina supports

D. Dollimore and G. Rickett

(University of Salford, Lancs., England)

Oxidation of Ta and Nb in the presence of alkali metals

G. Geschwind, D. Larson and P. Adler

(Grumman Aerospace Corp., Bethpage, New York, USA)

The influence of selected metal oxides on the oxidation characteristics of a carbon black

L. F. Jones, D. Dollimore and T. Nicklin

(University of Salford, Lancs., England)

Thermoanalytische Untersuchungen an feinst-dispersen Varietäten der Birnessit- und Kryptomelengruppe

K. Hochstrasser and W. Feitknecht

(Universität Bern, Switzerland)

The thermo-analytical behaviour of some synthetic manganese oxides

K. H. Tonge and D. Dollimore

(University of Salford, Lancs., England)

Kombinierte TA und RA des Sb—O und Cd—Sb—O Systems

A. J. Hegedüs, Gy. Bakcsy and L. Major

(Tungsram, Materialunters., Budapest, Ungarn)

Preparation and thermogravimetric study of neutral uranyl phosphate $(\text{UO}_2)_3(\text{PO}_4)_2 \cdot \text{XH}_2\text{O}$

J. M. Schaeckers

(Atomic Energy Board, Pretoria, South Africa)

Uranium oxides under different atmospheric and thermometric conditions

A. van Tets

(Atomic Energy Board, Pretoria, South Africa)

DTA measurements in the uranium—nitrogen system

T. Ishii and H. Holleck

(Kernforschungszentrum Karlsruhe, Germany)

TGA measurement of structure changes in some uranium compounds

W. E. Gardner

(Materials Physics Div. A.E.R.E., Harwell, Berksh., England)

The investigation of solid state diagrams of alkali metal sulfides (antimony sulfide) by the DTA method

Kurnakov, Lazarev, Berul and Salov

(Inst. of Inorg. and Gen. Chem. of the USSR Acad. of Sciences, Moscow, USSR)

Mechanism of solid state reactions from thermal analysis measurement

V. Šatava

(Joint Lab. Univ. of Chem., Prague, CSSR)

Hydrogen-bonding in $\text{Mg}(\text{OH})_2$ and its effect on specific heat and lattice expansion

F. Freund and V. Sperling

(Mineral. Petrogr. Inst. University of Köln, BRD)

Contribution to the field of kinetic thermal studies

J. Simon, E. Buzágh and S. Gál

(Techn. University, Budapest, Hungary)

Non-isothermal kinetics of reversible reactions taking as an example thermal decomposition of CaCO_3

H. Jüntgen and K. H. van Heek

(Bergbau-Forschung GmbH, Essen, BRD)

Thermometric methods of kinetic analysis

V. Vajgand, F. Gaal, Lj. Zrnic-Zeremski and V. Sörös

(Inst. of Chem., Beograd and Inst. of Chem., Novi Sad, Yugoslavia)

Application of simultaneous differential thermal analysis, thermogravimetry and analysis of the evolved gases to studies on kinetics and mechanism of complex reactions

Z. Kubas and M. Szalkowicz

(Inst. of Iron Metallurgy, Krakow al. Mickiewicza, Poland)

The kinetics of oxidation on coal solvent extracts using a thermogravimetric system

D. Dollimore and A. Turner

(University of Salford, Lancs., England)

Differential scanning calorimetry applied to the thermolysis of peroxalates

W. Adam and J. Sanabia

(University of Puerto Rico, Rio Piedras, Puerto Rico)

Kinetic analysis of thermogravimetric data. IV. Influence of heating rate and of sample weight on thermal decomposition of $\text{CoBr}_2(\text{m-toluidine})_2$

J. Zsakó, E. Kékedy and Cs. Várhelyi

(Babeş-Bolyai University, Cluj, Rumania)

DTA and DSC of compounds and solid solutions in the system $\text{Na}_2\text{SO}_4\text{--K}_2\text{SO}_4$

W. Eysel

(Inst. für Kristallographie, T. H. Aachen, BRD)

Investigation of the thermal stability and decomposition kinetics for the hydrofluorides by a thermogravimetric method

A. A. Opalovsky, V. E. Fedorov and T. D. Fedorova

(Institute of Inorg. Chem., Siberian Dept. of the Academy of Sciences, Novosibirsk, USSR)

The reaction of aluminium with molecular oxygen and nitrogen at temperatures between 400 and 600°C

W. Meierhöfer and H. R. Oswald

(Inorganic Chemical Institute, University of Zurich, Switzerland)

Catalytic thermometric end-point detection of chelatometric and precipitation titrations in water and non-aqueous solvents

T. F. A. Kiss

(University of Novi Sad, Yugoslavia)

Le risque d'erreur que comporte l'analyse thermique des réactions à l'état solide sans le secours de techniques auxiliaires appropriées. Un exemple concret

M^a E. Garcia-Clavel, A. Kilany and F. Burriel-Marti

(Facultad de Ciencias, Madrid-3, Spain)

Evolution thermique du système sulfate d'ammonium-phosphate de calcium

Ph. Leclercq

(Ets. Ugine-Kuhlmann, Levallois, France)

Thermal treatment of CoMoO_4 and its influence in the base-adsorption

A. La Ginestra, C. Ferragina and L. Cicconetti

(CNEN Lab. Ingegn. Sanitaria-Ist. Chim., Rome, Italy)

Differential thermal investigation of the system tricalcium silicate—calcium lignosulfonate—water in presence of tricalcium aluminate and its hydrates

V. S. Ramachandran

(National Res. Council of Canada, Ottawa, Canada)

Thermogravimetry of glutarates and perfluoroglutarates of lanthanons and yttrium

E. Amaral and R. Guedes de Carvalho

(Centro des Estudos Quim. Nucl. Fac. Engenharia, Porto, Portugal)

The thermal decomposition of potassium permanganate

F. H. Herbstein, G. Ron and A. Weissman

(Institute of Technology, Haifa, Israel)

The thermal decomposition of TlClO_2 , TlClO_3 and TlClO_4

F. Solymosi and T. Bansagi

(Gas Kinetics Res. Group, Szeged, Hungary)

Preparation and thermal properties of bismuth orthovanadate

I. M. Gottlieb and Ch. R. Rowe

(PMC Colleges, Chester, Pa., USA)

The thermal decomposition of ammonium metavanadate differential enthalpic analysis

M. E. Brown and B. V. Stewart

(Rhodes University, Grahamstown, South Africa)

Zur Kenntnis der thermischen Zersetzung von Ammoniumhexafluoro-Aluminat, -Gallat und -Indat

P. Bukovec and J. Šiftar

(Inst. "Jožef Stefan" Univ., Ljubljana, Yugoslavia)

Differential thermal analysis of calcium cobalt, copper and nickel tetrafluoroborate

R. T. Marano and J. L. McAtee, Jr.

(Baylor University Waco, Texas, USA)

Das thermische Verhalten der Addukte von Blei-Salzen mit einigen Amiden

M. Glavas

(Hemijski-Institut, Sarajevo, Yugoslavia)

Die thermische Zersetzung der Niederschläge CdSSe_y

J. Jernejčič

(Chem. Inst. Boris Kidrič, Ljubljana, Yugoslavia)

Investigation of calcium formate polymorphic transitions by differential thermal analysis

B. Claudel, C. Comel and B. Mentzen

(Inst. Nat. d. Sciences Appl. de Lyon, Villeurbanne, France)

A study of the thermal behaviour of solids by the radioactive emanation method

V. Balek and K. Habersberger

(Charles Univ., Prague, CSSR)

Radioactive kryptonates and dekryptonation thermic analysis

M. Vanis, Š. Varga and J. Tölgyessy

(Slovak Techn. Univ. Bratislava, CSSR)

Die thermo-optische Analyse bei der Untersuchung von Festkörperreaktionen

K. Heide

(Sektion Chemie, Jena, DDR)

DTA- und TKG-Untersuchungen von raschen Reaktionen zwischen festen Stoffen

N. P. Burmistrowa and R. G. Fewa

(Universität Kazan, USSR)

Differential thermal analysis of some simple and mixed metallic sulfides in the Cu-S, Ag-S, Zn-S, Cd-S and Hg-S systems

M. Charbonnier and M. Murat

(Univ. Claude-Bernard, Lyon, Villeurbanne, France)

Studies on the reactions of alkali-carbonates with various oxides at high temperatures

S. Gal

(Techn. University, Budapest, Hungary)

Influence de divers facteurs sur les processus élémentaires de déshydration thermique de sulfates hydrates

J.-M. Brégeault, M. Tardy and G. Pannetier

(Université de Paris, France)

Thermoanalytische Untersuchungen der Alaune

A. Arhar and J. Šiftar

(Anorg. Chem., Universität Ljubljana, Yugoslavia)

Thermische Analyse eines Gold(III)-Oxyhydrates

E. Ledrer

Linseis GmbH, Selb, BRD)

Thermal analysis of cobalt molybdate and iron molybdate

S. K. Bhattacharyya and P. P. De (Mrs)

(Banaras Hindu University, Varanasi, India)

One of a series concerning physical properties of precipitated zirconium phosphates

D. V. Nowell and S. E. Horsley

(Chem. Sciences, Polytechn., Hatfield, Hertfordsh., England)

The thermal decomposition of barium bisoxalato-stannate(II) and tetra-oxalato-stannate(IV)

P. K. Gallagher and F. Schrey

(Bell Telephone Lab., Murray Hill, N. J., USA)

Thermal investigation of the dehydration of alkali earth chloride hydrates

E. Buzágh, S. Gál and J. Simon
(Techn. University, Budapest, Hungary)

Thermal decomposition of some potassium oxalates

A. H. Verdonk
(State University, Utrecht, Netherlands)

The up-to-date problems of the thermal analysis for the co-ordination compounds with organic ligands

A. V. Nikolaev, V. A. Logvinenko, V. M. Gorbachov, L. I. Myachina and N. N. Knyazeva
(Siberian Dept., Acad. of Science, Novosibirsk, USSR)

Untersuchung der thermischen Eigenschaften von Übergangsmetall-Mischkomplexen

G. Liptay, I. Porubszky and A. Németh
(Techn. Universität Budapest, Hungary)

The thermal analysis of complexes of the type $[M^II(pa)_2(H_2O)_2]X_2$ where pa = pyridine-2 carboxamide, $M^II = Mn(II), Fe(II), Co(II), Ni(II), Zn(II)$ and X = chloride and bromide

D. R. MacSween and T. Kennedy
(Paisley College of Techn., Renfrewshire, Scotland)

Derivatographische Untersuchungen der thermischen Zersetzung von Perchlorat- oder Meta-perjodation enthaltenden Metallkomplexen mit Pyridin, bzw. Pyridin enthaltenden Ringsystemliganden

B. Loránt
(Inst. für Lebensmittelkontr., Budapest, Hungary)

Thermal decomposition of the tris(ortho-phenanthroline)-complexes of some first transition group elements

L. Ancarani-Rossello, A. La Ginestra and L. Cicconetti
(CNEN-Lab. "F. Giordani" Univ., Roma, Italy)

Thermal decomposition of niobium oxalates I: The thermal decomposition of oxy-hydroxy-bis-oxalato niobic acid and its salts

Z. Despotovic and N. Brnicevic
(Inst. "Rudjer Boskovic", Zagreb, Yugoslavia)

A comparison of differential thermal analyses and calorimetry measurements for the system $LiCl-KCl-CaCrO_4$

R. P. Clark
(Sandia Lab., Albuquerque, New Mexico, USA)

Thermoanalytische Untersuchungen an Ablagerungen in Gasturbinen und Dampfkesseln

E. Erdős and P. Brezina
(Gebrüder Sulzer AG., Winterthur, Switzerland)

Calorimetric study of precipitation in a commercial (7075) aluminium alloy

G. Geschwind, P. Adler and R. Delasi
(Grumman Aerospace Corp., Bethpage, N. Y., USA)

Thermogravimetric analysis of dissolved tungsten and carbon in the cobalt binder phase of hard metal

B. O. Haglund, U. Bäckman and B. Bolin
(Sandvik Steel Works, Stockholm, Sweden)

Kinetics of the activity of fluxes for brazing

L. Kosnáč

(Welding Res. Inst., Bratislava, CSSR)

Formation and surface properties of electron emissive coatings. VII. Commercial cathode coatings

M. D. Judd and M. I. Pope

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Organic and macromolecular chemistry

La préparation et quelques propriétés thermiques des mono- et dihalogénures de l'hydrazine

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Thermal analysis of aminobenzimidazoles

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Thermal behaviour of organic compounds with ionic character

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Radiothermogravimetry — a technique for determining pyrolysis mechanisms

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The selection of catalysts by thermogravimetric investigations

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Investigation of the melting behaviour of organic substances by differential scanning calorimetry

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Identification par ATD et TG d'une série d'acides α -amino aliphatiques saturés

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Characterization of unusual lipids by novel thermoanalytical techniques

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Pressure dependence of smectic-smectic transitions in bis(4'-n-alkoxybenzal)-1,4-phenylenediamines

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Acid soap formation in various anhydrous sodium soaps

H. W. Brouwer and H. L. Spier

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The evaluation of thermosetting polymers by thermal analytical methods

W. Manz and J. P. Creedon

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Torsional braid analysis of the cure of a cycloaliphatic epoxy resin

D. J. Haskins and K. A. Hodd

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Analysis of the curing reactions of thermosetting polymers by DSC

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Application of thermal analysis to evaluation of semiconductor encapsulation

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Studies of the thermal breakdown of polybenzimidazoles

G. F. L. Ehlers and K. R. Fisch

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Investigations on thermal properties of some polyesterimides with polynaphthalene rings in the side chain

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Oxidative thermal degradation of selected polymeric spacecraft materials

W. K. Rudloff, A. D. O'Donnell, R. G. Scholz and A. Valaitis

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The identification of high polymers by thermal degradation in the mass spectrometer

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Investigations of the stability of polymers by thermal volatilization analysis

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Evolved gas analysis using an ion selective electrode

T. R. F. W. Fennell, G. J. Knight and W. W. Wright

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Quantitative determination of styrene units in butadiene-styrene copolymers

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Analyse von Inden-Cumaron-Harzen durch Differentialthermogravimetrie und Infrarotspektroskopie

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Simultaneous thermal analysis techniques as an aid to predicting flammability of composite textiles and polymers

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Low temperature isothermal pyrolysis of cellulose

A. Broido and M. Weinstein

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Thermogravimetry of cellulose by gamma-ray absorption

D. J. Brown, J. Phillips and E. Rothwell

(University of Sheffield, England)

The kinetics of the reaction of CO₂ with cellulose triacetate carbons in the range 1160–1240°K

B. McEnaney and N. G. Dovaston
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A study of reaction mechanisms by DSC and TG

D. F. Arseneau and J. J. J. Stanwick
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Etude de la cinétique de cristallisation de divers polypropylènes

H. Heyns and S. Heyez
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Thermal analyses of polymers. X. First order phenomena in polystyrene

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Multiple transitional regions observed in several free-radical polymerized polymethacrylates by thermal ultrasonic and optical techniques

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Melting of some aromatic and heterocyclic oligomers

H. Kambe, I. Mita and R. Yokota
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Transitions and relaxations in aromatic polymers

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The characterisation of textile fibre blends containing polyamide by differential thermal analysis

J. S. Crighton and D. A. Holmes
(University of Bradford, Yorkshire, England)

The sol-gel transition in polysaccharide gels

D. S. Reid and D. J. Tibbs
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The thermal behaviour of modified keratins

W. M. Findon and J. S. Crighton
(University of Bradford, Yorkshire, England)

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Die Anwendung der Methoden der mathematischen Statistik und Erkennungsverfahren bei der Abschätzung von DTA-Resultaten

O. P. Mtschedlow-Petrosian, W. Ju. Dubnitzki and W. L. Tschernjawski
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Dilatometric study of consolidated powdered materials

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Interest of thermal analysis in gypsum and plaster industry

M. Murat and P. Barriac
(Univ. Claude Bernard, Lyon, Villeurbanne, France)

Investigation of the solid solution of calcium hydrogermanosilicates by thermal analysis and other physico-chemical methods

A. K. Shirvinskaja and I. A. Bondar
(Academy of Sciences, Leningrad, USSR)

DTA and X-ray analysis on phase transitions and compatibility relationships in the pseudo-binary system barium metasilicate—barium metagermanate

D. Kolar, J. P. Guha and V. Urbanc
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The use of differential-thermal, thermogravimetric and gas-volumetric analysis to study the peculiar crystalline structure of calcium hydrosilicate monocrystals

Yu. M. Butt, V. V. Timashev, M. K. Grineva, V. S. Bakshutovo and V. V. Ilyukhin
(Oil Institute and Academy of Sciences, Moscow, USSR)

Study of the hydration of vitreous blast furnace slag with a high magnesia content and of related materials

J. E. Krüger and S. Vissner
(Nat. Building Res. Inst., Pretoria, South Africa)

Differential thermal analysis as applied for the study of the peculiar phase composition and structure of the cement stone hardened under long effects of high temperatures (Pressures and corrosion factors)

V. V. Simonov, V. S. Danyushevskiy, V. S. Bakshutov, R. M. Sapozhnikov and B. H. Seregin
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Kinetics of the oxidation of TiC-coated cemented carbide

B. O. Haglund and B. Lehtinen
(Sandvik Steel Works, Stockholm, Sweden)

Oxidation studies on titanium carbide

M. Reichle and J. J. Nickl
(University Munich, BRD)

Reactions between vanadium pentoxide and aluminates

H. Beer and W. Richarz
(Swiss Federal Inst. of Techn., Zurich, Switzerland)

Kinetics and mechanisms of the reaction between lead orthosilicate and potassium carbonate

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(Rutgers Univ., New Brunswick, N. J., USA)

Examination of the system "Clinker + gypsum + water" through the method of differential thermal analysis

D. Delic and Mme S. Stojadinovic
(Technical Faculty, Belgrade, Yugoslavia)

Earth science

Petrologische Anwendung der Inversions-Temperatur-Bestimmung von Quarzen

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Thermo-amperometric dehydration and thermohygroscopic analysis of opal, hydro-chrysotile, sepiolite and palygorskite

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DTA in the characterization of adsorbent clays

M. K. Hasnuddin Siddiqui
(Regional Res. Lab., Hyderabad, India)

Thermometric determination of CaCO_3 in carbonated concrete

V. Lach and Z. Sauman
(Techn. Univ., Brno, CSSR)

Examination of hydrothermal rock alterations with derivatograph

J. Hegyi-Pakó
(Central Res. and Design Inst., Budapest, Hungary)

DTA of various montmorillonite cyclohexylamine complexes

Y. Deutsch, W. Bodenheimer, S. Yariv and L. Heller
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The dissociation of strontianite and its quantitative estimation by thermogravimetry

D. J. Morgan
(Inst. Geolog. Sciences, London, England)

DTA, TGA, IR and isotopic analyses and properties of phlogopite, biotite, muscovite and lepidolite in temperature range of metamorphic reactions

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Thermal analysis of Spanish kaolins

J. L. M. Vivaldi, E. G. Huertos and J. M^a. M. Pozas
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A DTA study of the effect of pH on the adsorption of n-dodecyl-amine from aqueous solution onto oxide mineral surfaces

M. I. Pope and D. I. Sutton
(Portsmouth Polytechnic, England)