

Events

WORKSHOP ON THE STATE-OF-THE-ART OF THERMAL ANALYSIS

Gaithersburg, Maryland, USA

May 21-22, 1979

Sponsored by the National Bureau of Standards. The following lectures were delivered:

Thermal analysis in chemical processing

D. DOLLIMORE
(University of Salford, Salford, U. K.)

Phase studies in alloys

W. R. BANDI
(U. S. Steel Research Monroeville, Pennsylvania, U. S. A.)

Thermal analysis in rubber industry

D. W. BRAZIER
(Dunlop Research Corporation Mississauga, Ontario, Canada)

Studies on polymer ignition

B. MILLER and J. R. MARTIN
(Textile Research Institute Princeton, New Jersey, U. S. A.)

Ceramic processes and energy conservation

W. R. OTT
(Rutgers University Piscataway, New Jersey, U. S. A.)

Current contributions of thermal analysis to the study of technological adsorbents

J. ROUQUEROL
(Centre de Thermodynamique et de Microcalorimétrie Marseille, France)

Enthalpimetric analysis

J. JORDAN, J. D. STUTTS and W. J. BRATTLE
(The Pennsylvania State University, University Park, Pennsylvania, U. S. A.)

Chemical complexes

P. GARN
(University of Akron, Akron, Ohio, U. S. A.)

Paper technology from Egyptian, Chinese and Mayan cultures

H. G. WIEDEMANN
(Oriental Institute of the University of Zürich, Zürich, Switzerland)

Recent instrumental developments

W. WENDLANDT
(University of Houston, Houston, Texas, U. S. A.)

High pressure thermogravimetry

N. C. GARDINER
(Case Western Reserve University, Cleveland, Ohio, U. S. A.)

CONFERENCE ON "THERMAL ANALYSIS IN RESEARCH AND PRODUCTION"

The fourth annual Thermal Analysis Conference Course was held at the Polytechnic Institute of New York (May 14–16, 1979). The program was directed by Dr. Edith A. Turi of Allied Chemical Corporation, Corporate Research Center, and Professor Eli M. Pearce of the Polytechnic.

According to the evaluation of the School, this course was the most successful in the series. It was attended by 30 industrial registrants, 15 predoctoral student and 5 faculty members.

The lectures and the topics are listed below:

Thermal analysis of additives in polymers

H. E. BAIR
(Bell Laboratories)

Hazards evaluation by thermal Analysis

A. A. DUSWALT
(Hercules Res. Center)

Pharmaceutical applications of thermal Analysis

H. J. FERRARI
(Lederle Laboratories)

Thermal Characterization of fibers

M. JAFFE
(Fiber Industries)

Thermal analysis of elastomer systems

J. J. MAURER
(Exon Res. & Eng.)

Thermal analysis in polymer flammability

E. M. PEARCE
(Polytechnic)

Thermal analysis of thermosets

R. B. PRIME
(IBM)

Thermal analysis in research and production

E. A. TURI
(Allied Chemical)

Thermal characterization of materials

B. WUNDERLICH
(Rensselaer)

The Conference Course was complemented by an instrument demonstration (Paul Levy, DuPont and Richard Fyans, Perkin-Elmer) and by a session for individual problem solving.

INTERFLAM '79

An International Conference on Flammability was held at the University of Surrey, Guildford, England, organized jointly by "Fire and Materials" and LIRA

The following lectures were delivered:

Australian fire statistics

G. CAIRD RAMSAY

(CSIRO, Division of Building Research, Highett, Victoria, Australia)

Determinant of international differences in reported fire losses: preliminary investigation. Final technical report.

R. L. RARDIN and M. MITZNER

(Georgia Institute of Technology, 225 North Avenue N. W. Atlanta, Georgia 30332)

The continuing problem of serious burns involving the ignition of clothing, particularly nightwear.

C. A. WARNE

(Consumer Safety Unit, Department of Prices and Consumer Protection, Millbank Tower, Millbank, London S. W. 1.)

*Legislation**Legislation in the United Kingdom relating to plastics polymers and textiles.*

S. D. CHRISTIAN

(Home Office, 50 Queen Anne's Gate, London SW1H 9AT)

Australian fire tests in standards and regulations

V. P. DOWLING and K. G. MARTIN

(CSIRO Division of Building Research, Highett, Victoria Australia)

*Theory of fire**Critical flow rates of fuel vapour under conditions of pilot ignition*

D. D. DRYSDALE and A. A. MAZHAZ

(Department of Fire Safety Engineering, University of Edinburgh, Scotland)

The effect of the nature of fuel on the characteristics of fully developed compartment fires

T. Z. HARMATHY

(Division of Building Research, National Research Council of Canada, Ottawa, Ontario, K1A 0R6)

An evaluation of heat release criteria in reaction to fire tests

P. VANDEVELDE

(Rijksuniversiteit Gent, Ottergemse steenweg, 711 B 9000 Gent)

*Fire processes and test methods**An apparatus for the determination of the ignition time of fabrics*

A. BERNSKIÖLD and B. SCHULTZ

(Swedish Institute for Textile Research (TFO) Gothenburg, Sweden)

Oxygen index measurements at elevated temperatures

E. L. CHARLESLEY, C. T. COX, M. R. OTTAWAY and J. P. REDFERN

(Stanton Redcroft, Copper Mill Lane, London SW17 0BN England)

Textiles, fire & test standards

D. CLEGG

(ICI Fibres, Hookstone Road, Harrogate, HG2 8QN)

An application of the self-ignition method of polymers: antismoke additive induced glowing effect in the combustion of poly (vinyl-chloride)

L. DELFOSSE, J. M. DESCAMPS, M. LUCGUIN

(Laboratoire de Cinétique et Chimie de la Combustion, Université des Sciences et Techniques de Lille BP 36 — 59650 Villeneuve d'Ascq (France))

Variations of smoke density with heat flux

P. G. EDGERLEY and K. PETTETT

(Imperial Chemical Industries Ltd, Plastics Division Welwyn Garden City, Herts., AL7 1HD)

Fire processes and test methods — the pitfalls

J. A. HANVEY and B. J. HILL

(LAMBERG INDUSTRIAL RESEARCH ASSOCIATION Lambeg, LISBURN Co Antrim BT27 4RJ N Ireland)

Fire processes and test methods — the effect of increasing temperature on fabric flammability

J. A. HANVEY

(LAMBERG INDUSTRIAL RESEARCH ASSOCIATION Lambeg LISBURN So Antrim BT27 4RJ N. Ireland)

A new experimental method to predict the development of a fire

M. LAQUISSET

(Centre de Recherches Rhone Poulenc Industries, 12 rue des Gardinoux, Aubervilliers (France))

Australian studies on fire hazard tests for internal linings of buildings

K. G. MARTIN and V. P. DOWLING

(CSIRO. Division of Building Research, Highett, Victoria, Australia)

Assessment of draft iso radiant panel spread-of-flame test

G. E. SETTLE

(Wira, Headingley Lane, Leeds LS6 1BW)

Temperature of instantaneous ignition

G. E. SETTLE

(Wira, Headingley Lane, Leeds LS6 1BW)

Comparison between different reaction to fire test methods for wall-lining and flooring material

P. VANDELDELDE

(Rijksuniversiteit Gent, Ottergemse steenweg, 7111 (B) 9000 Gent)

Flammability testing in Europe

A. G. WALKER

(ANZON Limited, Cookson House, Willington Quay, Wallsend Tyne & Wear NE28 6UQ)

*Toxicity (incl. smoke and hot gases) (I) medical aspects**Fire fatality study*

M. M. BIRKY

(Center for Fire Research, National Bureau of Standards, Washington, D. C.)

B. M. HALPIN
(John Hopkins University, Applied Physics Laboratory)
Y. H. CAPLAN
(Office of Medical Examiners, State of Maryland)
R. S. FISHER
(Maryland State Medical Examiner)
J. M. MCALLISTER
(National Institute of Health)

Thermal conditions to produce skin burns

J. P. BULL and J. C. LAWRENCE
(MRC Industrial Injuries and Burns Unit, Birmingham Accident Hospital, Bath Row,
Birmingham B15 1NA)

Biological end-points for the assesment of the toxicity of products of combustion of materials

D. G. FARRAR and W. A. GALSTER
(Flammability Research Center, University of Utah, 391 S. Chipeta Way, Suite E, P. O.
Box 8089, Salt Lake City, Utah 84108 U. S. A.)

The importance of cyanide and organic nitriles in fire fatalities

W. A. HARLAND, R. A. ANDERSON
(Department of Forensic Medicine, The University of Glasgow, Glasgow G12 8QQ)

Biological evaluation of toxicity caused by fire building materials

(State University of Gent — Department of Zoophysiology — K. L. Ledeganckstraat 35,
B-9000 Gent, Belgium)

Skin damage dure to heat transfer by conduction

A. M. STOLL, M. A. CHIANTA and J. R. PIERGALLINI
(Naval Air Development Center, Warminster, PA 18974, USA)

(II) chemical aspects

Smoke problems in buildings; a TNO Research Project

H. A. L. VAN DIJK, L. TWILT, H. ZORGMAN
(Technical Centre for Fire Prevention TNO, Lange Kleiweg 5 2288 GH Rijswijk; The
Netherlands)

Production and measurement of organic volatiles in large scale fire experiments

S. J. GRAYSON, J. HUME
(QMC Industrial Research Ltd., 229 Mile End Road, London E1 4AA)

A review of smoke measuring instruments

K. MARIES
(QMC Industrial Research Ltd., 229 Mile End Road, London E1 4AA)

A new approach to testing materials in the N. B. S. Smoke Chamber

A. F. ROUTLEY and R. S. SKIPPER
(Admiralty Marine Technology Establishment, H. M. Naval Base, Portsmouth, Hants
PO1 3LZ and Raychem Limited, Faraday Road, Dircan, Swindon SN3 5HH)

Chemical aspects of combustion toxicology of fires

W. D. WOLLEY, S. A. AMES, P. J. FARDELL
(Fire Research Station, Melrose Avenue, Borehamwood Herts)

Thermal methods

The mode of action of fumed (or pyrogenic) silica as a smoke suppressant for polystyrene

A. W. BENBOW and R. CHALABI

(The City University, Northampton Square, London ECIV OHB)

Integrated TG/GC/IR/MS in the study of textiles subjected to very high heating rates

J. A. HANVEY

(LAMBEG INDUSTRIAL RESEARCH ASSOCIATION Lambeg LISBURN Co Antrim BT27 4RJ)

TG, DTG and DTA-studies on the course of the thermoxidative destruction of some polymers and the evaluation of fire retardancy

M. KOSIK and V. REISER

(Chemical Faculty, Slovak Technical University, Jánska 1, 880 87 Bratislava)

Textiles

Flame resistant fibres and fabrics

B. J. HILL

(LAMBEG INDUSTRIAL RESEARCH ASSOCIATION Lambeg LISBURN Co Antrim BT27 4RJ N Ireland)

New development in protective clothing of aramid fibers

K. REINEMER

(Du Pont de Nemours International SA, Geneva, Switzerland)

Flame retardant polyester fibres — their properties and fields of application

M. RIEBER and H. ZIMMERMANN

(Hoechst Aktiengesellschaft ATA GBH 6230 Frankfurt/Main 80, W. Germany)

Comparative studies of the burning behaviour of textiles from PES/cotton and pure cotton

K.H. UMBACH

(Bekleidungsphysiologisches Institut Hohenstein e.V. Schloss Hohenstein, D-7124 Bönningheim; West Germany)

Plastics

Flame retarded polypropylene. A comparison of large and small scale tests

D. J. ABBOTT

(HEXCEL N. V.) on behalf of DAYTECH Inc., 25 Kimberley Road, East Brunswick, New Jersey, USA 08816)

Developing flame retarded plastics — new guidance wanted

K. FISCHER

(Hoechst Aktiengesellschaft, ATA GB H D-6230 Frankfurt/Main 80)

Fire performance of GRP

K. PARVIN

(Scott Bader Company Limited, Wollaston, Wellingborough Northants NN9 7RL)

Burning characteristics of materials

K. T. PAUL

(Rubber and Plastics Research Association of Great Britain Shawbury, Schrewsbury, Salop SY4 4NR)

Thermo-physical characteristics of the partially cellular thermoplasts products obtained by injection moulding as gas counter-pressure

N. L. PIPEROV
(IMTM-BASc., Sofia, Bulgaria)

Flame retardant effects of bromine and phosphorus compounds used in polypropylene

I. SPILDA, M. PAPPOVÁ
(Research Institute of Organic Technology, 810 01 Bratislava, Czechoslovakia)

End uses

Fire safety analysis for public mass transit trains

P. J. ALLENDER
(Metro-Cammell Limited, Birmingham, England)

Protective clothing — evaluation of Zirpro wool and other fabrics

L. BENISEK, G. K. EDMONDSON, W. A. PHILLIPS
(International Wool Secretariat, Technical Centre, Ilkley, West Yorkshire, England)

Flame retardant plastic cables

W. J. M. NEDERKOORN
(Daetwyler Ltd. Altdorf (CH))

Fire testing of upholstered furniture and bedding

K. T. PAUL
(Rubber and Plastic Research Association of Great Britain, Shawbury, Shrewsbury, Salop SY4 4NR)

Intumescent coating and their uses

J. A. RHYS
(88 Park Crescent, Erith, Kent, U. K.)

Heat transfer characteristics of flight jacket materials

J. H. ROSS
(Aeronautical Systems Division, Air Force Systems Command, Wright-Patterson AFB, Ohio, USA)