

## External Presentations at MTDATA Users Group Meetings

### **MUG 17 - 2005**

Modelling of Oxide Systems and Industrial Applications

Pekka Taskinen (Outokumpu) and John Gisby (NPL)

The Role of Experimental Data in the Construction of Thermodynamic Databases

Andy Watson (Leeds University)

Modelling Calcium Silicate Hydrate Gels in Cement Systems

Mark Tyrer (Imperial College) and John Gisby (NPL)

### **MUG 16 - 2004**

Matte converter process simulation using MTDATA's application interface

Hudai Kara (Johnson Matthey)

Thermodynamic modelling of Portland cement clinker

Kazem Ghanbari Ahari (Sheffield University)

Combined thermodynamic and kinetic modelling for Pb-free solder applications

Zhiheng Huang (Loughborough University)

### **MUG 15 - 2003**

Predicting phase equilibria in oxide and sulphide systems

John Gisby, Alan Dinsdale (NPL), Ian Barton-Jones (Rio Tinto)

Alan Gibbon (MIRO), Pekka Taskinen (Outokumpu)

Modelling the effect of impurities on potential high-temperature standards based on eutectic alloy melt transitions

Dave Lowe (NPL Thermal Team)

Pablo Jimeno Largo (Universidad de Valladolid)

Combined thermodynamic and kinetic models for microstructural evolution in metal alloys

Rachel Thomson (IPTME, Loughborough University)

Phase equilibria of steel converter slags: The effect of B<sub>2</sub>O<sub>3</sub> additions

Ian Barton-Jones (Rio Tinto Technical Services)

Thermodynamic prediction of thixoformability using MTDATA (Poster)

D Liu, H V Atkinson, H Jones (University of Sheffield)

### **MUG 14 - 2002**

Diffusion and phase-transformation in steels

Thomas Sourmail (Cambridge University)

Optimising the slag chemistry of nickel smelting

Pekka Taskinen (Outokumpu Research Oy)

Thermodynamics of furnace refractory corrosion during float glass manufacture  
John Buckett (Pilkington)

Predictive phase equilibria in multicomponent oxide and sulphide systems - MIRO  
project RC154 (Poster)

John Gisby, Alan Dinsdale (NPL), Jeff Taylor (Johnson Matthey)  
Alan Gibbon (MIRO), Malcolm Rand (WintersHill Consultants)

Application of MTDATA in phase-field modelling of Al-Si piston alloys (Poster)  
Rongshan Qin, Rob Wallach (Cambridge University)

Microstructural and Mechanical Property Modelling of Austempered Ductile Iron  
(Poster)

Duncan Putman (Loughborough University)

The Enthalpy of a Solid and Liquid Ti-Al-V Alloy (Poster)

Rob Brooks, Jim Robinson, Lindsay Chapman, Mike Richardson (NPL)

### **MUG 13 - 2001**

The use of MTDATA at Alcan International, Banbury Laboratories  
Havovy Cama (Alcan International)

The use of MTDATA in the modelling of refractory wear and freeze layer formation  
Andrew Campbell (Greenwich University / Rio Tinto)

The use of MTDATA in the development of near eutectic Al-Si casting alloys for  
piston applications

Wendy Edwards (Loughborough University)

The use of MTDATA for the prediction of microsegregation in multicomponent alloys  
Matthew Shin (Oxford University)

Microstructural and mechanical property modelling of chilled austempered ductile  
iron (Poster)

Duncan Putnam (Loughborough University)

Modelling Al<sub>3</sub>Zr precipitation in aluminium alloys (Poster)

Joe Robson (Manchester University)

Thermodynamic issues for producing defect free solid glass (Poster)

Ben Rendell (Cambridge University)

Thermophysical property measurements at NPL (Poster)

Peter Quested (NPL)

Predictive phase equilibria in multicomponent oxide and sulphide systems MIRO  
project RC132 (Poster)

John Gisby, Alan Dinsdale (NPL), Jeff Taylor (Johnson Matthey)  
Alan Gibbon (MIRO), Malcolm Rand (WintersHill Consultants)

Behaviour of copper and tin in steels - a new thermodynamic approach for recycling  
tin-can and incinerator scrap steels (Poster)

A Watson, A Jha, X Li, R Brydson, R C Cochrane (Leeds University)

### **MUG 12 - 2000**

The MTDATA 3D project

Alan Gibbon (Mineral Industry Research Organisation)

The use of MTDATA in teaching thermodynamics  
Fred Hayes (Manchester Materials Science Centre/UMIST)

The modelling of mercury vapour pressures for fluorescent lamps  
Alan Dinsdale (NPL), Stuart Mucklejohn (GE)

The thermodynamics of waste management  
Mark Tyrer (Imperial College, London)

### **MUG 11 - 1999**

The use of the MTDATA application interface in the microstructural modelling of austempered ductile iron camshafts  
Rachel Thomson (Loughborough University)

Linking MTDATA and MAGMASOFT  
Erik Hepp and Simone Neves (Magma Giessereitechnologie)

EHECATL (The Aztec God of the wind) : A comprehensive coupling of MTDATA with a CFD code  
Robin Devonshire (Cavendish Instruments)

The design of creep resistant steels using MTDATA  
Harry Bhadeshia (Cambridge University)

### **MUG 10 - 1998**

A thermodynamic perspective on environmental, product quality and cost issues at Kennecott Utah Copper  
Alastair Davies (Rio Tinto)

The determination of thermodynamic properties  
Mark Huntelaar (NRG)

Forward thinking thermodynamics in the nuclear industry  
Paul Gilchrist (BNFL)

Calculations of Portland cement clinkering reactions  
Tom Barry (Amethyst Systems)

### **MUG 9 - 1997**

MIRO projects: MTDATA 3D, data for oxides, data for concentrated aqueous solutions  
Alan Gibbon (Mineral Industry Research Organisation)

The use of MTDATA in process control  
Liz McColm (Johnson Matthey, Brimsdown)

Making thermodynamics work for the materials industry  
Fred Hayes (Manchester Materials Science Centre, UMIST)

Thermochemical data for organic species  
Brian Pedley (University of Leeds)

### **MUG 8 - 1996**

WinMT - MTDATA for Windows  
Alastair Davies (RTZ Technical Services)

The use of MTDATA by Pilkington Group Research  
Dr S Slade and Dr J Clark (Pilkington Technology Centre)

Microstructural modelling of commercial Al-Si alloys  
Mr C Daykin (Cambridge University)

Computer modelling of microstructures  
Dr J Hunt and Dr G Antipas (Oxford University)

#### **MUG 7 - 1995**

Inclusion engineering: A process modelling application of MTDATA  
Graham Hassall (British Steel, Teesside Technology Centre)

A study of electric arc furnace smelting slags  
Ian Barton-Jones (RTZ Technical Services)

MTDATA in the design of integrated oxidation protection systems for C-fibre reinforced SiC composites at 1200 °C - 1600 °C  
Jon Webster (University of Manchester and UMIST)

Microstructural modelling of aluminium alloys  
Alan Flemming (Alcan International)

#### **MUG 6 - 1994**

MIRO: More industrial research opportunities  
Mr A Gibbon (Mineral Industry Research Organisation)

MAP: Materials Algorithm Project  
Dr J Wilkins (University of Cambridge)

Application of MTDATA to predictions for organic species in pyrolysis and fuel rich combustion  
Dr D Thompson (University of Sheffield, School of Materials)

The role of sulphur decomposition in the emission and control of H<sub>2</sub>S from auto catalysts  
Dr J R Taylor (Johnson Matthey Technology Centre)

The role of MTDATA in studies of non-equilibrium chemistry in high temperature gas flows  
Dr R Devonshire (Sheffield University, Department of Chemistry)

#### **MUG 5 - 1993**

The marketing of MTDATA through CPA  
Mr P K Mason (AEA Technology, Harwell)

The application of MTDATA to corrosion problems  
Dr T I Barry (Amethyst Systems)

The use of MTDATA in T&N Technology  
Mr J Woodthorpe (T&N Technology)

#### **MUG 4 - 1992**

New materials for aero-engines: Application of the COST507 data  
Mr C Small (Rolls Royce)

The use of MTDATA for solving process problems  
Dr G Hassall (British Steel Technical)

Reactor core - concrete interactions  
Dr M A Mignanelli (AEA Technology, Harwell)

**MUG 3 - 1991**

The use of MTDATA in research at the Manchester Materials Science Centre  
Dr F H Hayes (University of Manchester and UMIST)

The use of thermochemistry in lamp development and modelling  
Dr S A Mucklejohn (GE Thorn Lamps)

**MUG 2 - 1990**

Microstructure modelling with the help of MTDATA  
Dr H Bhadeshia (University of Cambridge)

An overview of the applications of MTDATA in Sheffield  
Dr A Watson (University of Sheffield)

The application of MULTIPHASE to simulated coal ashes  
Dr D Thompson (University of Sheffield)

Application of MTDATA software in solidification study  
Li-Mei Pan (University of Surrey)

**MUG 1 - 1989**

No speakers from outside NPL