

1st International Conference on Materials & Tribology 2002

Conference Programme

M&T2002

Organiser

Location

Programme

Guest

Tour

Exhibition

Papers

Registration

Sponsors

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Preliminary Programme

Wednesday 11th September

15:00 – 17:30 Early Registration

18:00 – 19:00 WELCOMING RECEPTION

Thursday 12th September

09:00 WELCOME by Conference Chairperson

09:15 OPENING CEREMONY

09:45 KEYNOTE ADDRESS

Dr. Dennis Teer, Research Director, Teer Coatings Ltd.
"Surface Coatings in Industry"

Dr. Dennis Teer was head of Physical Analysis and Testing at English Electric Research Laboratories until 1971. In 1971 he was appointed Reader at University of Salford and was responsible for establishing the first R&D group in the UK investigating ion plating of hard coatings. In 1985 he left the University to set up Teer Coatings Ltd. The company has now grown to 45 employees offering sputter ion plating equipment and a wide range of coatings but with a strong emphasis on R&D. Dr Teer has developed and patented the Closed Field system for Magnetron Sputtering and new hard solid lubricant films based on MoS₂ and Graphite.



10:30 COFFEE BREAK

11:00 PARALLEL SESSIONS

Track A1	Track B1
Surface Engineering	Non-metallic Materials

12:45 LUNCH

14:00 PARALLEL SESSIONS

Track A2	Track B2
Wear of Materials	Laboratory Methods

15:30 COFFEE BREAK

16:00 KEYNOTE ADDRESS -

Prof. Michael Pomeroy,
Associate Professor, Materials Science &
Technology, University of Limerick
"Coatings for Gas Turbine Materials - Long Term
Stability Issues"

Mike Pomeroy is Associate Professor in Materials

Science and Technology at University of Limerick and a member of the University's Materials & Surface Science Institute. He has been involved in high temperature corrosion research for some 27 years and has a broad background in the corrosion of boiler materials, gas turbine materials and coatings and the corrosion of ceramics. Current research projects include:- "Electroplating of Nickel – yttria coatings" ; "Chemical and microstructural equilibration of Aluminide coatings with Ni-based alloys used in gas turbines"; and "Surface engineering of new alloys for super high efficiency power generation" a project with UMIST, Forschungszentrum Julich, Max-Planck-Institut für Eisenforschung, Joint Research Centre, Petten, Aristotle University of Thessaloniki, Karl-Winnacker-Institut der DECHEMA ev, Universidad Complutense de Madrid.



16:45 PLENARY

18:30 EVENING TOUR OF DUBLIN

Friday 13th September

09:00 KEYNOTE ADDRESS –

Prof. Dr. Georg Clauss,

Manager, Technische Akademie Heilbronn e.V.,
Institute for Further Education

"Polymer Materials – Too Valuable to Incinerate"



Prof. Dr. Georg Clauss is well known to materials researchers and academics in Britain and Ireland. He has supervised PhD students in partnership with English and Irish institutions and given guest lectures on Masters courses, as well as for Industry. He is currently involved in establishing a European Engineering Masters programme with partners in a number of countries. Georg studied for a Physics degree in the late seventies at the University of Stuttgart and obtained a PhD from the University in the same discipline in 1987.

As Head of the Dept. Physics of Polymers, at the Weiblingen polymer plant of Robert Bosch GmbH, he was responsible for ground breaking research into the physical characterisation and testing of elastomers. In 1997, Georg moved to Heilbronn University of Applied Sciences where his expertise in materials has been augmented by research and course development in the topic of Waste Recovery and Disposal Management.

09:45 PARALLEL SESSIONS

Track A3	Track B3
Surface Treatments	Material Characterisation

11:05 COFFEE BREAK

11:30 KEYNOTE ADDRESS –

Prof. Mladen Franz, D.Sc.

Dean, Faculty of Mechanical Engineering and Naval

Architecture, Zagreb.
"Shapes in Alloys"

Prof. Mladen Franz is Dean of the Faculty of Mechanical Engineering and Naval Architecture, Zagreb. He holds a B.Sc. degree in Mechanical Engineering, an M.Sc., and a Doctorate of Technical Sciences. He joined the Faculty of Mechanical Engineering and Naval Architecture in 1972, initially working in the Research Unit for Materials. In 1981 he was appointed Head of the Laboratory for testing mechanical properties, which has, since 1992, acted as the authorised laboratory of the State Office for Standardisation and Metrology for the calibration of force and hardness standards.



Since 1985 Prof. Franz has been a member of the Technical Committee on Hardness Measurement (TC5) of the IMEKO international organisation. In 1994, Prof. Franz was appointed assistant Dean at the Faculty of Mechanical Engineering and Naval Architecture, Zagreb, and in October 1998 he was elected Dean of the Faculty. His doctoral thesis was entitled "The Effect of Residual Stresses on the Dynamic Strength of Nitrated Steel"; he has published widely in journals and proceedings and has written more than 90 feasibility studies and expert analyses for the needs of industry and legislation.

12:15 PARALLEL SESSIONS

Track A4	Track B4
Neural Networks and other Computer Applications	Liquid Materials and Lubricants

13:15 LUNCH

14:30 KEYNOTE ADDRESS

Prof. Stuart Hampshire

Professor of Materials Science, University of Limerick

"Alumina/Silicon Carbide Nanocomposites with Enhanced Erosive Wear Resistance"

Professor Stuart Hampshire gained a BScTech (Honours) in Ceramics with Refractories Technology from the University of Sheffield in 1972. After two years in R&D in the refractories industry in Sheffield, he undertook studies on Sintering of Sialon Ceramics for his PhD at the University of Newcastle upon Tyne. From 1978 to 1980, he was a post-doctoral fellow at Newcastle working on Oxynitride Glass Preparation and Properties. He joined the University of Limerick in 1981, establishing the Ceramics Research Unit in 1983. His research is concerned with fabrication, characterisation and properties of advanced ceramics and glasses for structural applications and understanding the relationships between chemical composition, sintering behaviour, microstructural development and subsequent properties, especially of silicon nitride-based and sialon engineering ceramics and



composites. In parallel, he has been involved in studies of the nature of the oxynitride glass (liquid) phases within these materials and their crystallisation in order to produce new glass-ceramics.

In 1991, Stuart Hampshire became Associate Professor and in 1996 Professor of Materials Science at the University of Limerick. In 1991, he also became Director of the Materials Ireland Research Centre which is part of a National programme funded by Enterprise Ireland in support of Irish industry. Professor Hampshire has edited 8 books and published over 110 papers in refereed journals or conference proceedings, many from collaborative work with colleagues in Europe.

15:15 PARALLEL SESSIONS

Track A5	Track B5
New Materials and Testing Methods	New Applications

16:15 PLENARY

16:30 CLOSING CEREMONY

19:00 CONFERENCE DINNER

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