This new two-day conference organised by Rapra Technology will focus on the use of polymers (including thermoplastics, thermosets, rubbers, reinforced plastics and coatings) in aggressive and/or corrosive environments.

Aggressive chemical environments are surprisingly common, and not just in the pipe or chemical industries. Cleaning fluids, solvents, aircraft and vehicle oils and fuels, bleach, oxidising agents, acids and alkalis present a corrosion threat. Even ordinary water and steam can induce damage over time.

Plastics and reinforced plastics can resist some of the chemicals that are most damaging to metals, although they may themselves be susceptible to stress cracking as a result of the combination of stress and chemicals. There may be a deterioration in their mechanical properties as a result of swelling by the liquid. Food packaging, landfill membranes and medical devices also need to be able to withstand the processes of permeation and diffusion. Even coffee machines operate almost continuously in demanding environments.

Polymer coatings can be used to protect metal substrates. Rubber products are sometimes deployed in corrosive situations, often requiring careful choice of the elastomer. It is desirable for all these corrosion resistant materials to be able to withstand a wide range of operating temperatures as well as corrosive chemicals.

Cologne

Set in the beautiful Westphalian landscape of impressive hilltop castles, postcard-size villages, steeply wooded hills and terraced vineyards, Cologne is the state's largest city and the cultural capital of the Rhineland. Built on the banks of the Rhine, some of the best views of the city, its magnificent bridges, warehouses and floating restaurants are from a river cruise. Its documented history dates back to the Roman era and the city's museums have a wealth of archaeological treasures.

Corporate Sponsorship

A limited number of high profile cost effective sponsorship opportunities are available to maximise your corporate profile at this important event. There will also be a table top exhibition organised to run alongside the conference. To receive further information please return the form on the rear of this leaflet or contact Gavin Cripps, email: gavincripps@aol.com

Conference Venue

PACE 2004 will take place at the Crowne Plaza Hotel, Cologne, Germany. This four star Hotel is within easy reach of all main public transportation. The meeting rooms are fully equipped with all the latest audio visual equipment and a Business Centre is available in the hotel. Further information can be found online at: www.cologne-citycentre.crowneplaza.com

Hotel Reservations

Elite Venues are acting as our agent for the hotel reservations in Cologne. A booking form will be sent with your joining instructions on receipt of your completed registration form. Alternatively, please telephone Cindy Jarvis at Elite Venues directly on +44 (0)870 752 6011

Wallet Service

A 'Wallet Service' is also available for a companies who wish to distribute their corporate brochure or flyer at the conference. Your leaflet, up to a maximum of 8 A4 pages, will be inserted into each of the wallets given to all delegates at the conference.

Conference Proceedings

The conference proceedings will be published to coincide with the event. A bound copy of these proceedings will be included in the delegate registration package.

Conference Language

Please note that all the PACE 2004 conference events will be conducted in English.

Early Registration - Save €200

Register before July 30th 2004 to take advantage of the special 'Early Bird Discount' rate saving €200 per delegate.
SESSION 1: MATERIALS
10.10 Chemical Resistance Behaviour of High Performance Resins
Sandra Klein Nagelvoort, DSM, Netherlands

10.40 Recent Developments in Glassflake Technology
Graham Greenwood-Sole, Corrocoat Ltd, UK

11.10 Increasing the Chemical Stability of Polymers in Aggressive and Corrosion Environments
Prof. Dr. Oleg L. Figovsky (Israel Research Center, Polymate), Israel

11.40 Coffee

12.10 Melt Processable Fluoropolymers: High Performance Materials for Corrosive Environments
Brigitte Neubauer, Solvay Solexis SpA, Belgium

12.40 Synthesis of 2, 5-bis (2,2’dicarboxyethyl) Thiophene and Different Corrosion and Heat Resistant Polyamides
Dr Davood Habibi, Bu Ali Sina University, Hamedan, Iran

13.10 Lunch

14.30 Unexpected Failure of High-Quality FRP Process Equipment Caused by Stress Corrosion Cracking
Gunnar Bergman, Swedish Corrosion Institute, Sweden

15.00 Encapsulation of Radioactive Wastes in Polymeric Materials
Dr Joanne Hill, UK Nirex Limited, UK

15.30 A Comparative Study of the Uniform and Stress Corrosion Resistance of Different Glass-Fibre Types/Laminates in Acid and Alkaline Environments at Different Concentrations and Temperatures
Stefanie Römhild, Swedish Corrosion Institute, Sweden

16.00 Coffee

16.30 New Techniques for Determining Diffusion and Permeation of Acids, Chlorine and Chlorine Dioxide in Thermoplastic Liner Materials
Karin Jacobson, Swedish Corrosion Institute, Sweden

SESSION 2: APPLICATIONS
17.00 Corrosion Within Sewer Systems and Dramatic Lift Station Rehab in Louisiana
Gregory M Severyn, Sauereisen INC, USA

17.30 GFRP Rebar Durability as a Function of Engineering and Pore Structure Characterisation
Sultan S Al-Salem, University of Leeds, UK

18.00 End of Day One

18.00 – 19.00 EVENING DRINKS RECEPTION
## Registration Form

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### Contact Address
- **Company:**
- **Address:**
- **Telephone:**
- **Fax:**
- **Email:**

### Service Address (if different)
- **Company:**
- **Address:**
- **Telephone:**
- **Fax:**
- **Email:**

### Delegate Registration
- **Companies sending one or two delegates**
  - €1505 per delegate before 30 July 2004
  - €1505 per delegate after 30 July 2004
- **Companies sending three or more delegates**
  - €1505 per delegate before 30 July 2004
  - €1505 per delegate after 30 July 2004

Please note that under new German VAT regulations the responsibility for paying VAT in relation to the delegate registration fee now lies with the delegate and is therefore not collected by Rapra. Further details on this will be sent with each delegate joining instructions.

### Wallet Service
- €750
  - Insertion of one brochure, up to 6 A4 pages, in every delegate conference bag

### Sponsorship / Exhibition
- Please forward further information on the table top exhibition and the various sponsorship opportunities at the PACE 2004 conference

### Members Discount
- Rapra Members are entitled to a further discount off the standard registration fee. Tick here for more information.

### Cancellation Terms
By completing and returning this form delegates are agreeing to be bound by the cancellation terms and conditions of registration. Substitutions can be made at any time, please inform us in writing prior to the conference. If you wish to cancel your registration please do so in writing. A full refund less 20% administration fee will be applicable before 30 July 2004. Cancellations received after this time will be liable for the full registration fee.

### Payment Information
- Please invoice my company - Purchase Order Number (if required)
- Please make cheques payable to Rapra Technology Limited
- Please make direct payment to either of the following National Westminster Bank accounts:
  - Euro Account No: 10367667 Swift No: NWBKGB2105K
  - £ Sterling Account No: 12670278 Swift No: NWBKGB2L
- Credit Card Payment:
  - MasterCard
  - Visa
  - American Express

### Return To:
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Tel: +44 (0)1939 250383 Fax: +44 (0)1939 251118
e-mail: sgarrington@rapra.net

Website: www.polymerconferences.com