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Please register me for  
**'Reducing Costs – Increasing Profits'**

- £125 Non-member
- £90 Member of The Filtration Society
- £50 Student/Retired (proof required)

Please send information on membership of the Society:

- Student membership
- Individual membership
- Corporate Association

Payment method:

- Cheque enclosed for £.....
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Please send or fax this form **WITH PAYMENT** to:  
**The Filtration Society, 5 Henry Dane Way, Newbold  
Coleorton, Coalville, Leicestershire LE67 8PP**

*Cheques should be made payable to **The Filtration Society**. Charges include VAT, lunch and refreshments. A VAT invoice will be issued on receipt of payment. The Society regrets that it cannot refund the registration fee if registrants cancel within 2 weeks of the date of the meeting. Prior to that a 20% cancellation fee will apply.*

## Reducing Costs - Increasing Profits with Filtration Technologies

In keeping with the popularity of The Filtration Society's one day international Technical Seminars, this event will be held at the Conference Centre in Coventry, within easy access from Birmingham International Airport.

Filtration is a commonplace unit operation in the industrial processing industries. However, the available filtration technologies are many, the process performance results differ significantly, the capital and operating cost can vary enormously, and the resultant end product quality can be affected or modified by purification using correctly selected filtration technologies.

This international seminar will review and discuss alternative filtration technologies. Presentations will compare with real figures the impact the technology has on reducing the whole plant cost and product quality, thus increasing profitability.

The symposium is open to both members and non-members of the Society. Places are limited for this meeting so early registration is advised.



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# Reducing Costs - Increasing Profits with Filtration Technologies

10 March 2005

**A one day technical meeting**

**to be held at**

**The Conference Centre  
Coventry**

## TECHNICAL PROGRAMME

- 9.00-9.30 Registration with coffee
- 9.30-9.35 Introduction
- 9.35-10.10 **Selecting the Lowest Cost Dewatering Process for Fine Industrial Minerals**  
**Jacek A. Kostuch, Tommy Hoskin and Anthony R. Phillips, Imerys Minerals Ltd**  
The paper will consider and contrast a range of dewatering technologies including centrifuges, filters and thermal systems for dewatering of micron size industrial minerals. Capital, operating and lifetime total costs will be reviewed making reference to practical examples.
- 10.10-10.45 **Concentrating on Quality**  
**David M Dubbin, Sales Director, Niro Ltd (GEA Filtration)**  
Cross flow membrane filtration offers some unique benefits to producers. Not only does it provide an economic means of water removal it can be integrated into existing concentration and drying systems as an effective means of increasing capacity. Perhaps the most exciting feature however is the ability to simultaneously concentrate and purify thereby making possible enhanced product quality and new product development.
- 10.45-11.15 Coffee Break
- 11.15-11.50 **Can the Success of a Process Depend on Solids Washing?**  
**Dr. Trevor Sparks, Business Manager, Food, Pharma & Biotech, Larox Corporation**  
Washing soluble contaminants (or valuable products) away from solids can be of critical importance to the success of a process. Can the required washing level be reached? If so, at what cost? This presentation will include two case studies, one where the solids are the valuable component and another where the product is contained in the liquid.
- 11.50-12.25 **Applying Filter Aids to Rotary Drum Vacuum Filter Installations**  
**Dr Andy Walker, Filtration Services**  
Rotary drum vacuum filters, with their ease of operation and provision continuous discharge of solids and filtrate, are a natural choice for many applications. With the appropriate use of filter aids, the performance of a rotary drum vacuum filter can be enhanced. This paper provides three possible variations on a typical filtration application to demonstrate the operational benefits of using filter aids.
- 12.25-13.40 Lunch
- 13.40-14.15 **Energy Saving in Industrial Processes with Membrane Technology**  
**Bernard Kaiser, Buss-SMS-Canzler GmbH, Düren, Germany.**  
The expansion of raw alcohol production to produce absolute ethanol by applying two different membrane technologies will be described: a) vapour permeation to dehydrate the raw ethanol, and b) RotoStream® dynamic cross flow membrane filtration to concentrate fermentation broth. Vapour permeation with a new membrane module design has run successfully for 3 years at the industrial scale, whereas RotoStream® membrane filtration is yet to be proven. The general potential of these technologies and the saving in production costs for ethanol will be shown. The results can be applied in analogous manner to other solvent dehydrations or fermentation broth concentrations.
- 14.15-14.50 **Should I Replace my Electrostatic Precipitator (ESP) with a Fabric Filter (FF)?**  
**Ian Fantom, Business Manager, Lodge Sturtevant.**  
The pros and cons of moving from ESPs to Fabric Filters are explored. The case to move to barrier filtration is not always as clear as it may seem. For many industries ESPs remain the Best Available Technology (BAT) when taken in context with IPPC and BPEO. Will the operating and maintenance costs increase when process conditions fluctuate? How will this affect emissions? Will the upgrade plant be "future-proof"? Can the plant meet even lower emissions in say 10 years time? These are frequently asked questions. We try to unravel the complex technical and economic issues to make your decision easier.
- 14.50-15.20 Tea break
- 15.20-15.55 **Dust Control by Filtration - an Integrated Part of the Modern Industrial Processes**  
**Paul Collins and Peter Cowing, DCE Donaldson**  
Dust control has evolved as an important part of filtration technology - why? This presentation shows that with the correct media technology, dust control is a key integrated part of industrial processes, capable of making a successful contribution to profitability, either directly with clear financial returns, or via other benefits, such as enhancing final product quality, raising throughput and process availability, and of course, reducing the health risks to operators.
- 15.55-16.30 **Hot Gas Filtration and Pyrolysis / Gasification Processes**  
**Chris Withers, Caldo Engineering Ltd**  
Pyrolysis and gasification processes generate gases that contain combustible components. Energy can be recovered from these gases in a number of ways. The range of available energy recovery technologies is considerably greater if the solids can be removed from the gas, preferably while the gas is still hot. This paper will review the factors affecting several gasification processes and describe how hot gas filtration enhances the process.
- 16.30 Meeting closure