

"Learning from Experience: Case Studies in Membrane Processes in European Member States"

Rochestown Park Hotel, Cork

Tuesday 29th November

Why attend?

Filtration is a long-established process, but the development of finer membranes has brought processes such as reverse osmosis, nanofiltration, ultrafiltration, pervaporation and electrodialysis. These newer operations can be used to concentrate, fractionate and purify streams containing complex molecules as well as ions. Their advantages are

- Potentially high specificity
- In many instances, operation at ambient temperatures, avoiding steam costs and product degradation
- Compact modular construction
- Avoidance of additional chemical needs
- Reduced operating costs

They have become extensively used for particular applications, e.g. production of ultra-pure water, and in specific sectors, e.g. dairy, but concerns about fouling and long-term membrane performance have inhibited wider applications.

This seminar presents case studies across a wide range of sectors and applications, considering chemically harsh streams containing widely variable concentrations of ions, inorganic and organic compounds, demonstrating the use of membranes in the pharmaceutical, electronics and food processing sectors, showing how they have been used to recover product, achieve higher product quality and to enhance waste water treatment. At a time of rising water treatment costs, membranes present new opportunities to manage and reduce these costs.

Who should attend?

This seminar will benefit technical, project, operations and environmental specialists in the chemical, pharmaceutical and electronics sectors. Those concerned with process improvement and cost reduction, considering potential membrane applications or wanting to learn more, will find practical issues discussed.

Who is promoting this seminar?

Cork Chamber of Commerce and Cork Institute of Technology (via the Department of Chemical & Process Engineering and the Clean Technology Centre) are combining local business support and technical capacity to bring experts from Germany (via the German Membrane Society - Deutsche Gesellschaft für Membrantechnik – DGMT) to Cork so that we can achieve regional excellence.

Cost

The cost of participation is €200 (+VAT). This includes all conference papers (provided on CD-Rom), full lunch, and site tour (optional). Early booking is critical as numbers are limited.



Cork Chamber
of Commerce



Programme

8.30 Registration & Welcome

9.30 Membrane processes in Ireland

Key features of membrane processes will be briefly introduced, with examples from the Cleaner Greener Production Programme and local technical research.

Noel Duffy, Cork Institute of Technology

10.00 Compact membrane systems for small scale industrial applications

Small systems present particular challenges to achieve economic feasibility. This case study will examine the recovery of palladium from an acidic stream in the electronics industry.

Martin Zimmermann, DGMT (German Membrane Society), Zimmermann GmbH

10.45 *Coffee break*

11.15 Purification of organic product from inorganics-laden aqueous solutions

Separating valuable reactive dyes from aqueous streams without product loss is the focus of this study. Combined operations were necessary to achieve this.

Walter Lamparter, Microdyn Nadir, Wuppertal

12.00 Closed loop operation in the chemical industry

A zinc chloride rinse stream in the vulcanized fibre sector presented a harsh chemical environment, where both product and water were recovered for internal reuse.

Ilona Dierschke, EfA Effizienz – Agentur: centre for excellence in cleaner production, Nordrhein-Westphalia

12.45 *Lunch*

14.00 Active pharmaceutical ingredient elimination with membrane bioreactors

Enhanced waste water treatment with membranes bioreactors (MBRs) is illustrated by considering the Pfizer facility in Cork

Ulrich Mende, Zenon GmbH

14.45 *Coffee break*

15.15 System design for complex waste streams

Streams with wide variability in salinity, solids and organics loadings are typical of the reactive dye industry. This case demonstrates how microfiltration and reverse osmosis can be combined to achieve high specifications in problematic areas.

Stephan Schuetze, Schuetze Konzept

16.00 Discussion

16.30 Networking opportunity

Wednesday 30 November 09.00am – Plant Tour to the membrane bioreactor waste water treatment plant at Pfizer. BOOKINGS MUST BE RECEIVED BY 24 NOVEMBER.

To register your place at the seminar, please complete this form (ONE PER PARTICIPANT) and return it to: Kate Geary, Euro Info Centre, Cork Chamber of Commerce, Fitzgerald House, Summerhill North, Cork Alternatively, fax to (021) 4508568 or email: eic@corkchamber.ie

Name: _____ Job Title: _____

Company: _____

Address: _____

Tel. No.: _____ Email: _____

I will attend plant tour YES _____ NO _____

Payment method Cash _____ Cheque _____ VISA _____

(Cost per attendee €200+VAT. Cheques to be made payable to Cork Chamber of Commerce)

PO No. _____

VISA Card No. _____ Exp Date _____

Name on Card (if different from above) _____