



## **P R E S S   I N F O R M A T I O N**

**4/2004**

### **Latest developments in membrane technology**

#### **13th European Water, Sewage and Solid Waste Symposium**

**Hennef, 14 October 2004 – “A clean environment for a growing Europe” is the motto of the 13th European Water, Wastewater and Waste Symposium, which takes place on the New Trade Fair grounds in Munich from 25 to 28 April 2005 within the framework of the IFAT, the International Trade Fair for Water, Wastewater, Waste and Recycling. Membrane technology is the subject of the first block of presentations on 25 April 2005 with which the symposium’s field of wastewater and water is opened and which is organised by the European Water Association (EWA) in collaboration with the German Association for Water, Wastewater and Waste (ATV-DVWK).**

Membrane filtration processes in water technology have already been employed for some considerable time in water engineering. They enable the elimination of problematic substances such as bacteria and viruses, improve the degradation of organic pollutants and thus the quality of the treated wastewater and drinking water respectively. As the biological treatment and the separation of the sewage sludge take place in a common process step no separate



secondary settling stage is required so that membrane wastewater treatment plants require less space. In addition, less sewage sludge is produced which has to be disposed of or utilised.

### **Membrane bioreactors with ceramic membranes for the treatment of domestic sewage**

*Gert Köhler* from the 1st Element GmbH i.G. – A company for efficient treatment of wastewater, talks in his presentation on the employment of ceramic membranes. The technology is applicable economically in small wastewater treatment plants within the scope of a decentralised wastewater treatment. The treated water can be used as process water, for example for toilets or for watering plants. In comparison with organic membranes both the backflushing as well as cleaning is easier to carry out.

### **Elimination of solid matter with submerged membranes**

The removal of filtered substances from the membranes is decisive for the safe and reliable operation of the membrane plant. Dr.-Ing. *Klaus Voßenkaul* from the firm of PURON, in his presentation, indicates solutions which have been developed for this using submerged membranes. This is introduced using a pilot project in Aachen and a larger demonstration plant in the Eifel, whose operating results and developments are presented.



### **The largest municipal membrane wastewater treatment plant in the world**

*Heribert Möslang* from Zenon GmbH reports on the world-wide largest municipal membrane wastewater treatment plant (80,000 PE), which was commissioned in Kaarst near Düsseldorf in the spring of 2004. Those giving the presentation report on the reasons for the selection of the membrane process, the planning process, the construction of the plant and the first results from operation.

### **Employment of membrane technology in lightly loaded plants**

In his presentation Prof. Dr.-Ing. *Franz-Bernd Frechen* from the University of Kassel covers the possibilities for employment of membrane bioreactors with the expansion of wastewater treatment plants. The emphasis here lies with the question of the sludge concentration in activated sludge. As opposed to previous investigations it could be demonstrated that the hydraulic performance of the wastewater treatment plant does not deteriorate with operation under low load. Using four pilot plants the speaker presented the operating conditions under which this was successful.

### **Expansion of an activated sludge plant**

Prof. Dr.-Ing. *Bernd Nolting* and *Christian Kazner* (Dahlem Consulting Engineers, in their presentation deal with the expansion of an existing activated sludge plant to 48,000 PE using membrane technology. The wastewater treated in the plant shows a high component of industrial wastewater from the textile industry. In addition to experience from the



parallel operation of the existing plant and of the membrane bioreactor, solutions for the elimination of the AOX were also presented.

In addition to the subject block of membrane technology, in the field of water there are the subject blocks of Monitoring Plant Performance, Water Management in Central and Eastern Europe, Public Private Partnerships, Sewer Rehabilitation as well as two workshops on the subject of the Near East and Asia. Information on the events in the field of waste can be obtained from the VKS in the VKU ([www.vks-koeln.de](http://www.vks-koeln.de), Tel.: +49 (0)221/3770385, E-Mail: [tersmiten@vku.de](mailto:tersmiten@vku.de)).

The programme of the Symposium is available from the middle of October from the ATV-DVWK, Barbara Kirstein, Tel.: +49 (0)2242/872-181 or E-Mail: [kirstein@atv.de](mailto:kirstein@atv.de) and can also be called up on the Internet under [www.IFAT.de](http://www.IFAT.de) and [www.atv-dvkw.de](http://www.atv-dvkw.de).



The **German Association for Water, Wastewater and Waste, ATV-DVWK**, is the spokesman in Germany for all global questions on water and is involved intensively in the development of a secure and sustained management of water. The ca. 15,000 members represent specialists and management staffs from municipalities, universities, engineer offices, authorities and firms. The emphasis of their activities lies in the elaboration and updating of a common technical set of rules and standards as well as collaboration with the production of specialist standard specifications at national and international level ([www.atv-dvwk.de](http://www.atv-dvwk.de)).

The **European Water Association (EWA)** is one of the most important technical-scientific associations in Europe in the field of water. With 25 national member associations and a growing number of firms, the EWA covers almost all European countries. Its members offer the Association a forum for the discussion of central technical and political questions. This takes place through conferences, workshops, meetings and groups of experts as well as regular publications. Via the almost 25 national member associations the Association represents more than 55,000 experts from the overall field of water ([www.EWAonline.de](http://www.EWAonline.de)).

**This press release can be called up in the Internet under**

**<http://www.ewaonline.de/pages/press.htm>**