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Webinar Podcast

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An insight into the journey of a membranologist

Dr. Richard Baker

The design of membrane gas separation systems

Producers of gas separation equipment are often told: "your equipment is interesting but not quite good enough to be competitive". A common fallback solution is to develop a better membrane. A second overlooked solution is to develop a better process design. In this presentation several gas separation applications will be described where development of a better process design has saved a mediocre membrane.

Richard Baker received his doctorate in physical chemistry in 1966 at Imperial College, London, where he studied under Professor R. M. Barrer, one of the pioneers of membrane science. Subsequently, he joined the Amicon Corporation, Lexington, MA, and helped develop ultrafiltration membranes now sold under the name Diaflow®. Later at the Alza Corporation from 1971 to 1974, he collaborated in the development of the Ocusert® ocular drug delivery system. In 1974, he co-founded Bend Research, Inc., Bend, OR, where he was the Director of Research until 1981.

In 1982, Dr. Baker founded his second company, Membrane Technology and Research, Inc. (MTR), where he served as president for twenty-five years. MTR has become a leading membrane research, development, engineering, and production company, concentrating on the development of membranes and membrane systems for industrially and environmentally significant separations. The company's principal products are membrane systems to remove organic vapors from light gases. More than 500 commercial units have been installed worldwide in chemical and petrochemical plants. MTR has also developed gas separation technologies for applications in the natural gas processing and petroleum refining industries.

In 2007, Dr. Baker stepped aside as MTR's president, but remains a member of the Board of Directors, and is working on a new development program for membrane-based carbon dioxide capture technology.

This webinar podcast will be hosted by **Prof. Klaus-Viktor Peinemann**. Together, Dr. Baker and Prof. Peinemann represent a vital link between the pioneering era of industrial gas separation and advanced academic membrane research. Previously, Prof. Peinemann has served on the EMS council (EMS President 2002-2004) and chaired the EuroMembrane 2004 conference in Hamburg with the support of EMS.

The EMS webinar podcast series gives the scientific community a chance to know the membrane journey of leading membranologists.
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