Advanced Membrane Technology and Applications

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DESCRIPTION

Advanced membranes—from fundamentals and membrane chemistry to manufacturing and applications

A hands-on reference for practicing professionals, Advanced Membrane Technology and Applications covers the fundamental principles and theories of separation and purification by membranes, the important membrane processes and systems, and major industrial applications. It goes far beyond the basics to address the formulation and industrial manufacture of membranes and applications.

This practical guide:

• Includes coverage of all the major types of membranes: ultrafiltration; microfiltration; nanofiltration; reverse osmosis (including the recent high-flux and low-pressure membranes and anti-fouling membranes); membranes for gas separations; and membranes for fuel cell uses

• Addresses six major topics: membranes and applications in water and wastewater; membranes for biotechnology and chemical/biomedical applications; gas separations; membrane contractors and reactors; environmental and energy applications; and membrane materials and characterization

• Includes discussions of important strategic issues and the future of membrane technology

With chapters contributed by leading experts in their specific areas and a practical focus, this is the definitive reference for professionals in industrial manufacturing and separations and research and development; practitioners in the manufacture and applications of membranes; scientists in water treatment, pharmaceutical, food, and fuel cell processing industries; process engineers;
and others. It is also an excellent resource for researchers in industry and academia and graduate students taking courses in separations and membranes and related fields.

![ABOUT THE AUTHOR](image)

**Norman N. Li, PhD**, is the President of NL Chemical Technology, Inc., and a member of the National Academy of Engineering. Dr. Li holds forty-five patents, has edited twenty books, and has received many honors, including the 2000 Perkin Medal presented by the Society of Chemical Industry American Section.

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