

**EMULSION  
LIQUID  
MEMBRANE**  
*for*  
**ADVANCED  
SEPARATION  
PROCESS**



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Edited by  
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[www.penerbit.utm.my](http://www.penerbit.utm.my)

2024

First Edition 2024

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Editor: **NORASIKIN OTHMAN & IZZAT NAIM SHAMSUL KAHAR**

Editor Penyelaras/*Acquisition Editor*: **MAZLAN SAID**

Pereka Kulit / *Cover Designer*: **FAHAMIN ABDUL GHANI**

Diatur huruf oleh / *Typeset by*:

**NORASIKIN OTHMAN & IZZAT NAIM SHAMSUL KAHAR**

Faculty of Chemical and Energy Engineering

UNIVERSITI TEKNOLOGI MALAYSIA

81310 UTM Johor Bahru

Johor Darul Ta'zim, MALAYSIA

Diterbitkan di Malaysia oleh:

**PENERBIT UTM PRESS**

UNIVERSITI TEKNOLOGI MALAYSIA

81310 UTM Johor Bahru

Johor Darul Ta'zim, MALAYSIA

(PENERBIT UTM ahli MAJLIS PENERBITAN

ILMIAH MALAYSIA–MAPIM dan MABOPA

dengan no. keahlian 9101)

Dicetak di Malaysia oleh:

**JASAMAX ENTERPRISE**

No. 16, Jalan Kebudayaan 2

Taman Universiti, 81300 Skudai,

Johor, MALAYSIA



Cataloguing-in-Publication Data

Perpustakaan Negara Malaysia

A catalogue record for this book is available from the

National Library of Malaysia

ISBN 978-983-52-2068-5

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# **PREFACE**

Emulsion liquid membrane (ELM) is a subset of liquid membrane separation technology that has very high prospects in the separation process of dissolved substances in liquid solutions. The overview of the future and capabilities of this process is discussed clearly in order to make it easier for industry players to adapt to the current issues of solute removal and recovery.

The main focus of this book is to introduce to the reader the importance and abilities of ELM processes in treating industrial wastewater, especially from the chemical industry where wastewater contains many dissolved solute ions that can have harmful effects on humans and the environment.

At the same time, the public can learn the importance of removal and solute recovery from various processes, especially metal ions in wastewater that are very detrimental to all. Meanwhile, based on the same aspect, ELMs are also very potent in treating inorganic liquid solutions as well as in bioproduct processing.

This book can give a clear picture to the public, especially industrial manufacturers, that there is a simple and quick separation process to recover valuable dissolved materials in the residual of the industry. Meanwhile, the stability factors that have slowed down its application in the real industry are also reviewed and outlined.

**Norasikin Othman**

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Universiti Teknologi Malaysia

**2024**

