

**Handbook
of
Evaporation
Technology**

Paul E. Minton

np

HANDBOOK OF EVAPORATION TECHNOLOGY

by

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Preface

This book results from an evaporation technology course I have taught for some time. Evaporation is one of the oldest unit operations; it is also an area in which much has changed in the last quarter century. This book is my attempt to present evaporation technology as it is generally practiced today. Although there are other methods of separation which can be considered, evaporation will remain the best separation process for many applications. However, all factors must be properly evaluated in order to select the best evaporator type.

Evaporation technology has often been proprietary to a few companies who design evaporation systems. This situation has benefits, but it also has drawbacks to users of evaporation equipment. Evaporation does not need to be considered an art; good engineering can result in efficient evaporation systems which operate reliably and easily. However, some experience in evaporator design is certainly an advantage in understanding the many problems that can and do occur in evaporation processes.

Much of what is said in this book has been said before. There have, however, been few attempts to combine all this information into one location. I am indebted to the many people who have pioneered evaporation processes and have shared their experiences.

I would like to thank Charlie Gilmour for his mould upon my engineering career. He encouraged me and proved that heat transfer is the most rewarding engineering discipline. I would like to acknowledge the assistance of Howard Freese in the area of mechanically-aided, thin-film evaporation as well as his encouragement in the writing of this book.

South Charleston, West Virginia
October 1986

Paul E. Minton

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