

EFFECTS OF GELLING AGENTS AND ADDITIVES ON *IN-VITRO*
PERMEATION OF KETOPROFEN GELS

SUPAWADEE PARHIRA

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF PHARMACY
IN PHARMACEUTICAL TECHNOLOGY

GRADUATE SCHOOL
CHIANG MAI UNIVERSITY

AUGUST 2001

EFFECTS OF GELLING AGENTS AND ADDITIVES ON *IN-VITRO*
PERMEATION OF KETOPROFEN GELS

SUPAWADEE PARHIRA

THIS THESIS HAS BEEN APPROVED
TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF PHARMACY
IN PHARMACEUTICAL TECHNOLOGY

EXAMINING COMMITTEE

Y. Pongpaibul.....CHAIRPERSON
Assoc.Prof.Dr. Yanee Pongpaibul

Ladda Wongpayapkul.....MEMBER
Assoc.Prof. Ladda Wongpayapkul

Usanee Kumprakob.....MEMBER
Asst.Prof. Usanee Kumprakob

27 August 2001

© Copyright by the Graduate School, Chiang Mai University

ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to my advisor, Associate Professor Dr. Yanee Pongpaibul, for her helpful advice, patience, kindness, understanding and encouragement throughout this study.

I would like to thank Associate Professor Ladda Wongpayapakul who has been my co-advisor for her helpful assistance and advice, and Assist Professor Usanee Kumprakob for serving on the examining committee.

I wish to express my appreciation to Associate Professor Dr. Krisana Pootakam for providing the Wistar rats used in this experiment and Biopharm Company Limited, Thailand, for providing ketoprofen used in this study.

My appreciation and thanks to Acharn Noel Mann and Ms. Elizabeth Carlson for editing this thesis. Special thanks to all staff and friends in the Department of Pharmaceutical Technology for their helps and encouragement.

I would like to express special thanks to Kampheangphet Hospital Committee for giving me an opportunity to persue my Master's Degree.

Finally, I would like to give thanks my God, Jesus Christ who gives me strength, direction and encouragement, my parents, my husband, my sisters and brother, and all of my friends for their endless love, understanding and encouragement throughout my life.

Supawadee Parhira