FACTORS AFFECTING DIMORPHISM OF PENICILLIUM MARNEFFEI

POJANA SRIBUREE

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN BIOLOGY

GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
NOVEMBER 1998

FACTORS AFFECTING DIMORPHISM OF

PENICILLIUM MARNEFFEI

POJANA SRIBUREE

THIS THESIS HAS BEEN APPROVED

TO BE A PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

IN BIOLOGY

EXAMINING COMMITTEE
C. Jollsolien CHAIRMAN
Assistant Professor Dr. Chaiwat Jatisatienr
P. Khanjanarthili MEMBER
Associate Professor Dr. Parimondh Khanjanasthiti
Mongruch Vanittanchen MEMBER
Associate Professor Dr. Nongnuch Vanittanakom
Janone Vosa-una MEMBER
Assistant Professor Dr. Sanong Voraurai
Pramoto Vianittanakom MEMBER
Associate Professor Dr. Prarnote Vanittanakom
Poonpilai Suwanant MEMBER
Assistant Professor Poonpilai Suwanarit

6 NOVEMBER 1998

Copyright of the Graduate School, Chiang Mai University

ACKNOWLEDGEMENTS

I would like to thank my thesis advisors, Assistant Professor Dr. Chaiwat Jatisatienr, Associate Professor Dr. Parimondh Khanjanasthiti, Associate Professor Dr. Nongnuch Vanittanakom and Assistant Professor Dr. Sanong Voraurai for their valuable advices and encouragement throughout my study.

I would like to thank Associate Professor Dr. Pramote Vanittanakom for his helpful guidances in electron microscopical studies.

I would like to thank Assistant Professor Poonpilai Suwanarit for her valuable suggestions

I wish to thank staffs of electron microscopic unit, medical science research center, for their help on techniques of electron microscopy.

Finally, I would like to thank Associate Professor Dr. Niwat Maneekarn for his encouragement in this study.

Pojana Sriburee