

**NOVEL INITIATORS FOR RING-OPENING
POLYMERISATION OF CYCLIC ESTERS
FOR USE AS ABSORBABLE
SURGICAL SUTURES**

SUJITRA RUENGDECHAWIWAT

**DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
APRIL 2015**

**NOVEL INITIATORS FOR RING-OPENING POLYMERISATION
OF CYCLIC ESTERS FOR USE AS ABSORBABLE
SURGICAL SUTURES**

SUJITRA RUENGDECHAWIWAT

**A THESIS SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

GRADUATE SCHOOL, CHIANG MAI UNIVERSITY

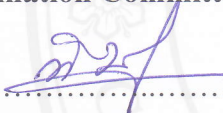
APRIL 2015


**NOVEL INITIATORS FOR RING-OPENING POLYMERISATION
OF CYCLIC ESTERS FOR USE AS ABSORBABLE
SURGICAL SUTURES**


SUJITRA RUENGDECHAWIWAT

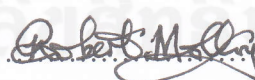
THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN CHEMISTRY

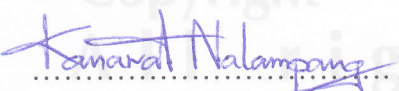
Examination Committee:

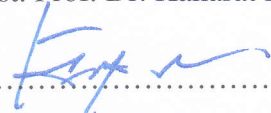

..... Chairman
(Dr. Patchara Punyamoonwongsa)


..... Member
(Dr. Runglawan Somsunan)

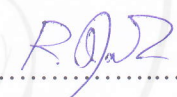

..... Member
(Assoc. Prof. Dr. Jintana Siripitayananon)

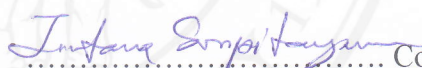

..... Member
(Dr. Robert Molloy)

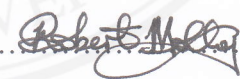

..... Member
(Asst. Prof. Dr. Kanarat Nalampang)


..... Member
(Dr. Kiattikhun Manokruang)

Advisory Committee:


..... Advisor
(Dr. Runglawan Somsunan)


..... Co-advisor
(Assoc. Prof. Dr. Jintana Siripitayananon)


..... Co-advisor
(Dr. Robert Molloy)

17 April 2015

Copyright © by Chiang Mai University

ACKNOWLEDGEMENTS

I gratefully acknowledge my indebtedness to my thesis advisors, Assoc. Prof. Dr. Jintana Siripitayananon, Dr. Robert Molloy and Dr. Runglawan Somsunan, for their inspiration, valuable guidance and constant encouragement throughout the course of this work.

I am also especially grateful to Professor Brian J. Tighe, Biomaterials Research Unit, Department of Chemical Engineering and Applied Chemistry, Aston University, UK, for his guidance concerning work carried out during my 3 months training in Aston University from June-September 2013.

All my friends in the Department of Chemistry and the Biomedical Polymers Technology Unit are also thanked for their help and making it a great place to work and kindly providing me with the laboratory and library facilities which made this study possible.

For financial support, I am indebted to the Rajamangala University of Technology Lanna Phitsanulok and the Graduate School of Chiang Mai University, both for my general expenses and for supporting my period of research training at Aston University.

Finally, I must acknowledge the enormous debt that I owe to my parents for their emotional support and constant encouragement throughout my education, culminating in this study for my Ph.D. I hope that my eventual success will have made my family feel that their sacrifices were all worthwhile.

Sujitra Ruengdechwiwat