

**MOLECULAR DYNAMIC SIMULATIONS OF PROTON
TRANSFER IN THE EXCITED STATE OF
3-HYDROXYFLAVONE ASSISTED
BY PROTIC SOLVENTS**

The seal of Chiang Mai University is a circular emblem. It features an elephant in the center, facing left, with a traditional Thai umbrella (parasol) above its head. The text "อิตตมานันท์ ทมยันต์ ปณฺทิตา" is written in Thai script along the top inner border, and "CHIANG MAI UNIVERSITY 1964" is written in English along the bottom inner border. There are decorative floral motifs on the sides.

RUSRINA SALAEH

**MASTER OF SCIENCE
IN CHEMISTRY**

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**GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
APRIL 2017**

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The seal of Chiang Mai University is a circular emblem. It features a central figure of an elephant standing and facing left. Above the elephant is a five-pointed star with a flame-like center. The Thai text "มหาวิทยาลัย เชียงใหม่" is written in a circular path around the top, and "CHANG MAI UNIVERSITY 1964" is written around the bottom. There are decorative floral motifs on the sides.

RUSRINA SALAEH

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

GRADUATE SCHOOL, CHIANG MAI UNIVERSITY

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THIS THESIS HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT OF
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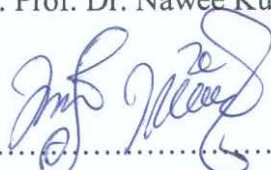
Examination Committee:

Advisor:


..... Chairman
(Dr. Supawadee Namuangruk)


.....
(Asst. Prof. Dr. Nawee Kungwan)


..... Member
(Asst. Prof. Dr. Nawee Kungwan)


..... Member
(Dr. Chanisorn Ngaojampa)

10 April 2017

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Rusrina Salaeh