

**DEVELOPMENT OF FLOW AND MICROFLOW INJECTION
ANALYSIS SYSTEMS FOR DETERMINING
SOME METALS IN WATER SAMPLES**

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's head is a five-pointed star with a flame-like center. The entire emblem is enclosed within a circular border. The Thai text "มหาวิทยาลัยเชียงใหม่" (Mahavithayalai Chiang Mai) is written along the top arc of the border, and "CHIANG MAI UNIVERSITY 1964" is written along the bottom arc. There are decorative floral motifs on the left and right sides of the border.

NARABHATS RANNURAGS

**DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

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**THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY**

MAY 2012

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SOME METALS IN WATER SAMPLES**

NARABHATS RANNURAGS

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN CHEMISTRY**

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30 May 2012

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