ADSORPTION BEHAVIOR OF COPPER(II), LEAD(II), ZINC(II) AND METHYLENE BLUE ON LEONARDITE PREPARED FROM COAL WASTE

SUTTASINEE KATANYOO

DOCTOR OF PHILOSOPHY

IN CHEMISTRY

THE GRADUATE SCHOOL CHIANG MAI UNIVERSITY **OCTOBER 2011**

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

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iii