# PHOTOCATALYTIC AND ANTIBACTERIAL PROPERTIES OF TITANIUM DIOXIDE AND IRON OXIDE NANOPARTICLES

WIRADEJ THONGSUWAN

DOCTOR OF PHILOSOPHY
IN MATERIALS SCIENCE

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THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
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# PHOTOCATALYTIC AND ANTIBACTERIAL PROPERTIES OF TITANIUM DIOXIDE AND IRON OXIDE NANOPARTICLES

WIRADEJ THONGSUWAN

A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN MATERIALS SCIENCE

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#### WIRADEJ THONGSUWAN

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

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