

UNIVERSITI TEKNOLOGI PETRONAS

DEVELOPMENT OF NOVEL IONIC LIQUID CATALYSTS FOR BIODIESEL
PRODUCTION FROM CRUDE PALM OIL

by

YASIR ALI ELSHEIKH ELFADOL

The undersigned certify that they have read, and recommend to the Postgraduate Studies Programme for acceptance this thesis for the fulfillment of the requirements for the degree of doctor of philosophy in chemical engineering.

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A thesis

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