

**OXIDATION OF ALCOHOLS USING MODIFIED POTASSIUM
PERMANGANATE**

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
LIST OF SCHEME	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT	ix
ABSTRAK	x
CHAPTER 1 INTRODUCTION	
1.1 Background	1
1.2 Importance of oxidations	4
1.3 Oxidation of alcohols with potassium permanganate	5
1.4 Problem statement	5
1.5 Objectives of study	6
CHAPTER 2 LITERATURE REVIEW	
2.1 Oxidations of alcohols	7
2.2 Potassium permanganate as a mild-oxidizing reagent	8
2.3 Previous work on the oxidation of alcohols using modified potassium permanganate	9
2.4 Dichloromethane (DCM) as a solvent	10
CHAPTER 3 METHODOLOGY	
3.1 General experimental procedure	12
3.1.1 Purification of reagents, compounds and solvents	12
3.1.2 Preparation of glassware	12
3.2 Instruments for data analysis	13
3.2.1 Nuclear magnetic resonance (NMR) spectroscopy	13
3.2.2 Infrared (IR) spectroscopy	13
3.3 Materials and chemical reagents	14
3.4 Experimental	14
3.4.1 Oxidation of alcohols by potassium permanganate absorbed on copper(II) sulfate pentahydrate	14
3.4.2 Oxidation of alcohols by potassium permanganate modified with addition aluminium silicate reagent	18

ABSTRACT

OXIDATION OF ALCOHOLS USING MODIFIED POTASSIUM PERMANGANATE

A study on the effectiveness of modified potassium permanganate, KMnO_4 as a weak oxidizing agent on alcohols was conducted. The modifier were used are copper(II) sulfate pentahydrate, aluminium silicate and molecular sieves. The reactions were carried out by mixing oxidant and the alcohols by stirring at room temperature for 5 and 24 hours. The results showed that copper(II) sulfate pentahydrate was the most efficient modifier in the chemical transformations.

CHAPTER 1

INTRODUCTION

1.1 Background

Oxidation or reduction is a chemical process in which substances are changed into different ones with different properties, as distinct from changing position or form. This is a process whereby the chemical properties of a substance are altered by a rearrangement of the atoms in the substance. Energy is released or absorbed, but no loss in total molecular weight occurs by various rate of reactions. The reaction conditions also considerable in order to optimize the rate or the amount of a given product; the reversibility of the reaction and the presence of competing reactions and intermediate products complicate these studies. The type of reactions can be synthesis, decompositions, or rearrangements, or they can be additions, eliminations, or substitutions.

Oxidation-reduction or redox reaction is an important organic reaction for synthesis a large variety of compounds. Chemist use oxidation number to monitor the movement of electron charge and which atom losses electron charge and which atom gains it. The classification of organic compounds into oxidation states is more difficult inconsistencies abound and not particularly