

UNIVERSITI TEKNOLOGI MARA

**HYDROGEN GENERATOR FROM
WATER**

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ABSTRACT

As we are aware of, liquefied petroleum, natural gas primarily methane and gas such as butane, propane or a mixture of both gases are commonly used to make a fire for processes including brazing and welding in engineering works. Unfortunately, the price for this type of fuel is considerably expensive and unpractical for using it repeatedly in a process that did not need a lot of fire power. This project is being made to to have a prototype that can generated fire from a resource that can be found easily and cheaper but manage to produce power that can compete with the old fuels. This project is build based on means of separating the 2 particles from the water that is hydrogen and oxygen to using the electrolysis method to create a gas that can form a fire once it is lit. The outcome of this project is to make the product function properly and can be used to weld and brazing.

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TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xii
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	2
1.3 Objectives	2
1.4 Scope of Study	2
1.5 Significance of Study	3
CHAPTER TWO : LITERATURE REVIEW	4
2.1 Benchmarking/Comparison with Available Products	4
2.2 Related Manufacturing Process	4
2.2.1 Gluing	4
2.2.2 Cutting	5
2.2.3 Drilling	5
2.2.4 Threading	6
2.3 Sustainability/Ergonomic Related Items	6
2.4 Patent and Intellectual Properties	7
2.4.1 Electrolysis of water	7
2.4.2 Apparatus for electrolysis of water	8
2.4.3 Method of water electrolysis	9

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

In this rapidly changing era, the innovation of technologies evolves at an exponential rate. Many companies are investing into developments which ensure satisfaction for all stages of consumers. For example, in creating a product where it is cheaper, safer and easier to use for the consumer. One of the most frequent develop technologies is to help the industrial section in making a process of work to be more efficient and cost saving. Brazing is a metal joining process in which two or more metal items are joined together by melting and flowing a filler metal into the joint, with the filler metal having a lower melting point than the adjoining metal and this method is commonly use in engineering industry. The most frequent gases used in brazing are oxygen with natural gas, or other gases such as propane or butane with the help of oxygen. These gases are limited, considerately expensive and difficult to store. Because of that, a new source of fuel is needed to make sure that welding process can be used is cheaper and still do the job efficiently. Water can be considered as one of the new fuels that can be used for brazing. This is because using the method of electrolysis the particle of hydrogen and oxygen can be separated and can be used to make a fire. This fuel is easier to handle, cheaper and a lot safer compared to the other fuel. Plus, water is a renewable resource that can be easy to find.