

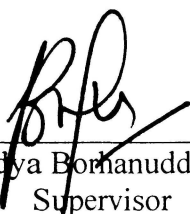
**REMOVAL OF NICKEL AND IRON FROM CONTAMINATED
WATER BY USING MAGNETIC SEPARATION**

NURULHUDA BT KASSIM

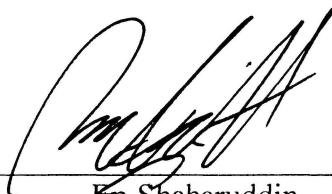
**Final Year Project Report Submitted in
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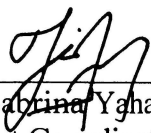
This Final Year Project Report entitled “**Removal of Nickel (Ni) and Iron (Fe) from Contaminated Water by using Magnetic Separation**” was submitted by Nurulhuda bt Kassim, in partial fulfilment of the requirements for the Degree of Bachelor of Sciences (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by



Prof Madya Bormanuddin Ariffin
Supervisor
B.Sc (Hons.) Applied Chemistry
Faculty of Applied Sciences



En Shaharuddin
Co-Supervisor
QESH INTEGRATED
Selangor



Cik Sabrina Yahaya
Project Coordinator
B.Sc. (Hons.) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor



Dr. Yusairie Mohd
Head of Programme
B.Sc. (Hons.) Applied Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Date: 10 JUNE 2009

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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vi
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	x
ABSTRACT	xi
ABSTRAK	xii
 CHAPTER 1 INTRODUCTION	
1.1 Background and problem statement	1
1.2 Significance of study	4
1.3 Objectives of study	6
 CHAPTER 2 LITERATURE REVIEW	
2.1 Introduction	
2.1.1 Nickel	7
2.1.2 Iron	9
2.1.3 Magnetic Separation	10
2.1.4 Atomic Absorption Spectroscopy	12
2.1.5 Magnetic Powder (Neodymium-Iron-Boron)	14
2.2 Magnetic Separation Method	
2.2.1 Selective adsorption and separation of Chromium	19
2.2.2 Magnetic Separation by magnetic seeding and high-gradient magnetic separation	19
2.2.3 Removal of heavy metal ions by carrier magnetic separation	20
2.2.4 Bulk magnet system to magnetic separation technique for water purification	20
2.3 Water Pollution	
2.3.1 Discharge scenarios and case for participatory ecosystem specific local regulation	21
2.3.2 Potential of industrial wastewater reuse	22
2.4 Coagulation and Flocculation	
2.4.1 Color Removal from distillery water spent wash through Coagulation	23
2.4.2 Potential toxicity concerns from chemical coagulation treatment of stormwater	24
2.4.3 Heavy metal removal by flocculation/ precipitation	24

ABSTRACT

REMOVAL OF NICKEL AND IRON FROM CONTAMINATED WATER BY USING MAGNETIC SEPARATION

Environmental constraints have forced industry to reduce their emission of heavy metal that could cause severe environmental problem. There is thus a need for new, more effective method. Magnetic separation offers a good solution for cleaning contaminated water. The aim of this project is to determine the efficiency of magnetic separation method. The research was focused on removing Nickel and Iron contained in contaminated water. This method consist of the usage of magnet powder, NdFeB and magnet bar applied with the varied amount (5g ,10g ,15g) of magnet powder and was tested in (100ml and 500ml) sample. The initial and the final concentration of sample was determined by using AAS. As a result, this method gives more than 85% efficiency for both Nickel and Iron. With the increasing amount of magnet powder used, the efficiency also increased. In a conclusion, this method has a high efficiency in removing Nickel and Iron in contaminated water.