CHAPTER 1

 INTRODUCTION

Ever wondered for once that waste that you throw has other uses if you really think about it. Well we, the researchers thought about it and we discovered that orange peelings can be used as candles. Isn’t that great? With this new discovery we can provide a new source of energy that can guarantee to help people especially those living in rural areas because with this we can provide them a perfect solution to their money wasting problems like decreasing the bill for electricity as our study will guarantee a longer lasting candle that isn’t tight on the budget of poverty stricken families. We also can benefit and learn that every waste that we throw can be recycled into new things that will increase our knowledge about the world we live in today also give us life benefits to greater improve our society. Our research also aims to inspire other fellow scientists to discover more things about oranges and other materials that can be recycled into greater things.

Orange peel oil has been chosen for extraction because it provides a great potential for further commercial form. Peel of citrus fruit has numerous glands that contain oil that is typically recovered as major by product. Each citrus fruit has its own characteristic set of compounds that comprise the oil and that are responsible for its flavor and aroma to products such as carbonated drinks, ice-creams, cakes, air-fresheners and perfumes. (Braun & Cohen 2007).

Recently developed extraction methods like supercritical fluid extraction, microwave assisted extraction and Soxhlet method has been used for oil extraction. The basic parameters influencing the quality of an extract are the solvent used for extraction, the manufacturing process extraction technology used with the type of equipment employed. The use of appropriate extraction technology, plant material, manufacturing equipment, extraction method and solvent and the adherence to good manufacturing practices certainly help to produce a good quality extract. In this research, microwave assisted extraction of oil of orange peel has been chosen because it processes many advantages over conventional methods in terms of costing, yielding and time and reproducing better natural aroma of orange essential oil.

Background of the study

The study is all about figuring out a new way to use biodegradable waste like orange peelings in a new way. This research will focus on orange peelings which are not visible to people that it has use and also by conducting this research, it will help us to recycle and enhance our crafty skills in using orange peelings as decorative candles. The researchers conducted this study not only for personal intentions but especially for the people who would like to save up and lessen their electrical bill. The product will be produce is surely convenient and very useful. this study may help many people in saving up and letting their creative side bloom.