Extraction Of Essential Oil Using Steam Distillation

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EXPLORING OUR EXTENSIVE COLLECTION CONSISTING OF EXTRACTION OF ESSENTIAL OIL USING STEAM DISTILLATION

Essential Oils BoD – Books on Demand

The market for fully natural food products continues to grow, driving an increased interest in food additives derived from biological sources. In this book the author utilizes his over fifty years of experience in food chemistry and technology in order to produce the most detailed and comprehensive guide on natural food flavors and colors. Second edition has been fully updated, including two new chapters on Colored Vegetables and Stevia. Divided into three parts, Part I of the book begins with analysis, general properties and techniques. Regulatory information on synthetic colors in food will be very useful. Part II describes the various natural flavors and colorants that are available, alphabetized for convenient reference and including all the relevant recent developments since the publication of the first edition. Both the researchers and manufacturers will find FCC description of many products and the Identification numbers of regulatory bodies most valuable. Part III examines the future prospects of research and manufacture. Finally a well prepared Index will be of immense value to readers for getting a quick explanation

and understanding of the various compounds, techniques and subjects covered. In particular, this guide will be of use to researchers, teachers, regulators, formulators and manufacturers of food.

Production Of Essential Oils Elsevier Health Sciences

With increasing energy prices and the drive to reduce CO2 emissions, food industries are challenged to find new technologies in order to reduce energy consumption, to meet legal requirements on emissions, product/process safety and control, and for cost reduction and increased quality as well as functionality. Extraction is one of the promising innovation themes that could contribute to sustainable growth in the chemical and food industries. For example, existing extraction technologies have considerable technological and scientific bottlenecks to overcome, such as often requiring up to 50% of investments in a new plant and more than 70% of total process energy used in food, fine chemicals and pharmaceutical industries. These shortcomings have led to the consideration of the use of new "green" techniques in extraction, which typically use less solvent and energy, such as microwave extraction. Extraction under extreme or non-classical conditions is currently a dynamically developing area in applied research and industry. Using microwaves, extraction and distillation can now be completed in minutes instead of hours with high reproducibility, reducing the

consumption of solvent, simplifying manipulation and work-up, giving higher purity of the final product, eliminating post-treatment of waste water and consuming only a fraction of the energy normally needed for a conventional extraction method. Several classes of compounds such as essential oils, aromas, anti-oxidants, pigments, colours, fats and oils, carbohydrates, and other bioactive compounds have been extracted efficiently from a variety of matrices (mainly animal tissues, food, and plant materials). The advantages of using microwave energy, which is a non-contact heat source, includes more effective heating, faster energy transfer, reduced thermal gradients, selective heating, reduced equipment size, faster response to process heating control, faster start-up, increased production, and elimination of process steps. This book will present a complete picture of the current knowledge on microwave-assisted extraction (MAE) of bioactive compounds from food and natural products. It will provide the necessary theoretical background and details about extraction by microwaves, including information on the technique, the mechanism, protocols, industrial applications, safety precautions, and environmental impacts.

Theory and Practice Green Chemistry

Essential oils are often used in aromatherapy, a form of alternative medicine that employs plant extracts to support health and well-being. The essential guide for beginners to the use of essential oils. In our book, we have a

chapter that guides us to steam distillation and production of essential oils at home and in the company. Steam current distillation is a technique that allows the extraction of essential oils and aromatic waters from aromatic herbs and medicinal plants; in other words, with steam current distillation, we obtain aromatic waters from which the essential oil is extracted. This book puts the power of natural healing in your hands. This simple guide distills the knowledge needed to unlock the potential of commonly available essential oils. Start making nutritious, all-natural, affordable remedies to treat a variety of conditions, for your skincare and home cleaning products.

Extraction of Essential Oils from Jasmine Flower Using Solvent Extraction Based on Petal Condition LAP Lambert Academic Publishing

Tagetes erecta (cv.Mint marigold) is not only grown for ornamental purposes but also used for essential oil extraction. Essential oils are natural plant products which accumulate in specialized structures such as oil cells, glandular trichomes and oil or resin ducts. In present study, extraction of essential oil from marigold will be carried out through solvent extraction method by using two solvents, petroleum ether and n-hexane. Gas chromatography analysis will be carried out for quantitative and qualitative analysis of oil.

CRC Press

The objective of this research is to extract essential oils from M. koenigii

leaves by using ultrasonic-assisted solvent extraction method. The major constituent of M. koenigii has been reported as caryophyllene and 3-carene which is responsible for the aroma and flavor. This research has focused on the influence of ultrasonic, various natures of solvents, sonication times and also drying method towards the extraction of M.koenigii essential oil. Two types of solvents are used in this research which is ethanol and hexane. In this research, the methods of drying, grinding, extraction, separation and analysis are used and the sample is separated from solvents by using a rotary evaporator to get the essential oil. The sample was analyzed by using a GC-MS to identify the component of M. koenigii essential oil. In this research, the most suitable solvent to produce higher percentage yield is by using ethanol (ultrasonic-assisted solvent extraction of fresh leaves for 30 minutes) and the percentage of oil yield also increased with increasing the time. The major component in M. koenigii leaves is caryophyllene and hexane on the other hand is the best solvent to be used to extract caryophyllene. -Author-

Essential Oils in Practice Springer Science & Business Media

Cinnamomum Zeylanicum is a very popular spice and very useful substances in medicines and food, said to be originated from the island Sri Lanka, southeast of India. The plant is also playing an important role in aromatherapy due to its chemical constituent and also its aroma and

scent. It contains cinnamaldehyde, an aromatic compound that have a very pleasant smell that can relax and soothe the mind and body, and also eugenol that have a strong aromatic odor and a spicy, pungent taste. The aims of this research are to extract and obtain essential oils from Cinnamomum zeylanicum using hydro distillation technique and ultrasonic extraction method, to analyze the chemical compound present in the essential oil using Gas Chromatography-Mass Spectrometer (GCMS), and to use the extracted essential oil in aromatherapy as a perfume oil. The hydro distillation method is used to obtain the essential oil from Cinnamomum Zeylanicum by grinding the leaves into a fine powder, weighing and then extracted the essential oil by Soxhlet apparatus while by ultrasonic extraction, the samples will soak in a mixture of ethanol and water in ultrasonic bath then will centrifuge to separate the solid and liquid. Next, the sample will be analyzed by GS/MS technique after rotary evaporating to separate between oil and water, in order to determine the chemical composition in the leaves of the plant. The percentage of essential oil yield is calculated as the weight of essential oils divided by the weight of leaf powder. Then, the essential oil will be tested as aromatherapy oil by using sensory evaluation. The result showed only essential oil by hydrodistillation contains eugenol and others 29 volatile and aromatic compounds while the essential oil by ultrasonic extraction, it contains

no eugenol but more antioxidant compound. The time of extraction and weight of dry leaves should be varied in order to get better results in term of yield and active compound in the essential oil.

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BASIC STEPS TO DOWNLOADING EXTRACTION OF ESSENTIAL OIL USING STEAM DISTILLATION PDF

Green Chemistry Elsevier Health Sciences

Enhance patient care with the help of aromatherapy! Clinical Aromatherapy: Essential Oils in Healthcare is the first and only peer-reviewed clinical aromatherapy book in the world and features a foreword by Dr. Oz. Each chapter is written by a PhD nurse with post-doctoral training in research and then peer reviewed by named experts in their field. This clinical text is the must-have resource for learning how to effectively incorporate aromatherapy into clinical practice. This new third edition takes a holistic approach as it examines key facts and topical issues in aromatherapy practice and applies them within a variety of contexts and conditions. This edition also features updated information on aromatherapy treatments, aromatherapy organizations, essential oil providers, and more to ensure you are fully equipped to provide patients with the best complementary therapy available. Expert peer-reviewed

information spans the entire book. All chapters have been written by a PhD nurse with post-doctoral training in research and then peer reviewed by named experts in their field. Introduction to the principles and practice of aromatherapy covers contraindications, toxicity, safe applications, and more. Descriptions of real-world applications illustrate how aromatherapy works in various clinical specialties. Coverage of aromatherapy in psychiatric nursing provides important information on depression, psychosis, bipolar, compulsive addictive, addiction and withdrawal. In-depth clinical section deals with the management of common problems, such as infection and pain, that may frequently be encountered on the job. Examples of specific oils in specific treatments helps readers directly apply book content to everyday practice. Evidence-based content draws from thousands of references. NEW! First and only totally peer-reviewed, evidence-based, clinical aromatherapy book in the world. NEW Chapter on integrative Healthcare documenting how clinical aromatherapy has been integrated into hospitals and healthcare in USA, UK and elsewhere. NEW Chapter on the M Technique: the highly successful method of gentle structured touch pioneered by Jane Buckle that is used in hospitals worldwide. All chapters updated with substantial additional references and tables.

Handbook of Essential Oils CRC Press

The use of herbs and plants in food industry has a long history.The diversity

among the components of the plants has resulted in their use in many applications including in flavors as well as in medicine.The conventional method for the extraction of essential oils are is hydrodistillation (HD), soxhlet in which the essential oils are evaporated by heating a mixture of water and plant materials followed by the liquefaction of the vapors in a condenser. This method suffers from several disadvantages including losses in the volatile compounds, long extraction time and degradation of some components through thermal process. Microwave heating has an incontestable place in analytical and organic laboratory practices as a very effective and non-polluting method of activation.In this book, microwave-assisted hydrodistillation (MAHD) was used to extract an essential oil from the Ginger, and Limon grass. Then results compared with the conventional hydrodistillation method.The MAHD resulted in a shorter extraction time compared to the Hydrodistillation (HD), the extraction yield obtained by MAHD is slightly higher than that from HD.And microwave power is very efficient in the extrac

Solvent Extraction Method from Marigold
John Wiley & Sons

Pure essential oils are derived from various part of the plant. These essential oils have a very high commercial value due to its properties. They are widely used in the various fields of industries, such as perfumery industries and pharmaceuticals. Conventional technique to extracts this oil such as

steam distillation is unsuitable since it induce thermal degradation of compounds in the oils. It is for this reason that the extraction of essential oils using supercritical fluid extraction method is said to be the most effective method. It also can avoid contamination of the oil. This extraction technique employed carbon dioxide (CO2) as solvent due to CO2 is stateless, odorless, non-toxic and chemical inertness and would not contaminate the environment and products. Thus, the material residues can be used without pretreatment. Beside that, the low critical properties make CO2 the most preferable solvent in this technique. The used of co-solvent also affect the extraction of these essential oils because it could modify the CO2 selectivity towards the fragrances compound. This can in turn produce higher quantity of products. For this purpose, two co-solvent had been employed, viz. ethanol and methanol.

Clinical Aromatherapy - E-Book BoD – Books on Demand

Essential oil is an aromatic liquid that is extracted from various parts of the plants. It contains the true essence of the plant and has many therapeutic benefits. Patchouli essential oil from the extraction of dried Patchouli (Pogostemon Cablin) leaves is the important ingredient in many fragrance products like perfumes and also use widely in medical field. This experiment use ultrasonication-assisted solvent extraction method that comprises two set of experiments in order to

investigate the effect of ultrasonic and type of solvent on extraction process. Ethanol, hexane and acetone are the solvents used for the first experiment. The best solvent among three is chosen to be used in second experiment. In the second experiment, ultrasound is used in order to investigate its effect compared to the experiment without using ultrasonic. The qualitative and quantitative analysis has been done in order to show the objectives were achieved. Qualitative analysis involved the chromatogram analysis from GCMS while quantitative analysis is based on the percent yield. From qualitative analysis, ethanol gives the highest peak area (27.92%) than hexane (20.01%) and acetone (20.42%). In addition, average peak area for ultrasonic method (50.18%) is better than without using ultrasonic (42.40%). Meanwhile, for qualitative analysis, ethanol can extract highest yield (2.87%) compared to hexane (2.53%) and acetone (2.00%). Then, by using ultrasonic, it gives higher average yield (2.27%) than without using ultrasonic (1.67%). Therefore, from these analyses, the best solvent used for solvent extraction is ethanol because it produced highest quality and most yields of patchouli oil. This experiment also has the better result when it involves the ultrasonication method.-Author.

Complete Book Of Essential Oils And Aromatherapy LAP Lambert Academic Publishing

Essential oils have been used for centuries by communities all over the world in various areas and for various

purposes. These include uses in medicine, flavoring, perfumery, cosmetics, insecticides, fungicides, and bactericides, among others. They are natural and biodegradable substances, generally nontoxic or with low toxicity to humans and other animals. Therefore, constant research in these areas represents an alternative for new and more efficient drugs with less side effects as well as obtaining new products and supplies. This book provides a comprehensive overview of the diverse applications of essential oils in a variety of human activities with a focus on the most important evidence-based developments in the various fields of knowledge.

Value Addition of Horticultural Crops: Recent Trends and Future Directions

Edizioni R.E.I. France

This book combines several ideas and philosophies and provides a detailed discussion on the value addition of fruits, vegetables, spices, plantation crops, floricultural crops and in forestry. Separate chapters address the packaging, preservation, drying, dehydration, total quality management and supply chain management of horticultural crops. The book explains value addition as a process of increasing the economic value and consumer appeal of a commodity with special reference to horticultural crops. Each chapter focuses on a specific area, exploring value addition as a production/ marketing strategy driven by customer needs and preferences. But, as such, it is also a more creative field, calling for

more imagination than calculated, routine work. Value is added to the particular produce item when the product is still available when the season is out and the demand for the product exceeds the available supply. Value addition is an important factor in the growth and development of the horticultural sector, both in India and around the world. But very little information is available on this particular aspect of horticulture. Albert Einstein famously said, “Try not to become a man of success, but rather try to become a man of value.” This message is not only true for those people who want to make more of themselves, but also for those who want their creation or product in any form to excel. And it certainly applies to horticultural crops, which are extremely perishable. It is true that loss reduction is normally less costly than equivalent increases in production. The loss of fresh produce can be minimized by adopting different processing and preservation techniques to convert the fresh vegetables into suitable value-added and diversified products, which will help to reduce the market glut during harvest season. Value-added processed products are products that can be obtained from main products and by-products after some sort of processing and subsequently marketed for an increased profit margin. Generally speaking, value-added products indicate that for the same volume of primary products, a higher price is achieved by means of processing, packing, enhancing the

quality or other such methods. The integrated approach from harvesting to the delivery into the hands of the consumer, if handled properly, can add value to fresh produce on the market. But most of the fresh produce has a limited life, although it can be stored at appropriate temperature and relative humidity for the same time. If such produce is processed just after harvesting, it adds value and stabilizes the processed products for a longer time. Preparing processed products will provide more variety to consumers and improve the taste and other sensory properties of food. This will also promote their fortification with nutrients that are lacking in fresh produce. By adopting suitable methods for processing and value addition, the shelf life of fresh produce can be increased manifold, which supports their availability year-round to a wider spectrum of consumers on both the domestic and international market. With increased urbanization, rising middle class purchasing power, changing food habits and a decline in making preserved products in individual homes, there is now a higher demand for industry-made products on the domestic market. In spite of all these aspects, only 1-2.2% of the total produce is processed in developing countries, as compared to 40-83% in developed countries. The horticultural export industry offers an important source of employment for developing countries. For instance, horticulture accounts for 30% of India’s agricultural GDP from 8.5% of cropped area. India is the primary producer of

spices, second largest producer of fruits and vegetables and holds a prominent position with regard to most plantation crops in the world. The cultivation of horticultural crops is substantially more labor-intensive than growing cereal crops and offers more post-harvest opportunities for the development of value-added products. This book offers a valuable guide for students of horticulture, as well as a comprehensive resource for educators, scientists, industrial personnel, amateur growers and farmers.

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Extraction of Essential Oil from Cinnamomum Zeylanicum by Various Methods as a Perfume Oil Springer

Extraction processes are essential steps

in numerous industrial applications from perfume over pharmaceutical to fine chemical industry. Nowadays, there are three key aspects in industrial extraction processes: economy and quality, as well as environmental considerations. This book presents a complete picture of current knowledge on green extraction in terms of innovative processes, original methods, alternative solvents and safe products, and provides the necessary theoretical background as well as industrial application examples and environmental impacts. Each chapter is written by experts in the field and the strong focus on green chemistry throughout the book makes this book a unique reference source. This book is intended to be a first step towards a future cooperation in a new extraction of natural products, built to improve both fundamental and green parameters of the techniques and to increase the amount of extracts obtained from renewable resources with a minimum consumption of energy and solvents, and the maximum safety for operators and the environment.

The Beginner's Guide to Essential Oils: Therapeutic Healing Essential Oils A 360 Degree Guide to Prepare Them at Your Home. 60 Recipes for Pregnancy, Hair and Body Care ASIA PACIFIC BUSINESS PRESS Inc.

The essential guide for beginners to the use of essential oils. In our book we have a chapter that guides us to steam distillation and production of essential oils at home and in the company. Steam current distillation is a technique that

allows the extraction of essential oils and aromatic waters from aromatic herbs and medicinal plants; in other words, with steam current distillation we obtain aromatic waters from which the essential oil is extracted. We will find in addition a list of essential oils with properties, dedicated sheets, where to buy them, production and all the information on the uses of essential oils, use and dilutions of carrier oil.The Beginner's Guide to Essential Oils puts the power of natural healing in your hands. This simple guide distills the knowledge needed to unlock the potential of commonly available essential oils. Start making nutritious, all-natural, affordable remedies to treat a variety of conditions, for your skin care and home cleaning products.There are countless uses for essential oils. Uses range from the preparation of creams, perfumes, do-it-yourself remedies, personal care, personal hygiene, hair skin care to medical preparations. Recently, the use of essential oils has arrived in the culinary field: there are several chefs who make flavour dishes with a few drops of essential oils. Not all essential oils are edible so they cannot be used in the kitchen or for international use.Explore the many modern applications of essential oils, from herbal medicine to aromatherapy to natural beauty. Discover profiles detailing the aromas and therapeutic actions of essential oils from the most common to the most sought after. Breathe easily with eucalyptus essential oils, perfume the room and your

wardrobes with lavender essential oil or the most particular patchouli. With guidelines for safe use during pregnancy and instructions on dilution formulas for babies and children. Mix the healing power of essential oils in your life with the Essential Oils Beginner's Guide! The Essential Guide for Beginners, deals with the classification of oils, from a very detailed explanation of the various types of uses. Essential oils can have invigorating, draining, relaxing, stimulating properties... Dissolved in carrier oils, they can create ointments that can be applied in a wide variety of circumstances. A reference section illustrated from A to Z helps to identify the most useful oils, as well as sharing advice on application methods and massage techniques. Updated safety recommendations help you learn how to use them for maximum benefit. Explore the multitude of benefits of essential oils and aromatherapy: we will provide tools to address a variety of health problems, including specific advices for children, women, men and the elderly.

Science, Technology, and Applications
John Wiley & Sons

Essential oils are often used in aromatherapy, a form of alternative medicine that employs plant extracts to support health and well-being. The essential guide for beginners to the use of essential oils. In our book, we have a chapter that guides us to steam distillation and production of essential oils at home and in the company. Steam current distillation is a technique that allows the extraction of essential oils and

aromatic waters from aromatic herbs and medicinal plants; in other words, with steam current distillation, we obtain aromatic waters from which the essential oil is extracted. This book puts the power of natural healing in your hands. This simple guide distills the knowledge needed to unlock the potential of commonly available essential oils. Start making nutritious, all-natural, affordable remedies to treat a variety of conditions, for your skincare and home cleaning products.

Essential Oils in Food Processing: Chemistry, Safety and Applications
Wentworth Press

With contributions from a broad range of leading professors and scientists, this volume focuses on new areas of processing technologies in foods and plants to help meet the increasing food demand of the rapidly growing populations of the world. The first section of the book is devoted to emerging entrepreneurship and employment opportunities for rural peoples in food and agricultural processing, specifically beekeeping technology and honey processing; herbal formulations for treatment of dental diseases; and engineering interventions for the extraction of essential oils from plants. Part 2 contains three chapters that discuss technological interventions in foods and plants for human health benefits, looking particularly at coffee, tea, and green leaf vegetable processing technology. The volume goes to look at several management strategies in agricultural engineering, with a chapter

on production technology of ethanol from various sources and its potential applications in various industries, including chemical, food, pharmaceutical as well as biofuel. Food grain storage structures are addressed as well, focusing on minimizing losses from microbial pests as well as insect pests during grain storage by utilizing different efficient storage structures The volume provides a valuable resource for students, instructors, and researchers of foods and plants processing technology. In addition, food and plant science professionals who are seeking recent advanced and innovative knowledge in processing will find this book helpful.

Green Extraction of Natural Products Edizioni R.E.I.

Essential oils are becomingly increasing popular because of their health benefits. These oils are often used in aromatherapy, a form of alternative medicine that employs plant extracts to support health and well-beingEssential Oils serves a wide range of importance and helps the body on physical, emotional and energetic levels. These oils serves important needs to human health in immune system, hormones, gut/digestive health, respiratory health and help us manage and improve moods, focus, rest/relax as well as get rid of toxic household products.What really are essential oils? Essential oils simply put are plant extracts. Though derived from different plants, these plant substrates that captures its host plant's scents, flavor, properties and "essence". Essential oils derived from plants differs

in characteristics due to the unique property of each plants they are derived from. Essential oils are obtained by passing its host plant parts through distillation (via water and steam) or mechanical process like cold pressing. Once the chemical substances from the plants have been extracted, they are mixed with a carrier oil base to produce the end product.The processes employed in producing the oils is crucial as these processes go a long way to determine the quality and properties of the oils. The processes of extraction employed are also crucial because essential oils that employ chemical processes are not well received as true essential oils.History of Essential OilsThe use of essential oils can be dated as far back as 4,500 BC in Egypt. The ancient Egyptians have been using these aromatic plant oils for several healing ointments and cosmetics production. They had sourced these oils from essential plants such as Onion, Grapes, Myrrh, and Cedar, creating various herbal mixtures of these oils to proffer different solutions.However, around 3,000 - 2,000 BC, these aromatic oils were reportedly available in the Chinese folks' traditional medicine and the sourced Indian's traditional medicine. These are from various plants, including Sandalwood, Cinnamon, and Ginger. They were in Greece history within 600 - 300 BC.Furthermore, various chemists recorded the active components present in essential oils between the 18th and 19th centuries. Currently, these oils are being used across the world and

amongst varying cultures for their various purposes. They have also found use in the pharmaceutical fields; used for varying purposes and are quite beneficial. However, it is essential to note that the ingestion of some essential oils can be very harmful. This harmful effect can be because most of these oils are created majorly for aromatherapeutic purposes. Some of these oils are also used for food production; they are approved safe by the Food and Drug Association, since the 20th century. However, this use is only under stringent supervision to ensure that food poisoning does not occur.How to Build and Store a Collection of Essential OilsEssential oils are quite volatile and flammable; hence you mustn't expose them to air and excess heat. Direct sunlight can also hurt their coloration and consequently tamper with their constituents. Therefore, you must keep them stored in a cool and dry place and leave them stored in amber bottles rather than plastic bottles. How to Produce Essential OilsThe extraction of essential oils from the various plant materials occurs when introducing these plant parts to a suitable solvent. There are different extraction methods, and the quality of the oils varies based on extraction. However, some extraction techniques are ideal for some plants, while others might not be. Also, various tools or equipment are involved in the extraction process. Methods and Equipment Employed in Making Essential OilThe conventional methods employed in making essential oils include:

Distillation: There are thr

Natural Food Flavors and Colorants John Wiley & Sons

Green ChemistryBoD – Books on Demand

REVIEW OF EXTRACTION OF ESSENTIAL OIL USING STEAM DISTILLATION

• While beautifully written by McCullers at the young age of 23, The Heart Is a Lonely Hunter, unlike the vast preponderance of classics I have encountered, left me with little enduring excitement or profundity. John Singer makes for hardly a compelling protagonist and McCullers' characterization is lacking at best. We never really get to know the real John Singer as we encounter a bevy of vapidly shallow supporting characters clinging to his very being.I kept waiting for the book to build plot development and come through with some profound theme or happening...but to no avail. Many other classics of this genre far outweigh this effort -- including, but not limited to, Black Boy, Invisible Man, & To Kill a Mockingbird just to name a few.

• First of all, I would like to praise Carson McCullers for writing that such poise and character exposition but she labeled Deaf characters wrong. As a deaf invividual, I am a culturally and literally novel reader and a teacher of Deaf studies at a community college. I want to clear about real Deaf people in the United States and their perspectives. First, I want to present myths about

deafness and its facts. Here is a lisdt of the following myths and facts below:Myth#1: Deaf people are sucidial. They tend to be lonely and uncommunicative among the majority of hearing people.Fact: A very tiny percent of Deaf people are sucidial. They are basically happy human beings. Many of my friends have decent lives along with good jobs, houses, and even cars. In 1950's, there was the very same situations in which we live in today. They do usually communciate with hearing people by writing on pads, speeching, using thru interpreters, and gesturing.Myth#2: Deaf people are slow learners because they can't hear nor speak well.Fact: There's no significent co-relation on intelligence between the hearing people and the deaf counterparts. Most of Deaf people can read and write in despite of any hearing loss and muteness. Again, there is a small minority of deaf people who have mental health histories or emotional disturbances. They do everything except hearing.Myth#3: All deaf people can lipread.Fact: Not all deaf people can do it well. They can only master lipreading skills up to 30% of all words they can detect. The most skilled lipreader can detect up to 70%. Therefore, lipreading is not a very good communication strategy. The best way to communicate is to write on pads or using a certified interpreter.Myth#4: Many deaf people are somewhat lonesome or isolated because they don't like hearing people.Fact: Most deaf people seek for another deaf people in big cities or

towns that contain residential schools for the deaf. They can be lonely if you don't let them go what they want. It considers an act of oppression if you keep them at bay from interacting with other deaf people. They do like hearing people as long as they respect their independence and well-being. You can make friends if you are willing to learn sign language. They would appreciate if you show your efforts to talk with them. If they feel somewhat lonely, they would move to the communities where many deaf people work and live without question. I don't know why that such deaf characters decided to stay in that town and let it happened to them.Myth#5: Deaf people seek for your mercy or help.Fact: Again, the majority of Deaf people don't ask for your mercy or help. They are proud and fierce independents. They don't usually beg for money. Peddling is unacceptable today but in the past, they had good reasons to do that because they hardly find decent jobs everywhere. How can they support themselves if you don't offer them? During 1950's, they usually were skilled workers. They did printing newspapers, assembly lines, and driving deliveries. They earned decent wages and salaries, too.Overally, I want to make a clear and simple emphasis to you that not all Deaf people are lonely, unintelligent, uncommunicative, poor, or emotional. So I consider that novel is still invalid and stereotypical. I recommend that you should read other reading materials about Deaf culture and its history and arts which represent more positive and

bright sides instead of that rubbish unrealistic novel.Carson, who is in a Heavenly place, I want to let you know that I do appreciate your writing style with good insights about other people in the South but you should have to study deaf people more carefully before starting writing. Sorry, Carson. Hugs.