



**STSN GOVERNMENT DEGREE COLLEGE
KADIRI, SRI SATHYASAI Dt.AP.**

**Re-Accredited With 'B' Grade by NAAC
An ISO 9001:2015 Institution**

**DEPARTMENT OF CHEMISTRY
2021 – 2022**

Certificate course

*- "Detection of Adulterants In Some
Common Food-Stuff....."*

Permission Letter

From

Date: 20.03.2022.

HOD of Chemistry
STSN GDC,
Kadiri.

To

The Principal
STSN GDC,
Kadiri.

Sub: Issue of permission to conduct certificate course reg...

Respected Madam,

I submit the following few lines for your kind consideration, Chemistry department is going to conduct Certificate course for II Year B.Sc Students from 01.04.2022 to 30.04.2022. Hence grant the permission.

Thanking you Madam

Yours faithfully,

P. 



PRINCIPAL
STSN GOVT. DEGREE COLLEGE
KADIRI - 513 591
Sri Sathya Sai (Dist).

RESOLUTION

It is resolved that the department of Chemistry unanimously decided, to conduct a 30 days certificate course on **"DETECTION OF ADULTERANTS IN SOME COMMON FOOD-STUFF"** for the second year B.sc students of this college. The course schedule will be from 01-04-2022 to 30-04-2022. After successful completion of course an exam should be conducted in certificate course and distribution of certificates to the students. The course syllabus is attached to this copy.

Faculty of


Chemistry Department


Lecturer in Chemistry
S.T.S.N.Govt. Degree College
KADIRI - 515 591
Sri Sathya Sai Dist.

CIRCULAR

This is to inform that Chemistry department decided to conduct certificate course in **"DETECTION OF ADULTERANTS IN SOME COMMON FOOD-STUFF"** from 01.04.2022 to 30.04.2022 for II B.Sc Students. So enroll their names and pay the Fee 200/- in Department of Chemistry, on or before 26.03.2022.

Date: 25.03.22


Lecturer in Chemistry 25.03.2022
S.T.S.N.Govt. Degree College
KADIRI - 515 591
Sri Sathya Sai Dist.

Brief Report

STSN Govt Degree College, KADIRI.

Sri Sathya Sai (Dist)

Department of Chemistry.

(01-04-22 to 30-04-22)

(2021-2022)

Programme	: Certificate course
Nature of the Programme	: Apply the knowledge and skills in detection of adulterants in common food
Class	: II. B Sc (BZC & CZS)
No of Students participants	: 20
Incharge Lecturer	: P.Guruprathap Reddy

Course objectives

- Students will get knowledge about food adulteration.
- Students will know how to detect adulterants in common food-stuff by lab based chemicals.

Course Output

- To create awareness among public, regarding food adulteration.
- Students can include the importance of health and hygienic in their daily life.
- Analytical Skills.

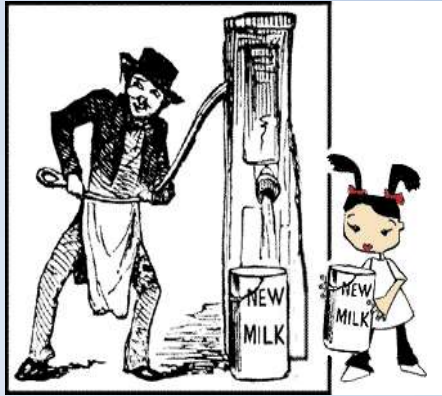
Brief Report

II B.Sc students studied different chemical reactions involving in the process of detection of different adulterants in different food items. These experiments were performed for the purpose of detecting various adulterants present in common food. The experiments have been performed by common laboratory methods. Students can include the importance of health and hygienic in their daily life. To build healthy society by consuming unadulterated food.

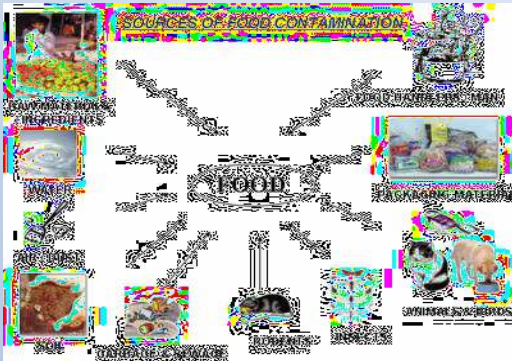

Lecturer in Chemistry
S.T.S.N.Govt. Degree College
KADIRI - 515 591

Certificate course – Time table

S.No	Date	Topic covered
1.	01-04-2022	Inaugural function for certificate course
2.	04-04-2022	Introduction about certificate course in Adulteration
3.	05-04-2022	Introduction of Adulterants
4.	06-04-2022	Types of Adulterants
5.	07-04-2022	Impact of Adulterants
6.	08-04-2022	Metanil yellow in pulses
7.	12-04-2022	Collection of sample
8.	13-04-2022	Laboratory test for Metanil yellow
9.	16-04-2022	Kesari dal in channa and other dal
10.	18-04-2022	Collection of sample of various dal
11.	19-04-2022	Laboratory test for Kesari dal
12.	20-04-2022	Water in milk
13.	21-04-2022	Collection of samples of various branded milk
14.	22-04-2022	Laboratory test for quality of milk
15.	23-04-2022	Starch in milk
16.	25-04-2022	Collection of samples of various branded milk
17.	26-04-2022	Laboratory test for quality of milk
18.	27-04-2022	Vanaspathy in pure Ghee
19.	28-04-2022	Collection of samples of various branded Ghee in market
20.	29-04-2022	Laboratory test for quality of Ghee
21.	30-04-2022	Chalk in sugar
22.	02-05-2022	Collection of samples
23.	03-05-2022	Laboratory test for quality of sugar
24.	04-05-2022	Yellow dye in turmeric powder
25.	05-05-2022	Collection of samples and Laboratory test
26.	06-05-2022	Evaluation
27.	07-05-2022	Issue of certificates



STOP ADULTERATION NOW!!



-CONTENTS-

<i>SL.NO.</i>	<i>DESCRIPTION</i>	<i>PAGE NO.</i>
<i>1.</i>	<i>CONTENTS</i>	<i>(i)</i>
<i>2.</i>	<i>CHAPTER-1</i>	<i>2</i>
	<i>• INTRODUCTION</i>	<i>3</i>
	<i>• SOME ADULTERANTS IN COMMON FOOD</i>	<i>4</i>
	<i>• IMPACT OF ADULTERANTS</i>	<i>4</i>
	<i>• DIFFERENT CHEMICAL TESTS FOR DETECTION OF ADUTERANTS</i>	<i>5</i>
<i>3.</i>	<i>CHAPTER-2</i>	<i>6</i>
	<i>• INTRODUCTION</i>	<i>7</i>
	<i>• DETECTION OF STARCH IN MILK</i>	<i>7</i>
	<i>• DETECTION OF YELLOW DIE IN TURMERIC POWDER</i>	<i>8</i>
	<i>• DETECTION OF VANASPATI GHEE IN DESHI GHEE</i>	<i>9</i>
	<i>• DETECTION OF ARGEMONE OIL IN MUSTARD OIL</i>	<i>10</i>
	<i>• DETECTION OF WASHING SODA, CHALK POWDER AND WATER INSOLUBLE SUBSTANCES IN SUGAR</i>	<i>11</i>
	<i>• DETECTION OF RED COLOURED LEAD SALTS IN CHILLI POWDER</i>	<i>12</i>
	<i>• DETECTION OF KHESARI DAL IN BESON</i>	<i>13</i>
<i>4.</i>	<i>CHAPTER -3</i>	<i>14</i>
	<i>• CONCLUSION</i>	<i>15</i>
	<i>• STATISTICAL ANALYSIS OF THE PROJECT</i>	<i>15</i>
<i>5.</i>	<i>REFERENCES</i>	<i>16</i>

CHAPTER- (1)

INTRODUCTION

SOME ADULTERANTS

INCOMMON FOOD

**IMPACT OF
ADULTERANTS**

DIFFERENT

CHEMICAL TESTS FOR

DETECTION OF

ADULTERANTS

INTRODUCTION

The Objective of this project is to study some of the common food adulterants present in different food stuffs.

Adulteration in food is normally present in its most crude form; prohibited substances are either added or partly or wholly substituted. Normally the contamination/adulteration in food is done either for financial gain or due to carelessness and lack in proper hygienic condition of processing, storing, transportation and marketing. This ultimately results that the consumer is either cheated or often become victim of diseases. Such types of adulteration are quite common in developing countries or backward countries. It is equally important for the consumer to know the common adulterants and their effect on health.

The increasing number of food producers and the outstanding amount of import foodstuffs enables the producers to mislead and cheat consumers. To differentiate those who take advantage of legal rules from the ones who commit food adulteration is very difficult. The consciousness of consumers would be crucial. Ignorance and unfair market behavior may endanger consumer health and misleading can lead to poisoning. So we need simple screening, tests for their detection. In the past few decades, adulteration of food has become one of the serious problems. Consumption of adulterated food causes serious diseases like cancer, diarrhea, asthma, ulcers, etc. Majority of fats, oils and butter are paraffin wax, castor oil and hydrocarbons. Red chilli powder is mixed with brick powder and pepper is mixed with dried papaya seeds. These adulterants can be easily identified by simple chemical tests.

Several agencies have been set up by the Government of India to remove adulterants from food stuffs. Selection of wholesome and non-adulterated food is essential for daily life to make sure that such foods do not cause any health hazard. It is not possible to ensure wholesome food only on visual examination when the toxic contaminants are present in ppm level. However, visual examination of the food before purchase makes sure to ensure absence of insects, visual fungus, foreign matters, etc. Therefore, due care taken by the consumer at the time of purchase of food after thoroughly examining can be of great help. Secondly, label declaration on packed food is very important for knowing the ingredients and nutritional value. It also helps in checking the freshness of the food and the period of best before use. The consumer should avoid taking food from an unhygienic place and food being prepared under unhygienic conditions. Such types of food may cause various diseases. Consumption of cut fruits being sold in unhygienic conditions should be avoided. It is always better to buy certified food from reputed shop.

SOME ADULTERANTS IN COMMON FOOD

Majority of adulterants used by the shopkeepers are cheap substitutes easily available. For example, adulterants in fats,oils and butter are paraffin wax,castor oil and hydrocarbons. Read chili powder is mixed with brick powder ,turmeric powder is mixed with yellow lead salts and pepper is mixed with dried papaya seeds. Similarly sugar is contaminated with washing soda and other insoluble substances, milk is adulterated with starch,argemone oil is used to adulterate mustard oil,vanaspati ghee is mixed with deshi ghee,beson is mixed with khesari dal etc.These type of adulterants makes a food stuff inferior.

IMPACT OF ADULTERANTS

Every day we hear and watch live on television sets how the food items are being adulterated and this spurious, unhygienic and harmful food is entering our houses. We have seem how milk and milk products are being made from urea, soapand other harmful chemicals. We all know that vegetables are being given injections to make them grow faster and overnight. The other day we saw how steroids were being injected to chickens to make them into a hen in a very short span of time. We have also come across evidence as to how the fruits are being ripened with the use of harmful chemicals.

Adulteration of food causes several heath problems in humans. Some of the health hazards include stomach ache, body ache, anemia, paralysis, and increase in the incidence of tumors, pathological lesions in vital organs, abnormalities of skin and eyes. Hence food adulteration should be given great importance due to its effect in the health significance of the public. The people are suffering from heart disease, kidney failure, skin diseases, asthma and other chronic diseases. The people are hapless victims of this adulteration industry running in full swing and unchecked.

DIFFERENT CHEMICAL TESTS FOR DETECTION OF ADULTERANTS

Food adulteration has now become a burning problem. The adulterants used are so similar to natural foodstuffs that it becomes very difficult for a commonman to detect them. A few simple tests can be done to detect adulterants found in common foodstuffs.

1. METANIL YELLOW IN PULSES

Shake 5 gms: of the suspected pulses with 5 ml of water. Add a few drops of hydrochloric acid. A pink colour shows the presence of metanil yellow.

2. KESARI DAL IN CHANNA OR OTHER DALS

Add 5 ml of normal hydrochloric acid to a small quantity of dal in a glass. Keep the glass in simmering water for 15 minutes. Development of pink colour indicates the presence of Kesari dal. By visual detection-shape of dal. The kesari dal is wedge shaped.

3. WATER IN MILK:

Measure the specific gravity with a lactometer. The normal values will fall between 1.030 and 1.034. Milkmen are wise to the test and may dilute the milk only to the right density, so this is only a rough test.

4. STARCHES IN MILK:

Add a drop of iodine solution to a small quantity of milk. Milk containing starch turns blue. Pure milk turns a coffee shade.

5. VANASPATI IN PURE GHEE

Take about one teaspoonful of melted butter with an equal quantity of concentrated hydrochloric acid in a test tube. Add 2 or 3 drops of furfural solution. Shake it well for one minute and let it stand for five minutes. Appearance of pink colour in the lower layer of acid means that vanaspati is present in pure ghee/butter as an adulterant.

6. ARGEMONE OIL IN MUSTARD OIL

Heat the mixture of oils with a little amount of nitric acid for two to three minutes. A red colour will appear if argemone is present

7. CHALK OR ANY OTHER DUST OR DIRT IN SUGAR

Dissolve sugar in water, the impurities will settle down at the bottom. Etc.

CHAPTER –(2)

- ***INTRODUCTION***
- ***DETECTION OF STARCH IN MILK***
- ***DETECTION OF YELLOW DYE IN TURMERIC POWDER***
- ***DETECTION OF VANASPATI GHEE IN DESHI GHEE***
- ***DETECTION OF ARGEMONE OIL IN MUSTARD OIL***
- ***DETECTION OF WASHING SODA, CHALK POWDER AND WATER INSOLUBLE SUBSTANCES IN SUGAR***
- ***DETECTION OF RED COLOURED LEAD SALTS IN CHILLI POWDER***
- ***DETECTION OF KHESARI DAL IN BESON***

2.1 INTRODUCTION

The Objective of this project is to study some of the common food adulterants present in different common food stuffs. In this project different food items are tested in laboratory by some tests to detect the adulterants present. Moreover, different samples of each food item are also taken and their quality is specially analysed. The batch no, serial no, date of expiry, and date of modification are also noted for the packeted samples of the food items. The way in which the experiments had taken as described in this chapter and result for each sample has written here

2.2 DETECTION OF STARCH IN MILK

Along with water, a very common adulterant of milk is starch. Milk consists of three basic components which are water (about 80%), fat (about 3.5%) and solids containing protein, lactose and mineral matters (about 8.5%). Milk is adulterated with starch to maintain the thickness of fat extracted milk or diluted milk. The presence of starch can be detected by adding iodine solution to milk.

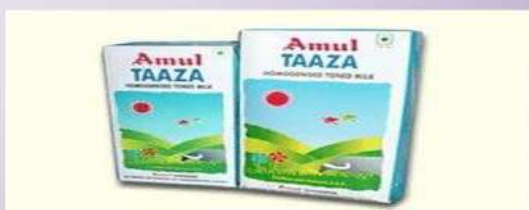
Reagent used- Iodine solution or tincture of iodine.

Procedure- At first 5 mL of milk sample is taken in a test tube and is boiled for 3-4 minutes. Then it is cooled and 1-2 drops of iodine solution is added to it and is shaken well.

Detection- Appearance of blue colour indicates the presence of starch in the sample.

Table for different samples-

SL NO	SAMPLES	BATCH NO.	RESULT
1.	Amul TAAZA	B5087M	Adulterant absent.
2.	Diary milk	-----	Adulterant present.
3.	Nestle EVERYDAY	127304514A	Adulterant absent.
4.	Amulya	4B8790	Adulterant absent.



Sample-1



sample-2



Sample-3



sample-4

Milk samples

DETECTION OF YELLOW DYE IN TURMERIC POWDER

Turmeric(haladhi) powder is a popular natural dye used in cooked food. The powder is often adulterated with rice powder, besan, wheat powder etc. which makes the colour of the turmeric pale. To make the colour bright, often lead chromate, which is a poisonous chemical or coal tar dye is added to turmeric powder.

a) DETECTION OF LEAD CHROMATE –

Reagents: Concentrated HCL and 1% diphenyl carbazide in rectified spirit.

Procedure: 1g of the turmeric powder sample is taken in a test tube and 5ml of concentrated HCL is added to it. The mixture is shaken thoroughly. Now 1ml of 1% diphenyl carbazide reagent is added.

Detection: Appearance of pink to red colour indicates the presence of lead chromate, $PbCrO_4$, in the sample.

b) DETECTION OF COAL TAR DYE-

Reagents: Concentrated HCL and petroleum ether (40-60⁰ C).

Procedure: 5g of the sample is taken in a test tube and 10mL petroleum ether is added to it. The mixture is shaken vigorously and is allowed to stand. 5 mL of conc. HCL is added and is again shaken thoroughly.

Detection: The aqueous acid becomes pink to red in colour if coal tar is present.

Table for different samples-

SL.NO.	SAMPLES	BATCH NO	RESULT
1.	MDH Haldi powder	GN-60	Adulterant absent.
2.	Open sample	----	Adulterant present.
3.	Bharat haldi	KL29	Adulterant present.



Sample-1



sample-2



sample-3

HALDI SAMPLES

DETECTION OF VANASPATI(VEGETABLE)GHEE INDESHI GHEE(MILK PRODUCT)

Deshi ghee, which is a milk product is much costlier than vanaspati ghee. So, deshi ghee is often adulterated with vanaspati ghee. Vanaspati ghee contains sesame oil, which is not present in deshi ghee. Sesame oil reacts with the mixture of conc. HCL and furfural solution to produce rose red colour. This test is known as Baudoium test.

Reagent: Concentrated HCL and 2% solution of furfural in alcohol.

Procedure: 5mL of melted ghee sample is taken in a test tube. 5mL of conc. HCL is added to it. Then 2-3 drops of 2% solution of furfural in alcohol. The mixture is shaken the mixture and is allowed to stand for about 10 minutes.

Detection: Appearance of rose red colour indicates the presence of vanaspati ghee in the ghee sample.

Table for different samples-

SL. NO.	SAMPLES	BATCH NO.	RESULT
1.	Amul ghee	11N307	Adulterant present.
2.	Annapurna ghee	M907B	Adulterant absent.



GHEE SAMPES

DETECTION OF ARGEMONE OIL IN MUSTARD OIL

Argemone oil is a non-edible oil which is often used to adulterate vegetable oil or fat. Argemone oil can be easily detected by FeCl₃ solution test.

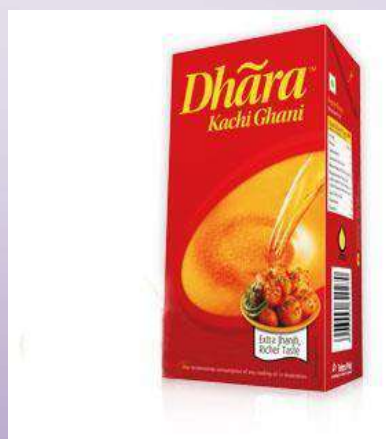
Reagent: Concentrated HCl, 10% FeCl₃ solution (dissolve 10g of anhydrous FeCl₃ in 10mL concentrated HCl and dilute to 100 mL with distilled water).

Procedure: In a test tube, 5mL of the mustard oil sample is taken and 2mL of conc HCl is added to it. Then it is shaken vigorously and is warmed in a little water bath for 5 minutes. It is shaken intermittently during warming. 1mL of 10% FeCl₃ solution is added and is mixed by rotating the test tube between the palms. The mixture is heated in a boiling water bath for about 10 minutes.

Detection: Reddish brown needle like crystals appear at the junction of the acid and oil, if argemone oil is present.

Table for different samples-

<i>SL. NO.</i>	<i>SAMPLES</i>	<i>BATCH NO.</i>	<i>RESULT</i>
<i>1.</i>	<i>DHARA mustard oil</i>	<i>A3K02</i>	<i>Adulterant absent.</i>
<i>2.</i>	<i>ASSAM VALLEY pure mustard oil</i>	<i>07</i>	<i>Adulterant absent.</i>
<i>3.</i>	<i>Open sample</i>	<i>-----</i>	<i>Adulterant absent.</i>



Sample-1



sample-3

OIL SAMPLES

DETECTION OF WASHING SODA, CHALK POWDER AND WATER INSOLUBLE SUBSTANCE IN SUGAR

Chalk powder is a water insoluble substance which is often used as a common adulterant in sugar. Moreover sugar is usually contaminated with washing soda.

a) Detection of various insoluble substances-

Reagent: concentrated H₂SO₄, alcoholic solution of α -naphthol, dil HCl.

Procedure: A small amount of sugar is taken in a test tube and is shaken with little water. Pure sugar dissolves in water but insoluble impurities do not dissolve.

Detection: Insoluble substances appear at the bottom of the test tube if they are present.

b) Detection of chalk powder, washing soda-

Reagent: dil. HCl

Procedure: To a small amount of sugar taken in a test tube, a few drops of dil. HCl is added and observed.

Detection: Brisk effervescence of CO₂ shows the presence of chalk powder or washing soda in the given sample of sugar.

Table for different samples-

SL.NO.	SAMPLES	BATCH NO	RESULT
1.	Open sample	-----	Adulterant present.
2.	Packed sample	-----	Adulterant absent.



Sample-1



sample-2

SUGAR SAMPLES

DETECTION OF RED COLOURED LEAD SALTS IN CHILLI POWDER

Chilli powder often adulterated with red are coloured lead salts n brick powders.

Reagents: dil HNO₃,KI

Procedure: To a sample of chilli powder dil.HNO₃ is added.The solution is filtered and a fewdrops of potassium iodide solution is added to the filtrate.

Detection: Yellow ppt. indicates the presence of lead salts in chilli powder and insolublesubstances indicates the presence of brick powder in the sample.

Table for different samples-

SL.NO.	SAMPLES	BATCH NO.	RESULT
1.	MDH Chilli powder	B 17	Adulterant present.
2.	ADAMS chilli powder	CH 07	Adulterant present.



CHILLI POWDER SAMPLES

DETECTION OF KHESARI DAL IN BESON

Beson powder is usually adulterated with khesari dal which contains butyl oxalylalanine amine(BOAA) which causes lethargy and ultimate paralysis in lower limbs of human body on regular consumption. The detection of BOAA in beson powder indicates adulteration of it with khesari dal.

Reagents: dil. HCl

Procedure: To 1g of the beson sample is taken in a test tube and 10 mL of 70% HCl is added to it. The content is boiled for some time.

Detection: Development of pinkish colour indicates adulteration of beson with khesari dal

Table for different samples-

SL.NO.	SAMPLES	BATCH NO.	RESULT
1.	Open sample	-----	Adulterant present
2.	Packed sample	956G	Adulterant present.

CHAPTER- 3

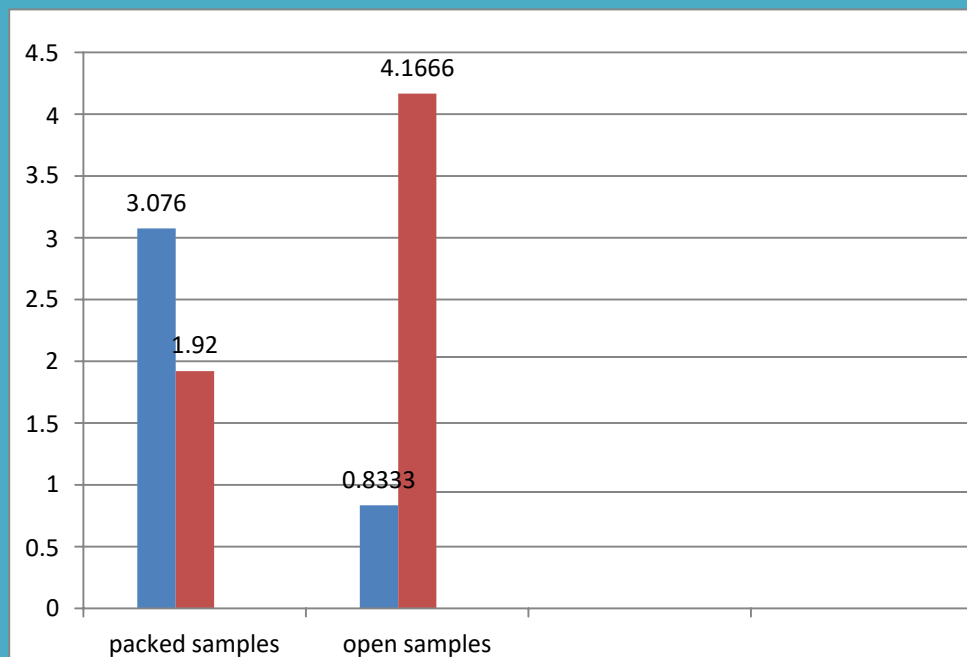
CONCLUSION

STATISTICAL ANALYSIS

CONCLUSION-

I have studied different chemical reactions involving in the process of detection of different adulterants in different food items. These experiments were performed for the purpose of detecting various adulterants present in common food. The results obtained during these experiments have been shown in this project. The experiments have been performed by common laboratory methods.

STATISTICAL ANALYSIS



ADULTERANT PRESENT  ADULTERANT

ADULTERANT  ADULTERANT

REFERENCES:

1. Comprehensive PRACTICAL CHEMISTRY, Dr. N.K.VERMA & Dr. B.K. VERMANI, Associate professors, Chemistry Department, D.A.V. College, Chandigarh
2. Elements Of Practical Chemistry, SUDARSAN BARUAH, Department of Chemistry, Cotton college, Guwahati
3. A Handbook Of CHEMISTRY PRACTICAL, D. GHOSH, Department of Chemistry, Arya Vidyapeeth College, Guwahati
4. Senior Secondary Practical Chemistry, Dr. KAMALESH CHOUDHURY, Dr. SATYENDRA KUMAR CHOUDHURY, Cotton College Guwahati
5. INTERNET.

Certificate course photos





SISN GOVT DEGREE COLLEGE, KADIRI
DEPARTMENT OF CHEMISTRY
ATTENDANCE SHEET

S.No	NAME OF THE STUDENT	GROUP	2-4	4-9	9-14	14-19	19-24	24-29	29-34	34-39	39-44	44-49	49-54	54-59	59-64	64-69	69-74	74-79	79-84	84-89	89-94	94-99	
1	A.Girija	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	B.Devika bai	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3	J.Rajeswari	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
4	k.Dharani	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
5	G.Lakshmi	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
6	M.Lubna iram	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
7	K.Gangadri	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
8	M.Jagadeesh	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
9	D.saikumar	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
10	P.Karishma	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
11	P.Nagalakshmi	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
12	M.Swetha	2 nd B.Z.C	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
13	A.Siri chandana	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
14	M.Sruthi	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
15	N.Gayatri	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
16	T.Prathiba	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
17	B.Venkataramana	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
18	K.Raju	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
19	H.Mahantesh	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
20	V.vinaykumar naik	2 nd C.Z.S	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

STSN GOVT DEGREE COLLEGE, KADIRI

DEPARTMENT OF CHEMISTRY

Student's particulars for the Certificate course

S.No	NAME OF THE STUDENT	GROUP	SIGNATURE	REMARKS
1	A.Girija	2 nd B.Z.C	A. Girija	
2	B.Devika bai	2 nd B.Z.C	B. Devika Bai	
3	J.Rajeswari	2 nd B.Z.C	J. Rajeswari	
4	k.Dharani	2 nd B.Z.C	K. Dharani	
5	G.Lakshmi	2 nd B.Z.C	G. Lakshmi	
6	M.Lubna iram	2 nd B.Z.C	M. Lubna Iram	
7	K.Gangadri	2 nd B.Z.C	K. Gangadri	
8	M.Jagadeesh	2 nd B.Z.C	M. Jagadeesh	
9	D.saikumar	2 nd B.Z.C	D. Saikumar	
10	P.Karishma	2 nd B.Z.C	P. Karishma	
11	P.Nagalakshmi	2 nd B.Z.C	P. Nagalakshmi	
12	M.Swetha	2 nd B.Z.C	M. Swetha	
13	A.Siri chandana	2 nd C.Z.S	A. Siri Chandana	
14	M.Sruthi	2 nd C.Z.S	M. Sruthi	
15	N.Gayatri	2 nd C.Z.S	N. Gayathri	
16	T.Prathibha	2 nd C.Z.S	T. Prathibha	
17	B.Venkataramana	2 nd C.Z.S	B. Venkataramana	
18	K.Raju	2 nd C.Z.S	K. Raju	
19	H.Mahantesh	2 nd C.Z.S	H. Mahantesh	
20	V.vinaykumar naik	2 nd C.Z.S	V. Vinay	

21 S. Ali

2nd B.Z.C

P. S. S. S.

Question Paper

DEPARTMENT OF CHEMISTRY
STSN GOVT DEGREE COLLEGE. KADIRI
Certificate course Examination


Time: 1hr

Max.Marks:20

1. What is an Adulterant?
2. Which adulterants are used in fats, oils and butter?
3. Which adulterant is used in red chilli powder?
4. Which adulterant is used in turmeric powder?
5. Which adulterant is used in sugar?
6. Which adulterant is used in Ghee?
7. Which chemicals are used in detection of yellow dye in turmeric powder?
8. Which colour appears in baudoium test?
9. How can you detect if sugar is mixed with washing soda?
10. Which reagents are used when chilli powder is adulterated with lead salt?
11. How can you identify when papaya seeds mixed with pepper seeds?
12. Milk is adulterate with _____.
13. Adulteration of food causes _____.
14. Milk quality is tested by _____.
15. Adulteration of starch in milk is identified by _____.

REPORT ON COMPLETION OF CERTIFICATE COURSE

A certificate course was conducted by the Department of chemistry on "*Detection of adulterants in some common food stuff*" from 01-04-2022 to 30-04-2022. The course was completed as per the schedule. II B.Sc students (20) have participated in the certificate course. A test was also conducted to all the participants after the completion of the course and certificates were issued.


Lecturer in Chemistry
S.I.S.N.Govt. Degree College
KADIRI - 515 591
Sri Sathya Sai Dist.

Feed back Report

- > The Certificate Course on "Detection of Adulterants in some common food stuff" is very useful for us
- > The tests are fast and reliable.
- > The Test cost almost nothing
- > Adulterants of the food items are traced out easily at home, even by a layman.
- > This knowledge is useful for further studies
- > students must care about adulteration on taking food stuff.
- > It is very much useful to create awareness among public,
- > It is helpful to build healthy society by consuming unadulterated food only.

by
A. Girija & Team



STSN GOVERNMENT DEGREE COLLEGE

KADIRI, SRI SATHYA SAI Dt. AP.

Re-Accredited With 'B' Grade by NAAC

AnISO9001:201/Institution

DEPARTMENT OF CHEMISTRY

CERTIFICATE OF COURSE COMPLETION

This is to certify that Mr/Miss **A. GIRIJA** IIB.Sc has successfully completed 30 days certificate course on “**Detection of Adulterants in common food stuffs**” Organised by Department of Chemistry from 01.04.2022 to 30.04.2022.

P. Guruprathap Reddy
HO Dof Chemistry

M. Dasaradha Ramaiah
Lecturer in Chemistry

Dr.S.Smitha
Principal