

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY
ST. THOMAS COLLEGE PALAI

CERTIFICATE

This is to certify that the project report entitled "Extraction and analysis of piperine from pepper" is an authentic record of the project work carried out by Mr. Vishnu T K Reg.No. 140021085305 in partial fulfilment of the requirements for the Award of the degree of bachelor of Science in Chemistry of M.G University under my Guidance and supervision during 2016-2017. The work presented in this project report has not been submitted for any degree or diploma earlier.

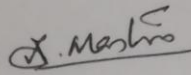


Mr. Amal Jose Baby
(Supervising teacher)
Assistant Professor
Department of Chemistry
St. Thomas College Palai

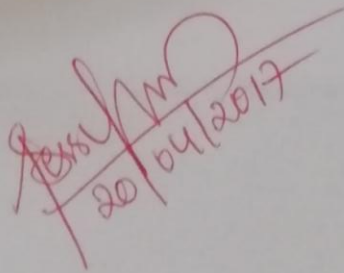
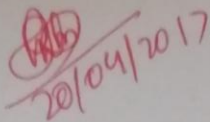
Countersigned by

Dr. Sunny Kuriakose

Head, Department of Chemistry
St. Thomas College Palai



Valued



DEPARTMENT OF CHEMISTRY

ST THOMAS COLLEGE PALA



CERTIFICATE

This to certify that project titled "SPECTROPHOTOMETRIC TITRATIONS" is an authentic record of project work carried out by Mr. Vishnu B Sharma in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

Joseh

Dr. Jose K Xavier M.Sc. Ph.D.

Department of Chemistry

St. Thomas College, Pala

Dr. Sunny Kuriakose M.Sc. Ph.D.

For Head of the Dept. of Chemistry *S. Kuriakose*

St. Thomas College, Pala

Valued by

Date:.....

Valued

(Signature)
20/04/2017

(Signature)
20/4/17

Dr. Thomas V Mathew
Associate Professor

Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
ST. Thomas College Pala
[CENTER WITH POTENTIAL FOR EXCELLENCE]



CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF COPPER AND NICKEL NANOPARTICLES" is an authentic record of the project work carried out by Mr. Tonu Anto (Reg.No. 140021085304) in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Dr. Thomas V Mathew
Assistant Professor
Department of Chemistry

Valued

[Signature]
20/04/2017

[Signature]
20/04/2017
for

Counter Signed by,

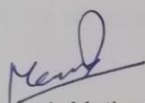
Dr. Sunny Kuriakose
Head, Department of Chemistry
St. Thomas College Palai

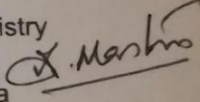
DEPARTMENT OF CHEMISTRY
ST THOMAS COLLEGE PALA



CERTIFICATE


This to certify that project titled "BENZOIC ACID IN SOFT DRINKS" is an authentic record of project work carried out by Mr. Tom Sunny in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

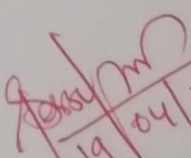

Prof. Manjesh Mathew
Department of Chemistry
St. Thomas College, Pala

Dr. Sunny Kuriakose
For Head of the Dept. of Chemistry
St. Thomas College, Pala 

Valued by:

Date :


19/04/2017


19/04/17

CERTIFICATE

This is to certify that this dissertation entitled "**DETERMINATION OF DISSOLVED OXYGEN IN WATER**" submitted for the degree of Bachelor of Science in chemistry of Mahatma Gandhi University is a work carried out by **Mr. PRAVEEN JOJO** (Reg No: 140021085302) under my supervision and guidance at St. Thomas College, Pala during the period from February 2017 to march 2017, and no part of this dissertation has been submitted for any other degree.

S. Martin

Supervising Teacher

Dr. Sajeev Martin George

Assistant Professor, Dept. of Chemistry

St. Thomas College, Pala

Counter signed by

[Signature]
Dr. Sunny Kuriakose

Head of the department of Chemistry

St. Thomas College, Pala

Valmed

[Signature]
20/04/2017

[Signature]
20/4/2017

External examiners

Dr. Thomas V Mathew
Associate Professor



Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
St. Thomas College Pala
[CENTER WITH POTENTIAL FOR EXCELLENCE]

CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF COPPER AND NICKEL NANOPARTICLES" is an authentic record of the project work carried out by Mr. Paul Joseph (Reg. No. 140021085301) in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Dr. Thomas V Mathew
Assistant Professor
Department of Chemistry

Counter Signed by,

Dr. Sunny Kuriakose
Head, Department of Chemistry
St. Thomas College Palai

Valued

20/04/2017

20/4/2017

RESEARCH AND POST GRADUATE
ST. THOMAS

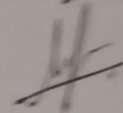
CER

This is to certify that the project
"Isolation of piperine from pepper" is an authentic
work of Mr. **NANTHU RESHIN** Reg.No. **1998**
fulfilling the requirements for the Award of the
Diploma of M.G University under my Guidance.
The work presented in this project report is
entirely his own and is eligible for the
diploma earlier.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY
ST. THOMAS COLLEGE PALAI

CERTIFICATE

This is to certify that the project report entitled "Extraction and analysis of piperine from pepper" is an authentic record of the project work carried out by Mr. Nandhu K Jayan Reg.No. 140021085284 in partial fulfilment of the requirements for the Award of the degree of Bachelor of Science in Chemistry of M.G University under my Guidance and supervision during 2016-2017. The work presented in this project report has not been submitted for any degree or diploma earlier.

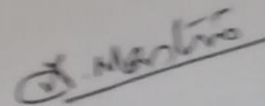


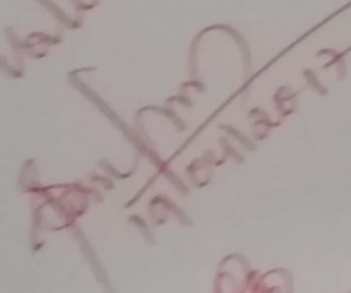
Mr. Amal Jose Baby
(Supervising teacher)
Assistant Professor
Department of Chemistry
St. Thomas College Palai

Countersigned by

Dr. Sunny Kuriakose

For Head, Department of Chemistry
St. Thomas College Palai



Valued
19/04/2017

2017

ST. THOMAS COLLEGE

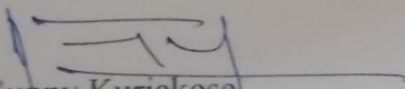
**U.G.C APPROVED COLLEGE WITH POTENTIAL FOR
EXCELLENCE**

ARUNAPURAM P.O., PALA-686574, KERALA, INDIA.

(RE-ACCREDITED WITH A GRADE BY NACC)

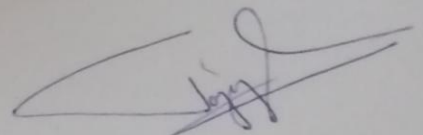
Certificate

This is to certify that the project report entitled "A study on casein and lactose content in different milk samples" is submitted by Mr. Jossin Mathew, Reg No. 140021085297 to St. Thomas College Pala (Affiliated to M G University) in partial fulfilment of the requirements for the award of **Bachelor of Science Degree in Chemistry** during a period 2016-2017 is an authentic account of the work carried out under the supervision and guidance of **Prof. Tojo Joseph**, Assistant Professor, Department of Chemistry


Dr. Sunny Kuriakose

HOD

Department of Chemistry



Prof. Tojo Joseph

(Guide)

Assistant Professor

Examiners 1 *Valued*

2 *Tojo Joseph*
20/4/17

Tojo Joseph
20/4/17

DEPARTMENT OF CHEMISTRY

ST THOMAS COLLEGE PALA



CERTIFICATE

This to certify that project titled "SPECTROPHOTOMETRIC TITRATIONS" is an authentic record of project work carried out by Mr. Jobin Jacob in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

Dr. Jose K Xavier M.Sc. Ph.D.

Department of Chemistry

St. Thomas College, Pala

Dr. Sunny Kuriakose M.Sc. Ph.D.

Head of the Dept. of Chemistry

St. Thomas College, Pala

Valued by


Date:.....

Handwritten in red ink:
Sunny Kuriakose
19/04/2014

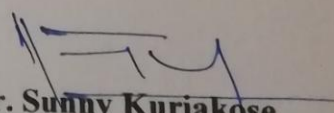
**RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY
ST. THOMAS COLLEGE PALAI**

CERTIFICATE

This is to certify that the project report entitled "Synthesis and Characterization of MnO₂ Nanoparticles" is an authentic record of the project work carried out by Mr. JITHU JAMES Reg. No. 140021085296 in partial fulfillment of the requirements for the Award of the degree of bachelor of Science in Chemistry of M.G University under my Guidance and supervision during 2016-2017. The work presented in this project report has not been submitted for any degree or diploma earlier.

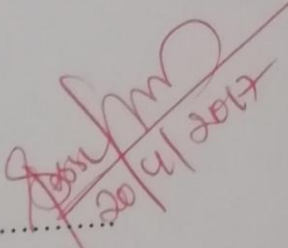

Mr. Jithin Prakash P A
(Supervising teacher)
Assistant Professor
Department of Chemistry
St. Thomas College Pala

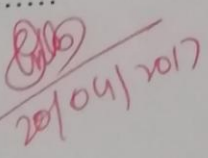
Countersigned by


Dr. Sunny Kuriakose
Head of the Department of Chemistry
St. Thomas College Pala

Valued by:

Date:


20/04/2017


20/04/2017

CERTIFICATE

This is to certify that this dissertation entitled "**DETERMINATION OF ACID VALUE AND SAPONIFICATION VALUE OF OILS**" submitted for the degree of Bachelor of Science in chemistry of Mahatma Gandhi University is a work carried out by **Mr. JISTO MATHEW** (Reg No: 140021085295) under my supervision and guidance at St Thomas College, Pala during the period from February 2017 to March 2017, and no part of this dissertation has been submitted for any other degree.

J. Mathew
Supervising Teacher

Dr. Sajeer Martin George
Assistant Professor, Dept. Of Chemistry

Counter signed by

Dr Sunny Kuriakose

For *J. Mathew*
Head of the department of Chemistry
St. Thomas College Pala

External Examiners

Valued

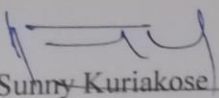
[Signature]
20/04/2017

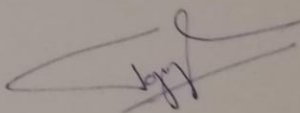
[Signature]
20/04/2017

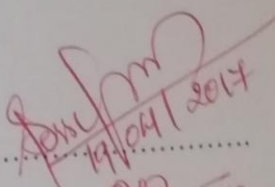
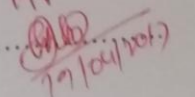
ST. THOMAS COLLEGE
U.G.C APPROVED COLLEGE WITH POTENTIAL FOR
EXCELLENCE
ARUNAPURAM P.O., PALA-686574, KERALA, INDIA.
(RE-ACCREDITED WITH A GRADE BY NACC)

Certificate

This is to certify that the project report entitled "A study on casein and lactose content in different milk samples" is submitted by Mr. Jibin Jose, Reg No. 140021085273 to St. Thomas College Pala (Affiliated to M G University) in partial fulfilment of the requirements for the award of Bachelor of Science Degree in Chemistry during a period 2016-2017 is an authentic account of the work carried out under the supervision and guidance of Prof. Tojo Joseph, Assistant Professor, Department of Chemistry


Dr. Sunny Kuriakose
HOD
Department of Chemistry


Prof. Tojo Joseph
(Guide)
Assistant Professor

Examiners 1 
2 

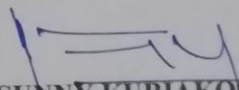
Dr. Sunny Kuriakose
Associate Professor & Head



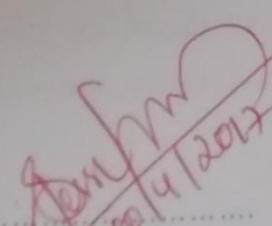
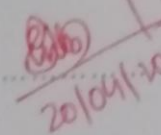
Research & P. G. Department of Chemistry
[DST FIST Supported Department]
St. Thomas College, Palai
Centre with Potential for Excellence-UGC
NAAC Reaccredited with A Grade
Palai - 686 574, Kerala, India.
Ph: +91-9447290973 (cell), Fax: +914822-216313

CERTIFICATE

This is to certify that the project report entitled "Green Alternatives of Organic Synthesis: Coenzyme Catalysed Benzoin Condensation and Green Nitration" submitted by Mr. Emil George, Reg. No. 1400210852 94 is an authentic record of the work carried out under my supervision and guidance at Research and P.G Department of Chemistry, St. Thomas College Pala, during the period of 2016- 2017.


DR. SUNNY KURIAKOSE
HOD, Department of Chemistry

Valued

Examiners: 1 
: 2 
20/04/2017

Prof. Jogy Alex
Associate Professor

Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
ST. Thomas College Pala
[CENTER WITH POTENTIAL FOR EXCELLENCE]



CERTIFICATE

This is to certify that the project report entitled "**SYNTHESIS AND CHARACTERIZATION OF COPPER NANOPARTICLE**" is an authentic record of the project work carried out by Mr. Dijo Ann Johns Reg.No. 140021085282 in partial fulfillment of the project work for the award of the degree of Bachelore of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Prof. Jogy Alex
Associate Professor
Department Of Chemistry

Valued

19/04/2017

19/4/2017

Counter-Signed by,

Dr. Sunny Kuriakose
Head of the Department of Chemistry
St. Thomas College Pala

CERTIFICATE

This is to certify that the project report entitled "**EXTRACTION OF NICOTINE FROM TOBACCO**" is an authentic work carried out by Mr. **DELVIN GEORGE** (**Reg.No:140021085293**) under my supervision and guidance during the period 2014 - 2017 in partial fulfillment of the **Degree of Bachelor of Science** under the **Faculty of Science, Mahatma Gandhi University , Kottayam**. The work presented in this report has not been submitted for any other degree or diploma earlier.

Pala
April, 2017

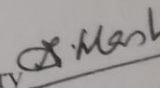


Asso. Prof. Amal Jose Baby

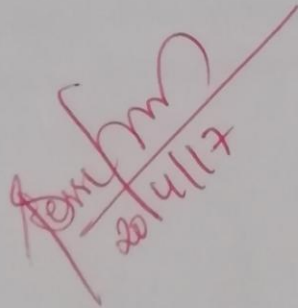
(Supervising Teacher)

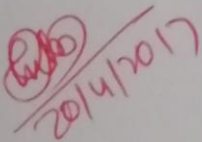
Countersigned by

Dr. SUNNY KURIAKOSE
(Head, Department of Chemistry
St. Thomas College, Pala)

For 

Vahned


20/4/17


20/4/2017

ST. THOMAS

U.G.C APPROVED COLLEGE

EX

ARUNAPURAM P.O., P

(RE-ACCREDITED V

Co

This is to certify that the project report on the
content in different milk samples'

Reg No. 140021085279 to St. Th

University) in partial fulfilment of t

DEPARTMENT OF CHEMISTRY
ST THOMAS COLLEGE PALA



CERTIFICATE

This to certify that project titled "BENZOIC ACID IN SOFT DRINKS" is an authentic record of project work carried out by Mr. Arun Ashok in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

Prof. Manjesh Mathew

Department of Chemistry

St. Thomas College, Pala

Dr. Sunny Kuriakose

Head of the Dept. of Chemistry

St. Thomas College, Pala

Valued by:

Date :

Dr. Thomas V Mathew
Associate Professor



Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
ST. Thomas College Pala
[CENTER WITH POTENTIAL FOR EXCELLENCE]

CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF COPPER AND NICKEL NANOPARTICLES" is an authentic record of the project work carried out by Mr. Anto Mathew (Reg.No. 140021085306) in partial fulfillment of the project work for the award of the degree of Bachelor of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Dr. Thomas V Mathew
Assistant Professor
Department of Chemistry

Counter Signed by,

Valued

ATB
20/04/2017

for
ATB
20/4/17

Dr. Sunny Kuriakose
Head, Department of Chemistry
St. Thomas College Palai

CERTIFICATE

This is to certify that this dissertation entitled "DETERMINATION OF DISSOLVED OXYGEN IN WATER" submitted for the degree of Bachelor of Science in chemistry of Mahatma Gandhi University is a work carried out by Mr. AMAL RAJ(Reg No: 140021085290) under my supervision and guidance at St. Thomas College, Pala during the period from February 2017 to march 2017, and no part of this dissertation has been submitted for any other degree.

S. Marks

Supervising Teacher

Dr. Sajeev Martin George

Assistant Professor, Dept. of Chemistry

St. Thomas College, Pala

Counter signed by

[Signature]
Dr. Sunny Kuriakose

Head of the department of Chemistry

St. Thomas College, Pala

Valued

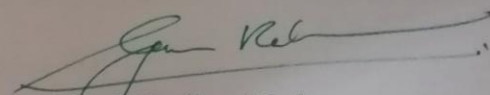
[Signature]
20/04/2019

[Signature]
20/04/19

[Signature]
External examiners

CERTIFICATE

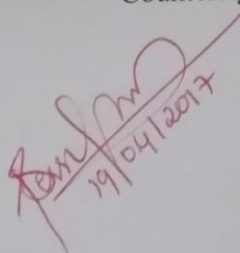
This is to certify that the project report entitled "**Some Examples of Microwave Assisted Organic Synthesis**" is an authentic record of the project work carried out by **Mr. Amal Benny** under my supervision and guidance during 2016-2017 in partial fulfillment of the requirements for the award of the degree of Bachelor of Science in Chemistry of the Mahatma Gandhi University, Kottayam. The work presented in this project report has not been submitted for any degree or diploma earlier.




Dr. G.D. Gem Mathew
(Supervising Teacher)
Associate Professor
Postgraduate and Research
Department of Chemistry
St. Thomas College, Palai

Countersigned by

Valued

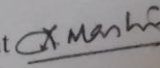


19/04/2017



19/04/2017

Palai
12.03.2017

For **Dr. Sunny Kuriakose**
Head of the Department 
Postgraduate and Research
Department of Chemistry
St. Thomas College, Palai

DEPARTMENT OF CHEMISTRY

ST THOMAS COLLEGE PALA



CERTIFICATE

This to certify that project titled "SPECTROPHOTOMETRIC TITRATIONS" is an authentic record of project work carried out by Mr. AKHIL SEBASTIAN in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

Joseph

Dr. Jose K Xavier M.Sc. Ph.D.

Department of Chemistry

St. Thomas College, Pala

Dr. Sunny Kuriakose M.Sc. Ph.D.

for *S. Mathis*
Head of the Dept. of Chemistry

St. Thomas College, Pala

Valued by

Date:.....

[Signature]
19/04/2017

[Signature]
19/04/17

Prof. Jogy Alex
Associate Professor

Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
ST. Thomas College Pala
[CENTRE WITH POTENTIAL FOR EXCELLENCE]



CERTIFICATE

This is to certify that the project report entitled "**SYNTHESIS AND CHARACTERIZATION OF COPPER NANOPARTICLE**" is an authentic record of the project work carried out by Mr. Ajith Jose Reg.No. 140021085288 in partial fulfillment of the project work for the award of the degree of Bachelore of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Prof. Jogy Alex
Associate Professor
Department Of Chemistry

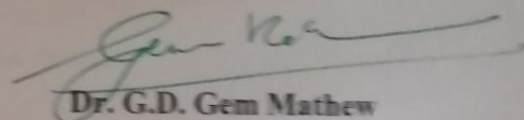
Valued
Ajith Jose
19/04/17

19/04/2017

Counter Signed by,
Dr. Sunny Kuriakose
Head of the Department of Chemistry
St. Thomas College Pala

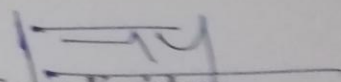
CERTIFICATE

This is to certify that the project report entitled "Some Examples of Microwave Assisted Organic Synthesis" is an authentic record of the project work carried out by Mr. Ajin Joy under my supervision and guidance during 2016-2017 in partial fulfillment of the requirements for the award of the degree of Bachelor of Science in Chemistry of the Mahatma Gandhi University, Kottayam. The work presented in this project report has not been submitted for any degree or diploma earlier.



Dr. G.D. Gem Mathew
(Supervising Teacher)
Associate Professor
Postgraduate and Research
Department of Chemistry
St. Thomas College, Palai

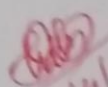
Countersigned by

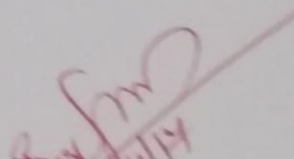


Dr. Sunny Kuriakose
Head of the Department
Postgraduate and Research
Department of Chemistry
St. Thomas College, Palai

Palai
12.03.2017

Valmed


19/4/2017

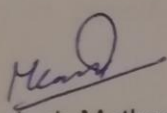

14/4/17

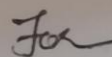
DEPARTMENT OF CHEMISTRY
ST THOMAS COLLEGE PALA



CERTIFICATE


This to certify that project titled "BENZOIC ACID IN SOFT DRINKS" is an authentic record of project work carried out by Mr. Ajay Krishnan in partial requirements for the award of the Bachelor's Degree in Chemistry of M G University under my guidance and supervision during 2014-17

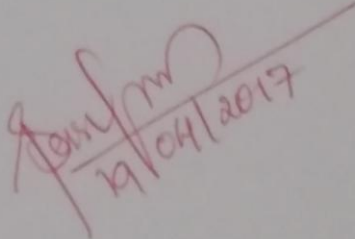

Prof. Manjesh Mathew
Department of Chemistry
St. Thomas College, Pala

Dr. Sunny Kuriakose
 Head of the Dept. of Chemistry
St. Thomas College, Pala

Valued by:

Date :


19/4/2017


19/04/2017

Prof. Jogy Alex
Associate Professor

Research & P.G. Department of Chemistry
[DST FIST Sponsored Department]
ST. Thomas College Pala
[CENTER WITH POTENTIAL FOR EXCELLENCE]



CERTIFICATE

This is to certify that the project report entitled "**SYNTHESIS AND CHARACTERIZATION OF COPPER NANOPARTICLE**" is an authentic record of the project work carried out by Mr. Abin Sebastian Reg.No. 140021085275 in partial fulfillment of the project work for the award of the degree of Bachelore of Science in Chemistry of Mahatma Gandhi University under my guidance and supervision during 2014-2017.

Prof. Jogy Alex
Associate Professor
Department Of Chemistry

Valued

[Signature]
19/4/2017

[Signature]
19/04/2014

Counter Signed by,
Dr. Sunny Kuriakose
Head of the Department of Chemistry
St. Thomas College Pala