

மத்திய சித்த மருத்துவ ஆராய்ச்சிக் குழுமம்

ஆயுஷ் அமைச்சகம், இந்திய அரசு, அரும்பாக்கம், சென்னை-106

केंद्रीय सिद्ध अनुसन्धान परिषद्

आयुष मंत्रालय, भारत सरकार

सिद्ध केंद्रीय अनुसन्धान संस्थान भवन, अण्णा सरकारी अस्पताल परिसर, अरुम्बाक्कम, चेन्नई - 600106

CENTRAL COUNCIL FOR RESEARCH IN SIDDHA

Ministry of AYUSH, Govt. of India

SCRI Building, Anna Govt. Hospital Campus, Arumbakkam, Chennai – 600106

Phone: 2621 1621, 2621 2421 Fax: 044-2621 1621

www.siddhacouncil.com, www.siddharesearchcouncil.org, Email: ccrschennai@gmail.com

F.No.1-153/2021-22/CCRS/Tech./ 5SD

3rd January, 2022

To

Ms. Shivani. G,
PI of the Mini Project,
Santhigiri Siddha Medical College
Thiruvananthapuram.

Dear Student,

Sub.: Mini Project Research Grant – Reg.

With the approval of the scrutinizing committee, I accord the approval for the sanction of mini project research grant in commemoration with the observance of Fifth Siddha Day. In this regard, an amount of Rs.15,000/- (Rupees Fifteen thousand only) for the mini project entitled “A comparative analysis of heavy metals using atomic absorption Spectrometry in Lingam before and after purification using two different purification methods and Linga chendhooram prepared from two differently purified lingam” under UG category will be awarded to the Principal Investigator, Ms. Shivani. G, Santhigiri Siddha Medical College, Chennai.

I hereby direct to adhere the research conduct during execution and abide by the terms and conditions of the Mini project Research Grant of CCRS. The students must publish the outcomes of the mini project in the peer reviewed journal preferably in Journal of Research in Siddha Medicine and not in any other predatory journals.

The grant amount will be released to the Principal of the respective institution upon submission of the Ethical clearance (if relevant to the project) in original.

Prof. Dr. K. Kannakavalli

Director, General

Copy to:

1. The Principal, Santhigiri siddha Medical College, Thiruvananthapuram.
2. Dr. S. Baskaran, Assistant Professor & Guide of the Mini Project, Santhigiri Siddha Medical College, Thiruvananthapuram.

AUTHENTICATION CERTIFICATE

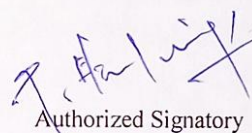
Certificate No: SSMC/GM/01/2022

Certified that the following minerals/metals used in purification of "Lingam" & preparation of "Lingam chendhooram" taken up for the CCRS Mini Research Project 2022 by **Miss. Shivani. G, Final Prof. BSMS**, Santhigiri Siddha Medical College, Thiruvananthapuram are correctly identified and authenticated through visual inspection experience, organoleptic characters, morphology, etc.

1. Lingam - Mercuric sulphide

Place: Santhigiri
Date: 05.03.2022




Authorized Signatory

(Dr. S. ETHEL SHINY)
LECTURER - HOD INCHARGE
DEPT OF GUNAPADAM MARUTHIYAL

Head of the Department
Department of Gunapadam Marunthiyal
Santhigiri Siddha Medical College
Santhigiri P.O Thiruvananthapuram - 695 589

Santhigiri P.O, Thiruvananthapuram-695589 ☎ 04712410316, 2410049 ✉ ssmc@santhigiriashram.org 🌐 www.santhigiriashram.org

Medical Education Division, Santhigiri Healthcare & Research Organization, Santhigiri Ashram, Central Office

Santhigiri P.O., Thiruvananthapuram-695589

✉ communication@santhigiriashram.org 🌐 www.santhigiriashram.org

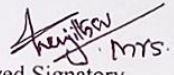
BOTANICAL CERTIFICATE

Certificate No: SSMC/GM/02/2022

Certified that the following plant drug used in the purification of "Lingam" & preparation of "Lingam chendhooram" taken up for the CCRS Mini Research Project 2022 by **Miss. Shivani. G, Final Prof. BSMS**, Santhigiri Siddha Medical College, Thiruvananthapuram are identified through Visual inspection, Experience, Education & Training, Organoleptic characters, Morphology and Taxonomical methods as

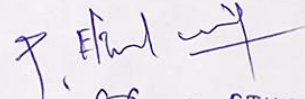
1. *Acalypha indica* Linn. f. (Euphorbiaceae), leaves (Kuppaimeni ilai)
2. *Citrullus colocynthis* Linn. f. (Cucurbitaceae), whole plant (Aatruthumatti samoolam)

Place: Santhigiri
Date: 05.03.2022


Authorized Signatory

(ASSOCIATE PROFESSOR)

(DEPT. OF GUNAPADAM MARUNTHIYAL)


(Dr. S. ETHEL SHINY)

LECTURER - HOD INCHARGE

DEPT OF GUNAPADAM MARUNTHIYAL

Head of the Department
Department of Gunapadam Marunthiyal
Santhigiri Siddha Medical College
Santhigiri P.O Thiruvananthapuram - 695 589



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✉ communication@santhigirishram.org 🌐 www.santhigirishram.org



சென்னைப் பல்கலைக்கழகம் UNIVERSITY OF MADRAS

Dr. M.SURESH GANDHI, M.Sc., M.Phil., Ph.D
PROFESSOR

Department of Geology
University of Madras
Guindy Campus
6th Floor, New Building
Chennai - 600 025

Date : 24.6.2022

AUTHENTICATION OF THE MINERAL

Physical Properties of the given specimen

Crystal structure	:	Hexagonal
Molecular Weight	:	232.66 gm
Environment	:	Low temperature hydrothermal solutions in veins
Density	:	8.1
Cleavage	:	1010 perfect
Diaphaneity	:	Transparent to translucent to opaque
Hardness	:	2-2.5
Luminescence	:	Non Fluorescent
Lusture	:	Adamantine
Streak	:	bright red
Reflectivity	:	High

References:

NAME(Sinkankas66) PHYS. PROP.(Enc. of Minerals,2nd ed.,1990) OPTIC
PROP.(AntBidBlaNic1)

Based on the Mineral data base, the given samples is identified and authenticated as
CINNABAR (Mercuric sulphide) LINGAM.

M. Suresh Gandhi
(M.SURESH GANDHI)

Dr M Suresh Gandhi, M.Sc., M.Phil., Ph.D.
Professor
Department of Geology
University of Madras
Guindy Campus.
Chennai - 600 025.

9B, Srikrishna Nagar, 11th Main Road, Madhavoyal, Chennai - 600 095

E-mail : msureshgandhi@gmail.com

Tel : 91-44- 22202789 : Fax : 91-44-22202789 : Mobile : 9443806534.

**ASTHAGIRI HERBAL RESEARCH FOUNDATION**

AYUSH Drug Testing Lab No: 9, Dt.: 18/12/2017
 SOC Reg. No: 667/2000 ; www.asthagiriherbal.org.in
 162-A, Perungudi Industrial Estate, Perungudi, Chennai- 600096
 Ph: 044-42055446, 98400 64340, 9003133744
 Email: asthagiri.herbal@gmail.com, cfo@asthagiriherbal.org.in

**CERTIFICATE OF ANALYSIS**

The results declared pertain only to the sample submitted for testing

ULR NO: TC103122200000009F

Test Report No	AHRF/JW5989/AAS/2021-22	Date of Issue	01/04/2022
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Customer details	Shivani .G Final Prof B.S.M.S Santhigiri Siddha Medical College Santhigiri P.O Thiruvananthapuram Kerala - 695589		
Parameters requested by customer for testing	As, Pb, Cd & Hg Analysis	Description of Sample	Powder
Date of the sample received	By Courier 18/03/2022	Date of Analysis	23/03/2022
Sample ID	R	Sample Type	Powder

Method of Analysis

Test Method	USP 231 USP 39 NF34
Method of Analysis	AAS AA200 series Inorganic venture Standard Pb, Cd, Hg & As 1000 ppm solution 1000 mg/ L sample in 1mol/L HNO ₃
Instrument	
Model	
Standard	
Sample preparation for testing	
Lambda max	Pb - 217.0 nm Cd - 228.8 nm Hg - 253.7 nm As - 193.7 nm

Report

Result of Analysis	Parameters	Results	AYUSH Limits
1	As	210.28	3.0 ppm
	Hg	5.95	1.0 ppm
	Cd	0.48	0.3 ppm
	Pb	45.95	10 ppm

Prepared by: <i>Jasmine.</i>	Reviewed by: <i>Latha Narasimhan</i>	Approved by: <i>[Signature]</i> Technical Manager (Dr. L. Narasimhan)
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Ph: 044-42055446, 98400 64340, 9003133744
Email: asthagiri.herbal@gmail.com, cfo@asthagiriherbal.org.in

**CERTIFICATE OF ANALYSIS**

The results declared pertain only to the sample submitted for testing

ULR NO: TC103122200000013F

Test Report No	AHRF/JW6007/AAS/2022-23	Date of Issue	05/04/2022
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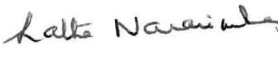

Customer details	Shivani .G Final Prof B.S.M.S Santhigiri Siddha Medical College Santhigiri P.O Thiruvananthapuram Kerala - 695589		
Parameters requested by customer for testing	As, Pb, Cd & Hg Analysis	Description of Sample	Powder
Date of the sample received	By Courier 18/03/2022	Date of Analysis	29/03/2022
Sample ID	S01	Sample Type	Powder

Method of Analysis

Test Method	USP 231 USP 39 NF34
Method of Analysis	AAS
Instrument	AA200 series
Model	Inorganic venture Standard Pb, Cd, Hg & As 1000 ppm
Standard	solution 1000 mg/ L sample in 1mol/L HNO ₃
Sample preparation for testing	
Lambda max	Pb - 217.0 nm Cd - 228.8 nm Hg - 253.7 nm As - 193.7 nm

Report

Result of Analysis	Parameters	Results	AYUSH Limits
	As	1482.83	3.0 ppm
	Hg	6.397	1.0 ppm
	Cd	0.298	0.3 ppm
	Pb	42.79	10 ppm

Prepared by: 	Reviewed by: 	Approved by:  Technical Manager (Dr. S. Narasimhan)
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Ph: 044-42055446, 98400 64340, 9003133744
Email: asthagiri.herbal@gmail.com, cfo@asthagiriherbal.org.in

**CERTIFICATE OF ANALYSIS**

The results declared pertain only to the sample submitted for testing

ULR NO: TC103122200000014F

Test Report No	AHRF/JW6008/AAS/2022-23	Date of Issue	05/04/2022
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Customer details	Shivani .G Final Prof B.S.M.S Santhigiri Siddha Medical College Santhigiri P.O Thiruvananthapuram Kerala - 695589		
Parameters requested by customer for testing	As, Pb, Cd & Hg Analysis	Description of Sample	Powder
Date of the sample received	By Courier 18/03/2022	Date of Analysis	29/03/2022
Sample ID	S02	Sample Type	Powder

Method of Analysis

Test Method	USP 231 USP 39 NF34
Method of Analysis	AAS AA200 series Inorganic venture Standard Pb, Cd, Hg & As 1000 ppm solution 1000 mg/ L sample in 1mol/L HNO ₃
Instrument	
Model	
Standard	
Sample preparation for testing	
Lambda max	Pb - 217.0 nm Cd - 228.8 nm Hg - 253.7 nm As - 193.7 nm

Report

Result of Analysis	Parameters	Results	AYUSH Limits
	As	1374.09	3.0 ppm
	Hg	12.19	1.0 ppm
	Cd	0.19	0.3 ppm
	Pb	8.57	10 ppm

Prepared by: <i>Jasmin</i>	Reviewed by: <i>Latha Narasimhan</i>	Approved by: <i>[Signature]</i> Technical Manager (Dr. S. Narasimhan)
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**CERTIFICATE OF ANALYSIS**

The results declared pertain only to the sample submitted for testing

ULR NO: TC103122200000017F

Test Report No	AHRF/JW6045/AAS/2022-23	Date of Issue	11/04/2022
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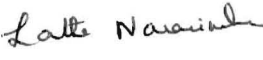

Customer details	Shivani .G Final Prof B.S.M.S Santhigiri Siddha Medical College Santhigiri P.O Thiruvananthapuram Kerala - 695589		
Parameters requested by customer for testing	As, Pb, Cd & Hg Analysis	Description of Sample	Powder
Date of the sample received	By Courier 18/03/2022	Date of Analysis	29/03/2022
Sample ID	D01	Sample Type	Powder

Method of Analysis

Test Method	USP 231 USP 39 NF34
Method of Analysis	AAS
Instrument	AA200 series
Model	Inorganic venture Standard Pb, Cd, Hg & As 1000 ppm
Standard	solution 1000 mg/ L sample in 1mol/L HNO ₃
Sample preparation for testing	
Lambda max	Pb - 217.0 nm Cd - 228.8 nm Hg - 253.7 nm As - 193.7 nm

Report

Result of Analysis	Parameters	Results	AYUSH Limits
	As	63.37	3.0 ppm
	Hg	4.53	1.0 ppm
	Cd	BDL	0.3 ppm
	Pb	8.64	10 ppm

Prepared by: 	Reviewed by: 	Approved by:  Technical Manager (Dr. S. Narasimhan)
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**CERTIFICATE OF ANALYSIS**

The results declared pertain only to the sample submitted for testing

ULR NO: TC103122200000018F

Test Report No	AHRF/JW6046/AAS/2022-23	Date of Issue	11/04/2022
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Customer details	Shivani .G Final Prof B.S.M.S Santhigiri Siddha Medical College Santhigiri P.O Thiruvananthapuram Kerala - 695589		
Parameters requested by customer for testing	As, Pb, Cd & Hg Analysis	Description of Sample	Powder
Date of the sample received	By Courier 18/03/2022	Date of Analysis	29/03/2022
Sample ID	D02	Sample Type	Powder

Method of Analysis

Test Method	USP 231 USP 39 NF34
Method of Analysis	AAS
Instrument	AA200 series
Model	Inorganic venture Standard Pb, Cd, Hg & As 1000 ppm
Standard	solution 1000 mg/ L sample in 1mol/L HNO ₃
Sample preparation for testing	
Lambda max	Pb - 217.0 nm Cd - 228.8 nm Hg - 253.7 nm As - 193.7 nm

Report

Result of Analysis	Parameters	Results	AYUSH Limits
	As	88.26	3.0 ppm
	Hg	2.93	1.0 ppm
	Cd	BDL	0.3 ppm
	Pb	165.97	10 ppm

Prepared-by: 	Reviewed by: 	Approved by: Technical Manager (Dr. S. Narasimhan)
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