



अखिल भारतीय आयुर्वेद संस्थान
All India Institute of Ayurveda (AIIA)
(आयुष मंत्रालय, भारत सरकार के अंतर्गत स्वायत्त संस्थान)
(An Autonomous Organization under the Ministry of AYUSH, Govt. of India)

Date: 23/05/2025

To,
The Head
SAIF, IIT Bombay.

Sub: GCHRMS Orbitrap (Instrument/facility name) Analysis of Samples at SAIF IIT Bombay.

Dear Sir,

Mr./Ms. Lalita, (Name of the user) PG Scholar (Designation) studying/employed at our Institute under the guidance of Dr Meena S Deogade & Dravyaguna Department would like to use the Instrument Facility at SAIF IIT Bombay.

We have two (No. of Samples) for GCHRMS Orbitrap (name of instrument/facility). The Material Safety Data Sheet (MSDS) is attached herewith for the said analysis.

Further we state that if any of the analysis data/results received from the GCHRMS Orbitrap (Instrument/facility name) facility is used in any Publication or Thesis, we agree to acknowledge the GCHRMS Orbitrap (Instrument/facility name) SAIF, IIT Bombay in our Publication and Thesis. We shall submit a soft copy of the same to office.saif@iitb.ac.in for information.

Further we acknowledge & accept that:

- The contents of the report prepared based on the measurement are purely technical/scientific in nature.
- This report is not a legal document per se and is based on the samples provided by us.
- We (the applicants) understand and accept that this report is not a certificate for any performance / efficacy / efficiency / utility related aspects. This report may not be construed as a legal document, certificate or endorsement and may not be used for marketing of the products or processes.
- We (the applicants) shall be solely responsible for any intended use / utilization of the report provided and / or the contents thereof. All warranties or representations of any kind pertaining to the report, or its contents are hereby expressly excluded.
- I accept that all the issued reports/results (Soft/hard) will not carry any Signature or Seal and Stamp of SAIF IIT Bombay.
- Kindly Note if the Institute has GST No. But do not provide the same to us, in that case Invoice / Bill will be generated without GST No. and request to add GST No. after invoice generation will not be entertained.

The GSTIN Registration No. of our Institute is _____

Thanking You,

Signature of Guide / Professor / Head
Name
Designation
Department

Meena S Deogade
Dr Meena S Deogade
: HOD
: Dravyaguna Vigyana

वैद्य मीना देवगडे/Vd. Meena Deogade
पंजी. सं./Regtd. No. I-43058-A1
अतिरिक्त प्राध्यापिका/Additional Professor
अयुष विभाग/Department of Dravyaguna
अखिल भारतीय आयुर्वेद संस्थान/All India Institute of Ayurveda
आयुष मंत्रालय, भारत सरकार/Ministry of Ayush, Govt. of India
गौतमपुरी, सरिता विहार/Gautampuri, Sarita Vihar,
नई दिल्ली-110076/New Delhi-110076
Official Seal

** This Covering Letter should be on your Institute / College's Original Letterhead dully signed and with Institute / College's official seal. Any Letter with incomplete details and without Institute / College's official stamp will not be entertained

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Sophisticated Analytical Instrument Facilities (SAIF)

Centre for Sophisticated Instruments and Facilities (CSIF)

Analysis request form and safety data sheet- GCHRMS Orbitrap

User Type: IITB/ External (University/National Lab/R & D/Industry)

Date: 17 May 2025

1. Name of User: Dr. LALITA
2. Mobile/ Phone No. of User: 8219854146
3. Email address of User: venmalalita382@gmail.com
4. Name of Organization: AIIA, New Delhi
5. Address of Organization: AIIA, 2nd floor - Academic block, Dept-9 Dwarka, AIIA, New Delhi, 110076
6. Name of Head / Principal Investigator: Dr Meena Deogade
7. Email of Head / Principal Investigator: drmeena@rediffmail.com
8. Mobile/ Phone No. of Principal Investigator: 8219854146 / 9220445351
9. Number of Samples/injections: 2
10. Preferred Date for the Slot:

Sample Information

- (a) Sample Code/Name: ZAF, ZRF
- (b) Sample quantity (weight/volume): 3gm each
- (c) Sample Type: Solid (Powder, Pellet, Bulk)/Liquid/ Dispersion/Emulsion/Colloidal/Gel/ Gas/Oil/Others (Specify):
- (d) Sample Category: Biological (Microorganisms/ Fungal/Bacterial/ Protein/ blood/ Plasma/ Serum/ Organs/ urine/Stool/ Cancerous Cells/Non-Cancerous Cells/Plant Extracts/ Marine extracts)/ Composite Material/ Thin Film / Metal/ Polymer/ Environmental/ Ceramic/ Others (Specify)

(e) Details on Sample Preparation/Processing:

Crude drug was powdered and then sieved through 80 no. mesh size.

(f) What steps have been taken to ensure that samples are free of water:

The powdered ^{Crude} drug was first air dried and then powdered and oven dried at a temp. of 40-45°C.

(g) Analytes of interest & boiling point: $\rightarrow 90^\circ$ to 260°C

α -Pinene, Linalool, β -Pinene, α -Terpinene, p-Cymene, Sabinene, Eugenol, 1,8-Cineole, γ -Terpinene, 1-Octanol, Decanal, α -Humulene, α -Terpineol, Unknown monoterpene, cis-Sabinenehydrate, p-caryophyllene and other unknown compounds

(h) Solvent: n-Hexane

(i) Concentration of analytes (in ppm): 5-50,000 ppm

(j) Information on columns and temperature programming preferred for the analytes based on Literature:

HP-5ms capillary column (30m x 0.25mm, 0.25 μm film thickness) Temp - 60-240°C
VF-5ms fused silica capillary column of 60m x 0.25mm x 0.25mm film thickness
Column DB-5ms (5% Phenyl Methyl Siloxane, 70m x 0.25mm x 0.25 μm) Temp - 70-300°C
Temp - 60°C - 250°C

(k) Preferred Mode of injection: Liquid / Headspace / SPME

(l) Additional information: (Constraints/Preferences/ etc.):

N/A

- i. Specify the Storage and handling conditions (Room temp/ Refrigeration)
- ii. Sample Properties: Carcinogenic (carcinogenicity level-----) / Non- Carcinogenic
Radioactive/ Explosive/ Toxic/ Corrosive/ Flammable/ Non-flammable/ Other(specify)
- iii. Stability of sample: Stable under RTP, hygroscopic, sublimates, Reactive in air/moisture/ light/heat
- iv. Decomposition temperature: $7350^{\circ} - 500^{\circ}C$
- v. Whether incompatible with any material- Yes/No (Specify the materials)
- vi. Toxicity: Hazardous/ Non-Hazardous
- vii. Health hazards: Yes/No (irritant to skin/irritant to eyes/harmful to skin/ toxic if inhaled/toxic if ingested)
- viii. First aid measures: Eye/Skin/Inhalation/ Ingestion/Others(specify) N/A
- ix. Disposal Method of sample:
- x. All Samples will be discarded within 7 days of analysis. If you wish to collect the samples then you are required to make arrangement for the same. SAIF office will not dispatch the same to users under any circumstances
- xi. MSDS (should be uploaded/attached if available)

Important information:

Please follow Instructions for submission of external samples and sample preparation guidelines.

Undertaking

I understand that the samples will be analyzed according to the choices recorded in the form.

I declare that adequate steps have been taken to ensure that the samples are free of water.

I declare that the samples are non-infectious and non-explosive.

I have read instructions for external user registration and sample preparation and agree to acknowledge Gas Chromatograph-High resolution Mass Spectrometer Orbitrap SAIF/CSIF of IIT Bombay in our Publications/Reports/Thesis in which the data is reported with due feedback to gchrms_saif@iitb.ac.in.

Signature: Meena S Deogade

Date: 23/05/2025

Place: Delhi

पद्म मेना देवगडे/Md. Meena Deogade
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