

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/383953097>

# Preparation and characterization of Lokanatha Rasa – An Ayurveda mercurial preparation

Conference Paper · May 2024

CITATIONS

0

READS

6

1 author:



[Herapathdeniya S.K.M.K](#)

University of Colombo

73 PUBLICATIONS 25 CITATIONS

SEE PROFILE



DEPARTMENT OF AYURVEDA  
MINISTRY OF HEALTH  
SRI LANKA



UNIVERSITY OF  
**KELANIYA** | Faculty of  
Graduate Studies

# 2<sup>nd</sup> International Research Symposium on Traditional Medicine



**One Health for Sustainable and Healthy Living of  
Humans, Animals, and Ecosystems**



**Organized by**

The Faculty of Graduate Studies, University of Kelaniya

**In collaboration with**

The Department of Ayurveda, Ministry of Health, Sri Lanka



# ABSTRACTS



DEPARTMENT OF AYURVEDA  
MINISTRY OF HEALTH  
SRI LANKA



UNIVERSITY OF  
**KELANIYA** | Faculty of  
Graduate Studies

# **2<sup>nd</sup> International Research Symposium on Traditional Medicine (AyurEx Colombo) – 2024**

## **Proceedings of the 2<sup>nd</sup> Symposium**

**“One health for sustainable and healthy living of  
humans, animals, and ecosystems”**

# *Abstracts*

**3<sup>rd</sup> – 5<sup>th</sup> May 2024**



**The Faculty of Graduate Studies, University of Kelaniya,  
Sri Lanka  
in collaboration with  
The Department of Ayurveda, Ministry of Health, Sri Lanka**

© 2024 - Faculty of Graduate Studies & Department of Ayurveda, Ministry of Health

Proceedings of the 2<sup>nd</sup> Symposium

International Postgraduate Research Symposium (AyurEx Colombo) – 2024

***"One health for sustainable and healthy living of humans, animals, and ecosystems"***

*The authors are solely responsible for the data and the contents of the abstracts. The Editor-in-Chief, AyurEx or the printer is not responsible for the results/ findings and content of the abstracts.*

#This version cannot be considered as evidence of this publication – the final version is available at <https://conf.kln.ac.lk/ayurex/index.php>

**Web** : <https://conf.kln.ac.lk/ayurex/index.php>

: <https://ayurveda.gov.lk/>

**Email** : [ayurex@kln.ac.lk](mailto:ayurex@kln.ac.lk)

**Telephone:** +9411 2 903952/3

: +9411 2 903952/3

: (+94) 11 289691/2

ISSN: 978-624-5507-68-9

**Published by**

Faculty of Graduate Studies

University of Kelaniya

Sri Lanka

**Cover Designer:** Mr. Dilshan Sanjeewa

**Layout Designer and Editorial Assistant :** Ms. D.S.R.E.S. Gunawardhana



## Preparation and characterization of *Lokanatha Rasa* – An Ayurveda mercurial preparation

S.K.M.K. Herapathdeniya<sup>1\*</sup>, P.A. Paranagama<sup>2</sup> and J.G.S. Ranasinghe<sup>3</sup>

<sup>1</sup>Department of Ayurveda Pharmacology, Pharmaceutics and Community Medicine, Faculty of Indigenous Medicine, University of Colombo, Sri Lanka

<sup>2</sup>Department of Chemistry, Faculty of Science, University of Kelaniya, Sri Lanka

<sup>3</sup>Department of Biochemistry, Faculty of Medicine, University of Peradeniya, Sri Lanka

*Rasa Shastra* stands as one of the main branches within Ayurveda pharmaceutics, with Mercury serving as its primary constituent. *Lokanatha rasa* (LKN) emerges as a promising mercurial preparation, as documented in various Ayurveda *Rasa Shastra* texts, particularly for addressing liver and spleen disorders. Our study aimed to synthesize LKN following standardized protocols outlined in the classical *Rasa Shastra* text Rasendra sara sangraha. Subsequently, we conducted comprehensive physicochemical characterization utilizing advanced instrumental techniques, including X-ray diffraction (XRD), and Fourier transform infra-red spectroscopy (FTIR). Notably, our XRD analysis revealed CaCO<sub>3</sub> exhibiting the highest peak in a hexagonal structure within the formulation. Moreover, LKN comprised constituents such as metacinnabar, hematite (Fe<sub>2</sub>O<sub>3</sub>), and free sulfur. FTIR spectroscopy depicted broad peaks at 711 cm<sup>-1</sup> and 1792 cm<sup>-1</sup>, where the latter indicated the presence of C=O stretching. XRD analysis showed spherical particles with particle sizes spanning from 1 nm to 200 nm. Additionally, these observations highlighted crystallite agglomeration within the LKN formulation. Our findings underscore the pivotal role of modern analytical techniques in assessing the quality aspects of LKN. We believe that these research insights are imperative for the further advancement and standardization of LKN within Ayurvedic practice.

**Keywords:** Lokanatha rasa, Physicochemical, Rasa Shastra, Standardization

---

\*herapathdeniyaskmk@gmail.com