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MANASHILA: AN IN-DEPTH ANALYSIS THROUGH THE CLASSICAL TEXTS

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ABSTRACT

Manashila, *Haratala*, and *Somala* are significant arsenic compounds that are deeply integrated into holistic practices. Among these, *Manashila* is revered for its versatility and efficacy in treating various ailments. Its widespread employment extends to addressing afflictions such as *Shwasa-Kasa* (respiratory disorders), *Agnimandya* (digestive weaknesses), *Kshaya* (emaciation), *Anaha* (abdominal distention), *Jwara* (fever), *Krimi* (parasitic infections), *Visharoga* (poisoning disorders), *Raktavikara* (blood disorders), and more. The present study offers a comprehensive critical review of Classical literature focusing on *Manashila*. Numerous classical texts of Rasa Shastra have been meticulously scrutinised to furnish an exhaustive depiction of *Manashila*, encompassing its *Praptisthana* (occurrence), *Prayaya* (synonyms), *Vargikarana* (classification), *Karma* (pharmacological properties), *Ashuddha Manashila Dosha*, its *Prativisha* (antidote), *Shodhana* (purification), *Marana* (incineration), *Matra* (therapeutic dose), *Chikitsiya Prayoga* (therapeutic indications), *Satvapatana* (extraction), along with elucidation on artificial methods of *Manashila* preparation, complemented by insights into Realgar. It is crucial to em-

phasise that *Manashila* is exclusively utilised in a purified and detoxified state for internal and external therapeutic purposes.

Keywords: *Manashila*, Realgar, *Shodhana*

INTRODUCTION

The pharmacological benefits and historical applications of arsenical compounds are extensive and noteworthy. Arsenical compounds are purposefully included in these formulations as an auxiliary agent or the primary active ingredient to render herbo-mineral medications work more effectively.[1] One of the three major arsenic compounds used in the classics as a therapeutic agent is *Manahshila*; the other two are *Gouripashana*, arsenic trioxide, and *Haratala*, arsenic trisulphide. *Manahshila* is found in numerous Ayurvedic medicinal formulations, including those found in *Brihattrayis*, which are three significant ancient texts: *Astanga Sangraha/Astanga Hrudaya, Sushruta Samhita*, and *Caraka Samhita.* [2] *Manashila* is one of the mineral drugs with an extensive tradition of use extending back to the *Rigveda*. The use of this mineral for environmental purification is mentioned, while its internal and external applications are mentioned in the *Atharvaveda* and *Purana*. [3] In Rasashastra, *Manahshila* has been illustrated under *Uparasa Varga*. *Charaka Samhita* and *Sushruta Samhita* explained *Manahshila* under *Parthiva Dravya Varga* [4], whereas in Sharangadhara Samhita, it is classified under *Upadhatu* [5] as well as *Uparasa Varga*. In *Sidha Bhaishajya Manimala,* it is mentioned in *Paradaadi Varga.* In most texts, *Manashila* occurs in three classifications: *Shyamangi, Kanaveeraka*, and *Khandakya*. The order of these varieties is ascending. Thus, *Khandakya* is the best and yields the most *Satva*. [6]

Several procedures are used in Rasa Shastra to transform raw minerals into safe internal and external medications by eliminating undesirable effects. An essential *Rasayana Dravya*, *Manashila* is frequently used to treat illnesses like *Shwasa-Kasa* (respiratory disorders),), *Kshaya* (emaciation), *Anaha* (abdominal distention), *Jwara* (fever), *Krimi* (parasitic infections), *Visharoga* (poisoning disorders), *Raktavikara* (blood disorders), etc. [7][8] Before being administered as medicine, *Manashila* endures the detoxification procedure known as *Shodhana Sanskara* as consumed without proper *Shodhana* causes *Mandagni, Malabaddata, Ashmari* and *MutraKrichra*. [9] [10]

Vernacular Names: [11]

- Sanskrit: *Manashila, Naipali, Kunati*.
- Hindi: *Manasila*
- Bengali: *Manchala*
- Marathi: *Manasila*
- Gujarati: *Manasila*
- Parsi: *Jharnokha surkha*
- English: Realgar
- Telugu: *Manasila*
- Tamil: *Manosilai*

Synonyms: *Manahshila* (found in stone form), *Kunati* (as facial paint in drama), *Nepalika* (found abundantly in Nepal), *Manohva* (pleasant for the mind), *Roga Shila* (which destroys the disease), *Manogupta* (Dear to mind), *Nagajihvika* (Snake tongue), *Gola, Nagamata*. [12]

Table 1: Classification of *Manashila* in Classical Texts:

Name of the Text	Category
Charaka & Sushruta [4]	*Parthiva Dravya Varga*
Rasarnava [13], Rasa Hridya Tantra [14], Rasendra Chudamani [15], Rasa Ratna Samuchhya [16], Rasa Padhati [17], Rasa Manjari [18], Rasendra Sara Sangraha [19], Anand Kanda [20], Ayurveda Prakash [21], Brihata Rasa Raja Sundar [22]	*Uprasa*
Sharangadhara Samhita [5]	*Upadhatu & Uprasa*
Sidha Bhaishajya Manimala [23]	*Paradaadi Varga*

Table 2: *Manashila Bheda* (Types of Manashila)

Text	Type	Variety
Rasendra Chudamani [15], Rasa Ratna Samuchaya [16], Rasa Jala Nidhi [24]	Three	*Shayamangi* *Kanaveeraka* *Khandakhya*
Rasa Prakash Sudhakar [25]	Three	*Shayama* *Rakta* *Khandika*
Ayurveda Prakasha [21] , Brihat Rasa Raj Sunder [22], Rasendra Sambhava [26]	Three	*Shayamangi* *Kanaveeraka* *Dvi Khanda*
Rasa Padhati [17]	Two	*Shayamangi* *Kanaveeraka*

Characteristic of types of *Manashila*: [12]

There are three main types of *Manashila: Shayamangi, Kanaveeraka, and Khandakhya.*

1. *Shayamangi*: Blackish, red and yellowish, heavy.
2. *Kanaveeraka*: *Tejasvini* (Shiny), *Tamra Varni* but not yellow.
3. *Khandakhya*: *Churna* (Powdery), Dark red in color and heavy.

As per Rasaratna Samuccaya, *Khandakhya* stands out as the premier variety, enriched with a higher proportion of *Satva*, the essence of purity and tranquillity [16]. Similarly, in Ayurveda Prakasha (A.P.), *Kanaveeraka* emerges as the epitome of *Manashila*, showcasing superior quality and efficacy. The author of Ayurveda Prakasha opines that *Manashila* is only a variety of *Talaka*, and both can be differentiated by their colours, red and yellow, respectively [21].

***Grahya Lakshana* (Desirable Characters):**

Rasa Taranginikara states that *Manashila*, devoid of stones and sand, as red as *Utpala* flower, *Guru* (Heavy) and *Deepta* (Shiny), is considered good and will yield more *Satva*.[12]

***Rasa Panchaka* of *Manashila*:** (Ayurvedic Pharmacological properties)[12][15][16][19][21]

Rasa : *Katu, Tikta*
Guna : *Guru, Snigdha*
Virya : *Ushna*
Dosha Karma : *Vata-Kaphanashaka,*
Karma : *Kandu, Kshaya, Agnimandya,* and Excellent *Rasayana,* has an Ample of essence *(Satva).*
Prabhava : *Visha Nashaka*

***Ashodhita Manashila Dosha*: [16]**

Manashila, not purified or improperly purified, leads to *Ashmari* (Kidney Stones), *Mutrakrichram* (Urinary tract infection), *Mandagni* (Loss of appetite), *Malabandha* (Constipation), etc.

***Manashila Shodhana* (Purification):**

In Rasa Shastra, the process of *Shodhana* is meticulously undertaken to liberate the drug from physical impurities and *Vishadi Doshas*, thereby rendering it apt for therapeutic application**.** To circumvent these risks, the process of *Shodhana* is strongly advised before its internal application, ensuring safety and efficacy in its medicinal use. Acharyas have embraced various methodologies for the *Shodhana* (purification) of *Manashila*.

Table 3: Different summarised textual methods of *Manashila Shodhana*

S.no.	*Shodhana Dravya*	Principle involved	Duration/ Process Repetition	Reference
1.	*Churnodaka* (Lime Water)	*Nimajjan* (Dipping)	2 days	RasaTarangini [12]
2.	*Bhringraja Swarasa* (*Eclipta alba Hassk.*)	*Swedana* (Fomentation)	4 *Prahara* (12 hours)	RasaTarangini [12]

	Jayanti Swarasa (*Sesbania sesban Merrill.*)			
3.	*Nimbu Swarasa* (*Citrus medica Linn.*) *Agastya Patra Swarasa* (*Sesbania grandiflora Pers.*) *Adraka Swarasa (Zingiber officinale Rosc.)*	*Bhawana* (Wet Grinding)	7	Rasa Tarangini [12] Rasa Ratna Samuchaya [16] Rasendra Chudamnai [15]
4.	*Jayanti Swarasa* (*Sesbania sesban Merrill.*) *Bhringraja Swarasa* (*Eclipta alba Hassk.*) Goat's Urine	*Swedana* (Fomentation)	1 *Prahara* (3 hours)	Rasa Ratna Samuchaya [16] Rasendra Sara Sangraha [19]
5.	Goat's urine Goat's Bile	*Swedana* (Fomentation) *Bhawana*(Wet Grinding)	3 Days 07	Ayurveda Prakasha [21]
6.	*Nimbu Swarasa* (*Citrus medica Linn.*)	*Swedana* (Fomentation)	-	Rasarnava[13]
7.	*Jayanti Swarasa* (*Sesbania sesban Merrill.*) *Bhringraja Swarasa* (*Eclipta alba Hassk.*) *Adraka Swarasa (Zingiber officinale Rosc.)*	*Swedana* (Fomentation)	-	Rasa Jala Nidhi[24]
8.	*Churnodaka* (Lime Water)	*Bhawana* (Wet Grinding)	07	Rasa Jala Nidhi [24]
9.	*Bhringraja Swarasa* (*Eclipta alba Hassk.*) *Matulunga Swarasa* (*Citrus medica Linn.*)	*Bhawana* (Wet Grinding)	07	Rasamritam [27]
10.	*Rakta Agastaya Patra Swarasa* (*Sesbania grandiflora Pers.*)	*Swedana* (Fomentation)	01 *Prahara* (3 hours)	Anandkanda [20]
11.	*Godugdha* (Cow's Milk)/ *Takra* (Buttermilk)	*Bhawana* (Wet Grinding)	07	Rasendra Sambhava [26]
12.	*Nimbu Swarasa*, (*Citrus medica Linn.*) *Churnodaka* (Lime Water), *Agastya Patra Swarasa* (*Sesbania grandiflora Pers.*)	*Bhawana* (Wet Grinding)	07	Rasendra Sambhava [26]
13.	*Agastya Patra Swarasa* (*Sesbania grandiflora Pers.*)/ *Adraka Swarasa (Zingiber officinale Rosc.)*	*Bhawana* (Wet Grinding)	07	Rasa Manjari, [18] Rasa Prakash Sudhakara [25]
14.	*Bhringraja Swarasa*, (*Eclipta alba Hassk.*) *Haridra Swarasa* (*Curcuma longa Linn.*), *Adraka Swarasa (Zingiber officinale Rosc.)*	*Swedana* (Fomentation)	-	Brihada Rasa Raja Sundara [28]

***Marana* (Incineration):**

Marana is a type of pharmaceutical process mentioned in our classics that converts metals and minerals into a form that prevents their conversion back to their original form. This process also helps increase the therapeutic efficacy of the drug without any side effects. This process is also known as **'*Bhasmikarana*'.**

Manashila Marana is only mentioned in significant books in very few recent books. As per Rasendra Sambhava, *Manashila* should be triturated with *Hamsapadi* (*Adiantum lunulatum Burn.*), *Vandala*, *Vata Ksheera* (*Ficus bengalensis Linn.*), *Snuhi Ksheera* (*Euphorbia neriifolia Linn.*) and *Arka Ksheera* (*Calotropis procera*) separately with each drug for a day in the respective order. Then it is subjected to *Laghu Puta*. Such seven *Putas* turn *Manashila* into *Bhasma*.[26]

Pratyaushadha* (Antidote) for *Manashila Janya Vikara

In all texts, the adverse effects and their antidotes are consistent regarding the combination of honey and milk—three days of consumption alongside a balanced diet, as described by Rasa Tarangini and others. [12] However, Rasayana Sara presents a slightly different perspective. It suggests using *Shadaguna Gandhakajarita Parada* and honey for seven days instead of the traditional recommendation of consuming cow's milk and honey. [29]

Table 4: *Satvapatana* (Extraction) of *Manshila*

Text	Methodology and Drug Used
Rasa Ratna Samuchaya [16], Rasa Tarangini [121], Rasa Prakasha Sudhakara [25], Rasa Padhati [17], Rasa Ratnakara [30], Rasendra Mangala [31], Rasa Kamdhenu [32], Brihada Rasa Raja Sundara [28]	One part of *Manashila* and 1/8th part of *Mandura*, *Guda* (Jaggery), Guggulu (*Commiphora mukul*), and *Sarpi* (Clarified Butter) of each are taken in *Khalva*, mixed and triturated. Then the mixture is enclosed in *Musha* and kept in *Koshti* and heated intensively. By this, *Manashila Satva* is extracted out.
Rasendra Sambhava [26]	One-part *Manashila* and 1/8th part of *Guggulu (Commiphora mukul*), *Mandura*, *Ghrita* of each are taken and enclosed in *Andha Musha* and heated intensively.
Rasendra Chintamani [33]	One-part *Manashila* amd ½ part of *Jayapala* (*Croton tiglium Linn.*) and *Vatari Beeja* each are kept in *Kanchkupi* and placed in *Bhaluka Yantra* for 1 *Prahara* (3 hours)

Dose: 1/24 *Ratti* to 1/16 *Ratti* (5.2-7.8 mg) [12]

Table 5: *Amayika Prayoga* of *Manshila* [12]

Anupana	***Roga***
Vasa Swaras + Trikatu Churna	*Swasha Kasa*
Pippali Churna	*Vishama Jwara*
Pippali Churna+ Nimb Beeja Churna+ Karela Patra Swarasa	*Jwara*
Hardira Churna+ Manjistha Churna+Yava Kshara	*Twaka Vikara*
Pippali churna + Sunthi Churna+ Madhu	*Vamana Vikara*

Some Important *Yoga* of *Manashila*: [34]

Kalanala Rasa, Trilokya Chintamani Rasa, Manashiladyanjana, Manashiladya Dhooma, Mrita Sanjeevini Rasa, Rasa Raja Rasa, Shwasa Kuthara Rasa, Sameer Pannaga Rasa, Chandrodaya varti, Kshaya Kesari Rasa.

Realgar:

Word origin: Its name comes from the Arabic *rahj al-ġār* meaning "powder of the mine"). [35]
Substance Name: Arsenic disulphide
Formula: As2S2, As4S4
Class: Sulphides and Sulfosalts
Synonyms: Arsenic sulphide Thioxoarsene, Arsenic Sulphide red, Tetra arsenic Tetrasulphide
Chemical group: A compound of Arsenic V-A [11]

Origin and occurrence:
Realgar (AsS/As4S4) ranks among the most prevalent arsenic sulfide minerals, typically found in hydrothermal and magmatic ore deposits. Arsenic commonly occurs alongside sulfide-bearing minerals, particularly in association with gold mineralisation. Arsenic may be a principal component of sulfide minerals or appear as an impurity. The release of arsenic into the environment is typically gradual due to mineral weathering. However, mining activities such as grinding, crushing, and pulverisation accelerate this process significantly. Arsenosulfides interact with transition metals like Co, Ni, and Cu to generate various sulfides and sulfosalts.
In realgar and its polymorphs, As-As and S-S dimers form discrete molecular cage-like structures, with units connected via Van der Waals forces. Polymorphs of realgar, such as alacrinite (As8S9) and amorphous arsenic sulfide, can also occur in hydrothermal deposits, volcanic emissions, intrusive igneous rocks, and hot springs. Realgar exists in both high- and low-temperature polymorphs, transforming α-realgar to β-realgar at approximately 240°C. Exposure of α-realgar to oxygen and sunlight triggers its conversion to another polymorph, para-realgar. [35]
PHYSICAL CHARACTERISTICS [11]
Colour: orange to red.
Appearance: Crystalline salt.
Lustre: resinous, adamantine to sub-metallic.
Transparency: Crystals are translucent to transparent.
Crystal System: Monoclinic; 2/m.
Crystal Habits: include prismatic striated crystals with a rounded diamond-like cross-section.
Cleavage: Good in one direction.
Fracture: Subconchoidal.
Hardness: 1.5 - 2
Specific Gravity: 3.5 - 3.6
Streak: Orange to Orange yellow.
Tenacity: Sectile
Boiling Point: 565 ºC
Melting Point: 320 ºC
OPTICAL PROPERTIES: [36]
Type: Anisotropic
Colour: Nearly colourless to pale golden yellow.
Optic Sign: Biaxial negative
Birefringence: 0.166
Other properties: Isotropic crystals with good cleavage in one direction. Darkens with heat. Changes to red crystalline form at 170C. Soluble in alkaline sulfide solutions and nitric acid. Insoluble in water and hydrochloric acid.
Artificial preparation: [11] It may be prepared by heating together arsenic and sulfur in the proper proportions. It is commercially prepared by heating a mixture of arsenical and copper pyrites in such quantities that sulfur and arsenic are correctly proportioned.
SFeS2 + 4FeAsS→ As4S4 +8FeS
It can also be precipitated by strongly heating sodium bicarbonate solution containing arsenous sulphide. Arsenic disulfide is a naturally occurring form of arsenic found in realgar, one of the significant arsenic-containing minerals. Arsenic disulphide is insoluble in water and is poorly absorbed. It, therefore, represents a much less acute toxic hazard than soluble arsenic compounds. Arsenic sulphide has been found in the flue dust of copper smelters. Historically, arsenic sulphides were used as pigments and may have been a source of exposure for artists.

DISCUSSION

The comprehensive exploration of arsenical compounds, mainly focusing on *Manahshila*, provides a deep insight into its pharmacological benefits, historical applications, mythological origin, vernacular names, synonyms, classifications, characteristics, *Shodhana* (purification) processes, pharmaceutical properties, adverse effects, antidotes, *Marana* and

Satvapatana methodologies for its preparation and administration.

This encapsulates the traditional wisdom preserved in ancient texts and contemporary understanding regarding utilising *Manahshila* in medicinal formulations. The rich historical lineage of its usage, dating back to the *Rigveda* and *Atharvaveda*, underscores its significance in traditional medicine systems. It is categorised under *Uprasa Varga* in Rasashastra text by different Acharyas. When the properties of *Manashila* are assessed, all the texts opined *Katu, Tikta Rasa, Guru, Snigdha Guna* and *Ushna Veerya*. Most of the authors had accepted three types of *Manashila* viz, *Shayamangi, Kanaveeraka, and Khandakhya,* which *Khandakhya* is said to be the best quality.

Moreover, the thorough assessment of classical texts delves into the meticulous purification processes employed to eliminate impurities and enhance therapeutic efficacy, accentuating the importance of adherence to traditional methodologies to mitigate potential risks associated with improper usage.

The pharmacological properties (*Rasa, Guna, Veerya* and *Karma*) outlined in the article shed light on *Manahshila*'s efficacy in treating various ailments, including respiratory disorders, digestive issues, skin diseases, and toxicity-related conditions. Additionally, the adverse effects viz, *Ashmari* (Kidney Stones*)*, *Mutrakrichram* (Urinary tract infection) *Mandagni* (Loss of Appetite), *etc.*, may arise from its unprocessed or improperly purified forms, emphasising the significance of adherence to purification protocols.

Furthermore, the discourse extends to the preparation of *Manahshila* through *Marana* (incineration) and *Satvapatana* (extraction) methods, elucidating the intricate processes involved in enhancing its therapeutic potency while mitigating potential toxic effects. Considering the *Marana* process, only a few recent books, like Rasendra Sambhava, quote the method.

Including dosage recommendations, antidotes for adverse effects, and formulations incorporating *Manahshila, which* underlines its integral role in Ayurvedic Pharmacopoeia and highlights the holistic approach employed in traditional medicine systems.

Finally, insights into Realgar's chemical composition, origin, occurrence, physical characteristics, and optical properties explicate its geological context and distinguishing features, thereby enriching the reader's understanding of this mineral compound.

CONCLUSION

This review compiles information about *Manashila* from different Classical Rasa Shastra texts. *Manashila*, known as Realgar or Red Arsenic, is a substance of paramount importance owing to its multifaceted pharmaceutical properties and applications. *Manashila* has undergone extensive scrutiny and documentation in ancient Indian texts such as Rasa-Ratna Samuchchaya, Rasendra Sara Sangraha, and Rasa Hridaya Tantra. *Manashila* occupies a venerable status within classical texts, epitomizing its therapeutic potential and historical significance in Ayurvedic medicine. While preserving its traditional heritage, contemporary approaches prioritize safety, efficacy, and regulatory compliance in its utilization for healthcare purposes.

REFERENCES

1. Ashok Kumar Panda and Jayram Hazra. Arsenical compounds in Ayurveda medicine: A prospective analysis. Int. J. Res. Ayur. Pharm. 2012; 3(6):772-776.
2. Kodlady, Naveen & MS, Doddamani & BJ, Patgiri. (2012). Pharmaceutical - analytic study of the Ayurvedic purification of Manahshila (realgar). Asian Journal of Traditional Medicine. 7. 143 - 150.
3. Saravanan B. Pharmaceutical and Physico-Chemical Analysis of Three Different Samples of Shodhita Manashila, World Journal of Pharmaceutical Research, 7 (08), 1085-1097.
4. Shastri, K. N. (2004). Vidyotini Hindi commentary on Charak Samhita, Maharishi Agnivesa, Sutra Sthana, Deergajivitiya adhyaya Chaukhamba Sanskrit Sansthan, Edition 2004, page no.31.
5. Shailja Srivastava Jiwanprada Hindi Commentary on Sharangdhara Samhita, Acharya Sharangadhar, Dhatushodhan Marna Kalpana, Chaukhambha Orientalia, Edition 2017, page no. 266.
6. Sangolgi B et al. (2017) Physico Chemical Analysis of Manashila w.s.r. to its various Shodhana procedures. International Journal of Ayurvedic Research. 1(04), 2456-4354.
7. Sri Vagbhatacharya, Rasa Ratna Samucchaya, Hindi Vyakhya by Pandit Dharmananda Sharma, Chapter 3,

Motilal Banarasidas, Varanasi, 1999, Second Edition, 48pp.
8. Sri Vagbhatacharya, Rasa Ratna Samucchaya, Hindi Vyakhya by Pandit Dharmananda Sharma, Chapter 3, Motilal Banarasidas, Varanasi, 1999, Second Edition, 49pp
9. More Nandini A et al. (2015) Study the Effect of Swedan Sanskar On Ashuddha Manashila. International Ayurvedic Medical Journal, 3(9), 2320-5091.
10. Ayurvedic Formulary of India, Part 1, Part B, Published by G. O. I., Ministry of Health and Family Welfare, 2003, 19pp.
11. Sangolgi B et al. (2017), Concept of Manashila Drug-A review, International Journal of Development Research, 7(7), 13584-13589.
12. Sadanand Sharma, Rasatarangini, 11th Chapter, Motilal Banarasidas, New Delhi, 2009, pages no 260-265.
13. T. Panta, Rasachandrika Hindi Commentary on Rasarnavam by Indradeo Tripathi, Saptam Patala, Chowkhamba Sanskrit Series Office, Varanasi, edition 1978, page no.98.
14. D. Rasasastri, Mugdhav Abodhini Hindi Commentary on Rasa Hridya Tantra, Choukhambha Publishers, Varanasi, edition 2019.
15. Sidhdhinandan Mishra, Rasendra- Chudamani by Acharya Somdeva, Ekadasha adhyaya Chaukhambha Orientalia Varanasi-1, edition 2017, page no.181-182
16. K. S. A. Shastri, The Suratnojjvala Hindi Commentary on Rasaratna Samuchchaya of Sri Vagbhatacharya, 3rd Chapter, Chaukhamba Amarabharati Prakashan, edition 2015, page no. 57-58.
17. Sidhdhinandan Mishra,"Siddhiprada" hindi commentary on Rasapaddhati by Acharya Bindu, Uparasa Prakarana, Chaukhambha Orientalia Varanasi, edition 2005, page no.115
18. Sidhdhinandan Mishra, "Siddhiprada" hindi Translation on Ras Manjari by Acharya Shalinath, 3rd Chapter, Chaukhambha Orientalia, Varanasi, edition 2003, , page 39.
19. I. Tripathi, Savimarsa "Rasavidyotini" Hindi commentary on Rasendrasarasangraha, Pratham Adhyaya, Chaukhambha Orientalia, Varanasi, edition 2003, page no.49.
20. R.V.S. Sastri ,Anandakandam, S. Gopalan, T.M.S.S.M. Library, Tanjore. Sri Vilasam Press, Srirangam. Edition 1952, page no. 530-531.
21. G. S. Mishra, (2014). Aethavidyotini & Arthaprakashini Sanskrit & Hindi commentaries on Ayurveda Prakash of Acharya Shri Madhava, 2nd Chapter, Choukhamba Bhartiya academy Varanasi; edition 2014, page no. 312-314.
22. D. Chaubey, Brihat Rasa Raj Sunder, Motilal Banarasidasa Publishers, Delhi. Edition 1998. Page no 170-172.
23. K. R. Bhatta, "Vaishwanara" Hindi Commentary on Sidhda Bhaisajya Manimala, Chowkhamba Krishnadas Academy, Varanasi, Page no. 87.
24. Bhoodeva Mookerjee, Rasa-Jala-Nidhi Vol-II, Chapter 2nd Srigokul Mudranalaya, Varanasi, edition 1984, , page no.199.
25. Sidhdhinandan Mishra,"Siddhiprada" hindi commentary on Rasaprakasha Sudhakar of Acharya Yashodhar, Chapter 6th, Chaukhambha Orientalia Varanasi, edition 2013, page no.116-117.
26. V. D. Vaidhya, Rasendra Sambhava, Dwitiya Prakaran, Krishna Dasa Academy Varanasi, edition 1997, page no. 111-113.
27. Sidhdhinandan Mishra, "Siddhiprada" hindi Translation on Ras Manjari by Acharya Shalinath, 3rd Chapter, Chaukhambha Orientalia, Varanasi, edition 2003, page no.39.
28. D. Chaubey, Brihatrasarajasundar, Motilal Banarasidaas publisher's Pvt ltd Delhi, edition 1998, Uprasa, page no.170-172.
29. S. Vaidhya, Rasayansara Vol-1, Chowkhamba Krishnadas Academy Varanasi, edition 2005, page no.319.
30. Sidhdhinandan Mishra, Incorporating "Shasiprabha" Hindi Annotation of Rasaratnakar-Riddhi Khand by Nityanath Siddha, Chaukhambha publicaers, Varanasi, edition 2005, p no. 197-198.
31. H.S. Sharma, Rasendra Mangalam, 2nd Chapter Chaukhambha Orientalia, Varanasi, edition, page no. 39.
32. Y. T Acharya, Rasakamdhenu compiled by Vaidhyavara Sri Chudamani, Dvitiya Dhatusangrapaad chaturtha adhikara,Choukhambha Orientalia, Varanasi; edition 1988, page no.294, 295.
33. Sidhdhinandan Mishra, "Siddhiprada" hindi Translation on Rasendra Chintamani by Acharya Dundhuk Nath, 7th Chapter, Chaukhambha Orientalia, Varanasi-1, edition 2006, page no. 101.
34. Anuroopa H.K. (2022). A textbook of Rasa Shastra, Chaukhambha Orientalia, Varanasi, Page no. 223.
35. Philip Babcock Grove, ed. (1993). *Webster's Third New International Dictionary*. Merriam-Webster, inc. ISBN 3-8290-5292-8.
36. https://geologyscience.com/minerals/realgar/?amp

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