द्वितीयोऽध्यायः

महारस शुध्यादि निरूपणीय

अथः रसाः—

अभ्रवैक्रान्तमाक्षीकविमला द्विजसस्यकम् ।
चपलोरसकश्चेति ज्ञात्वाऽष्टौसंग्रहेद्रसान् ॥ 1 ॥

गन्धाभ्रकयोः स्वरूपम्—

देव्या रजो भवेदगन्धो धातुः शुक्रं तथाऽभ्रकम् ।

अभ्रकगुणाः

गौरीतेजः परममृतं वातपित्तक्षयघ्नं
प्रज्ञाबोधि प्रशमितरुजं बृष्यमायुष्यमग्र्यम् ।
बल्यं स्निग्धं रुचिदमकपं दीपनं शीतवीर्यं
तत्तद्योगैः सकलगदहृद व्योमसूतेन्द्रबन्धि ॥ 2 ॥

अभ्रकसंग्रह विधिः

राजहस्तादधस्तादयत्समानीतं धनं खनेः ।
भवेत्तदुक्तफलदं निःसत्वं निष्फलं परम् ॥ 3 ॥

अभ्रभेदाः

पि[1]नाकनागमण्डूकवज्रमित्यभ्रकं मतम् ।
श्वेतादिवर्गभेदेन प्रत्येकं तच्चतुर्विधम् ॥ 4 ॥

पिनाकादिलक्षणानि

पि[2]नाकं पावकोत्तप्तं विमुंचति दलोच्चयम् ।
तत्सेवितं मलं बद्धवा मारयत्येव मानवम् ॥ 5 ॥

नाग्राभ्रं नागवत्कुर्याद् ध्वनिं पावकसंस्थितम ।
तदभुक्तं कुरुते कुष्ठं मण्डलाख्यं न संशयः ॥ 6 ॥

उत्प्लुत्योत्प्लुव्य मण्डूकं भ्रमतं पतति चाभ्रकम् ।
तत्कुर्यादश्मरीममसाध्यं शस्त्रतोऽन्यथा ॥ 7 ॥

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[1] पीनाकं

[2] पीनाकं

वज्राभ्रं बहिनसंतप्तं निर्मुक्ताशेषवैकृतम् ।
देहलोहकरं तच्च सर्वरोगहरं परम् ॥ 8 ॥

श्वेतादिभेदानामुपयोगाः

श्वेतं रक्तं च पीतं च कृष्णमेव चतुर्विधम् ।
श्वेतं श्वेतक्रियासूक्तं रक्ताभं रक्तकर्मणि ॥ 9 ॥

कृष्णाभ्रकस्य वैशिष्ट्यम्

चतुर्विधं वरं व्योम यद्यप्युक्तं रसायने ।
तथापि कृष्णवर्णाभ्रं कोटिकोटिगुणाधिकम् ॥ 10 ॥

प्रशस्ताभ्रलक्षणम्

स्निग्धं पृथुदलं वर्णसंयुक्तं भारतोऽधिकम् ।
सुखनिर्मोन्ध्यपत्रं च तदभ्रं शस्तमीरितम् ॥ 11 ॥

सचन्द्रनिश्चन्द्राभ्रक गुणाः

सचन्द्रिकं च किदटा भं व्योम न ग्रासयेद्रसः ।
ग्रसितं च नियोज्यं तत् लोहे चैव रसायने ॥ 12 ॥
निश्चन्द्रिकं मृतं व्योम सेव्यं सर्वगदेषु च ।
सेवितं चन्द्रसंयुक्तं मेहं मन्दानलं चरेत् ॥ 13 ॥
यैरक्तंयुक्तिनिर्मुक्तैः पत्राभ्रकरसायनम् ।
तैर्दिष्टं[3] कालकूटाख्य· विषं जीवनहेतवे ॥ 14 ॥

शोधिताभ्रस्य प्रयोज्यत्वम्

सत्वार्थं सेवनार्थं च योजयेच्छोधिताभ्रकम् ।
अन्यथा त्वगुणं कृत्वा विकरोत्येव निश्चितम् ॥ 15 ॥

अभ्रकशोधनम्

प्रतप्तं सप्तवाराणि निक्षिप्तं कांजिकेऽभ्रकम् ।
निर्दोषं जायते नूनं प्रक्षिप्तं वाऽपि गोजले ॥ 16 ॥
त्रिफलाक्वथिते चापि गवां दुग्धे विशेषतः ॥

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[3] तैर्दृष्टं

अभ्रमारणम्

ततो धान्याभ्रकं कृत्वा पिष्दवा मत्स्याक्षिकारसैः ॥ 17 ॥
चक्रीं कृत्वा विशोष्याथ पुटेदर्धमके पुटे ।
पुटैदेवं हि षडवारं पौनर्नवरसैः सह ॥ 18 ॥
कलाशटंकणेनापि सम्मर्ध कृतचक्रिकम् ।
अर्धमाख्यपुटेस्तद्वत् सप्तवारं पुटेत्खलु ॥ 19 ॥
एवं वासारसेनापि तण्डुलीयरसेन च ।
प्रपुटेत्सप्तवाराणि पूर्वप्रोक्तविधानतः ॥
एवं सिद्धं धनं सर्वयोगेषु विनियोजयेत् ॥ 20 ॥

धान्याभ्रकलक्षणम्

चूर्णाभ्रं शालिसंयुक्तं वस्त्रबद्धं हि कांजिके ।
निर्यातं मर्दनादवस्त्राद धान्याभ्रमिति कथ्यते ॥ 21 ॥

धान्याभ्रक मारणम्

धान्याभ्रं कासमर्दस्य रसेन परिमर्दितम् ।
पुटितं दशवारेण म्रियते नात्र संशयः ॥ 22 ॥
तद्वन्मुस्तारसेनापि तण्डुलीयरसेन च ।

द्वितीय मारणविधिः

पीतामलकसौभाग्यपिष्टं चक्रीकृताभ्रकम् ॥ 23 ॥
पुटितं षष्टिवाराणि सिन्दूराभं प्रजायते ।
क्षयाद्यखिलरोगघ्नं भवेद्रोगानुपानतः ॥ 24 ॥

तृतीय मारणविधिः

वटमूलत्वचः क्वाथैस्ताम्बूलीपत्रसारतः ।
वासामत्स्याक्षिकाभ्यां वा मीनाक्ष्याः सकठिल्लया ॥ 25 ॥
पयसा वटवृक्षस्य मर्दितं पुटितं धनम् ।
भवेद्विंशतिवारेण सिन्दूरसदृशप्रभम् ॥ 26 ॥

चतुर्थ मारणविधिः

गन्धर्वपत्रतोयेन गुडेन सह भावितम् ।
अधोर्ध्वं वटपत्राणि निश्चिन्द्रं त्रिपुटैः खगम् ॥ 27 ॥
क्षुधं करोति चात्यर्थं गुंजार्थमितसेवया ।
तत्तद्रोगहरैर्योगैः सर्वरोगहरं परम् ॥ 28 ॥

अभ्रसत्वपातनम्

पादांशटकणोपेतं मुसलीरसमर्दितम् ।
रुन्ध्यात्कोष्टयां दृढं ध्मातं सत्वरूपं भवेद्घनम् ॥ 29 ॥

द्वितीय सत्वपातनविधिः

कासमर्दघनाथान्यवासानां च पुनर्भवः ।
मत्स्याक्ष्याः काण्डवल्याश्च हंसपाद्या रसैः पृथक् ॥ 30 ॥
पिष्दवा पिष्दवा प्रयत्नेन शोषयेद्धर्मयोगतः ।
ततो गोधूमचूर्णं च क्षुद्रमत्स्याश्च टंकणम् ॥ 31 ॥
प्रत्येकमष्टमांशेन दत्वा दत्वा विमर्दयेत् ।
मर्दने मर्दने सम्यक् शोषयेद्रविरश्मिभिः ॥ 32 ॥
पंचाजं पंचगव्यं वा पंचमाहिषमेव च ।
क्षित्वागोलान् प्रकुर्वीत किंचित्तिन्दुकतोऽधिकान् ॥ 33 ॥
पयोदधिघृतं मूत्रं सविदकं चाजमुच्यते ॥

सत्वपातन-ग्रहणविधिः

सत्वपातनको[4]ष्टयां[5] हि ध्मात्वा सत्वं निपातयेत् ॥ 34 ॥
कोष्टयाः किट्टं समाहृत्य विचूर्ण्य रवकान् हरेत् ॥

किट्टात्सत्वाहरणविधिः

तत्किट्टं स्वल्पटंकेन गोमयेन विमर्ध च ॥ 35 ॥
गोलान् विधाय संशोष्य धमेद भूयोऽपि पूर्ववत् ॥
भूयः किट्टं समाहृत्य मृदित्वा सत्वमाहरेत् ॥ 36 ॥

सत्वशोधनम्

अथसत्वकणांस्तांस्तु क्वाथयित्वाऽम्लकांजिकैः ।
शोधनीयगणोपेतं मूषामध्ये निरुध्य च ॥ 37 ॥
सम्यक्पूतं समाहृत्य द्विवारं प्रधमेदधनम् ।
इति शुद्धं भवेत्सत्वं योज्यं रसरसायने ॥ 38 ॥

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[4] घनध्वान

[5] अधःपातन

सत्यमृदूकरणम्

धृततैलवसाज्येषु द्रावितं परिवापितम् ।
मृदु स्याददशवारेण सत्वं लोहादिकं खरम् ॥ 39 ॥

सत्वाभ्रमारणम्

सूक्ष्मचूर्ण[6] विधायाथ गोधृतेन परिप्लुतम् ।
मर्जयेत्सप्तवाराणि चुल्लीसंस्थितखर्परे ॥ 40 ॥
अग्निवर्णं भवेद यावद्धारं वारं विचूर्णयेत ।
तृणं क्षिप्त्वा दहेद्यावत्तावद्वा मर्जनं चरेत ॥ 41 ॥
ततः सगन्धकं पिष्दवा वटमूलकषायतः ।
पुटेद्विंशतिवाराणि वाराहेण पुटेन हि ॥ 42 ॥
पुनर्विंशतिवाराणि त्रिफलोत्यकषायतः ।
त्रिफलामुण्डिका भृंगपत्रपथ्याक्षमूलकैः ॥ 43 ॥
भावयित्वा प्रयोक्तव्यं सर्वरोगेषु मात्रया ।
एवं चैच्छतवाराणि पुटपाकेन साधितम् ॥ 44 ॥
गुणवज्जायतेऽत्यंर्थं परं पाचनदीपनम् ।

सत्वाभ्रस्य वैशिष्दयम्

सत्वाभ्रात् किंचिदपरं[7] निर्विकारं गुणाधिकम् ॥ 45 ॥

व्योमसत्वशोधनम्

सत्वस्यगोलकंध्मातं सस्यसंयुक्तकांजिके ।
निर्वाप्य तत्क्षणेनैव कुहयेत्लोहपारया ॥ 46 ॥
संप्रताप्य धनस्थूलकणान्क्षित्प्वाऽथ कांजिके ।
तत्क्षणेन समाहृत्य कुहयित्वा रजश्चरेत् ॥ 47 ॥
गोधृतेन च तच्चूर्णं मर्जयेत् पूर्ववत्त्रिधा ।
धात्रीफलरसैस्तद्वाधात्रीपत्ररसेन वा ॥ 48 ॥
मर्जने मर्जने कार्यं शिला पदटेन पेष्णम् ।
ततः पुनर्नवावासारसैः कांजिकमिश्रितैः ॥ 49 ॥

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[6] पदटचूर्ण

[7] लापरं किंचिलिर्विकारं

प्रपुटेददशवाराणि दशवाराणि गन्धकैः ।
एवं संशोधितं व्योमसत्वं सर्वगुणोत्तरम् ॥
यथैष्टं विनियोक्तव्यं जारणे च रसायने ॥ 50 ॥

दिव्याभ्रगुणाः सेवनविधिश्च

वेल्लव्योषसमन्वितं घृतयुतं वल्लोन्मितं सेवितं
दिव्याभ्रं क्षयपाण्डुरुग्राहणिकामूलामकुष्ठामयम् ।
जूर्ति श्वासगदं प्रमेहमरूचिं कासामयं दुर्धरं
मन्दाग्नि जठरव्यथां विजयते योगैरशेषामयान् ॥ 51 ॥

द्रुतेरनिदेश्यत्वम्

द्रुतयो नैव निर्दिष्टाः शास्त्रे दृष्टा अपि स्वयम् ।
विना शम्भोः प्रसादेन न सिद्धयन्ति कदाचन ॥ 52 ॥

वैक्रान्तलक्षणम्

अष्टास्रश्चाष्टफलकः षदकोणो मसृणो गुरुः ।
शुद्धमिश्रितवर्णश्च युक्तो वैक्रान्त उच्यते ॥ 53 ॥

वैक्रान्तभेदाः

श्वेतोरक्तश्च पीतश्च नीलः पारावतच्छविः ।
श्यामलः कृष्णवर्णश्च कर्बुरश्चाष्टधा हि सः ॥ 54 ॥

वैक्रान्तगुणाः

आयुष्प्रदश्च बलवर्णकरोऽतिवृष्यः
प्रज्ञाप्रदः सकलदोषगदापहारि ।
दीप्ताग्निकृत्पविसमा नगुणस्तरस्वी
वैक्रान्तकः खलु वपुर्बललोहकारि ॥ 55 ॥
रसायनेषु सर्वेषु पूर्वगण्यः प्रतापवान् ॥
वज्रस्थाने नियोक्तव्यो वैक्रान्तः सर्वदोबहा ॥ 56 ॥
वैक्रान्तो वज्रसदृशो देहलोहकरो मतः ।
विषघ्नो रसराजश्च ज्वरकुष्ठक्षयप्रणुत् ॥ 57 ॥

वैक्रान्तोत्पत्तिवर्णम्

दैत्येन्द्रो माहिषः सिद्धः सहदेबसमुदभवः ।
दुर्गा भगवती देवी तं शूलेन व्यमर्दयत् ॥ 58 ॥
तस्यरक्तं तु पतितं यत्र यत्र स्थितं भुवि ।
तत्र तत्र तु वैक्रान्तं वज्राकारं महारसम् ॥ 59 ॥

प्राप्तिस्थानम्

विन्ध्यस्य दक्षिणेभागे हयुत्तरे वास्ति सर्वतः ।

निरुक्तिः

विकृन्तयति लोहानि तेन वैक्रान्तकः स्मृतः ॥ 60 ॥

वैक्रान्तभेदाः

श्वेतः पीतस्तथा रक्तो नीलः पारावतप्रभः ।
मयूरकण्ठसदृशश्चान्यो मरकतप्रभः ॥ 61 ॥

भेदानुसारं फलवत्वम्

देहसिद्धिकरं कृष्णं पीते पीतं सिते सितम् ।
सर्वार्थसिद्धिदं रक्तं तथा मरकतप्रभम् ॥ 62 ॥
शेषे द्वे निष्फले वर्ज्ये वैक्रान्तमिति सप्तधा ॥ 63 ॥

वैक्रान्तग्रहणविधिः

यत्र क्षेत्रे स्थितं चैव वैक्रान्तं तत्र भैरवम् ।
विनायकं च संपूज्य गृहणीयाच्छुद्धमानसः ॥ 64 ॥

शोधनम्

वैक्रान्तकाः स्युस्त्रिदिनं विशुद्धाः संस्वेदिताः क्षारपदूनिदत्वा ।
अम्लेषु मूत्रेषु कुलत्थरम्भानीरेऽथवा कोद्रववारिपक्वाः ॥ 65 ॥
कुलत्थपक्वाथसंस्विन्नो वैक्रान्तः परिशुद्धयति ॥ 66 ॥

मारणम्

म्रियतेऽष्टपुटैर्गन्धनिम्बुकद्रवसंयुतः ।
वैक्रान्तेषु च तप्तेषु हयमूत्रं विनिक्षिपेत् ॥ 67 ॥
पौनः पुन्येन वा कुर्याद द्रवं दत्वा पुटं त्वनु ।
भस्मीभूतं तु वैक्रन्तं वजस्थाने नियोजयेत् ॥ 68 ॥

वैक्रान्तसत्वपातनम्

मोच[8]मोरटपालाशक्षारगोमूत्रभावितम् ।
वज्रकन्दनिशाकल्कफलचूर्णसमन्वितम् ॥ 69 ॥
तत्कल्कं टंकणं लाक्षाचूर्णं वैक्रान्तसम्भवम् ।
नरसारसमायुक्तं मेषशृंगीद्रवान्वितम् ॥ 70 ॥
पिण्डितं मूकमूषस्थं ध्मापितं च हठाग्निना ।
तत्रैव पतते सत्वं वैक्रान्तस्य न संशयः ॥ 71 ॥

द्वितीयोविधिः

सत्वपातनयोगेन मर्दितश्चवटीकृतः ।
मूषास्थो घटिकाध्मातो वैक्रान्तः सत्वमुत्सृजेत् ॥ 72 ॥

वैक्रान्तरसायनः प्रथमः

भस्मत्वं समुपागतो विकृतको हेम्ना मृतेनान्वितः ।
पादांशेन कणाज्यवेल्लसहितो गुंजामितः सेवितः ॥
यक्ष्माणं जरणं च पाण्डुगुदजं श्वासं च कासामयं
दुष्टां च ग्रहणीमुरः क्षतमुखान् रोगांजयेद्देहकृत् ॥ 73 ॥

वैक्रान्तरसायनो द्वितीयः

सूतभस्मार्धसंयुक्तं नीलवैक्रान्तभस्मकम् ।
मृताभ्रसत्वमुभयोस्तुलितं परिमर्दितम् ॥ 74 ॥
क्षौद्राज्यसंयुतं प्रातर्गुंजामात्रां निषेवितम् ।
निहन्ति सकलान् रोगान् दुर्जयानन्यभेषजैः ॥ 75 ॥
त्रिसप्तदिवसैर्नृणां गंगाम्भ इव पातकम् ॥ 76 ॥

माक्षिकोत्पत्तिः स्थानम्

सुपर्णशलप्रभवो विश्णुना कांचनोरसः
ताप्यां किरातचीनेषु यवनेषु च निर्मितः ॥ 77 ॥
ताप्यः सूर्यांशुसंतप्तो माधवे मा सिदृश्यते ॥ 78 ॥

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[8] मोक्ष

माक्षिक गुणा :

मधुरः कांचनाभासः साम्लो रजतसन्निभः ।
किंचित् कषायमधुरः शीतः पाके कटुर्लघुः ॥
तत्सेवनाज्जराव्याधिविषैर्न परिभूयते ॥ 79 ॥

माक्षिकगुणकर्माणि

माक्षोकधातुः सकलामयघ्नः प्राणोरसेंन्द्रस्य परं हि बृष्यः ।
दुर्मेललोहद्वयमेलनश्च गुणोत्तरः सर्वरसायनाग्रयः ॥ 80 ॥

माक्षिकभेदाः

माक्षिकोद्विविधो हेममाक्षिकस्तारमाक्षिकः ।
तत्राधं माक्षिकं कान्यकुब्जोत्थं स्वर्गसन्निभम् ॥ 81 ॥
तपतीतीरसम्भूतं पंचवर्णसुवर्णवत् ।
पाषाणबहुलः प्रोक्तस्ताराख्योऽल्पगुणात्मकः ॥ 82 ॥

माक्षिकशोधनम्

एरण्डतैललुंगाम्बुसिद्धं शुद्धयति माक्षिकम् ।
सिद्धं वा कदलीकन्दतोयेन घटिकाद्वयम् ॥
तप्तं क्षिप्तं वराक्वाथे शुद्धिमायाति माक्षिकम् ॥ 83 ॥

माक्षिकमारणम्

मातुलुंगाम्बुगन्धाभ्यां पिष्टं मूसदरे स्थितम् ।
पंचक्रोडपुटैर्दग्धं म्रियते माक्षिकं खलु ॥ 84 ॥
एरण्डस्नेहगव्याज्यैर्मातुलुंगरसेंन वा ।
खर्परस्थं दृढं पक्वं जायते धातुसन्निभम् ॥ 85 ॥
एवं मृतं रसे योज्यं रसायनविधावपि ॥ 86 ॥

माक्षिक सत्वपातनम्

त्रिशांशनागसंयुक्तं क्षारैरम्लैश्च मर्दितम् ।
ध्मातं प्रकटमूषायां सत्वं मुंचति माक्षिकम् ॥ 87 ॥
सप्तवारं परिद्राव्य क्षिप्तं निर्गुणिडकारसे ।
माक्षीकसत्वसंमिश्रं नागं नश्यति निश्चितम् ॥ 88 ॥
क्षोद्रगन्धर्वतैलाभ्यां गोमूत्रेण धृतेन च ।
कदलीकन्दसारेण मावितं माक्षिकं मुहुः ॥
मूषायां मुंचति ध्मातं सत्व शुल्वनिभं मृदु ॥ 89 ॥

विशुद्धसत्वलक्षणम्

गुंजाबीजसमच्छायं द्रुतद्रावं च शीतलम् ।
ताप्यसत्वंविशुद्धं तद्देहलोहकरं परम् ॥ 90 ॥

माक्षिकसत्वरसायणम्

माक्षीकसत्वं च रसेन पिष्टं कृत्वाविलीने च बलि निधाय ।
संम्मिश्रय सम्मर्घं च खल्वमध्ये निक्षिप्य सत्वं द्रुतिमभ्रकस्य ॥ 91 ॥
विधाय गोलं लवणाख्ययन्त्रे पचेदिदनार्धं मृदुबह्निना च ।
स्वतः सुशीतं परिचूर्ण्य सम्यक् बल्लोन्मितं व्योषविडंगयुक्तम् ॥ 92 ॥
संसेवितं क्षौद्रयुतं निहन्ति जरां सरोगान्त्वपमृत्युमेव ।
दुःसाध्यरोगानपि सप्तवासरैर्नैलेन तुल्योऽस्ति सुधारसोऽपि ॥ 93 ॥

माक्षिक सत्वद्रावणम्

एरण्डोत्थेन तैलेन गुंजा क्षौद्रं च टंकणम् ।
मर्दितं तस्य वापेन सत्वं माक्षिकजं द्रवेत् ॥ 94 ॥

विमल भेदाः

विमलास्त्रिविधः प्रोक्तो हेमाद्यस्तारपूर्वकः ।
तृतीयः कांस्यविमलस्तत्तत्कान्त्या स लक्ष्यते ॥ 95 ॥

विमल स्वरूपम्

वर्तुलः कोणसंयुक्तः स्निग्धश्च फलकान्वितः ।

गुणाः

मरुत्पित्तहरो वृष्णो विमलोऽतिरसायनः ॥ 96 ॥

वर्णानुसारं विमलप्रयोज्यत्वम्

पूर्वोहेमक्रियासूक्तो द्वितीयो रूप्यकृन्मतः ।
तृतीयो भेषजे तेषु पूर्वपूर्वो गुणोत्तरः ॥ 97 ॥

विमल शोधनम्

आटरूषजैले स्विन्नो विमलो विमलो भवेत् ।
जम्बीरस्वरसे स्विन्नो मेषशृंगीरसेऽथवा ॥ 98 ॥
आयाति शुद्धिं विमलो धातवश्च तथाऽपरे ॥

विमल मारणम्

गन्धाश्मलकुचाम्लैश्च म्रियते दशभिः पुटैः ॥ 99 ॥

विमलसत्वपातनम्

सटंकलकुचट्टावैमेषशृंग्याश्च भस्मना ।
पिष्टो मूषोदरें लिप्तः संशोष्य च निरूध्य च ॥ 100 ॥
षदप्रस्थकोकिलैध्मातो विमलः सीससन्निभः ।
सत्वं मुंचति तद्युक्तो रसः स्यात्सुरसायनः ॥ 101 ॥

द्वितीयो विधिः

विमलं श्रिंगुतोयेन कांक्षीकासीसटंकणम्
वज्रकन्दसमायुक्तं भावितं कदलीरसैः ॥ 102 ॥
मोक्षकक्षारसंयुक्तं ध्मापितं मूकमूषगम् ।
सत्वं चन्द्रार्कसंकाशं पततें नात्र संशयः ॥ 103 ॥

विमलसत्वरसायनम्

तत्सत्वं सूतसंयुक्तं पिष्टं कृत्वा सुमर्दिम् ।
विलीनं गन्धके क्षिप्तवा जारयेत् त्रिगुणालकम् ॥ 104 ॥
शिलां पंचगुणां चापि बालुकायन्त्रके खलु ।
तारभस्म दशांशेन तावद्वैक्रान्तकं स्मृतम् ॥ 105 ॥
सर्वमेकत्र संचूर्ण्य पटेन परिगाल्य च ।
निक्षिप्य कूपिकामध्ये परिपूर्यं प्रयत्नतः ॥ 106 ॥
लीटो व्योषवारान्वितो विमलको युक्तो धृतैः सेवितः ।
हन्याद् दुर्भगकृज्जवरान् श्वयथुकं पाण्डुप्रमेहारुचीः ॥
मूलार्तिग्रहणीं च शूलमतुलं यक्ष्मामयं कामलां ।
सर्वान्पित्तमरुद्गदान् किमपरैर्योगरशेषामयान ॥ 107 ॥

शिलाजतुभेदाः

शिलाजतुद्विधा प्रोक्तो गोमूत्राद्यो रसायनः ।
कर्पूरपूर्वकश्चान्यस्तत्राद्यो द्विविधः पुनः ॥ 108 ॥
ससत्वश्चैव निःसत्वस्तयोः पूर्वो गुणाधिकः ॥ 109 ॥

उत्पत्तिः

ग्रीष्मे तीव्रार्कतप्तेभ्यः पादेभ्यो हिमभूभृतः ।
स्वर्णरूप्यार्कगर्भेभ्यः शिलाधातुर्विनिःसरेत् ॥ 110 ॥

शिलाजतुभेदगुणाः

स्वर्णगर्भगिरेर्जातो जपापुष्पनिभो गुरुः ।
स स्वल्पसिक्तः सुस्वादुः परमं तद्रसायनम् ॥ 111 ॥
रोप्यगर्भगिरेर्जातं मधुरं पाण्डुरं गुरुः ।
शिलाजं पित्तरोगघ्नं विशेषात् पाण्डुरोगहृत् ॥ 112 ॥
ताम्रगर्भगिरेर्जातं नीलवर्णं धनं गुरु ॥ 113 ॥

शिलाजतुपरीक्षा

बहनौ क्षिप्तं भवेद्यत्तल्लिंगाकारमधूमकम् ।
सलिलेऽप्यविलीनं च तच्छुद्धं हि शिलाजतु ॥ 114 ॥

गुणाः

नूनं सज्वरपाण्डुशोफशमनं मेहाग्निमांद्यापहं
मेदच्छेदकरं च यक्ष्मशमनं शूलामयोन्मूलनम् ।
गुल्मप्लीहविनाशनं जठरहृच्छूलघ्नमामापहं
सर्वत्वग्गदनाशनं किमपरं देहे च लोहे हितम् ॥ 115 ॥
रसोपरससूतेन्द्ररत्नलोहेषु ये गुणाः ।
वसन्ति ते शिलाधातो जरामृत्युजिगीषया ॥ 116 ॥

शिलाजतुशोधनम्

क्षाराम्लगोजलैर्धौतं शुद्धत्येव शिलाजतु ।
शिलाधातुं च दुग्धेनत्रिफलामार्कवद्रवैः ॥ 117 ॥
लोहपात्रे विनिक्षिप्य शोधयेदतियत्नतः ।
क्षाराम्लगुग्गुलूपेतैः[9] स्वेदनीयन्त्रमध्यमैः ॥ 118 ॥

शिलाजतुमारणम्

शिलयागन्धतालाभ्यां मातुलुंगरसेन च ।
पुटितो हि शिलाधातुर्म्रियतेऽष्टगिरिण्डकैः ॥ 119 ॥

शिलाजतुरसायनम्

भस्मीभूतशीलोद्भवं समतुलं कान्तं च वैक्रान्तकम् ।
युक्तं च त्रिफलात्रिकटुकधुतैर्वल्लेन तुल्यं भजेत् ॥

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[9] गुग्गुलोपेतैः

पाण्डौ यक्ष्मगदे तथाग्निसदने मेहेषु मूलामये ।
गुल्मप्लीहमहोदरे बहुविधे शूले च योन्यामये ॥ 120 ॥
सेवेत यदिष्णमासं रसायनविधानतः ।
बलीपलितनिर्मुक्तो जीवेद्वर्षशतं सुखी ॥ 121 ॥

सत्वपातनम्

पिष्दवा द्रावकवर्गेण साम्लेन गिरिसम्भवम् ।
क्षिप्त्वा मूषोदरे रुद्धवा गादैर्ध्मातं हि कोकिलैः ॥
सत्वं मुंचेच्छिलाधातुस्तत्क्षणाल्लोहसन्निभम् ॥ 122 ॥

कर्पूरशिलाजतुस्वरूप गुणाः

पाण्डुरं सिकताकारं कर्पूराद्यं शिलाजतु ।
मूत्रकृच्छ्राश्मरीमेहकामलापाण्डुनाशनम् ॥ 123 ॥

शोधनादिनिर्देशः

एलातोयेन संस्विन्नं[10] सिद्धं शुद्धिमुपैतितत् ।
नैतस्य मारणं सत्वपातनं विहितं बुधैः ॥ 124 ॥

सस्यकोत्पत्तिः

पीत्वा हालाहलं वान्तं पीतामृतगरुत्मता ।
विषेणामृतयुक्तेन गिरौ मरकताहवये ॥ 125 ॥
तद्वान्तं हि घनीभूतं संजातं सस्यकं खलु ।

सस्यकस्वरूपम्

मयूरकण्ठसच्छायं भाराख्यमतिशस्यते ॥ 126 ॥

विषयुक्तस्य द्रव्यस्यगुणाधिक्यत्वम्

द्रव्यं विषयुतं यत्तद् द्रव्याधिकगुणं भवेत् ।
सुधा हालाहलैर्युक्ता सुधाधिकगुणा तथा ॥ 127 ॥

सस्यकगुणाः

निःशेषदोषविषहृदगुदशूलमूल—
कुष्ठाम्लपैत्तिक विवन्धहरं परं च ।
रासायनं वमनरेककरं गरघ्नं
श्वित्रापहं गदितमत्र मयूरतुत्थम् ॥ 128 ॥

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[10] संभिन्नम् । संक्लिन्नम् ।

सस्यक शोधनम्

सस्यकं शुद्धिमाप्नोति रक्तवर्गेण भावितम् ।
स्नेहवगेण संसिक्तं सप्तवारमदूषितम् ॥ 129 ॥
दोलायन्त्रेण सुस्विन्नं सस्यकं प्रहरत्रयम् ।
गोमहिष्याजमूत्रेषु शुद्धयते .... ॥ 130 ॥

सस्यक मारणम

.... तुत्थखर्परम् ।
लकुचद्रवगन्धाश्मटंकणेन समन्वितम् ।
निरूद्धय मूषिकामध्ये प्रियते कौक्कुटैः पुटैः ॥ 131 ॥

सस्यक सत्वपातनम्

सस्यकस्याऽथचुंर्णं तु पादसौभाग्यसंयुतम ।
करंजतैलमध्यस्थं दिनमेकं निधापयेत् ॥ 132 ॥
अन्धमूषास्यमध्यस्थं ध्मापयेत्कोकिलाग्निना ।
इन्द्रगोपाकृति चैव सत्वं पतति[12] शोभनम् ॥ 133 ॥

द्वितीयोविधि;

निम्बूद्रवाल्पटंकाम्यां मूषामध्ये निरुद्धय च ।
ताम्ररूपं परिध्मातं सत्वं मुंचति सस्यकम् ॥ 134 ॥

तृतीयोविधिः

शुद्धं सस्यं शिखिकान्तं[13] पूर्वभेषजसंयुतम् ।
नानाविधानयोगेन सत्वं मुंचति निश्चितम् ॥ 135 ॥

सस्यकसत्वमुद्रिकातद्गुणाश्च

सत्वमेतत्समादाय खरभूनागसत्वयुक् ।
तन्मुद्रिका कृतस्पर्शा शूलघ्नीतत्क्षणाद्भवेत् ॥ 136 ॥
चराचरं विषं भूतडा किनीदृग्गतं जयेत् ।
मुद्रिकेयं विधातव्या दृष्टप्रत्ययकारिका ॥ 137 ॥

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[11] द्राव

[12] भवति

[13] शिखिक्रान्तं

रामवत्सोमसेनानीर्मुद्रितेऽपि तथाऽक्षरम् ।
हिमालयोत्तरे पार्श्वे अश्वकर्णो महाद्रुमः ॥ 138 ॥
तत्रशूलं समुत्पन्नं तत्रैव विलयं गतम् ।
मन्त्रेणानेन मुद्राम्भो निपीतं सप्तमन्त्रितम् ॥ 139 ॥
सद्यःशूलहरं प्रोक्तमिति भालुकिभाषितम ।
अनया मुद्रया युक्तं[14] तैलमग्नो प्रतापितम् ॥ 140 ॥
लेपितं हन्ति वेगेन शूलं यत्र क्वचिद् भवेत् ।
सद्यः सूतिकरं नार्याः सद्यो नेत्ररुजापहम् ॥ 141 ॥

चपलभेदास्तेषां फलाफलवत्वम्

गौरः श्वेतोऽरुणः कृष्णश्चपलस्तु चतुर्विधः ।
हेमामश्चैव ताराभो विशेषाद्रसबन्धनः ॥ 142 ॥
शेषो तु मध्यौ लाक्षावच्छीघ्रदावौ तु निष्फलौ ।
वंगवद् द्रवते बहनौ चपलस्तेन कोर्तितः ॥143 ॥

चपलगुणाः

चपलो लेखनः स्निग्धो देहलोहकरो मतः ।
रसराजसहायः स्यात्तिक्तोष्णमधुरो मतः ॥ 144 ॥
चपलः स्फटिकच्छायः षडस्रः स्निग्धको गुरुः ।
त्रिदोषघ्नोऽतिवृष्यश्च रसवन्धविधायकः ॥ 145 ॥
महारसेषु कैश्चिद्धि चपलः परिकीर्तितः ।

शोधनम्

जम्बीरकर्कोटकभृंगवेरैर्विभावनाभिश्चपलस्य शुद्धिः ॥ 146 ॥

सत्वपातनम्

शैलः तु चूर्णयित्वा हि[15] धान्याम्लोपविमैर्विषैः ।
पिण्डं बद्धवा तु विधिवत्पातयेच्चपलं सदा[16] ॥ 147 ॥

रसकभेदाः

रसको द्विविधः प्रोक्तो दर्दुरः कारवेल्लकः ।
सदलो दर्दुरः प्रोक्तो निर्दलः कारवेल्लकः ॥ 148 ॥
सत्वपाते शुभः पूर्वो द्वितीयश्चौषधादिषु ॥ 149 ॥

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[14] .... तप्तं तैल मग्नौ मूनिश्चितम् ।
[15] तु
[16] तथा

रसकगुणाः

रसकः सर्वमेहघ्नः कफपित्तविनाशनः ।
नेत्ररोगक्षयघ्नश्च लोहपारदरंजनः ॥ 150 ॥

रसरसकयोर्वैशिष्ट्यम

नागार्जुने संदिष्टौ रसश्च रसकावुभौ
श्रेष्ठौसिद्धरसौ ख्यातौ देहलोहकरौ परम् ॥ 151 ॥
रसश्च रसकश्चोभौ येनाग्निसहनौ कृतौ ।
देहलोहमपीसिद्धिर्दासी तस्य न संशयः ॥ 152 ॥

रसकशोधनम्

कटुकालाबुनिर्यासि आलोड्य रसकं पचेत् ।
शुद्धं दोषविनिर्मुक्तं पीतवर्णं च जायते ॥ 153 ॥

द्वितीयो विधिः

खर्परः परिसंतप्तः सप्तवारं निमज्जितः ।
बीजपूररसस्यान्तर्निमलत्वं समश्नुते ॥ 154 ॥

तृतीयो विधिः

नृमूत्रे वाऽश्वमूत्रे वा तक्रे वा कांजिऽकेथवा ।
प्रताप्य मज्जितं सम्यक् खर्परं परिशुद्धयति ॥ 155 ॥

रसकस्य रंजकत्वम्

नरमूत्रेस्थितो मासं रसको रंजयेदध्रुवम् ।
शुद्धं ताम्रं रसं तारं शुद्धस्वर्णप्रभं यथा ॥ 156 ॥

रसकसत्वयातनम्

हरिद्रात्रिफलारालसिन्धुधूमैः सटंकणैः ।
सारुष्करैश्च पादांशैः साम्लैः संम्मर्द्य खर्परम् ॥ 157 ॥
लिप्तं बृन्ताकमूषायां शोषयित्वा निरुद्धय च ।
मूषां मुखोपरि न्यस्य खर्परं प्रद्यमेत्ततः ॥ 158 ॥
खर्परे प्रद्रुते ज्वाला भवेन्नीला सिता यदि ।
तदा संदंशतोमूषां धृत्वा कृत्वा त्वधोमुखीम् ॥ 159 ॥

शनैरास्फालयेदभूमौ यथा नालं न भज्यते ।
वंगाभं पतितं सत्वं समादाय नियोजयेत् ॥ 160 ॥
एवंत्रिच्चुरैर्वारैः सर्वे सत्वं विनिःसरेत् ।

द्वितीयोविधिः

सामयाजतुभूनागनिशाधूमजटंकणम् ॥ 161 ॥
मूकमूषागतं ध्मातं सत्वं मुंचति खर्परम् ॥

तृतीयोविधिः

लाक्षागुडाऽसुरीपथ्याहरिद्रासर्जटंकणैः ॥ 162 ॥
सम्यक् संचूर्ण्यतत्पक्वं गोदुग्धेन घृतेन ॥
वृन्ताकमूषिकामध्ये निरुद्धय गुटिकाकृतम् ॥ 163 ॥
ध्मात्वा ध्मात्वा समाकृष्य ढालयित्वा शिलातले ॥
सत्वं वंगाकृतिग्राह्यं रसकस्य मनोहरम् ॥ 164 ॥

चतुर्थो विधिः

यद्वाजलयुतां स्थालीं निखनेत्कोष्ठिकोदरे ।
सच्छिद्रं तन्मुखे मल्लं तन्मुखेऽधोमुखीं क्षिपेत् ॥ 165 ॥
मूषोपरि शिखित्रांश्च प्रक्षिप्यं प्रधमेद दृढम् ।
पतितं स्थालिकानीरे सत्यमादाय योजयेत् ॥ 166 ॥

रस सत्वभस्मीकरणम

तत्सत्वं तालकोपेतं प्रक्षिप्यखलु खर्परे ।
मर्दयेल्लोहदण्डन भस्मीभवति निश्चितम् ॥ 167 ॥

रसक सत्वरसायनम्

तद्भस्ममृतकान्तेन समेन सह योजितम् ।
अष्टगुंजामितं चूर्णं त्रिफलाक्वाथसंयुतम् ॥ 168 ॥
कान्तपात्रस्थितं रात्रौ तिलजप्रतिवापदम् ।
निषेवितं निहन्तयाशु मधुमेहमपिध्रुवम् ॥ 169 ॥
पितं क्षयं च पाण्डुं च श्वयथुं गुल्ममेव च ।
रक्तगुल्मं च नारीणां प्रदरं सोमसंज्ञकम् ॥ 170 ॥
योनिरोगानशेषांश्च विषमांश्च ज्वरानपि ।
रजःशूलं च नारीणां कासं श्वासं च हिध्मिकाम ॥ 171 ॥

RASA RATNA SAMUCCAYA

SECOND CHAPTER

ENGLISH TRANSLATION

RASAS

Abhraka (mica), *vaikrānta* (tourmaline), *mākṣika* (pyrites), *vimala* (iron pyrite), *adrija* (bitumen), *sasyaka* (blue vitreol), *capala* (bismuth ore ?) and *rasaka* (zinc ore?) are known as eight *rasas*. These should be collected after proper identification (1).

Mythological Identity of Gandhaka (Sulphur) and Abhraka (Mica)

Gandhaka and *abhraka* are considered identical to *rajas* (menstrual discharge) and *śukra dhātu* (reproductive secretion) of Devī (goddess) Pārvatī, respectively.

ABHRAKA (MICA)

Properties (Pharmacotherapeutic and alchemical):

Gaurītejas-Abhraka (mica) is claimed to have the following properties. It is very much similar to nectar, destroyer of vitiated *vāta*, *pitta* and *kṣaya* (wasting disease), arouses intelligence, pacifies illness, acts as vigourating agent, produces longevity, promotes strength. It is unctuous, relishing and prevents vitiation of *kapha*, acts as digestive stimulant, possesses cooling effects and when added with different *yogas* (compounds) destroys all the diseases and claimed as the binder of mercury (*pārada-bandhī*). (2).

Collection of Abhraka from Mines :

Only the *Ghana/Abhraka* which is digged from the depth of one *rājahasta* (about 22½ inches) in the mines is considered to possess the above mentioned properties, and that which is other than this *i.e.* obtained from the upper part may be considered as without *satva* (metallic content) and is useless (3).

Varieties of Abhraka :

Pināka, *nāga*, *maṇḍūka* and *vajra* are the four main varieties of *abhraka*. Each one is again divided in four types on the basis of colour, *i.e.*, white, red, yellow and black (4).

Characteristics of each Variety :

Pināka :

When heated on *agni* (fire) it sets its *dalas* (layers/folds) free and if taken internally it is claimed to kill the man by producing *malabaddhatā* (intestinal obstruction due to fecal matter).

Nāga :

When heated on *agni* it produces a specific type of hissing sound like that of snake and if taken internally it may give rise to *maṇḍala kuṣṭha* (a type of leprosy) undoubtedly.

Maṇḍūka :

When heated on *agni* it bursts into fragments/pieces and falls here and there like a jumping frog and if taken internally it produces *aśmarī roga* (urinary calculus) uncurable without surgery.

Vajra :

When heated on *agni* its form remains unchanged. It is claimed to be *dehakara* (transformer of body tissues), *lohakara* (transformer of base metals) and *sarvarogahara* (curative for all diseases (5–8).

Varieties and Uses of Abharaka based on Colour :

White, red, yellow and black are the four varieties of *abhraka* according to colour. The white one is useful for silver making, the red one is recommended for dyeing purposes, while the yellow mica is best for gold making. Though all the four varieties of *abhraka* are considered valuable for *rasāyana karma* (for therapeutic and body rejuvenating purposes) the black one is claimed million times better in properties than the others (9–10).

Characteristics of Best Abhraka :

The *abhraka* which possesses the following characteristics is considered best, *viz.*, brilliancy, thick and well defined cleavage planes, varied colours, heaviness, and easily separable folds (11).

Suitability of Abhraka for Grāsa :

The *abhraka* having a splendid and rusted iron like appearance is not considered suitable as solute (*grāsa*) for mercury. The mercury having consumed solute (grāsa) is only recommended for *loha karma* (metallic transformation) and *rasāyana karma* (body rejuvenation (12).

Advantages and Disadvantages of Sacandrika and Niścandrika Abhraka :

The *abhraka* which is free from splendid/shining and which is converted to ashes should be used internally in all diseases. The splendid mica if taken internally gives rise to *meha* (urinary disorders) and *mandānala* (dyspepsia/mildness of digestive fire). (13).

Those who advise the use of mica in its original form for *rasāyana* (therapeutic or body rejuvenating) purposes are considered illogical because they are like those who advise the use of *kālkūṭa viṣa* (a virulent poison) for life saving purposes.

Hence for obtaining *satva* (essence/metallic content) and for internal uses mica should be used in purified form only, otherwise it positively gives rise to many undesired symptoms. (14, 15).

Pharmaceutical Processings of Abhraka :

A. *Purification :*

Method : Abhraka heated strongly and dipped in *Kāñji* (sour gruel liquid) for seven times becomes free from *doṣas*. Instead of *kāñji*, *gojala* (cow's urine), *triphalā kvātha* (decoction of *triphalā*) and *godugdha* (cow's milk) may also be used for this purpose. (16).

B. *Incineration :*

First method : Abhraka purified and made into *dhānyābhraka* should be triturated with *matsyākṣī* juice and made into pellets. Allow these to dry and apply heat by means of *Ardha Gajapuṭa i.e.* by using half the quantity of cow dung cakes recommended for *Gajapuṭa* heating. Apply further six *puṭas* using *punarnavā* juice, for trituration. Then grind *abhraka* with 1/16th part *taṅkaṇa* (borax), make its pellets and subject it again to half *Gajapuṭa* heating for seven times to complete the process.

Second method : In the same way the purified *abhraka* should be subjected to above mentioned *puṭa* heating, triturating it with either *vāsā* juice or *taṇḍūlīya* juice and repeating the process for seven times with each drug.

Abhraka bhasma prepared as above may be used in all the *yogas* (compounds). (17-20).

Method of Dhānyābhraka :

The purified and powdered *abhraka*, mixed with *śāli* (a variety of rice) and tied in a cloth should be kept in *kāñji* for three days. Thereafter it should be rubbed vigorously to force the fine particles of *abhraka* to come out of the cloth. This fine powder of *abhraka* is called *Dhānyābhraka*. (21).

Incineration of Dhānyābhraka :

Dhānyābhraka triturated with *kāsamarda* juice and heated by *puṭa* system for ten times converts into ashes undoubtedly. In the same way it may also be incinerated by triturating it with *mustā* juice and *taṇḍulīya* juice and heating by *puṭa* system. (22).

Second Method: *Abhraka*, ground with the juice of *pīta* (*haridrā*) and *āmalaka* in association with *saubhāgya* (borax) and made into pellets, when heated by *puṭa* system for sixty times converts into ash of *sindūra* (red) colour. It cures *kṣaya* (wasting), *etc.* diseases if used with different *anupānas* (adjuvants). (23).

Third Method: *Abhraka*, ground with the decoction of the root bark of *vaṭa*, juice of *tāmbula* leaf, juice of *vāsā*, juice of *matsyākṣī*, juice of *mīnākṣī* and juice of *kaṭhillak* or with the latex of *vaṭa vṛkṣa*, when heated by *puṭa* system for twenty times converts into ashes which resembles *sindūra* in colour. (24, 25).

Fourth Method: *Abhraka*, mixed with *guḍa* and triturated with *Gandharva-patra* juice and placed in between *Vaṭapatras*, when subjected to *puṭa* heating converts into ashes within three *puṭas* only. This ash is claimed to be free from any shine of mica. It stimulates appetite very much when used in a dose of half *guñjā* (about 62.5 mg) and if used with other compounds destroys all the diseases. (26, 27).

Abhraka Satvapātana (*Extraction of metal content*):

First Method: *Abhraka*, mixed with 1/4 part *taṅkaṇa* (borax) and triturated with *muśalī* juice and closed in a crucible, when heated strongly in a *Koṣṭhī* (special furnaces mentioned for *satvapātana*), liberates its *satva* (essence/metal content). (27)

Second Method: *Abhraka* ground with the juices of *kāsamarda ghana*, *mustā*, *dhānyaka*, *vāsā*, *punarnavā*, *matsyākṣī*, *kāṇḍvallī* and *haṃsapādī* should be dried in sun rays. It is then mixed with *godhūma cūrṇa* (wheat flour), *kṣudra matsya cūrṇa* (powder of small fish), and *taṅkaṇa cūrṇa* (borax powder) in 1/8th part and ground well. This mixture is then triturated with *pañcāja* (five liquids of goat), *pañca gavya* (five liquids of cow) and *pañca māhiṣa* (five liquids of buffalo) separately and made into *golakas* (pellets equal to the size of *tinduka* fruits. After drying fill these pellets in a crucible and apply strong heating in *satvapātana koṣṭhī* (special furnace) so as to extract its *satva* (metal content). In *pañcāja payas* (milk), *dadhi* (curd), *ghṛta* (ghee), *mūtra* (urine) and *mala* (fecal matter) of goat are included (29-33).

Collection of Satva (*Metal content*) *from the Kiṭṭa*:

Collect the *kiṭṭa* (scum of *abhraka* from the *satvapātana* furnace, powder it and take out the granules of *satva* (metal) from it. The remaining *kiṭṭa* (scum) may be mixed with a small quantity of *taṅkaṇa* and cow dung and should be made into circular pellets after proper grinding. These circular pellets be dried in sun rays and heated by the method mentioned earlier to collect the *satva* again. Repeat the process till the total *satva* (metal content) is extracted from the scum. (34, 35).

Purification of Satva :

For purification the granules of *satva* obtained as above be boiled with *amla kāñjika* (sour gruel liquid) and be mixed with the drugs of *sodhanīya gaṇa* (purifying group) and sealed in a closed crucible. Thereafter strong heat should be applied sufficient to melt it and then collect the *satva*. Repeat the process two times. In this way the *satva* of *abhraka* (metal content of mica) becomes pure and suitable for internal use in *rasa karma* (mercurial processings) and *rasāyana karma* (rejuvenating therapeutic purpose) both. (36-37).

Softening of Satva :

The hard *satva* materials like iron, *etc.*, may be melted and poured into honey, oil, *vasā* (fat), and ghee separately. Repeat the process ten times to make the *satvas* soft. By this process any of the hard *satvas* (metallic contents) become soft. (38).

Incineration of Abhraka Satva

The fine powder of *abhraka satva* immersed in cow's ghee should be fried seven times in an earthen dish kept on the small furnace. Frying should be done till the material turns red or dried grass put on the dish burns. After each frying the material may be powdered. Thereafter mix it with equal part of *gandhaka* (sulphur) and triturate it with the decoction of *vaṭamūla* and apply heating by the *puṭa* system using *varāha puṭa* for twenty times, Again it should be triturated with *triphalā* decoction and heated for twenty times applying the same *puṭa* heating. Thereafter it should be given the *bhāvanā* (immersed) with the juices or decoctions of *triphalā, muṇḍikā, bhṛṅgapatra, pathyā, akṣa*, and *mūlaka* and dried. Now thisp reparation becomes suitable for use in all the diseases in prescribed doses. If this preparation is prepared by applying above mentioned 100 *puṭas* then it becomes very powerful, highly digestive and digestive fire stimulant.

There is no other substance superior to *abhraka satva* (metal content of mica) which is free from the bad effects and possesses better properties. (39-44).

Vyoma Satva Śodhaṇa and Māraṇa Vidhi :

Strongly heated mass of *abhraka satva* should be dipped in *kāñji* containing grass. Crush it immediately with iron hammer. Now the coarse granules of *abhraka satva* should again be heated strongly and dipped in *kāñji* and powdered immediately by hammering. This powder may then be fried with cow's ghee three times. The frying may also be done with the juice of *dhātrīphala*. After each frying, the mixture should be ground on a stone plate. In the end this powder may be triturated with *punarnavā* and *vāsā* juice mixed with *kāñji* and subjected to heating by *puṭa* system for ten times. Another ten *puṭas* be applied with sulphur

also. In this way *abhraka satva* becomes purified and incinerated and develops highly superior properties. This *satva* may be used for *jāraṇa karma* (for consuming in mercury) and *rasāyana karma* (therapeutic purposes) as per necessity. (45-50).

Therapeutic uses of Divyābhra Rasāyana :

The *divyābhra rasāyana* associated with *vella* (*Embelia ribes*) and *vyoṣa* (*trikatu*) and mixed with ghee when used in a dose of one *valla* (3 guñjā—about 375 mg) destroys *kṣaya* (wasting), *pāṇḍu* (anaemia), *grahaṇī* (sprue syndrome), *āmaśūla* (abdominal pain due to indigestion), *kuṣṭha* (leprosy), *jūrti* (fever), *svāsa* (*asthma*), *prameha* (urinary disorders), *aruci* (unrelishness), *durdhara kāsa* (severe cough), *mandāgni* (mildness of digestive fire) and *jaṭhara vyathā* (colic/acute abdominal pain). If it is used in combination with other *yogas* (compounds) it may cure all the diseases. (51).

Abhraka Druti (*Liquefaction of Mica*) :

The methods for preparing *druti* (liquefaction) have not been mentioned here though these are commonly seen in other texts, as *drutis* have been considered impossible to be prepared without the blessing of Lord Śiva. (52).

VAIKRĀNTA (TOURMALINE)

Characteristics of Vaikrānta :

That which possesses eight edges, eight facets, six angles and which is smooth, heavy and associated with single or many mixed colours is called *vaikrānta*. (53).

Varieties of Vaikrānta :

Vaikrānta is described to be of the following eight varieties as per colour, *viz.*, white, red, yellow, blue, having pigeon like shade (blue black), black, and variegated colour. (54).

Therapeutic properties of Vaikrānta :

Vaikrānta is supposed to prolong the life span and to strengthen the body, produces fair complexion, acts as a very vigorating agent, arouses intelligence, destroys all the diseases produced by the vitiation of all the *doṣas* (*vāta*, *pitta* and *kapha*), acts as digestive stimulant and possesses the properties like those of diamond, *i.e.*, energetic, body strengthening, *loha kāri* (metallic transformer), *etc. Vaikrānta* is considered as one of the most powerful *rasāyana* drug amongst all the *mahārasas*. It may be used in place of diamond and can destroy all the *doṣas* of the body. As regards its effects on body and metals it is considered equal to *vajra* (diamond). It destroys poisons (acts as anti-toxic agent), fevers, leprosy, and wasting diseases and is considered as the King of *Rasas* (minerals of this group). (55-57).

Mythological origin of Vaikrānta :

Mahiṣāsura the king of demons who happens to achieve all the *siddhis* (super human powers) and who happens to be born with gods, was killed by the Goddess *Bhagavatī Durgā* with her weapon *śula* (trident). During this act whereever on the earth his blood drops have fallen, from all those places *vaikrānta*, which looked like diamond, took its origin and is considered as one of the *mahārasas*. (58-59).

Occurrence of Vaikrānta :

It occurs in the north and/or south of Vindhya or in the Vindhyan range. As it cuts down the metals or produces deformity in the metals, it is called *vaikrānta*. (60).

Types of Vaikrānta :

White, yellow, red, blue, pigeon coloured, peacock neck like, and emerald like coloured are the seven types of *vaikrānta*. (61).

Usefulness of each type :

The black variety of *vaikrānta* may be used for achieving *dehasiddhi* (transformation of body tissue), the yellow variety is used for *pīta karma* (gold making), the white variety is used for *sita karma* (silver making), the red and green varieties are used for obtaining all types of *siddhis* (worldly objectives/super human powers). The remaining two varieties should be discarded for therapeutic uses as these are considered to be without effects. Thus, *vaikrānta* is of seven types. (62, 63).

Method of Collection :

The clean hearted man, having worshipped Lord *Bhairava* and *Vināyaka* should collect *vaikrānta* from all those places, whereever it is found. (64).

Pharmaceutical processing of Vaikrānta :

A. *Purification :*

Vaikrānta becomes purified if it is subjected to boiling for three days in the following liquids containing *kṣāras* (alkalies) and *lavaṇas* (salts). The liquids are *amla-dravas* (acidic liquids), *mūtras* (urines), and the decoctions of *mulattha, rambhā* or *kodrava*. It is also purified by subjecting it to *svedana* (boiling) in *kulattha kvātha*.

B. *Incineration*

First Method : It converts to ashes when subjected to heating by *puṭa* system for eight times, mixed with equal quantity of sulphur and ground with lemon juice. (65, 66).

Second Method : Pour *haya mūtra* (horse urine) first on the strongly heated *vaikrānta* repeatedly. Then this should be triturated with horse urine and heated by *puṭa* system. The *vaikrānta* converted to ashes as above becomes suitable for use in place of diamond. (67, 68).

C. *Satvapātana :*

First Method : Macerate the *kṣāras* of *moca, moraṭa,* and *palāśa* with cow's urine. Prepare a paste of *vajrakanda, niśā* and *triphalā cūrṇa* with cow's urine. Add the above *kṣāras* and the paste to *vaikrānta* in equal proportion. Also add *tañkaṇa* (borax), *lākṣā cūrṇa* and *narasāra cūrṇa* (ammonium chloride) to above mixture in equal quantity and triturate the mixture with *meṣasṛṅgī* juice/decoction and prepare its *piṇḍa* (bolus). Put it in the *mūṣā* (crucible) and heat strongly by the method of *satvapātana.* In this way *vaikrānta* yields its *satva* (metal content) definitely. (69-71).

Second Method : Vaikrānta associated with the above mentioned *satvapātana* drugs should be ground and made into pellets and kept in a crucible; the paste when heated strongly for one *ghaṭikā* (twenty four minutes) liberates its *satva* (72).

Vaikrānta Rasāyana I :

Vaikrānta converted to ashes and mixed with 1/4th part *gold bhasma,* associated with *kaṇā, ājya* (ghee) and *vella* and used internally in a dose of one *guñjā* (about 125 mg) destroys *yakṣmā* (phthisis), *jarā* (senility), *pāṇḍu* (anaemia), *arśa* (piles), *śvāsa* (asthma), *kāsa* (cough), *duṣṭa grahaṇī* (severe sprue syndrome), *urahkṣata* (chest injury), *etc.* diseases. It is also used to transform body tissue. (73).

Vaikrānta Rasāyana II :

Mix *nīla vaikrānta bhasma* with half quantity *pārada-bhasma* (*rasa sindūra*) and *abhraka satva bhasma* equal to both and grind well. This mixture associated with honey and ghee when used internally in a dose of one *guñjā* once in morning destroys all the diseases within twenty one days considered incurable otherwise. Itse ffects are comparable with that of *Gangā* water which destroys all the sins of mankind. (74-76).

MĀKṢIKA (PYRITES)

Mythological origin and occurrence of Mākṣika :

According to ancient concept *suvarṇa mākṣika* is claimed to get its origin from *Suvarṇa Śaila* (*Sumeru Parvata*). It was also said to be obtained from *Tāpī* river, *Kirāta, Cīna,* and *Yavana deśa* (Muslim countries). The mineral which is obtained from *Tāpī* river should be collected in *vaisākha māsa* (about April) when the river water gets dried due to intense sun heat (77-78). The mythological origin

of *mākṣika* is described to be related to Lord *Viṣṇu* who allowed the yellowish exudate of *Suvarṇa Śaila* to be collected in *Tāpī* river, *Kirāta, Cīna* and *Yavana deśa.* This, when dried due to intense sun heat in *Vaiśākha māsa*, used to be called *tāpya* or *mākṣika.* (77-78).

Properties of Mākṣika (Pharmacological and therapeutic) :

The golden coloured *mākṣika,* looks like gold, possesses 'sweet taste' and the silver coloured *mākṣika,* looks like silver, possesses *'sour taste'*, followed by slight astringent and sweet taste. *Mākṣika* is *śīta* in *virya* (possesses cooling effect) and *kaṭu* in *vipāka* (converts pungent after digestion) and *laghu* (light) in property. It is further claimed that on internal use it prevents *jarā* (ageing process), *vyādhis* (the onset of diseases) and poisons, *i.e.*, it can save the man from the effects of *jarā, vyādhi* and *viṣa.* (79).

Therapeutic Properties of Mākṣika :

Mākṣika dhātu is claimed to destroy all the diseases. It is considered as the *prāṇa* (vital substance) for *rasendra* (mercury) and vigourating agent of superior quality for the body. It helps in the formation of alloys of two metals which is otherwise considered difficult, possesses superior properties and considered best amongst all the *rasāyanas* (rejuvenators). (80).

Varieties and occurrance of Mākṣika :

Hema mākṣika (copper pyrite) and *tāra māksika* (iron pyrite) are the two varieties of *mākṣika.* Of the two the first variety which occurs in *Kānyakubja* area possesses a lustre similar to that of pure gold and that which is obtained from the banks of *Tāpti* river possesses a lustre similar to *pañca varṇa suvarṇa, i.e.*, inferior quality gold). The second variety contains more of stony portion and is called *tāra mākṣika.* It is claimed to possess less therapeutic properties. (81, 82).

Pharmaceutical processings of Mākṣika :

A. *Purification :*

Mākṣika becomes purified when it is fried with *eraṇḍa taila* and *luṅgāmbu* or with *kadalīkanda toya* for two *ghaṭikās* (48 minutes). It is also purified by heating it to red heat and then dipping the same in Varā Kvātha (Triphalā decoction). (83).

B. *Incineration :*

First Method : *Mākṣika* mixed with equal quantity of *gandhaka* and triturated with *mātuluṅgāmbu,* when closed in a *mūsā* and heated by the system of *varāha puṭa* five times becomes *mṛta* (converted to ashes) definitely. (84).

Second Method: *Mākṣika* treated with *eraṇḍa sneha*, *gavyājya* (cow's ghee) and *mātuluṅga rasa* when applied strong heating in an earthen dish converts into red coloured powder—similar to *dhātu* (red ochre). *Mākṣika* made *mṛta* (converted to ashes) as above may be used for *rasa karma* (mercurial processing) and *rasāyana karma* (rejuvenation of body tissues). (85, 86).

C. *Extraction of metallic content:*

First Method: *Mākṣika* mixed with 1/30th part of *nāga* (lead) and triturated with *kṣāra* and *amla dravas* when heated strongly in an open crucible yields its *satva* (metal content). This *satva* of *mākṣika* when liquefied by strong heating and poured into *nirguṇḍī* juice for seven times becomes free from *nāga* (lead) impurity definitely which has been mixed while it is being processed for *satvapātana*. (87, 88).

Second Method: *Mākṣika* macerated with *kṣaudra* (honey), *gandharva taila*, *gomūtra* (cow's urine), *ghee* and *kadalīkanda sāra* (juice) separately when subjected to strong heating in a crucible yields its *satva* similar to *śulba* (copper) in colour and softness. (89).

Characteristics of Pure Mākṣika Satva:

The pure *mākṣika satva* possesses the following characters, *viz.*, it should look similar to *guñjābīja* in colour, must be quick melting and possess cooling effect. It is considered as the best health promoter and metallic transformer. (90).

Mākṣika Rasāyana:

Mākṣika satva ground with equal part of *pārada* (mercury) and made into amalgam should be added to equal quantity of *gandhaka* and ground well. Now add *abhraka satva druti* (liquefied mica essence) to this mixture and prepare its pellets. These then be subjected to heating by *lavaṇa yantra* system for half day (six hours) applying slow heat. On self cooling powder it and use it internally in a dose of one *valla* along with *vyoṣa* (*trikaṭu*), *viḍaṅga* and *madhu*. In this way it may destroy senility, diseases, untimely death and the diseases of bad prognosis within seven days. Even *sudhā-rasa* (nectar) is not equal to it in properties. (91-93).

D. *Liquefaction of Mākṣika Satva:*

Prepare a mixture of *guñjā kṣaudra* (honey) and *ṭaṅkaṇa* (borax) with *eraṇḍa taila* by grinding. Pour this mixture little by little over the *mākṣika satva* being heated strongly. This makes it to liquefy easily. (94).

VIMALA (IRON PYRITE)

Varieties:

Vimala is of three types, *i.e.*, *hema vimala* (iron pyrite of golden colour), *tāra vimala* (iron pyrite of silver colour) and *kāṃsya vimala* (arseno pyrite of bronze colour). These are recognised by their respective shades. (95).

Characteristics and Therapeutic Properties of Vimala :

Vimala is described to possess following characteristics, *viz.*, it is cubic in shape, possesses angles and facets and looks brilliant. As regards pharmacotheraeputic properties *vimala* destroys vitiated *vāta* and *pitta doṣas*, acts as *vṛṣya* (vigour promoting/aphrodisiac agent) and best *rasāyana* (rejuvenator). (96).

Uses of Vimala :

The first variety is claimed useful for *hemakriyā* (gold making), the second one is *rūpyakṛt* (good in silver making) and the third variety is recommended for *bheṣaja prayoga* (therapeutics). These are supposed to possess better and better properties in reverse order. (97).

Pharmaceutical processing of Vimala :

A. *Purification :*

Like other *dhātus* (minerals) *vimala* becomes purified if it is boiled with the juice/decoction of *āṭarūṣa*, *jambīra* or *meṣaśṛṅgī*. (98, 99).

B. *Incineration :*

Vimala mixed with sulphur and triturated with *lakuca* juice and *amladrava* (acidic liquid) when subjected to heating by *puṭa* system for ten times, becomes *mṛta* (converted into ashes). (100).

C. *Extraction of metallic content :*

First Method : Vimala should be mixed with *taṅkaṇa* (borax), *lakuca drava* and *meṣaśṛṅgī* ash and ground well. Then it is pasted inside the *mūṣā* which should be closed after drying and heated strongly using six *prasthas* (about 6 kg) of charcoal. This is how its *satva* is obtained which looks similar to *sīsaka* (lead) in appearance. If mercury is mixed with it, it becomes best *rasāyana* (rejuvenator). (101, 102).

Second Method : Mix *vimala* with *kāṅkṣī* (alum), *kāsīsa* (green vitreol), *taṅkaṇa* (borax) and *vajrakanda* (a herbal drug), macerate it with *śigru toya* (juice). Add *mokṣaka kṣāra* and triturate it with *kadalī* juice. Close it in a *mūṣā* and heat strongly. This makes *vimala* to yield its *satva* (metal content) similar to *candrārka* (Sun or Moon), *i.e.*, of white colour. (103, 104).

Vimala Rasāyana :

The *vimala satva* mixed with equal part of mercury should be made into paste form by grinding. Add equal part of sulphur, three times *haritāla* (orpiment), five times *manaḥśilā* (realgar), 1/10th part *tārabhasma* (silver ash) and 1/10th part *vaikrānta bhasma* (tourmaline ash). Mix all together, prepare a fine powder and seive

it through a cloth. Fill it in a *kūpī*, apply heat carefully through *vāluka yantra* till extra sulphur is burnt. This compound of *vimala* associated with *vyoṣa* (*trikaṭu*), *varā* (*triphalā*) and ghee when taken internally may destroy fevers of different origin, *śotha* (oedema), *pāṇḍu* (anaemia), *prameha* (urinary disorders), *aruci* (unrelishness), *arśa* (piles), *grahaṇī* (sprue syndrome), various types of *śulas* (pains), *yakṣmā* (phthisis), *kāmalā* (jaundice) and all types of *paittika* and *vātika* disorders. Not only this, it may cure all the diseases when used with other compounds. (105-108).

Śilājatu (Bitumen)

Varieties of Śilājatu :

Śilājatu is described to have two varieties, the first one is known as *gomūtrādya* because of its smell similar to cow's urine. It is claimed to possess *rasāyana* property. The second one is called *karpūra pūrvaka*. The first variety is again divided into two types, *i.e.*, *sasatva* (with metallic content) and *nissatva* (without metallic content). Of the two the first one is considered better in properties. (109).

Origin and Occurrence of Śilājatu :

In summer due to the intense Sun heat *śilādhātu* comes out as an exudate from the lower part of the rocks of Himālaya mountain containing either *svarṇa* (gold), *rūpya* (silver) or *arka* (copper), metals as its constituents. (110).

Properties of Śilājatu :

The variety of *śilājatu* liberated from the gold containing mountain rocks is like *japāpuṣpa* (reddish) in colour, *guru* (heavy) in property. *susvādu* (madhura/ sweet) and slightly bitter in taste. It is considered as the best *rasāyana*. (111).

The variety of *śilājatu* originated from the silver containing mountain rocks is *pāṇḍura* (pale) in colour, *madhura* (sweet) in taste and *guru* (heavy) in property. It destroys *paittika* diseases and specially *pāṇḍu* (anaemia). (112).

The variety of *śilājatu* obtained from the copper containing mountain rocks is *nīla* (blue) in colour, *ghana* (dense) in structure and *guru* (heavy) in property. (113).

Test for Śilājatu :

The genuine *śilājatu* must take the shape of *liṅga* (penis) while put on fire, burn without producing smoke and remain undissolved in water. Only such sample is considered as *śuddha* (pure) *śilājatu*. (114).

Therapeutic Properties of Śilājatu :

Śilājatu definitely cures *pāṇḍu janya śopha* (general anasarca due to anaemia) associated with fever, destroys *meha* (urinary disorders) and *agnimāndya*

(dyspepsia). It is claimed as *medaccheda kara* (destroyer or splitter of fatty deposits). Removes *yakṣmā* (phthisis), *śulāmaya* (pains of different origin), *gulma* (gaseous trouble), *plīhā* (spleenic enlargement), *jaṭhara-śūla* (abdominal pain), *hṛcchūla* (angina), *āmadoṣa* (distress due to undigested food), all the skin diseases and what not. It is considered good for *deha* (body) and *loha* (metal) both. It is claimed further that the properties which are found in *rasa/mahārasa*, *uparasas* (minerals), *sutendra* (mercury), *ratna* (gems) and *loha* (metals) group of drugs are also found present in *śiladhātu* which make this mineral capable of conquering *jarā* (ageing process) and *mṛtyu* (death). (115, 116).

Pharmaceutical processing of Śilājatu :

A. *Purification :*

First Method : Śilājatu is purified by treating/washing it with alkaline solution, acidic solution and/or *gojala* (cow's urine). It is also purified by keeping it in an iron pan with *godugdha* (cow's milk), *triphalā kvātha* (decoction of triphalā) and *bhṛṅgarāja rasa* (juice of *Eclipta alba*). (117).

Second Method : Śilādhātu boiled with alkaline and acidic solutions containing *guggulu* (*Commiphora mukul*) through *svedana yantra* for one *ghaṭikā* (24 minutes) becomes purified. (118).

Note : In the first method heating is not mentioned while in the second method heating is also recommended. In practice also *śilājatu* is purified with two methods, the first one is called *sūryatāpī-śilājatu* where heat is applied through sun-rays for allowing *śilājatu* to dissolve in various liquids while the second one is called *agnitāpī śilājatu* in which heating is done on fire for dissolving it in liquids. During purification the undissolved materials of *śilājatu* are removed.

B. *Incineration of Śilājatu :*

Śilājatu mixed with equal parts of *śilā* (realgar), *gandhaka* (sulphur) and *tālaka* (orpiment) and triturated with *mātuluṅga rasa* (*Citrus medica* juice) when heated by *puṭa* system using eight dung cakes becomes *mṛta* (converted into ashes). (119).

Śilājatu Rasāyana

Śilājatu bhasma mixed with equal parts of *kānta bhasma* and *vaikrānta bhasma* and associated with *triphalā, trikatu* and ghee, when used internally in a dose of one *valla* (3 guñjā) may cure *pāṇḍu* (anaemia), *yakṣmā* (phthisis), *agnisāda* (dyspepsia), *meha* (urinary disorders), *mūlāmya* (piles), *gulma* (gaseous troubles), *plīhā* (spleenic enlargement), *udara roga* (abdominal diseases), pains of different origin and *yoni rogas* (diseases of female genital organ). If it is used by *rasāyana* method continuously for six months it is likely to make the man free from *vali* (wrinkles) and *palita* (greying of hairs) and also make him live hundred years enjoying worldly pleasures. (120, 121).

C. *Extraction of Matallic Content :*

Śilājatu should be ground with *drāvaka varga* and *amla varga* drugs. This should be put in a closed *mūsā* and heated strongly with charcoal fire. In this way *śilājatu* liberates its *lohanibha satva* (iron-like metal content) immediately. (122).

Karpūra Śilājatu (Potassium Nitrate) :

Karpūra śilājatu is *pāṇḍura* (pale) in colour and sandy/granular in appearance. It destroys *mūtrakṛcchra* (difficulty in micturition), *aśmarī* (urinary calculus), *meha* (urinary disorders), *kāmalā* (jaundice) and *pāṇḍu* (anaemia). (123).

Purification of Karpūra Śilājatu :

It is purified by triturating it with *elā toya*. Its *māraṇa* and *satvapātana* are not recommended by the experts. (124).

SASYAKA (BLUE VITRIOL)

Origin and occurrence of Sasyaka :

Mythologically *sasyaka* is claimed to have originated from the solidified vomit of *Garuḍa* (a mythical bird) which he vomited on the *Marakata* hill after having drunk *amṛta* (nectar) and then halāhala (a virulent poison). Hence the vomit contained *amṛta* and *viṣa* both.

Characteristics :

Sasyaka resembling the colour of peacock's neck and heavy in weight is considered best. (125, 126).

It is a general observation that the drugs mixed with poisons are found associated with better properties than the drugs alone just like the properties of sudhā (nectar) mixed with halāhala, which are certainly better in properties than plane *sudhā* (127).

Therapeutic properties of Sasyaka :

Mayūra tuttha destroys the *niśeṣa doṣas* (all the three vitiated *doṣas*), all types of *viṣas* (poisons), *hṛd rogas* (cardiac diseases), *guda sula* (pain in anus), *mūla (piles), kuṣṭha* (leprosy), and *amlapitta* (hyperacidity). It is claimed as the best *vibandha hara* (anticonstipative), *rasāyana* (rejuvenator), *vamana kara* (emetic) and *reka kara* (purgative). It is said to destroy *gara viṣa* and *śvitra* (leucoderma) also. (128).

Pharmaceutical processing :

A. *Purification of Sasyaka :*

First Method : Sasyaka is purified by subjecting it to *bhāvanā* (maceration) with the juice of *rakta varga* drugs and then treating it with *sneha varga* drugs (different oils) for seven times.

Second Method : For purification, *sasyaka* should be boiled in cow, buffalo, and goat's urine through *dolāyantra* method for three *praharas* (about 9 hours). (129).

B. *Incineration of Tuttha/Sasyaka :*

Tuttha kharpara/sasyaka mixed with equal parts of *gandhaka* and *taṅkaṇa* and triturated with *lakuca drava* when applied *kukkuṭa puṭa* heating after closing in a crucible becomes *mṛta* (converted into ashes). (130, 131).

C. *Extraction of Metallic Content of Tuttha :*

First Method : Powdered *sasyaka* mixed with 1/4th part *saubhāgya* (borax) should be kept in *karañja taila* for one day. Thereafter it should be closed in an *andha mūṣā* (closed crucible) and heated strongly using charcoal as fuel. In this way it yields a beautiful red coloured *satva* (metal content) similar to *indragopa* (a red coloured insect). (132, 133).

Second Method : *Sasyaka* mixed with 1/4th part of borax and triturated with lemon juice when heated strongly in a closed crucible liberates its *satva* (metal content) which looks like *tāmra* (copper) in appearance and colour.

Third Method : The purified *sasyaka* or *tuttha* mixed with the drugs mentioned above when processed with various *satvapātana* methods yields its *satva* (metal content) undoubtedly. (135).

Tuttha Mudrikā :

Take the *satva* of *sasyaka*, mix it with the *satva* of *kharabhūnāga* (essence of earthworms) and prepare its *mudrikā* (ring). This is claimed to destroy *śulas* (pains) in any part of the body by mere touch. This also destroys the effects of *carācara viṣa* and the influences of the demons and of the evil spirits by mere seeing. Its effects have been tried many times and the claims are well confirmed. The name of *Somasenānī* should be marked/ printed on the ring like that of *Rāma*, and also the words "There exists a great tree named *Aśva Karṇa* on the north of Himālaya, from where all types of *śulas* have originated and had disappeared". The water in touch of the above ring and consecrated seven times with the sacred *mantra* (hymn/text) when taken internally is claimed to destroy all the *śulas* (pains) immediately. This has been claimed by Bhālukī.

The oil heated on fire along with this ring when pasted/ointed/applied on body destroys immediately all kinds of pain produced in any part of the body. It (ring) also helps in easy child birth (evacuation of the foetus in ladies), and in destroying *netra rogas* (eye-diseases) immediately. (136–141).

CAPALA (BISMUTH ORE/TIN ORE)

Varietues :

Capala is described to have four varieties, *i.e.*, *gaura* (yellow), *śveta* (white), *kṛṣṇa* (black) and *aruṇa* (red). Of the four, yellow and white varieties are specially considered useful for *rasabandha* (solidification of mercury). The remaining two varieties are claimed ordinary in their usefulness, but if these are found to melt early at a low temperature like that of *lākṣā* then these are considered useless. It is called *capala* because it melts easily like *vaṅga* (tin) when heated on fire. (142, 143).

Properties of Capala :

Capala is considered *lekhana* (obesity reducing agent), *snigdha* (unctuous), *dehakara* (promoter of positive health), *lohakara* (transformer of base metals) and useful for mercury. It possesses *tikta* (bitter) and *madhura* (sweet) *rasas* (tastes) and is *uṣṇa vīrya* (hot in action). It is claimed to destroy all the three *doṣas* and acts as *ativṛṣya* (very vigorating agent). It makes mercury to fix/solidify. As regards physical properties, *capala* possesses the shades similar to *sphaṭika* (quartz) and also six edges. It is *snigdha* (brilliant) in appearance and *guru* (heavy) in weight. (144, 145).

According to some scholars *capala* is included in *mahārasa* group. But this statement seems meaningless here—as according to this text it is already included in *mahārasa* group. (146).

Pharmaceutical processing :

A. *Purification :*

Capala is purified by subjecting it to *bhāvanā* (maceration) with the juices of *jambīra*, *karkoṭaka* and *śṛṅgabera*. (147).

B. *Extraction of metallic content :*

The powdered mineral mixed with *viṣa* (poison), *upaviṣa* (subpoison) and *dhānyāmla* (acidic liquid) and made into *piṇḍa* form, when heated strongly yield its *satva*. (148).

RASAKA (ZINC BLENDE/ZINC ORE)

Varieties :

Rasaka is described to have two varieties, *i.e.*, *dardura* and *kārvelaka*. *Dardura* is said to possess *dalas* (lamellae) while *kārvelaka* is without *dalas*. The first variety is considered good for *satvapātana* purposes while the second one is for medicinal purposes. (149, 150).

Therapeutic Properties of Rasaka :

Rasaka is considered to be *sarva mehaghna* (destroyer of all types of urinary disorders) and *kapha pitta vināśana* (destroyer of vitiated *kapha* and *pitta doṣas*). It destroys *netra roga* (eye diseases), *kṣaya roga* (wasting disease) and may be used for dyeing of metals and mercury. Nāgārjuna has mentioned that both *rasa* (mercury) and *rasaka* (zinc blende) are called *siddha rasa* (very powerful minerals). These are claimed to be the best promoter of body health and transformer of metals. It is further claimed for *rasa* and *rasaka* that one who is able to make these thermostable could achieve *dehasiddhi* (success in therapeutics) and *lohasiddhi* (success in metallic transmutations) undoubtedly. (151-153).

Pharmaceutical processing of Rasaka :

A. *Purification :*

First Method : Mix *rasaka* powder in *kaṭutumbī* juice and heat it on fire to make it purified and free from impurities. (154).

Second Method : Kharpara (rasaka) made red hot and dipped in the juice of *bijapūra* seven times becomes purified.

Third Method : Kharpara (rasaka) made red hot and dipped either in *naramūtra* (human urine), *aśvamūtra* (horse urine), *takra* (butter milk) or in *kāñjika* (sour gruel liquid) several times becomes purified. (155, 156).

B. *Dyeing of Metals by Rasaka :*

If *rasaka* is kept in *naramūtra* (human urine) for one month, it acquires the power of dyeing pure copper, pure mercury, pure silver just like pure gold. (157).

C. *Extraction of metallic content :*

First Method :

Kharpara should be mixed with 1/4th part *haridrā, triphalā, rāla, saindhva, gṛhadhūma, taṅkaṇa* and *aruṣkara* powder, (and) triturated with any acidic liquid to make a paste. It may be pasted in a *vṛntāka mūsā*, after drying it may be closed by putting a *kharpara* (earthen lid) on its mouth. It is then subjected to strong heating till melting of the material which is evident from the blue or white colour of the flame. Now hold the *mūṣā* with the help of tongs, take it out and tilt its mouth towards earth slowly in such a way that the tube attached to *mūṣā* may not break. In this way *kharpara satva* (metal content of zinc blende) similar to *vaṅga* (tin metal) in appearance is obtained. Repeat the process three or four times to extract the complete *satva* from *kharpara*. (158-162).

Second Method : *Kharpara* mixed with *haritakī*, *śilājatu* (bitumen), *bhūnāga* (earthworm), *haridrā*, *gṛhadhūma* and *taṅkaṇa* and put in *mūkamūṣā* when heated strongly by the method of *satvapātana* liberates its *satva* (metal content). (163).

Third Method : *Rasaka* mixed with powdered *lākṣā*, *guḍa*, *rājikā*, *pathyā*, *haridrā*, *sarja rasa*, and *taṅkaṇa* may be heated with cow's milk and ghee. This, after being made into *guṭikā* and closed in a *vṛntāka mūṣā*, may be heated strongly again and again to yield its *satva* similar to *vaṅga* (tin) in appearance. (164, 165).

Fourth Method : Put a wide mouth pot full of water under the *satvapatana* furnace. Close its mouth with an earthen lid having many holes. Place the *mūṣā* containing *satvapātana* material on it, keeping its mouth down, close and seal its joints. Apply strong heating over the *mūṣā* using charcoals. In this way the *satva* of *kharpara* falls into the water and may be collected from there and used. (166, 167).

D. *Incineration of Kharpara Satva :*

Mix *kharpara satva* with *taṅkaṇa*, put it in an earthen lid and apply heat ; while heating it should be rubbed with an iron rod till the whole metal is converted into ashes. (168).

Kharpara Satva Rasāyana

Mix the *bhasma* of *kharpara* with equal part of *kānta bhasma*. Mix eight *guñjā* of this powder (mixture) with *triphalā kvātha* and keep it in a pot made of *kānta loha* over night. Add *tila* powder in it as *pratīvāpa*. This when taken internally definitely cures *madhumeha* (*Diabetes mellitus*). In addition to this it also cures *pitta* (vitiated *pitta doṣa*), *kṣaya* (wasting disease), *pāṇḍu* (anaemia), *śotha* (inflammation), *gulma* (gaseous trouble), *rakta gulma* (uterine lump), *pradara* (excessive menstural discharge), *soma roga* (polyurea in women), all the *yoni rogas* (vaginal disorders), all the *viṣama jvaras* (intermittent fevers), *rajaḥ śula* (pain during menstruation), *kāsa* (cough), *śvāsa* (asthma), and *hikkā* (hiccough). (169-172).

RASA RATNA SAMUCCAYA

NOTES ON SECOND CHAPTER

RASA/MAHĀRASA

Rasa or *mahārasa* is a group of minerals which have been recognised most useful for the potentiation of the properties of mercury. Almost all the *Rasa texts* have advised to include eight drugs in this group but different authors have made slight variation as regards the drugs, which is probably based on their experiences. In all, thirteen (13) drugs/minerals come under this group. Besides the eight drugs mentioned in *Rasa Ratna Samuccaya, kānta, darada, añjana, tuttha*, and *rājāvarta* are also included under this group by different authors. The textwise mention of drugs of this group are shown in the following table.

Table showing the textwise mention of drugs of mahārasa group.

	Name of the drugs	*R.R.S.**	*Rasārṇava*	*R.H.T.*	*R.R.*	*R.P.S.*
1.	*Abhraka*	+	−	−	−	+
2.	*Vaikrānta*	+	−	+	−	+
3.	*Mākṣika*	+	+	+	+	+
4.	*Vimala*	+	+	+	+	+
5.	*Adrija*	+	+	+	−	+
6.	*Sasyaka*	+	+	+	+	+
7.	*Capala*	+	+	−	+	−
8.	*Rasaka*	+	+	+	+	+
9.	*Kānta*	−	−	+	−	−
10.	*Darada*	−	+	+	+	−
11.	*Añjana*	−	+	−	+	−
12.	*Tuttha*	−	−	−	+	−
13.	*Rājāvarta*	−	−	−	−	+

R.R.S. = Rasa Ratna Samuccaya ; R.H.T. = Rasa Hṛdaya Tantra ; R.R. = Rasa Ratnākara ; R.P.S. = Rasa Prakāśa Suddhākara.

Abhraka (Mica) :

Mythologically, *abhraka* is said to be related to Goddess Pārvatī and is claimed to be her *śukra dhātu* (creative energy or force).

Its varieties are described on two basis, *i.e.*, (1) on the basis of its behaviour/ reaction towards fire, and (2) on the basis of colour.

Four varieties are mentioned in each group, thus the total varieties are sixteen and almost all the texts are unanimous on this point. Of these, the mica which remains unchanged in fire test and which is black is recommended for internal use. It is said to be free from all the ill effects and does not produce any disease or unwanted symptom in the body.

In modern science the concept of classifying mica on the basis of fire test (its behaviour towards fire on heating) is not noticed. It has been classified on the basis of colour or the contents. The following modern varieties can be taken as equivalent to the ancient varieties. Muscovite is white, biotite is black, phlogopita is yellow/green and lapidolite or lithium mica is reddish. From constituent point of view biotite is ferromagnesium aluminium silicate and muscovite is alkali mica.

In modern science mica is not known for its medicinal values, rather it is mainly used and known for its industrial values. But in Āyurveda it is extensively used for its alchemical and therapeutic values. For therapeutic uses it needs prior processing, *i.e.*, it has to be purified and incinerated. In ancient times its metallic contents were also being extracted and were claimed to be more effective than mica.

On purification, its stony contents and other thermolabile and soluble impurities are removed and the particles are made fine. On incineration its particles are made finer, its original chemical composition gets altered and certain new compounds are formed due to oxidation and reduction. Its ash is of brick red colour probably due to the formation of iron oxide. During incineration its lustre is destroyed completely and the final product is said to be free from any shine or lustre. For this it should first be heated to red hot and dipped in various liquids several times and then triturated with various vegetable extractives and heated by *puṭa* system upto 700–800°C till red or brick colour appears. For extracting metallic contents it is mixed with some organic drugs and borax and heated to a very high temperature. (1400°C) for reduction and separation of the metallic content. Mainly iron is obtained as its *satva* (metal content) which is considered useful for mercury processes and for *rasāyana karma* (rejuvenation purposes).

Vaikrānta (*Tourmaline*) :

Mythologically, *vaikrānta* is said to have originated from the blood drops of *Mahiṣāsura* (a great demon). Since ancient times it is a controversial mineral as some scholars included it in *mahārasa* group while others included it in *uparatna* (semi-precious stones) group. *Rasa Vāgabhaṭa* mentioned it to be similar to *vajra* (diamond) and recommended its use in place of *vajra*. This clearly indicates that it must belong to precious stone group and must possess properties similar to diamond. And because of this reason majority of scholars consider *vaikrānta* as tourmaline. Its seven varieties are described which are based on different colours

or shades it possess. Tourmaline is also known to have many colours and shades. Further, it is said to possess eight edges, eight facets and six angles which are also seen in *vaikrānta.*

From terminological point of view also *vaikrānta* is that which can cut metals or can cause deformity in the form of metals or can destroy metals.

Because of its similarity with diamond almost the same therapeutic properties as those of diamond are attributed to it. It is claimed as the best *rasāyana* and vigorating agent, promotes strength, energy and life span. Before being used internally for therapeutic purposes it needs some pharmaceutical processing, *i.e.*, purification and incineration. Its *satvapātana* method is also mentioned, but what metal is extracted by its *satvapātana* can not be said with certainty as the texts are almost silent on this point. In *Rasārṇava* the colour of its *satva* is mentioned, *i.e.*, it is similar to *indragopa* (red). While commenting on this point, Prof. D. A. Kulkarni mentions that the colour should be similar to that of copper. But actually what it is can not be said definitely.

At present, the mineral is not in use therapeutically.

Mākṣika (*pyrtte*)

Mythologically, *mākṣika* is said to be related to Lord Viṣṇu who is claimed to have made it from the golden colour exudate of *Suvarṇa Śaila* (golden mountain—*Sumeru*) in *Tāpī* river, *Kirata*, *Chīna* and *Yavana* countries. It can be seen in *Tāpī* river in *vaiśākha māsa* (April-May) when the exudate gets dried due to intense sun heat.

Rasa Ratna Samuccay describes its source, form, places of origin and specific time of collection. In ancient times *mākṣika* was being obtained from India and from other countries. In present days it is being obtained from Nepal, Bhutan and Burma, in addition to India.

Ancient texts mention its two main varieties based on colour, *i.e.*, *suvarṇa mākṣika* and *tāra mākṣika*. Of these, the former is better in properties than the later variety. The *suvarṇa mākṣika* is called chalopyrite which is a (mixture) compound of copper, iron and sulphur and is still considered the main ore (source) of copper. It contains 30-34% copper. It is a soft, brittle, uneven and golden coloured mineral which if rubbed on palm may produce blackness on it. In *Āyurveda Prakāśa* it is claimed to be the *upadhātu* of gold and to possess some gold like properties, hence advised to be used in place of gold, though in reality it does not contain gold even in traces. The present text further mentions that it contains not only the gold properties but possesses many other properties also because of the presence of other elements in it. On heating it starts burning due to the presence of sulphur and gives rise to SO_2.

Mākṣīka is considered very vital for mercury processing and is very useful in alloy making. It possesses many superior therapeutic properties, as it is highly *vṛṣya* (aphrodisiac), very good *rasāyana* (rejuvenator) and can cure all the diseases.

Like other minerals *māksīka* also need pharmaceutical processing before being used internally for therapeutic purposes. For purification it is to be fried with lemon juice till light red colour appears or should be heated to red hot and then dipped in *triphalā kvātha*. For incineration it should be triturated with lemon juice and heated by *puṭa* system using five *varāha puṭas*. The colour of its *bhasma* should be like that of *dhātu/gairika* (red ochre). As it contains copper, care should be taken while preparing its *bhasma* to make it free from the bad/toxic effects of copper.

For extracting metallic content it should be mixed with 1/4 part borax and triturated with lemon juice and then subjected to strong heating upto 1200°C. Though it melts at about 900°C, its metal content (copper) releases only at 1200°C. Its *satva* is very much similar to copper in colour and appearance. After removing the separated copper as *satva*, one may collect iron also from the slag.

The *tāra mākṣika* is golden white, does not contain copper, but contains only iron and sulphur. Because of its inferiority to *suvarṇa māksika* its pharmaceutical processings and pharmacotherapeutic properties and uses are not found described.

Note : Now a days in market the real chalcopyrite is usually replaced by iron pyrite (*tāra mākṣika*) hence only the *tāra mākṣika* is being used as *māksika* which is not proper.

Vimala (Iron Pyrite)

No mythological origin of *vimala* is described. Its three varieties based on colour are mentioned. These are *hema* or *pīta vimala*, *tāra* or *śukla vimala* and *kāṃsya* or *lohita vimala*. Chemically it is not much different from *tāramākṣika*. However, its form and appearance are very peculiar, *i.e.*, it is cubic, brilliant and associated with angles and facets. As per the present text, the third variety only is recommended for medicinal uses while the former two are advised for alchemical uses. In India it is available in abundance. Its chemical name is 'cubic sulphide of iron' which does not contain copper even in traces.

Therapeutic uses of *vimala* are limited. However, before internal use it also needs purification and incineration. For purification it should be subjected to heating through liquid bath. For incineration it is mixed with sulphur and triturated with prescribed herbal extractives and then subjected to heating by *puṭa* system ten times. For extracting its *satva* it is mixed with borax and triturated with vegetable extractives and then heated in a crucible to release the *satva* which is

mentioned to be similar to lead. Further, in the second method its colour is mentioned to be similar to *candrārka* (an alloy of silver and copper). Hence it seems that ancient scholars were not sure of the metal obtained as its *satva*. It may be pointed out here that for applying heat only six *prasthas* (kg) of coal are recommended which in no way are sufficient for extracting iron from it as *satva*.

Therapeutically it is claimed to be *vṛṣya* and *rasāyana* and pacifies *vāta* and *pitta doṣas*. A *rasāyana yoga* (compound) of *vimala is* also found mentioned which is claimed to be therapeutically most effective.

Śilājatu (*Bitumen/Mineral Pitch*)

Mythological origin of *śilājatu* is not described. However, it is said to have its origin in the form of exudate coming out of the lower portion of the rocks of Himālayan mountains in summer season, on account of the rock being heated by the intense sun heat. As these rocks may contain gold, silver, copper, *etc.* as their constituents the exudate coming out of these rocks might also contain gold, silver, *etc.* as its constituents, depending upon the contents of the rocks from which it is secreted.

Śilājatu is described to be of two types on the basis of smell. The first one is *gomūtra śilājatu* which possess a smell similar to that of cow's urine. The second one is *karpūra śilājatu*. It may not have a smell similar to *karpūra* (camphor) but its form is just like *karpūra*, *i.e.*, white and granular. The first one is further subdivided into two types on the basis of *satva*, *i.e.*, with *satva* and without *satva*. Of these, the type with *satva* is considered superior.

Further, in *Rasa Ratna Samuccaya* only three varieties of *śilājatu* are mentioned on the basis of constituent metals while in other texts four or even six varieties are described. Thus, according to different texts *śilājatu* is claimed to contain gold, silver, copper, iron, lead, or tin as its constituent. The characteristics and properties of each variety are also found described in the texts. Of all the varieties *loha śilājatu* is very common and considered the best.

Some texts describe the tests for the best and genuine *śilājatu* and according to these it should erect itself up straight if put on fire, burn without producing smoke, and should not dissolve in water immediately.

As for its properties it is mentioned that *śilājatu* is supposed to possess the properties of all the minerals, metals, gem stones, and even of mercury and to conquer *jarā* (ageing) and *mṛtyu* (death) on internal use, *i.e.*, it can be used for maintaining body health and destroying all kinds of diseases. It is also claimed to be *yogavāhī*, *i.e.*, it can enhance/potentiate the properties of the drugs/compound with which it is mixed and used.

In pharmaceutical processings purification, incineration and metal extraction methods are described. For purification, it should either be washed, macerated or steamed with various prescribed liquids. And for incineration, it is mixed with equal parts of *śilā*, *gandhaka* and *tālaka* and triturated with *mātuluṅga* juice and then subjected to heating with *puṭa* system using only eight cow dung cakes. For *satva-pātana* it is mixed with *drāvaka varga* drugs and triturated with any acidic liquid and then strongly heated in a *mūṣā*. Its *satva* is claimed to be *lohanibha* (similar to iron) which further indicates that only *loha śilājatu* is the commonly available variety.

For therapeutic uses *śilājatu rasāyana* (a compound of *śilājatu*) is found mentioned which if used by *rasāyana* method continuously for six months may make a person free from the wrinkles and greying of hairs and also enable him lead a happy and long life for hundred years.

Sasyaka (Blue Vitriol/Peacock ore)

Mythologically, *sasyaka* is claimed to be the solidified vomitted material of Garuḍa (a mythical bird) containing the properties of *viṣa* and *amṛta* both, as it is claimed to be vomitted by Garuḍa on Marakata (Nilagiri) hill after drinking *amṛta* and *halāhala viṣa* successively. It looks like peacock's neck and is very heavy in weight. On the basis of the above description it is difficult to identify it properly. However, on account of its similarity with peacock's neck, similarity of its properties to *viṣa* and *amṛta*, and its heaviness, it can be identified as a copper ore. This is further confirmed by the colour of its *satva* which is mentioned to be reddish, like an *Indragopa*. In the second method it is clearly mentioned that its *satva* is *tāmrarūpa* (similar to copper). Besides the above, its properties also closely resemble those of copper.

In pharmaceutical processing, its *sodhaṇa*, *māraṇa* and *satvapātana* processes are mentioned. For purification it is boiled with the urines of different animals or it is subjected to *bhāvanā* with liquids of *rakta varga* drug. For incineration it is mixed with sulphur and borax and triturated with *lakuca* juice and then subjected to heating by *puṭa* system using *kukkuṭa puṭa* specifically. For extracting metal content it should be mixed with borax and triturated with lemon juice, closed in a *mūṣā* and heated strongly with charcoal fire. In this way a copper like reddish metal is obtained as *satva*.

Tuttha mudrikā made of *sasyaka satva* and *bhūnāga satva* is also described in this text. It is considered very effective in destroying *śulas* (pains) of different origin, the effects of various poisons and also of the evil spirits by mere touch or look. The water consecrated and touched with this ring and the oil heated with this ring, if taken internally or applied externally, relieves pain immediately and

makes the delivery of child very easy. The text also claims that the effects of this ring are well experienced and confirmed.

Capala (*Bismuth or Tin ore* ?)

Since ancient times *capala* is considered to be a rare mineral/ore as in many texts its artificial manufacturing methods are found described. The methods for preparing *nāga sumbhava capala* and *vaṅga sumbhava capala* are the examples of this. Not only this, in a number of texts *capala* has not been found mentioned in any of the groups probably because of its non or uneasy availability. The statement in *Rasa Ratna Samuccaya* that only a few scholars have included it in *mahārasa* group further confirms its rareness. In pharmaceutical processing its *māraṇa* method is not described and colour of *satva* is not mentioned. This also confirms its rare nature.

Actually what is *capala* from modern point of view, can not be said definitely. Dr. Vamana Ganesa Desai writes in his work *Bhāratiya Rasa Śāstra* that *capala* of ancient times may be taken as *bismuth* which is very similar to tin metal, *i.e.*, its colour is white with slight pinkish tinge. It fuses very easily at a very low temperature and also helps in the quick fusion of associated metals. Because of these properties *capala* is considered very important in alchemy since ancient times. He further mentioned that the different varieties of *capala* may be compared with different bismuth minerals. Prof. D. A. Kulkarni also supports this view. A few scholars suggest that *capala* is selenium. According to the present author's view it may be either bismuth ore or tin ore, as the text in reference mentions that *capala* melts like tin in fire and is specific in making mercury solidified or fixed. Tin melts easily and if mixed with mercury immediately converts it into *bandha* (solidified/ powder) form. The *ativṛṣya* property attributed to *capala* also supports the view that it may be tin ore as the presence of tin in the mineral may account for its *ativṛṣyatva*.

In its description four varieties of *capala*, based on colour, are mentioned. Of the four, the white and the yellow varieties are recommended for internal use while the red and the black varieties are stated to be useless or without effects.

In pharmaceutical processing its purification is described to be by the *bhāvanā* of some vegetable extractives while the method of its *satvapātana* is somewhat confusing. In my opinion the text (verse) describing *satvapātana* method seems corrupt and needs correction.

Rasaka (*Zinc blende/Zinc mineral*)

For *rasaka* also no mythological origin is described. According to *Rasa Ratna Samuccaya* it has two varieties, *viz.*, *dardura* and *kāravellaka*. The first one is said

to have lamellae and is recommended for *satvapātana* purpose while the second one is without lamellae and is advised for medicinal uses. *Rasārṇava* however, mentions its three varieties, *viz. mṛttikā, guḍābha* and *pāṣāṇābha*. The first one looks yellow and like earth. It is claimed to be *satvarūpa* (with least impurities) and the best. Prof. Kulkarni takes it as zinc oxide. In fire test it does not loose its weight. The *guḍābha rasaka* is considered medium and looks like jaggery. It may be taken as zinc sulphide as due to the presence of sulphur its weight is lost in fire test. The *pāṣāṇābha* rasaka is considered inferior. It may be taken as zinc silicate or zinc carbonate. It is hard like a stone. In fire test it also losses its weight due to the release of CO_2. Thus, from variety point of view the description of *Rasārṇava* may be considered the best.

While describing its properties the text in reference mentions that in addition to its pharmacotherapeutic properties it is claimed to be the best dyeing agent for mercury and metals. The yellow colour of brass is due to zinc only. It further mentions that *rasa* and *rasaka* are the superior minerals (*siddha rasas*) and can impart complete success in alchemy and therapeutics if made thermostable.

In pharmaceutical processing its *śodhana* and *satvapātana* methods are mentioned. No *māraṇa* method however is described. For purification it is heated strongly and dipped in acidic or alkaline liquids. For extracting its metallic contents four methods have been described. For this it should be mixed with some vegetable drugs, animal products, and borax and heated strongly in a specified crucible for the release of its metal content (*satva*) which is said to be similar to *vaṅga* (tin metal). The term *yaśada* was not known/prevalent during those days and hence has not been referred to.

The method for preparing *bhasma* from the *satva* is also described. This method closely resembles the present day *jāraṇa* method, *i.e.*, the *satva* mixed with *tālaka* and put in an earthen lid/dish, is subjected to heating and rubbing with iron rod to convert it into ashes.

In the end the method of using it internally for therapeutic purposes is described by the name of *kharpara/rasaka satva rasāyana*. It is claimed effective in *madhumeha* (Diabetes mellitus) also along with other diseases.

Herbal drugs, mentioned in Chapter II, along with Latin names.

1.	Triphala/Varā	Fruits of *Terminalia chebula* (Retz.) *Terminalia beelerica* (Roxb.) *Embalica officinalis* (Geartn.).
2.	Matsyākṣī	*Alternathera sessili* (Linn.)
3.	Punarnavā/Varṣābhū	*Boerhaavia diffusa* (Linn.)

4.	Vāsā	*Adhatoda vasica* (Nees.)
5.	Taṇḍulīya	*Amaranthus spinosus* (Linn.)
6.	Śālī	*Oryza sativa* (Linn.)
7.	Kāsamarda	*Cassia occidentalis* (Linn.)
8.	Musṭā	*Cyprus rotundus* (Linn.)
9.	Haridrā/Niśā	*Curcuma longa* (Linn.)
10.	Āmalaka/Dhātrī	*Embalica officinalis* (Linn.) (Gearten.)
11.	Vaṭa mūla/dugdha	*Ficus bengalensis* (Linn.)—root/latex
12.	Tāmbūla Patra	*Piper betle* (Linn.)—leaf
13.	Mīnākṣī	*Alternathera sessili* (Linn.)
14.	Kaṭhillaka	*Momordica charantia* (Linn.)
15.	Guḍa	(Jaggery) *Saccharu officinarum* (Linn.)
16.	Eraṇḍa/Gandharva Patra	*Recinus communis* (Linn.) (leaf)
17.	Muśalī	*Curculigo orchiodes* (Gaertn.)
18.	Ghana	*Cyprus rotundus*
19.	Dhānyaka	*Corryandrum sativum* (Linn.)
20.	Kāṇḍa Vallī	Not identified
21.	Haṃsapādī	*Adiantum lunulatum* (Burm.)
22.	Godhūma	*Triticum sativum* (Lam.)
23.	Tinduka phala	*Strychnous nuxvomica.*
24.	Muṇḍikā	*Sphaeranthas indicus* (Linn.)
25.	Bhṛṅgarāja	*Eclipta alba* (Hassk.)
26.	Pathyā/Haritakī	*Terminalia chebula* (Retz.)
27.	Akṣa/Bibhītaka	*Terminalia belerica*
28.	Mūlaka	*Raphanus sativus* (Linn.)
29.	Vella/Viḍaṅga	*Embelia ribes* (Burm.)
30.	Trikaṭu/Vyoṣa	*Zingiber officinale, Piper longum, Piper nigrum* (pungent three)
31.	Kulattha	*Dolichos uniflorus* (a kind of pulse) (Linn.)
32.	Rambhā/Kadalī	*Musa sapientum* (Linn.) (Plantain tree).
33.	Kodrava	*Paspalum scrobiculatum* (a species of grain)
34.	Mocā	*Musa sapientum* (Linn.) (fruit)
35.	Moraṭa (Murva)	*Maerua arenaria* (Hook.)
36.	Palāśa	*Butea monosperma* (Linn.) Kuntze

37.	Vajrakanda	*Urginea indica* (Kunth.) Rhizome
38.	Lāksā	*Laccifer lacca* (Kerr.)
39.	Meṣa Śṛṅgī	*Dolichandrone falcate* (Seem.)
40.	Kaṇā/Pippalī	*Piper longum* (Linn.)
41.	Mātuluṅga	*Citrus medica* (Linn.)
42.	Kadalī Kanda	Root of *Musa sapientum* (Linn.)
43.	Nirguṇḍī	*Vitex nigundo* (Linn.)
44.	Guñjā Bīja	*Abrus precatoreus* (Linn.) (Seed)
45.	Jambīra	*Citrus lemon* (Linn.)
46.	Lakuca	*Artocarpus lakooch* (Roxb.)
47.	Śigru	*Moringa pterygosperma* (Gaertn.)
48.	Mokṣaka	*Schrebera swictenioides* (Roxb.)
49.	Japāpuṣpa	Flowers of *Hibiscus rosasinensis* Linn. (China rose)
50.	Drāvaka Varga	Group of liquefying drugs
51.	Amla Varga	Group of sour drugs
52.	Halāhala Viṣa	Virulent poison
53.	Rakta Varga	Group of reddish drugs
54.	Sneha Varga	Group of oily drugs
55.	Karañja Taila	Oil of *Pongamia glabra* (Vent.)
56.	Karkoṭaka	*Momordica mixta* (Sutr.)
57.	Śṛṅgavera	*Zingiber officinalis*
58.	Kaṭu Tumbī	Bitter gourd
59.	Bījapūra	*Citrus medica* (Linn.)
60.	Rāla/Sarjarasa	*Shorea robusta* (Gaertn.)—Resin
61.	Saindhava	Rock salt
62.	Aruṣkara (Bhallātaka)	*Semicarpus anacardium* (Linn.)
63.	Gṛhadhūma	Soot
64.	Rājika	*Brassica nigra*
65.	Tilanāla	*Sesamum indicum* (Linn)—Stem

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(Continued)

Third Chapter

Sanskrit Text

English Translation

Notes

तृतीयोऽध्यायः

उपरस साधारणरस शुध्यादि निरूपणीयम्

अथ उपरसाः –

गन्धाश्मगैरिकासीसकांक्षीतालशिलांजनम् ।
कुंकुष्ठं चेत्युपरसाश्चाष्टौ पारदकर्मणि ॥ 1 ॥

अथगन्धकवर्णनम्–

गन्धकस्य तु माहात्म्यं तद्गुह्यं वद मे प्रभो ।

गन्धकोत्पत्तिः –

श्वेतद्वीपे पुरा देवि सर्वरत्नविभूषिते ।
सर्वकाममये रम्ये तीरे क्षीरपयोनिधेः ॥ 2 ॥

विद्याधरीभिर्मुख्याभिरंगनाभिश्च योगिनाम् ।
सिद्धांगनाभिः श्रेष्ठाभिस्तथैवाप्सरसां गणैः ॥ 3 ॥

देवांगनाभिर्रम्याभिः क्रीडन्तीभिर्मनोहरैः ।
गीतैर्नृत्यैर्विचित्रैश्च वाद्यैर्नानाविधैस्तथा ॥ 4 ॥

एवं संक्रीडमानायाः प्राभवत्प्रसृतं रजः ।
तद्रजोऽतीव सुश्रोणि सुगन्धि सुमनोहरम् ॥ 5 ॥

रजसश्चातिबाहुल्याद्वासस्ते रक्ततां ययौ ।
तत्र त्यक्त्वा तु तद्वस्त्रं सुस्नाता क्षीरसागरे ॥ 6 ॥

वृता देवांगनाभिस्त्वं कैलासं पुनरागता ।
ऊर्मिभिस्तद्रजोवस्त्रं नीतं मध्ये पयोनिधेः ॥ 7 ॥

एवं ते शोणितं भद्रे ! प्रविष्टं क्षीरसागरे ।
क्षीराब्धिमन्थने चैतदमृतेन सहोत्थितम् ॥ 8 ॥

गन्धकनामकरण हेतुः –

निजगन्धेन तान्सर्वान् हर्षयन् देवदानवान् [1]।
ततो देवगणैरुक्तं गन्धकाख्यो भवत्वयम्[2] ॥ 9 ॥

गन्धकगुणः प्रमाण;–

रसस्यबन्धनार्थाय जारणाय भवत्वलम् ।
ये गुणाः पारदे प्रोक्तास्ते चैवात्र भवन्तिवति ॥ 10 ॥
इति देवगणैः प्रीतैः पुरा प्रोक्तं सुरेश्वरि ! ।
तेनायं गन्धको नाम विख्यातः क्षितिमण्डले ॥ 11 ॥

गन्धकभेदाः–

सचापित्रिविधो देवि ! शुकचंचुनिभो वरः ।
मध्यमः पीतवर्णः स्याच्छुक्लवर्णोऽधमः स्मृतः ॥ 12 ॥
चतुर्धा गन्धको ज्ञेयो वर्णैः श्वेतादिभिः खलु ।
श्वेतोऽत्र खटिका प्रोक्तो लेपने लोहमारणे ॥ 13 ॥
तथा चामलसारःस्याद्यो भवेत्पीतवर्णवान् ।
शुकपिच्छः स एवस्याच्छ्रेष्ठो रसरसायने ॥ 14 ॥
रक्तश्च शुकतुण्डाख्यो धातुवादविधौ वरः ।
दुर्लभः कृष्णवर्णश्च स जरामृत्युनाशनः ॥ 15 ॥

गन्धकगुणाः–

गन्धाश्मातिरसायनः सुमधुरः पाके कटूष्णोमतः ।
कण्डूकुष्ठविसर्पदद्रुदल नै दीप्तानलः पाचनः ॥
आमोन्मोचनशोषणो विषहरः सूतेन्द्रवीर्यप्रदः ।
गौरीपुष्पभवस्तथा कृमिहरः सत्वात्मकः सूतजित् ॥ 16 ॥

बलिवसा नामकरणहेतुः–

वलिना सेवितः पूर्वं प्रभूतबलहेतवे ।
वासुकिं कर्षतस्तस्य तन्मुखज्वालया द्रुता ॥ 17 ॥
वसा गन्धकगन्धाढ्या सर्वतो निःसृता तनोः ।
गन्धकत्वं च सम्प्राप्ता गन्धोऽभूत सविषस्ततः [3] ॥ 18 ॥

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1. दैत्यदानवान् .....
2. भवत्वलम् .....
3. स्मृतः .....

तस्माद्वलिवसेत्युक्तो गन्धकोऽतिमनोहरः ॥ 19 ॥

गन्धकशोधनम् –

पयः स्विन्नोघटीमात्रं वारिधौतो हि गन्धकः ।
गव्याज्यविद्रुतो वस्त्राद्गलितः शुद्धिमृच्छति ॥ 20 ॥

गन्धकदोषदूरीकरणनिर्देशः –

एवं संशोधितः सोऽयं पाषाणानम्बरे त्यजेत् ।
घृते विषं तुषाकारं स्वयं पिण्डत्वमेति च ॥ 21 ॥
इति शुद्धो हि गन्धाश्मा नापथ्यैर्विकृतिं व्रजेत् ।
अपथ्यादन्यथा हन्यात्पीतं हालाहलं यथा ॥ 22 ॥

द्वितीयोविधिः –

गन्धको द्रावितो भृंगरसे क्षिप्तो विशुद्ध्यति ।
तद्रसे सप्तधा स्विन्न गन्धकः परिशुद्ध्यति ॥ 23 ॥

तृतीयो विधिः –

स्थाल्यां दुग्धं विनिक्षिप्य मुखे वस्त्रं निबध्य च ।
गन्धकं तत्र निक्षिप्य चूर्णितं सिकताकृतिम् ॥ 24 ॥
छादयेत्पृथुदीर्घेण खपरेणैव गन्धकम् ।
ज्वालयेत्खर्परस्योर्ध्वं वनच्छाणैस्तथोपलैः ॥ 25 ॥
दुग्धे निपतितो गन्धो गलितः परिशुद्ध्यति ।
शतवारं कृतश्चैवं निर्गन्धो जायते ध्रुवम् ॥ 26 ॥

शुद्धगन्धकप्रयोगविधिः फलंच –

इत्थं विशुद्धस्त्रिफलाज्यभृंगमध्वन्वितः शाणमितो ही लीढः ।
गृध्राक्षितुल्यं कुरुतेऽक्षियुग्मं करोति रोगोज्झितदीर्घमायुः ॥ 27 ॥

गन्धक द्रुतिः –

कलांशव्योषसंयुक्तं गन्धकं श्लक्ष्णचूर्णितम् ।
अरत्निमात्रे वस्त्रे तद्विप्रकीर्य विवेष्ट्य च[4] ॥ 28 ॥

सूत्रेण वैष्टयित्वाऽथ यामं तैले निमज्जयेत् ।
धृत्वा संदंशतो वर्तिमध्यं प्रज्वालयेच्च तम् ॥ 29 ॥
द्रुतो निपतितो गन्धो विन्दुशः काचभाजने ।
तां द्रुतिं प्रक्षिपेत्पत्रे नागवल्यास्त्रिविन्दुकाम् ॥ 30 ॥

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4. तत्

वल्लेन प्रमितं स्वच्छं सूतेन्द्रं च विमर्दयेत् ।
अंगुल्याऽथ सपत्रां तां द्रुतिं सूतं च भक्षयेत् ॥ 31 ॥

द्रुति गुणाः –

करोति दीपनं तीव्रं क्षयं पाण्डुं च नाशयेत् ।
कासं श्वासं च शूलार्त्तिं ग्रहणीमति दुर्धराम् ॥ 32 ॥

गन्धकप्रयोगस्यान्यविधयः –

घृताक्ते लोहपात्रे तु विद्रुतं शुद्धगन्धकम् ।
घृताक्तदर्विकाक्षिप्तं द्विनिष्कप्रमितं भजेत्[5] ॥ 33 ॥

हन्ति क्षयमुखान् रोगान् कुष्ठरोगं विशेषतः ।
गन्धकस्तुल्यमरिचः षड्गुणत्रिफलान्वितः ॥ 34 ॥

घृष्टः शम्पाकमूलेन पीतश्चाखिलकुष्ठहा ।
तन्मूलं सलिले पिष्टं लेपयेत्प्रत्यहं तनौ ॥

दृष्टप्रत्ययोगोऽयं सर्वत्राप्रतिवीर्यवान् ।
श्रीमता सोमदेवेन सम्यगत्र प्रकीर्तितः ॥ 35 ॥

गन्धकसेवनेऽपथ्यानि –

क्षाराम्लतैलसौवीरविदाहिद्विदलं तथा ।
शुद्धगन्धकसेवायां त्याज्यं योग युतेन हि ॥ 36 ॥

पामाकण्डूघ्न गन्धप्रयोगः –

द्विनिष्कप्रमितं गन्धं पिष्ट्वा तैलेन संयुतम् ।
अथापामार्गतोयेन सतैलमरिचेन हि ॥ 37 ॥

विलिप्य सकलं देहं तिष्ठेद् घर्मे ततः परम् ।
तक्रभक्तं च भुंजीत तृतीये प्रहरे खलु ॥ 38 ॥

भजेद्रात्रौ तथा वह्निं समुत्थाय तथा प्रगे ।
महिषीछगणं लिप्त्वा स्नायाच्छीतेन वारिणा ॥ 39 ॥

ततोऽभ्यज्य घृतैर्देहं स्नायादिष्टोष्णवारिणा ।
अमुना क्रमयोगेन विनश्यत्यतिवेगतः ॥ 40 ॥

दुर्जया बहुकालीना पामाकण्डूः सुनिश्चितम् ॥ 41 ॥

गन्धकस्य प्रयोगाणां शतं तन्न प्रकीर्तितम् ।
ग्रन्थविस्तारभीतेन सोमदेवेन भूभुजा ॥ 42 ॥

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5. भक्षेत्

गन्धकतैलम् –

अथवाऽर्कस्नुहीक्षीरैर्वस्त्रं लेप्यं तु सप्तधा ।
गन्धकं नवनीतेन पिष्ट्वा वस्त्रं लिपेद्घनम् ॥ 43 ॥
तद्वर्तिं ज्वलितां दंशे धृतां कुर्यादधोमुखीम् ।
तैलं पतेदधोभाण्डे ग्राह्यं योगेषु योजयेत् ॥ 44 ॥

शुद्धगन्धक गुणाः –

शुद्धो गन्धो हरेद्रोगान् कुष्ठमृत्युजरादिकान् ।
अग्निकारी महानुष्णो वीर्यवृद्धिं करोति च ॥ 45 ॥

अथ गैरिकम्–

भेदाः –

पाषाणगैरिकं चैकं द्वितीयं स्वर्णगैरिकम् ।

स्वरूपम्–

पाषाणगैरिकं प्रोक्तं कठिनं ताम्रवर्णकम् ॥
अत्यन्तशोणितं स्निग्धं मसृणं स्वर्णगैरिकम् ॥ 46 ॥

स्वर्णगैरिक गुणाः –

स्वादु स्निग्धं हिमं नेत्र्यं कषायं रक्तपित्तनुत् ।
हिध्मावमिविषघ्नं च रक्तघ्नं स्वर्णगैरिकम् ॥ 47 ॥

पाषाणगैरिक गुणाः –

पाषाणगैरिकं चान्यत्पूर्वस्मादल्पकं गुणे ।

शोधनम्–

गैरिकं हि गवांदुग्धैर्भावितं शुद्धिमृच्छति ॥ 48 ॥

गैरिक सत्वपातनम् –

गैरिकं सत्वरूपं हि नन्दिना परिकीर्तितम् ।
कैरप्युक्तं पतेत्सत्वं क्षाराम्लक्लिन्न[6] गैरिकात् ॥ 49 ॥
उपतिष्ठति सूतेन्द्रमेकत्वं गुणवत्तरम् ।

अथ कासीस भेदाः –

कासीसं बालुकाद्येकं पुष्पपूर्वमथापरम् ॥ 50 ॥

बालुकाकासीस गुणाः –

क्षाराम्लागुरुधूमाभं सोष्णवीर्यं विषापहम् ।
बालुका पूर्वकासीसं श्वित्रघ्नं केशरंजनम् ॥ 51 ॥

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6. क्लिन्न

पुष्पकासीस गुणाः –

पुष्पादिकासीसमतिप्रशस्तं सोष्णं कषायाम्लमतीव नेत्र्यम् ।
विषानिलश्लेष्मगदव्रणघ्नं श्वित्रक्षयघ्नं कचरंजनंच ॥ 52 ॥

शोधनम् –

सकृद्भृंगाम्बुना क्लिन्न कासीसं निर्मलं भवेत् ।
कासीसं शुद्धिमाप्नोति पित्तैश्च रजसा स्त्रियः ॥ 53 ॥

सत्वपातनम् –

तुवरी सत्ववत्सत्वमेतस्यापि समाहरेत् ।

कासीस रसायनम् –

बलिना हतकासीसं कान्तं कासीसमारितम् ॥ 54 ॥
उभयं समभागं हि त्रिफलावेल्लसंयुतम् ।
विषमांशघृतक्षौद्रप्लुतं शाणमितं प्रगे ॥ 55 ॥
सेवितं हन्ति वेगेन श्वित्रं पाण्डुक्षयामयम् ।
गुल्मप्लीहगदं शूलं मूलरोगं विशेषतः ॥ 56 ॥
रसायनविधानेन सेवितं वत्सरावधि ।
आमसंशोषणं श्रेष्ठं मन्दाग्निपरिदीपनम् ॥ 57 ॥
पलितं वलिभिः सार्द्धं विनाशयति निश्चितम् ॥ 58 ॥

अथकांक्षी –

सौराष्ट्राश्मनि सम्भूता मृत्स्ना सा तुवरी मता ।
वस्त्रेषु लिप्यते यासौ मंजिष्ठारागबन्धिनी ॥ 59 ॥

भेदाः –

पीतिका[7] फुल्लिका चेति द्विविधा[8] परिकीर्तिता ।

पीतिकागुणाः –

ईषत्पीता गुरुः स्निग्धा पीतिका विषनाशिनी ॥ 60 ॥
व्रणकुष्ठहरा सर्वकुष्ठघ्नी च विशेषतः ॥ 61 ॥

फुल्लिका गुणाः

निर्भारा शुभ्रवर्णा च स्निग्धा साम्ला परामता ।
सा फुल्लतुवरी प्रोक्ता लेपात्ताम्रं चरेदियम् ॥ 62 ॥

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7. फटकी
8. द्वितीया

कांक्षीगुणाः –

कांक्षी कषाया कटुकाम्लकण्ठ्या केश्या व्रणघ्नी विषनाशिनी च ।
शिवत्रापहा नेत्रहिता त्रिदोषशान्तिप्रदा पारदजारिणी च ॥ 63 ॥

शोधनम् –

तुवरी कांजिके क्षिप्ता त्रिदिनात् शुद्धिमृच्छति ।

सत्वपातनम्–

क्षाराम्लैर्मर्दिता ध्माता सत्वं मुंचति निश्चितम् ॥ 64 ॥
गोपित्तेन शतंवारान् सौराष्ट्रीं भावयेत्ततः ।
धमित्वा पातयेत्सत्वं क्रामणं चा ति गुह्यकम् ॥ 65 ॥

तालक भेदाः –

हरतालं द्विधा प्रोक्तं पत्राद्यं पिण्डसंज्ञकम् ।

पत्रतालस्वरूपम् –

स्वर्णवर्णं गुरु स्निग्धं तनुपत्रं च भासुरम् ॥
तत्पत्रतालकं प्रोक्तं बहुपत्रं रसायनम् ॥ 66 ॥

पिण्डताल स्वरूपम् –

निष्पत्रं पिण्डसदृशं स्वल्पसत्वं तथा गुरु ।
स्त्रीपुष्पहरणं तुत्तु गुणाल्पं पिण्डतालकम् ॥ 67 ॥

तालकगुणाः –

श्लेष्मरक्तविषवातभूतनुत् केवलं च खलु पुष्पहृत् स्त्रियाः ।
स्निग्धमुष्णकटुकं च दीपनं कुष्ठहारि हरतालमुच्यते ॥ 68 ॥

अशुद्ध तालक दोषाः –

अशुद्धं तालमायुर्घ्नं कफमारुतमेहकृत् ।
तापस्फोटांगसंकोचं कुरुते तेन शोधयेत् ॥ 69 ॥

शोधनम् - प्रथमोविधिः

स्विन्न कूष्माण्डतोये वा तिलक्षारजलेऽपि वा ।
तोये वा चूर्णसंयुक्ते दोलायन्त्रेण शुद्ध्यति ॥ 70 ॥

द्वितीयोविधिः –

तालकं कणशः कृत्वा दशांशेन च टंकणम् ।
जीम्वीरोत्थद्रवैः क्षाल्यं कांजिकैः क्षालयेत्तथा ॥ 71 ॥
वस्त्रे चतुर्गुणे बद्ध्वा दोलायंत्रे दिनं पचेत् ।
सचूर्णेनारनालेन दिनं कूष्माण्डजे रसे ॥ 72 ॥

स्वेद्यं वा शाल्मलीतोयैस्तालकं शुद्धिमाप्नुयात् ।

मारणम्–

मधुतुल्ये घनीभूते कषाये ब्रह्ममूलजे ॥ 73 ॥
त्रिवारं तालकं भाव्यं पिष्ट्वा मूत्रेऽथ माहिषे ।
उपलैर्दशभिर्देयं पुटं रुद्ध्वाथ पाचयेत्[9] ॥ 74 ॥
एवं द्वादशधा पाच्यं मृतं[10] योगेषु योजयेत् ॥

सत्वपातनम् - प्रथमोविधिः

कुलत्थ[11]क्वाथसौभाग्यमहिष्याज्यमधुप्लुतम् ॥ 75 ॥
स्थाल्यां क्षिप्त्वा पिदध्याच्च[12] मल्लेनच्छिद्रयोगिना ।
सम्यङ् निरुध्य शिखिनं ज्वालयेत् क्रमवर्धितम् ॥ 76 ॥
एकप्रहरमात्रं हि रन्ध्रमाच्छाद्य गोमयैः ।
यामान्ते छिद्रमुद्घाट्य.दृष्टे धूमे च पाण्डुरे ॥
शीतां स्थालीं समुत्तार्य सत्वमुत्कृष्य चाहरेत् ॥ 77 ॥
सर्वपाषाणसत्वानां प्रकाराः सन्ति कोटिशः ।
ग्रन्थविस्तारभीत्याऽत्र लिखिता न मया खलु ॥ 78 ॥

द्वितीयोविधिः –

पलालकं रवेर्दुग्धैर्दिनमेकं विमर्दयेत् ।
क्षिप्त्वा षोडशिका तैले मिश्रयित्वा ततः पचेत् ॥ 79 ॥
अनावृतप्रदेशे च सप्तयामावधि ध्रुवम् ।
स्वांगशीतमधःस्थ च सत्वं श्वेतं समाहरेत् ॥ 80 ॥

तृतीयोविधिः –

छागलस्याऽथवालाभे बलिना च समन्वितम् ।
तालकं दिवसद्वन्द्वं मर्दयित्वाऽतियत्नतः ॥ 81 ॥
युक्तं द्रावकवर्गेण काचकूप्यां विनिक्षिपेत् ।
त्रिधा तां च मृदा लिप्त्वा परिशोष्य खरातपे ॥ 82 ॥
ततः खर्परकच्छिद्रे तामधां चैव कूपिकाम् ।
प्रवेश्य ज्वालयेदग्निं द्वादशप्रहरावधि ॥ 83 ॥

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9. पेषयेत् .....
10. शुद्धं .....
11. कूलित्थ .....
12. विदध्याच्च.....

कूपीकण्ठस्थितं शीतं शुद्धं सत्वं समाहरेत् ॥ 84 ॥

चतुर्थीविधिः –

पलार्धप्रमितं तालं वद्ध्वा वस्त्रे सिते दृढे ।
बलिनाऽलिप्य यत्नेन त्रिवारं परिशोष्य च ॥ 85 ॥
द्राविते त्रिपले ताम्रे क्षिपेत्तालकपोट्टलीम् ।
भस्मनाच्छादयेच्छीघ्रं ताम्रेणावेष्ठितं सितम् ॥ 86 ॥
मृदुलं सत्वमादद्यात् प्रोक्तं[13] रसरसायने ॥ 87 ॥

मनःशिला भेदाः –

मनःशिला त्रिधा प्रोक्ता श्यामांगी कणवीरका ।
खण्डाख्या चेति तद्रूपं विविच्य परिकथ्यते ॥ 88 ॥

प्रत्येकस्य स्वरूपम्–

श्यामा रक्ता सगौरा च भाराढया श्यामिका मता ।
तेजस्विनी च निर्गौरा ताम्राभा कणवीरका ॥ 89 ॥
चूर्णीभूताऽतिरक्तांगी सभारा खण्डपूर्विका ।
उत्तरोत्तरतः श्रेष्ठा भूरिसत्वा प्रकीर्तिताः ॥ 90 ॥

मनःशिलागुणाः –

मनःशिला सर्वरसायनाग्र्या तिक्ता कटूष्णा कफवातहन्त्री ।
सत्वात्मिका भूतविषाग्निमान्द्यकण्डूतिकासक्षयहारिणी च ॥ 91 ॥

अशुद्ध मनःशिला दोषाः –

अश्मरीं मूत्रकृच्छ्रं च अशुद्धा कुरुते शिला ।
मन्दाग्निं मलबन्धं च शुद्धा सर्वरुजापहा ॥ 92 ॥

शोधनम् - प्रथमोविधिः –

अगस्त्यपत्रतोयेन भाविता सप्तवारकम् ।
शृंगवेररसैर्वापि विशुद्ध्यति मनःशिला ॥ 93 ॥

द्वितीयोविधिः –

जयन्तीभृंगराजोत्थरक्तागस्त्यरसैः शिलाम् ।
दोलायन्त्रे पचेद् यामं यामं छागोत्थमूत्रकैः ॥
क्षालयेदारनालेन सर्वरोगेषु योजयेत् ॥ 94 ॥

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13. श्रेष्ठं .....

सत्वपातनम् - प्रथमोविधिः –

अष्टमांशेन किट्टेन गुडगुग्गुलुसर्पिषा ।
कोष्ठयां रुद्ध्वा दृढं ध्माता सत्वं मुंचेन्मनः शिला ॥ 95 ॥

द्वितीयोविधिः –

भूनागसत्वसौभाग्यमदनैश्च विमर्दितैः ।
कारवल्लीदलाम्भोभिर्मूषां कृत्वाऽत्र निक्षिपेत् ॥ 96 ॥
सितां क्षाराम्लनिष्पिष्टां प्रथमेत्तदनन्तरम् ।
घटिकाद्वयमात्रं हि ध्मानात्सत्वं सृजत्यसौ ॥ 97 ॥

अथांजनभेदाः –

सौवीरमंजनं प्रोक्तं रसांजनमतः परम् ।
स्रोतोंजनं तदन्यच्च पुष्पांजनकमेव च ॥ 98 ॥
नीलांजनं च तेषां हि स्वरूपमिह कथ्यते ।

अंजनानां स्वरूपम् –

सौवीरमंजनं धूम्रं पीताभं च रसांजनम् ॥ 99 ॥
वल्मीकशिखराकारं भंगेनीलोत्पलद्युति ।
धृष्टं तु गैरिकच्छायं स्रोतोजं लक्षयेद् ध्रुवम् ॥ 100 ॥
पुष्पांजनं सितं चैव विद्यान्नीलांजनं गुरु ।

सौवीरांजन गुणाः –

सौवीरमंजनं धूम्रं रक्तपित्तहरं हिमम् ॥ 101 ॥
विषहिध्माक्षिरोगघ्न[14] व्रणशोधनरोपणम् ।

रसांजनगुणाः –

रसांजनं च पीताभं विषवक्त्रगदापहम् ॥ 102 ॥
श्वासहिध्मापहं वर्ण्यं वातपित्तास्रनाशनम् ।

स्रोतोंजनगुणाः –

स्रोतोंजनं हिमं स्निग्धं कषायं स्वादु लेखनम् ॥ 103 ॥
नेत्र्यं हिध्माविषच्छर्दिकफपित्तास्ररोगनुत् ।

पुष्पांजनगुणाः –

पुष्पांजनं सितं स्निग्धं हिमं सर्वाक्षिरोगनुत् ॥ 104 ॥
अतिदुर्धरहिध्माघ्नं विषज्वरगदापहम् ।

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14. हिध्मादिरोगघ्नं.....

नीलांजनगुणाः –

नीलांजनं गुरु स्निग्धं नेत्र्यं दोषत्रयापहम् ॥ 105 ॥
रसायनं सुवर्णघ्नं लोहमार्दवकारकम् ।

शोधनम् –

अंजनानि विशुद्ध्यन्ति भृंगराजदलद्रवैः ॥ 106 ॥
सूर्यावर्त्तादियोगेन शुद्धिमैति रसांजनम् ।

सत्वपातनम् –

मनोह्वासत्ववत्सत्वमंजनानां समाहरेत् ॥ 107 ॥
राजावर्तकवत्सत्वं ग्राह्यं स्रोतोंजनादपि ॥ 108 ॥

स्रोतोंजनसत्वस्य सूतबन्धकत्वम्–

गोशकृद्रसमूत्रेषु घृतक्षौद्रवसासु च ।
भावितं बहुशस्तच्च शीघ्रं बध्नाति सूतकम् ॥ 109 ॥

अथ कंकुष्ठम् –

हिमवत्पादशिखरे कंकुष्ठमुपजायते ।
भेदाः – तत्रैकं नलिकाख्यं स्यात्तदन्यं रेणुकं मतम् ॥ 110 ॥

तयोः स्वरूपम् –

पीतप्रभं गुरु स्निग्धं श्रेष्ठं कंकुष्ठमादिमम् ।
श्यामपीतं लघुत्यक्तसत्वं नेष्टं हि रेणुकम् ॥ 111 ॥

कंकुष्ठविषये विभिन्न मताः –

केचिद्वदन्ति कंकुष्ठं सद्योजातस्य दन्तिनः ।
वर्चश्च श्यामपीताभं रेचनं परिकथ्यते ॥ 112 ॥
कतिचित्तेजिवाहानां नालं कंकुष्ठसंज्ञकम् ।
वदन्ति श्वेतपीताभं तदतीव विरेचनम् ॥
रसे रसायने नेष्टं[15] निःसत्वं बहुवैकृतम् ॥ 113 ॥

कंकुष्ठ गुणाः –

कंकुष्ठं तिक्तकटुकं वीर्योष्णं चातिरेचनम् ।
व्रणोदावर्तशूलार्तिगुल्मप्लीहगुदार्तिनुत् ॥ 114 ॥

शोधनम् –

कंकुष्ठं शुद्धिमायाति त्रिधा शुण्ठ्यम्बुभावितम् ।
सत्वाऽकर्षोऽस्य न प्रोक्तो यस्मात्सत्वमयं हि तत् ॥ 115 ॥

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15. श्रेष्ठं .....

मात्रा सेवनविधिः –

भजेदेनं विरेकार्थं ग्राहिभिर्यवमात्रया ।
नाशयेदामजार्तिं च विरेच्य क्षणमात्रतः ॥
भक्षितः सह ताम्बूलैर्विरिच्यासून् विनाशयेत् ॥ 116 ॥

कंकुष्ठविषनिवारणम् –

बर्बूरीमूलिकाक्वाथो जीरसौभाग्यकं समम् ।
कंकुष्ठविषनाशाय भूयोभूयः पिबेन्नरः ॥ 117 ॥

रसोपरसानां सामान्यशोधनसत्वपातनविधिः –

सूर्यावर्तकदलीवन्ध्याकोशातकी च सुरदाली ।
शिग्रुश्च वज्रकन्दो नीरकणा काकमाची च ॥ 118 ॥
आसामेकरसेन तु तक्रक्षाराम्लभाविता बहुशः ।
शुद्ध्यन्ति रसोपरसा ध्माता मुंचन्ति सत्वानि ॥ 119 ॥

अथ साधारणरसाः –

कम्पिल्लश्चापरो गौरीपाषाणो नवसादरः ।
कपर्दो बह्निजारश्च गिरिसिन्दूरहिंगुलौ ॥ 120 ॥
मृद्दारशृंगमित्यष्टौ साधारणरसाः स्मृताः ।
रससिद्धिकराः प्रोक्ता नागार्जुनपुरः सरैः ॥ 121 ॥

अथ कम्पिल्लकः –

स्वरूपम्–इष्टिका चूर्णसंकाशश्चन्द्रिकारूयोऽतिरेचनः ।
सौराष्ट्रदेशेचोत्पन्नः स[16] हि कम्पिल्लकः स्मृतः ॥ 122 ॥

गुणाः –

पित्तव्रणाध्मानविवन्धहारी श्लेष्मोदरार्तिकृमिगुल्महारि ।
मूलामशोफज्वरशूलहारी कम्पिल्लको रेच्यगदापहारि ॥ 123 ॥

अथगौरीपाषाणः –

गौरीपाषाणकः पीतो विकटो हतचूर्णकः ।

भेदाः –

स्फटिकाभश्च शंखाभो हरिद्राभस्त्रयः स्मृताः ॥ 124 ॥

शोधनम् –

गौरीपाषाणकं श्रेष्ठं कारवल्लीफले क्षिपेत् ।
स्वेदयेदहण्डिकामध्ये शुद्धो भवति मूषकः ॥ 125 ॥

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16. सो हि .....

गुणाः –

रसबन्धकरः स्निग्धो दोषघ्नो रसवीर्यकृत् ॥ 126 ॥

अथ नवसादरः –

उत्पत्तिः –

(1) करीरपीलुकाष्ठेषु पच्यमानेषु चोद्भवः ।
क्षारोऽसौ नवसारः स्याच्चुल्लिकालवणाभिधः ॥ 127 ॥

(2) इष्टिका दहने जातं पाण्डुरं लवणं लघु ।
तदुक्तं नवसाराख्यं चुल्लिकालवणं च तत् ॥ 128 ॥

गुणाः –

रसेन्द्रजारणं लोहद्रावणं जठराग्निकृत् ।
गुल्मप्लीहास्यशोषघ्नं भुक्तमांसादिजारणम् ॥
विडाख्यं च त्रिदोषघ्नं चुल्लिकालवणं मतम् ॥ 129 ॥

अथ वराटिका –

स्वरूपम् –

पीताभा ग्रन्थिला[17] पृष्ठे दीर्घवृत्ता वराटिका ।
रसवैद्यैर्विनिर्दिष्टा सा चराचरसंज्ञिका ॥ 130 ॥

भेदाः –

सार्धनिष्कभरा श्रेष्ठा निष्कभारा च मध्यमा ।
पादोननिष्कभारा च कनिष्ठा परिकीर्तिता ॥ 131 ॥
तदन्ये तु वराटाः स्युर्गुरवः श्लेष्मपित्तलाः ।

गुणाः –

परिणामादि शूलघ्नी ग्रहणीक्षयनाशिनी ॥ 132 ॥
कटूष्णा दीपनी वृष्या नेत्र्या वातकफापहा ।
रसेन्द्रजारणे प्रोक्ता विडद्रव्येषु शस्यते ॥ 133 ॥

शोधनम् –

वराटाः कांजिके स्विन्ना यामाच्छुद्धिमवाप्नुयुः ॥ 134 ॥

अथ अग्निजारः –

स्वरूपम् –

समुद्रेणाग्निनक्रस्य जरायुर्बहिरुज्झितः ।
संशुष्को भानुतापेन सोऽग्निजार इति स्मृतः ॥
यदब्धिक्षारसंशुद्धस्तस्माच्छुद्धिर्न हीष्यते ॥ 135 ॥

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17. ग्रन्थिका

गुणाः –

अग्निजारस्त्रिदोषघ्नो धनुर्वातादिवातनुत् ।
वर्धनो रसवीर्यस्य दीपनो जारणस्तथा ॥ 136 ॥

अथगिरिसिन्दूरम्–

उत्पत्तिः स्वरूपंच –

महागिरिषु चाल्पीयः पाषाणान्तः स्थितो रसः ।
शुष्कशोणः स निर्दिष्टो गिरिसिन्दूरसंज्ञया ॥ 137 ॥

गुणाः –

त्रिदोषशमनं भेदी रसबन्धनमग्रिमम् ।
देहलोहकरं नेत्र्यं गिरिसिन्दूरमीरितम् ॥ 138 ॥

अथ हिंगुलः –

भेदाः –

हिंगुलः शुकतुण्डाख्यो हंसपाद[18]स्तथाऽपरः ।
प्रथमोऽल्पगुणस्तत्र चर्मारः स निगद्यते ॥
श्वेतरेखः प्रवालाभो हंसपादः स ईरितः ॥ 139 ॥

गुणाः –

हिंगुलः सर्वदोषघ्नो दीपनोऽतिरसायनः ।
सर्वरोगहरो वृष्यो जारणायाऽतिशस्यते ॥ 140 ॥

हिंगुलाकृष्ट पारदगुणाः –

एतस्मादाहृतः सूतो जीर्णगन्धसमो गुणैः ॥ 141 ॥

शोधनम् –

सप्तकृत्वाऽर्द्रकद्रावैर्लकुचस्याम्बुनाऽथवा ।
शोषितो भावयित्वाऽथ निर्दोषो जायते खलु ॥ 142 ॥

हिंगुलस्य विशिष्टकर्मकरत्वम् –

किमत्रचित्रं दरदः सुभावितः क्षीरेण मेष्याः बहुशोऽम्लवर्गैः ।
एत[19]त्सुवर्णं बहुघर्मतापितं करोति साक्षाद्धरकुंकुमप्रभम् ॥ 143 ॥

हिंगुलसत्वपातनम् –

दरदः पातनायन्त्रे पातितश्च जलाशये ।
तत्सत्वं सूतसंकाशं जायते नात्र संशयः ॥ 144 ॥

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18. हंसपाकः .....
19. एवं....

अथ मृद्वारशृंगम् –

उत्पत्तिः –

सदलं पीतवर्णं च भवेद् गुर्जरमण्डले ।
अर्बुदस्य गिरेः पार्श्वे जातं मृद्वारशृंगकम् ॥ 145 ॥

गुणाः –

सीससत्वं गुरुश्लेष्मशमनं पुंगदापहम् ।
रसबन्धनमुत्कृष्टं केशरंजनमुत्तमम् ॥ 146 ॥

साधारणरसानां सामान्यशोधनम् –

साधारणरसाः सर्वे मातुलुंगार्द्रकाम्बुना ।
त्रिरात्रं भाविताः शुष्का भवेयुर्दोषवर्जिताः ॥ 147 ॥
यानि कानि च सत्वानि तानि शुद्ध्यन्त्यशेषतः ।
ध्मातानि शुद्धिवर्गेण मिलन्ति च परस्परम् ॥ 148 ॥

इति श्री वैद्यपति सिंह गुप्तस्य सूनोर्वाग्भट्टाचर्यस्य
कृतो रसरत्न समुच्चये उपरस साधारणरसानां
शुद्ध्यादि निरूपणं नाम
तृतीयोऽध्यायः ॥ 3 ॥

RASA RATNA SAMUCCAYA

THIRD CHAPTER

ENGLISH TRANSLATION

UPARASAS

Gandhāśma (sulphur), *gairika* (red ochre), *kāsīsa* (ferrous sulphate/green vitriol), *kāṅkṣī* (alum), *tāla* (orpiment), *śilā* (realger), *añjana* (collyriums) and *kāṅkustha* (rhubarb) are the eight drugs of *Uparasa* group which are useful in *pāradakarmas* (mercurial processings). (1)

Oh Lord, please tell me the importance of sulphur, which is considered to be very secret.

GANDHAKA (Sulphur)

Origin of Sulphur :

Oh Goddess, in ancient times there existed a *Śveta-dvīpa* on the banks of *kṣīra-sāgara* (milk ocean), which was decorated all around with various jewels, which can fulfil all the desires and which was very pleasant too. There you were engaged in recreation with the prominent *vidyādhara* ladies, *yoginīes, siddha* ladies, *apsarās* (dancers of Gods) and the ladies of other Gods who were singing, dancing and playing with beautiful instruments. Oh *suśroṇi,* (having attractive buttocks), while playing with them you started to menstruate. And that menstrual discharge was very pleasing, good smelling, and so profuse that your all clothes became wet and red coloured. Then you took bath in the milk ocean and left your clothes there and came back to *Kailāśa* along with the *devāṅganās* (celestial damsels). In due course these clothes (soaked in menstrual discharge and left there) were taken deep into the ocean by the waves, and thus your menstrual discharge entered into the *kṣīra sāgara* along with the clothes. At the time of churning of the sea it also came out with nectar and created a sense of joyfulness in all the *devas* (gods) and *dānavas* (demons) by its pleasant smell. Then all the *devas* said that this material should be called *gandhaka* and

should possess all the properties attributed to mercury and may be considered useful for the *jāraṇa* (complete assimilation of the solute) and *bandhana* (solidification) *karmas*. Oh *Sureśvari,* this story of sulphur origin was said by the joyful gods in ancient times, and from that time onwards this material became popular by the name/term *gandhaka* on the earth. (2-11)

Varieties of sulphur :

Oh *Devī,* that sulphur is of three types, *i.e., śukacañcunibha* (like the parrot's beak), which is the best, *pītavarṇa* (yellow), the medium, and *śuklavarṇa* (white), the inferior. On the basis of colour it is of four types, *i.e.,* white, yellow, red, and black. The white variety is called *khaṭikā* which is good for *lepana* (pasting) and *loha māraṇa* (converting metals to ashes). That which is yellow in colour is called *āmala sāra.* The same is called *śukapiccha* also. It is considered best for *rasakarma* and *rasāyaṇa karma,* both. That which is red is called *śukatuṇḍa* and is good for *dhātuvādavidhi* (alchemical processes/purposes). The black variety of suplhur is rare. If available it can destroy senility/ageing process and death. (12-15)

Properties of sulphur :

Sulphur possesses very superior *rasāyana* (rejuvenating) property. It is very sweet in taste. Its *vipāka* (after digestion form/taste) is *kaṭu.* It is *uṣṇa* in *vīrya* (effect). It can destroy *kaṇḍu, kuṣṭha, visarpa, dadru, etc.,* skin diseases, it stimulates digestive fire, improves digestion, helps in loosening and absorption of *āma (āmadoṣa),* removes toxins, imparts potency to mercury, originates from the menstrual discharge of goddess *Pārvati,* destroys worms and bacteria, claimed like an essence in itself and restrains mercury. (16)

Balivasā ;

In earlier times, king Bali ingested sulphur for obtaining vigorous strength. While churning the ocean and pulling Vāsukī (the serpent King) the fat of the body of Bali started melting, on account of the heat of the flame coming out of the mouth of Vāsukī, and began to flow from all around the body of Bali in the form of sweat. It was full of sulphur smell and turned into *gandhaka* (sulphur) in due course of time. And from that time onwards sulphur is claimed to be associated with the toxins/toxic materials and started to be called by the name *balivasā* also. (17-19)

Purification of sulphur :

First method :

Boil sulphur in milk for one *ghaṭī,* wash it with water, melt it in cow's ghee

and strain it through a cloth. In this way sulphur attains purification. Sulphur purified as such, leaves stony particles in the cloth, poisonous materials in the ghee in the form of husk (fine particles), and itself turns into *piṇḍa* (mass) form. Sulphur so purified if used internally does not produce any bad effects even if dietetic restrictions are not followed. Otherwise (by using it without following the recommended diet) it may prove fatal just like *hālāhala* poison. (20-22)

Second method :

Molten sulphur if poured in *bhṛṅgarāja rasa* (juice) for specified times becomes purified. It may also become purified if it is boiled seven times with the above mentioned juice. (23)

Third method :

Fill a *sthālī* (wide mouth vessel) with milk, tie a cloth piece on its mouth, keep powdered sulphur granules on it, close it with a wide and thick earthen lid, apply heat over the lid using dried natural dung cakes or artificially made dung cakes. Sulphur, thus heated falls into the milk being filtered through the cloth and becomes purified. If the process is repeated one hundred times it becomes definitely free from its bad smell. (24-25)

Effects of purified sulphur :

Sulphur purified as above when licked in one *śāṇa* (about 4 gm) dose being mixed with *triphalā, ghee, bhṛṅgarāja* powder and honey, makes the vision of the persons like that of *gṛdhra.* (vulture) and also makes the man live long without being attacked by diseases. (26)

Gandhaka druti :

Mix sulphur powder with 16th part of *vyoṣa* powder, spread it on one *aratni* (about 16") diameter cloth piece, roll it and tie it with thread. Soak it in the oil for one *yāma.* Hold it with forcep in its middle and burn it. By this method sulphur melts and falls into the glasspot drop by drop. Put three drops of this liquefied sulphur on the *nāgavallī* leaf, add pure mercury in one *balla* (about 375 mg) quantity and rub it with a finger. Now eat this *druti* (liquefied sulphur) and mercury along with the leaf. It makes digestive fire highly stimulated, destroys *kṣaya, pāṇḍu, śvāsa, kāsa,* abdominal pain, severe type of *grahaṇī* (sprue syndrome). It immediately destroys *āma doṣa* and produces lightness in the body. (27-31)

Methods of sulphur uses :

(A) Melt sulphur in an iron vessel smeared with ghee, and put it in a *darvī*

(long handled spoon) smeared with ghee. Use it internally in two *niṣka* (about 3 gm) quantity. It destroys *kṣaya* roga (wasting disease) and specially *kuṣṭha roga* (leprotic disease).

(B) Melt sulphur with equal part of *marica* and six parts of *triphalā*, grind it with the decoction of *śampāka mūla* (root of *Cassia fistual).* This when used internally destroys all types of *kuṣṭha rogas.* The paste of the root of this plant *(śampāka)* prepared with water when applied on the body really proves curative for all the skin disorders. It is an experienced remedy and has been told here by Śrī Somadeva. The persons using purified sulphur should leave/avoid the use of *kṣāra, amla, taila, sauvīra, vidāhī* substances and pulses, *i.e.,* these are restricted during sulphur therapy. (32-36)

Sulphur therapy for itching :

Prepare a paste of sulphur in oil in two *niṣka* quantity. It should also be mixed with *apāmārga (Achyranthes aspera)* juice, oil and *marica* (black pepper). Apply this paste on the whole body and ask him (patient) to sit in sun rays. In third *prahara* (afternoon) he/she may be asked to eat buttermilk and rice. During night apply *svedana* (fomentation) through fire and next morning rub the whole body with buffalo dung and take bath with cold water. Then anoint the body with ghee andagaintake bath with luke-warm water. Through this line of treatment chronic and incurable *pāmā* and *kaṇḍu* (the type of skin disorders) could be cured definitely within no time. The king Somadeva did not mention many more methods of using sulphur fearing the expansion of the text. (37-42)

Gandhaka taila :

Paste the latex of *arka* and *śunṭhī* on a piece of cloth for seven times, prepare a paste of sulphur with butter and anoint it on the above cloth, hold it with a forcep tilting its one side down and burn it. Thus, the oil drops mixed with molten sulphur may fall in the pot kept below. These should be collected and used in the preparations. (43-44)

Properties of purified sulphur :

Purified sulphur may destroy *kuṣṭha* (leprotic conditions), *mṛtyu* (death), *jarā* (senility), *etc.,* diseases on internal use. It stimulates digestive fire, generates intense heat in the body and helps in the production of excessive semen, vigour, and strength in the body. (45)

GAIRIKA (Red Ochre)

Varieties of gairika :

There are two varieties of *gairika.* The first one is *pāṣāṇa gairika* which is hard and copper coloured. The second one is *svarṇa gairika,* which is deep red, brilliant and smooth. (46)

Properties of gairika :

Svarṇa gairika is *svādu* (sweet) and *kāṣāya* (astringent) in taste, *snigdha* (unctuous) and *hima* (cool) in properties, *netrya* (good for eyes) and *raktaghna* (checks bleeding) in action, and destroys *raktapitta* (haemorrhagic condition), *hidhmā* (hiccough), *vami* (vomiting) and *viṣas* (poisons).

The *pāṣāṇa gairika* is considered inferior in properties to the other one. (47-48)

Gairika śodhana :

For purification *gairika* should be subjected to *bhāvanā* (maceration) with cow's milk. (48)

Gairika satvapātana :

According to Nandi, *gairika* is in the form of *satva* (essence) only. However, according to others its *satva* (metal content) can be extracted by boiling the same with *kṣāra* and *amla* liquids. This *satva* mixes well with mercury and is better in properties than *gairika.* (49)

KĀSĪSA

(Green vitriol/Ferrous sulphate)

Varieties :

There are two varieties of *kāsīsa,* the first one is *bālukā-kāsīsa* and the second one is *puṣpa-kāsīsa.* (50)

Properties :

Bālukā-kāsīsa is *kṣāra* (alkaline) and/or *amla* (sour) in taste, looks like *agaru dhūma* in appearance. *Uṣṇa* (hot) in *vīrya,* destroys *viṣas* (poisons), imparts colour (blackness) to hairs and cures *śvitra* (leukoderma).

Puṣpa-kāsīṣa is considered superior to the former. It is *uṣṇa* (hot) in *vīrya,*

kāṣāya (astringent) and *amla* (sour) in taste, considered good for eyes, destroys *viṣas* (poisons), *vātika* and *kaphaja* diseases, *vraṇas* (wounds), *śvitra* (leucoderma) and *kṣaya* (wasting diseases) and imparts colour (blackness) to hairs. (51-52)

Kāsīsa śodhana :

Kāsīsa is made free from impurities by moistening/macerating or boiling it with *bhṛñgarāja rasa* once. It is also purified if treated with bile or menstrual discharge of the ladies. (53)

Satvapātana :

Its satva can be extracted just like *tuvarī* (alum) *satva.*

Methods of its uses :

Mix *kāsīsa* killed with sulphur and *kānta* killed with *kāsīsa* in equal proportion, also mix *triphalā, viḍaṅga, ghee* and honey in equal proportion. One *śāṇa* (about 4 gm) of this mixture should be used in the morning. It immediately destroys *śvitra* (leucoderma), *paṇḍu* (anaemia), *kṣaya* (wasting), *gulma* (gaseous trouble), *plīha* (spleenic enlargement), *sūla rogas* (pains) and especially *arśa roga* (piles). If it is used for one year by the method of *rasāyana,* it proves good for *āma saṃśoṣaṇa* (absorption of *āmadoṣa*), stimulates *mandāgni* (weak digestive fire) and definitely destroys *palita* (greying of hairs) associated with *bali* (wrinkles). (54-58)

TUVARĪ (Alum)

Origin :

The special type of soil obtained from the mountains/rocks of *Saurāṣṭra* is known as *tuvarī.* If it is pasted on the cloths it binds/deepens the colour of *mañjiṣṭha (rubia cordifolia* Linn.). (59)

Varieties :

Phaṭakī and *phullikā* are the two varieties of *tuvarī. phaṭakī* is also called *pītikā.* (60)

Properties (Physico-therapeutic) :

Pītikā is slightly yellow, heavy and brilliant. It is claimed to destroy *viṣa* (toxins), cures *vraṇa* (wounds) and *kuṣṭha* (leprosy) of all types.

Phullikā is light in weight, white in colour and *amla* (sour) in taste. It is called *phulla tuvarī* also. If applied on copper sheet, it can selectively attack the grain boundary and convert copper to ashes. (61, 62)

Properties (Pharmaco-therapeutic) :

Kāṅkṣī (alum) is *kaṣāya* (astringent), *kaṭuka* (pungent) and *amla* (sour) in taste. It is good for *kaṇṭha* (throat), *keśa* (hairs) and *netra* (eyes). It can destroy *vraṇa, viṣa, śvitra* and *tridoṣas* and helps in the *jāraṇakarma* (complete assimilation of solute) of *pārada* (mercury). (63)

Śodhana :

Tuvarī is purified by putting it in *kāñjika* for three days. (64)

Satvapātana

First method :

Tuvarī ground with *kṣāra* and *amla* and heated strongly releases its *satva* (metal content) definitely.

Second method :

The *saurāṣṭrī* if subjected to *bhāvanā* with *gopitta* (cow's bile) for hundred times and then heated strongly releases its *satva.* It is considered very good for *krāmaṇa saṃskāra* of mercury. It is considered highly secret. (65)

TĀLAKA (Orpiment)

Varieties :

Tālaka is said to have two varieties. The first one is *patra tālaka* and the second one is *piṇḍa tālaka.*

Properties (Physico-therapeutic) :

Patra tālaka is said to possess golden colour, heaviness, brilliancy, thin lamellae, brightness and innumerable folds. It is also claimed to possess *rasāyana* property. (66)

Piṇḍa tālaka is without lamellae, looks like a *piṇḍa* (mass) in appearance, contains less *satva* (metal content), and is heavy. It is claimed to stop the menses of ladies, *i.e.* can cause amenorrhoea and possess less properties than the other variety. (67)

Properties (Pharmaco-therapeutic) :

Haritāla is unctuous, hot, and stimulates digestive fire, cures *kuṣṭha,* destroys *śleṣmā, rakta doṣa,* poisons, *vātaprakopa* and *bhūtabādhā* (effects of evil spirits). It alone can stop the menses in the ladies. (68)

Bad effects of aśuddha tālaka :

Unpurified *tālaka,* if used internally, is likely to cause *āyunāśa* (destruction to life), *kapha* and *vāta prakopa,* produce *prameha* (urinary disorders), *santāpa* (burning sensation), *sphoṭa* (boils/fissures) and *saṃkoca* (constriction) in the body. Hence it should be purified before use. (69)

Tālaka śodhana :

First method :

For purification *tālaka* should be boiled in *dolayantra* with *kūṣmāṇḍa toya* and/or *cūrṇodaka* (lime water).

Second method :

It is also purified by reducing the *tālaka* into small granules and grinding it with 1/10th part *taṅkaṇa* pieces. Then these should be washed with *jambīra drava* and *kāñjika* first and then subjected to boiling in *dolāyantra* for one day after tying it in four-fold cloth.

Third method :

It is also purified by boiling it in *āranāla* liquid mixed with lime, in *kūṣmāṇḍa rasa* and in *śālmalītoya* by *dolāyantra* method. (70-73)

Tālaka māraṇa :

Prepare a *kaṣāya* (decoction) of *brahma (palāśa) mūla* and make it like honey in consistency by boiling. Apply three *bhāvanā* of this *kāṣāya* to *tālaka.* Now prepare its paste in the buffalo urine. Close it in *Śarāvasaṃpuṭa* or *mūṣā* and apply heat by *puṭa* system using ten *upalas* (dung cakes) and lastly grind it well. Repeat the process twelve times. *Tālaka* processed as such may be utilised in medicinal preparations. (73-75)

Tālaka satvapātana

First method :

Mix *haritāla* with *taṅkaṇa,* buffalo ghee and honey well. Put the mixture in a

sthālī (broad mouth vessel) and close it with a *malla* (earthen lid) having a hole in its middle. Seal it properly and apply heat in a slowly increasing manner for one *prahara* (about 3 hours) after closing the hole with *gomaya* (cow dung). At the end of one *yāma* (about 3 hours) open the hole and watch for the fume. If the fumes look pale yellow in colour stop heating. On self cooling take away the *sthālī* from the furnace, open it and collect the *satva* extracted from *haritāla.* (76-77)

There are a number of methods for the extraction of *satvas* from all the stony substances but all have not been enumerated here because of the fear of expansion of the text/work. (79)

Second method :

Take one pala of *haritāla,* grind it with *arka dugdha* (latex of *Coletropis)* for one day. Mix it with *tila taila* in a *śoḍaṣikā* (about 12 gm) amount, mix well and apply heat in an open space for seven *yāmas* and allow it to cool. By this way, white colour *satva* (metal) could be obtained from *haritāla.* (80-81)

Third method :

Mix *tālaka* with the hairs of goat and sulphur. Grind these well for two days, now add the drugs of *drāvaṇa* group to it and fill the same in *kācakūpī,* wrapped three times with cloth smeared in clay and dried in sun rays. Then insert the *kūpī* in a hole made in a *kharpara* (lower half of earthen pot) upto half and subject it to heating for twelve *práharas.* By this method the released *satva* adheres at the neck of the bottle which on cooling can be collected from there. (82-85)

Fourth method :

Tie half pala (25 gm) *tālaka* in a white cloth. Anoint the bundle with sulphur-paste three times and allow it to dry. Melt copper in three pala quantity and suspend *tālaka poṭṭalī* in it and cover it immediately with ash. On cooling, white, soft *satva* of *tālaka* enveloped in copper may be collected. It may be used for *rasa* and *rasāyaṇa* purposes. (86-87)

MANAḤŚILĀ (Realgar)

Varieties :

Three varieties of *manaḥśilā* are described. The first one is *śyāmāṅgī,* the second one is *kaṇavīrikā* and the third one is *khaṇḍākhyā.* Their characters are being described as follows. (88)

Characters of each variety :

The *śyāmā manaḥśilā* is yellowish red in colour and heavy in weight. The *kaṇavīrakā* is copperish red in colour, does not contain any yellowish tinge and looks very bright. The *khaṇḍākhyā* is in powder form, deep red in colour and heavy in weight. The succeeding varieties are considered better than the former varieties as these are claimed to possess more and more *satva* in them. (89-90)

Properties(Pharmaco-therapeutic) :

Manaḥśilā is *tikta* (bitter) and *kaṭu* (pungent) in taste, *uṣṇa* (hot) in property and potency, destroys *kapha* and *vāta doṣas.* It is in the form of *satva* only and considered best amongst *rasāyana* drugs. It can destroy the effects of *bhūta* (evil spirits) and *viṣa* (poisons) and cures *agnimāndya, kaṇḍu, kāsa* and *kṣaya rogas.* (91)

Bad effects of impure manaḥśilā :

Impure *manaḥśilā,* when used internally may cause *aśmarī, mūtrakṛcchra, mandāgni* and *malabandhatā.* But when purified it is claimed to cure all the diseases. (92)

Śodhana :

First method :

Manaḥśilā is purified by subjecting it to *bhāvanā* process with *agastyapatra* juice. It is also purified with the *bhāvanā* of *śṛṅgavera* juice. (93)

Second method :

Manaḥśilā is purified by subjecting it to *svedana* process in *dolāyantra* for one *yāma* with *jayantī patra* juice, *bhṛṅgarāja* juice and *raktāgastya* juice first and then in *chāgamūtra.* In the end it is washed with *āranāla* and used for medicinal purposes. (94)

Satvapātana :

First method :

Mix *Manaḥśilā* with 1/8th part *kiṭṭa (maṇḍūra), guḍa, guggulu* and *ghee,* close it in a *mūsā* and heat it strongly in a *koṣṭhī* to obtain its *satva.*

Second method :

Prepare a *mūṣā* with the paste of *bhūnāga satva, taṅkaṇa* and *madanaphala,* ground with *kāravallī dala* juice. Now put the *manaḥśilā* well pasted with *kṣāra* and *amla* drugs in this mūṣā and apply strong heat for two *ghaṭika.* By this method *manaḥśilā* releases its *satva.* (95-97)

AÑJANAS (Collyriums)

Varieties :

There are five varieties of añjanas, such as *sauvīrāñjana, rasāñjana, srotoñjana, puṣpāñjana,* and *nīlāñjana.* Their characteristics are being described as follows. (98)

Characteristics :

Sauvīrāñjana is smoky in colour. *Rasāñjana* is yellowish. *Srotoñjana* is pointed like the peak of an ant hill, on fracture it looks like blue lotus, and while rubbed may produce shine like *gairika* (red ochre). *Puṣpāñjana* is white, and *Nīlañjāna* is heavy. (99-100)

Note : Of these only *nīlāñjana* is in use at present as *añjana* (collyrium).

Properties (Physico-pharmaco-therapeutic) :

Sauvīrāñjana is smoky in colour, cool in property, destroys *rakta-pitta, viṣa, hidhmā, etc.* diseases and is claimed to clean and heal the wounds. (101)

Rasāñjana is yellowish in colour, improves complexion, destroys *viṣa, mukha roga, śvāsa, hidhmā, etc.* diseases and pacifies *vāta, pitta,* and *rakta prakopa.* (102)

Srotoñjana is *kaṣāya* and *madhura* in taste, *snigdha* and *hima* in properties, *lekhana* and *netrya* in karma and destroys *hidhmā, viṣa, chardi, kapha, pitta* and *rakta rogas.* (103)

Puṣpāñjana is white in colour, *snigdha* and *hima* in property, destroys all types of eye-diseases. Cures severe type of *hidhmā* and also destroys the diseases caused by *viṣas.* (104)

Nīlāñjana is *guru* and *snigdha* in property, *rasāyana* and *netrya* in *karma,* destroys the bad effects of all the three *doṣas,* kills the *suvarṇa* (helps in converting the gold to ashes) and produce softness in metals if mixed. (105)

Śodhana :

All the *añjanas* are purified by the *bhāvanā* treatment with *bhṛṅgarāja* juice. The *rasāñjana* is purified by treating the same with the juice/decoction of *sūryāvartādi* group of drugs. (106)

Satvapātana :

The *satva* of all the *añjanas* may be extracted by the same method as has been described for *manaḥśilā*. The *satva* from *srotoñjana* may be extracted like that of *rājāvarta*. (107, 108)

Use of srotoñjana in rasabandhana :

Srotoñjana frequently and repeatedly subjected to *bhāvanā* with *pañcagavya* (cow's dung, cow's urine, cow's ghee, cow's fat and honey) is considered best for binding mercury quickly. (109)

KANKUṢṬHA (Rhubarb)

Habitat and varieties :

It is obtained from the peaks of Himalaya mountain. It is described to have two varieties. The first one is *nalikā kaṅkuṣṭha* and the second one is *reṇuka kaṅkuṣṭha*. The first is yellowish, heavy, brilliant and considered best while the second is blackish yellow, light and without *satva* and is not recommended for use. (110, 111)

Different opinions about its identification :

I. According to some scholars *kaṅkuṣṭha* is a fecal matter of newly born baby-elephant which is blackish-yellow in colour and considered to be purgative. (112)

II. Others are of the opinion that it is a *nāla* (umbilical cord) of foal (baby-horse) which is whitish-yellow in colour and considered to be a drastic purgative. It is not considered good for *rasakarma* and *rasāyana karma* as it is devoid of *satva* and may cause many *vikāras* (bad effects). (113)

Properties (Pharmaco-therapeutic) :

Kaṅkuṣṭha is *tikta* and *kaṭu* in taste, *uṣṇa* in *vīrya* and acts as a superior purgative. It can destroy *vraṇa, udāvarta, śūla, gulma, plīha roga* and *guda roga*. (114)

Śodhana :

Kaṅkuṣṭha becomes purified if subjected to three *bhāvanā* of *śuṇṭhī jala* (decoction).

Its *satva* extraction method is not described as it is in the form of *satva* only. (115)

Method of its uses :

Those suffering from constipation should use it for purgation in a dose of one *yava* (about 30 mg). It is claimed to cure *āmaśula* (pain due to indigestion) within a moment by causing purgation. If it is used along with *tāmbūla* (betel leaf) it causes severe purgation which may even prove fatal. (116)

Antidote :

For destroying the toxic effects of *kaṅkuṣṭha* one should use *barbūrī (babbūla) mūla kvātha* mixed with *jīraka* and *taṅkaṇa* powder in equal quantity repeatedly. (117)

General Method for Uparasa Śodhana and Satvapātana :

Sūryāvartaka, kadalī, vandhyā karkoṭakī, kośātakī deodālī, śigru, vajrakanda, jalapippalī and *kākamācī* are the drugs prescribed for this purpose. All the drugs of *rasa* and *uparasa* groups when subjected to *bhāvanā* repeatedly with the juices of any of the above drugs and also when treated with *lavaṇas, kṣāras* and *amlas* become purified and on being heated strongly release their *satva* (metal contents). (118-119)

SĀDHĀRAṆA RASAS

Kampillaka, gaurīpāṣāṇa, navasādara, kapardikā, agnijāra, girisindūra, hiṅgula and *mṛddāraśṛṅga* are the eight drugs of the *sādhāraṇa rasa* group. These are claimed to be useful for producing *siddhi* (success) in *rasakarmas* by scholars like Nāgārjuna and others. (120-121)

KAMPILLAKA (Mellotus philipthansis)

Characteristics and occurrence :

Kampillaka looks like brick powder and is full of shine. It is a drastic purgative and occurs in Saurāṣtra Pradeśa. (122)

Pharmaco-therapeutic properties :

Kampillaka is good for destroying *pittadoṣa, vraṇa, ādhmāṇa, vibandha, ślesmodara, kṛmi, gulma, mūla (arśa), āmaśopha, jvara, śūlaroga* and for the diseases which are considered curable by purgation. (123)

GAURĪPĀṢĀṆA

(Arsenolyte/white arsenic)

Synonyms and varieties :

Pīta, vikaṭa and *hatacūrṇaka* are the synonyms of *gaurīpāṣāṇa.* It is described to have three varieties such as *sphaṭikābha* (like quartz), *śaṅkhābha* (like conch shell) and *haridrābha* (like turmaric). The succeeding varieties are comparatively better in properties than the former. (124)

Śodhana :

The superior variety of *mūṣaka (gaurīpāṣāṇa)* should be closed inside the *kāravallīphala* and applied *svedana* (heating through liquid bath) in a *haṇḍīkā* (pot) filled with water. By this method *mūṣaka* becomes purified. (125)

Satvapātana :

Its *satva* (metal content) should be extracted like that of *tālaka* and it is *śubhra* (white) in colour.

Properties :

It is *snigdha* (unctuous), *doṣaghna* (pacifies all the three *doṣas*), potentiates and binds mercury. (126)

NAVASĀDARA (Ammonium chloride)

Utpatti :

A) It is produced by the burning of *karīra* and *pīlu* fire woods and is a type of *kṣāra* (alkaline material) and is called *navasāra.* It is also called *cūllikā lavaṇa.* (127)

B) It is also produced during the roasting process of bricks. It is *pāṇḍu* (pale) in colour, *lavaṇa* (saltish) in taste and *laghu* (light) in weight. This material is called *navasāra* and also *cūllikā lavaṇa.* Both of these are obtained from *cūllikā* (furnace) hence also called *cūllikā lavaṇa.* (128)

Properties :

It is used in the *jāraṇa karma* (consuming and assimilation process) of mercury and in *drāvaṇa* (liquefaction) of *lohas* (metals). It stimulates *jaṭharāgni* (digestive fire), destroys *gulma* (gaseous trouble), *plīhā* (enlarged spleen), and *āsyaśoṣa* (drying of mouth), helps in the digestion of ingested *māṃsa* (meat), called *viḍa*, pacifies all the three *doṣas* and known as *cūllikā lavaṇa*. (129)

VARĀṬIKĀ (Cowrie)

Characteristics :

The *varāṭikā*, (cowrie) which is yellowish in colour, possesses nodules on its back, and has large *vṛttas* (edges), is mentioned as having the name *carācara* by the Rasavaidyas. (130)

Varieties :

That which is one and half *niṣka* (about 6 gm) in weight is considered best. That which is one *niṣka* (4 gm) in weight is medium and that which is less than one *niṣka* (about 3 gm) in weight is considered inferior. (131)

Properties of other types :

The *varāṭikās* other than the above three varieties are called *varāṭās*. These are considered *guru* (heavy to digest) and to increase *śleṣmā* and *pitta doṣa*. (132)

Pharmaco-therapeutic properties :

It destroys *pariṇāma śūla* (pain due to duodenal ulcer), *etc. śūla rogas*, vanishes *grahaṇī* and *kṣayarogas*. It is *kaṭu* (pungent) in rasa and vipāka, *uṣṇa* (hot) in *guṇa* and *vīrya*, *dīpana* and *vṛṣya* in *karmas* and good for *netras* (eyes). It destroys *vāta* and *kapha doṣas* and is mentioned useful for *rasendra jāraṇa* and considered best amongst *viḍa dravyas*. (133)

Śodhana :

Varāṭikas (cowries) become purified by boiling them in *kāñjika* for two *yāmas*. (134)

AGNIJĀRA (Amber)

When the *jarāyu* (external covering of the skin or womb) of *agninakra* (a type of sea animal) is thrown out of the sea and gets dried in sun rays it is known as *agnijāra*. (135)

Properties :

Agnijāra is claimed to destroy all the three *doṣas,* and *dhanurvāta,* etc. *vātik* diseases, increases the potency of mercury, acts as *dīpaṇa* and *jāraṇa.* (136)

Śodhana :

As it is obtained in the purified form from the sea hence its *śodhana* is not mentioned.

GIRISINDŪRA (Red Oxide of Mercury)

The *rasa* (liquid material) which remains inside the rocks of big mountains in very minute quantities and becomes red on drying is known by the term *girisindūra.* (137)

Properties :

Girisindūra is described to pacify all the three *doṣas,* acts as *bhedana* (loosening of feces) and best *rasabandhana* (mercury binder), useful in *dehakarma* and *lohakarma* and good for *netras* (eyes). (138)

HIṄGULA (Cinnabar)

Types :

Hiṅgula is of two types, one is called *śukatuṇḍa* and the other *haṃsapāda.*

Characteristics :

Śukatuṇḍa is also called *carmāra* and is inferior in properties.

Haṃsapāda is said to possess white lines and looks like *pravāla* (coral) in colour. (139)

Properties :

Hiṅgula is claimed to destroy all the *doṣas,* acts as *dīpana,* best *rasāyana, vṛṣya* and *sarvarogahara* (destroyer of all the diseases). It is highly useful/recommended for *jāraṇa* purpose in mercury. (140)

Properties of Hiṅgulākṛṣṭa Sūta (Mercury extracted from Cinnabar) :

Mercury extracted from *hiṅgula* is claimed to possess properties similar to those of mercury in which *gandhaka* has been calcined many times in different proportions. (141)

Śodhana :

Hiṅgula becomes free from all the *doṣas* (impurities) if it is triturated (given *bhāvanā*) with *ārdraka* juice or *lakuca* juice seven times and dried thereafter. (142)

Another method :

There is no wonder if *hiṅgula* triturated well with *meṣīkṣīra* (goat's milk) and with *amla varga* drugs many times makes the colour of gold similar to that of the best quality *kuṃkuma* (saffron) on heating in sun rays for long time. (143)

Satvapātana :

Hiṅgula put in *pātana yantra* and distilled in water by heating definitely releases its *satva* (metal content) similar to *sūta* (mercury). (144)

MṚDDĀRASṚṄGA (Litharge)

Origin and characteristics :

That which is produced in *Gurjara Pradeśa* near *Arbuda* (Ābū) mountain and which is yellow and with lamellae is known as *mṛddāraśṛṅga.* (145)

Properties :

Its *satva* (metal content) is *śīsa* (lead) and it pacifies *śleṣmā,* destroys the diseases of males, imparts original (black) colour to hairs and considered best for *rasabandhana* (fixation of mercury). (146)

General Śodhana Methods for Sādhāraṇa Rasas :

All the drugs of *sādhāraṇa rasa* group if triturated with the juices of *mātuluṅga* and *ārdraka* for three nights and then dried become free from all the *doṣas* (impurities/bad effects). (147)

General Śodhana Methods for Satvas :

Whatever type of *satva* if heated strongly alongwith the drug of *śuddhi varga* become fully purified and unite with each other. (148)

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NOTES ON THE THIRD CHAPTER

UPARASAS

In ancient times the minerals of alchemical and medicinal importance were classified in *mahārasa, uparasa* and *sādhāraṇa rasa* groups. This classification is based on preferential usefulness of the minerals in mercurial operations. The highly useful minerals are included in *mahārasa* group. The minerals which stand next in usefulness to the former group are named as *uparasa* and *sādhāraṇa rasas.* The *Rasa Ratna Samuccaya* accepts this classification and includes eight drugs in each group.

It is also important to mention here that there are some scholars who grouped all the minerals found useful in mercurial operations in one group, *i.e., uparasa* group, without giving much importance to their preferential usefulness. According to these scholars about 25 drugs are included in *uparasa* group. The drugs of *uparasa* group mentioned in different texts are shown in the following tables (Tables 1 & 2).

Table - 1

The eight drugs of the uparasa group mentioned in different texts

Sl. No.	Name of the drug.	*Rasār-ṇava*	Name of the Text				
			R.H.T.	*R.Cu.*	*R.P.S.*	*R.R.S.*	*R.K.D.*
1.	*Gandhaka*	+	+	+	+	+	*Kharpara*
2.	*Gairika*	+	+	+	+	+	*Śikhi Tuttha*
3.	*Kāsīsa*	+	+	+	+	+	*Varāṭa*
4.	*Kāṅkṣī (sphaṭikā)*	+	+	+	+	+	*Śaṅkha*
5.	*Tālaka*	+	+	+	+	+	*Ṭaṅkaṇa*
6.	*Manaḥśilā*	+	+	+	+	+	*Hiṅgula*
7.	*Añjana*	*Rājāvarta*	+	*Sauvīrāñjana*		+	+
8.	*Kaṅkuṣṭha*	+	+	+	+	+	*Bhūnāga*

R.H.T. = *Rasa Hṛdaya Tantra*
R.Cu. = *Rasendra Cuḍāmaṇī*
R.P.S. = *Rasa Prakāśa Sudhākara*
R.R.S. = *Rasa Ratna Samuccaya*
R.K.D. = *Rasa Kāma Dhenu*

Table - 2

Text-wise drugs of uparasa group where the number is not limited to eight

Sl. No.	Name of the drug	Name of the Text				
		Rasa-Mañjari	*Rasa Sāra*	*R.Ratnā-kara*	*R.S.S.*	*Āy. Pra.*
1.	*Añjana*	+	-	-	+	+
2.	*Kāntapāṣāṇa*	+	+	+	+	+
3.	*Kāsīsa*	+	Tutthkāsīsa	+	+	+
4.	*Kaṅkuṣṭha*	+	+	+	-	+
5.	*Gagana (Abhra)*	+	+	+	+	
6.	*Kharpara*	+	-	+	-	
7.	*Gandhaka*	+	-	-	+	
8.	*Gairika*	-	+	+	+	
9.	*Goja (Narasara)*	-	-	+	-	
10.	*Taṅkaṇa*	+	-	-	-	
11.	*Tālaka*	+	-	+	-	
12.	*Bhūnāga*	+	-	+		
13.	*Vajra*	+	-	-		
14.	*Varāṭa*	+	-	+		
15.	*Vimala*	+	-	+		
16.	*Vaikrānta*	+	+	+		
17.	*Sita*	+	+	+		
18.	*Śilājatu*	+	-	+		
19.	*Śikhi Tuttha*	+	+	+		
20.	*Śaṅkha*	+	Sasyaka	+		
21.	*Hemamākṣika*	+	+	+		
22.	*Hiṅgula*	+		+		

R.S.S. =
Āyurveda Prakāśa =

It is worth mentioning here that *uparasa* group is found described in almost all the texts while the mention of *sādhāraṇa rasa* group is found only in *Rasa Prakāśa Sudhākara* and *Rasa Ratna Samuccaya.* As regards the drugs and their numbers *Rasa Ratna Samuccaya* along with *Rasārṇava, Rasa Ratnākara, Rasa Prakāśa Sudhākara* and *Rasa Hṛdaya Tantra* has mentioned eight drugs in this group with little variation in the name of the drugs. The drugs are *gandhaka, gairika, kāsīsa, kāṅkṣi, tālaka, manaḥśilā, añjana,* and *kaṅkuṣṭha. Rasa Ratnākara*

mensions *rājāvarta* and *bhūkhaga* instead of *añjana* and *kāṅkṣi.* In other *Rasa* texts where the number of the drugs of *uparasa* group is not limited to eight the *mahārasa* and *sādhāraṇa rasa* groups are not mentioned. In these texts all the minerals found useful for mercury and its operations are named *uparasas i.e.* these are inferior to *rasa* (mercury).

GANDHAKA (Sulphur)

In *Rasa Ratna Samuccaya* its mythological origin has been described in detail. According to this it is claimed to be related to goddess Pārvatī and is said to have originated from her menstrual discharge. Its place of origin is mentioned as *Śveta dvīpa* and it got its origin as a result of the churning operation of milk ocean, along with *amṛta* (nectar). Scientifically, the story may be explained as follows. The goddess Pārvatī referred here represents nature, *Śveta dvīpa* represents Sicily. Churning of milk ocean represents volcanic erruptions and the menstrual discharges is to be explained as the flow of liquids coming out of the places of volcanic eruptions. The mention of its specific smell is to indicate the presence of peculiar smell of sulphur in its mines. Its occurrence with nectar is indicative of its association with various metals at the time of the occurrence *i.e.* its occurrence in compound form.

Though four varieties of sulphur based on colour have been mentioned in *Rasa Ratna Samuccaya,* the uses and superiority or inferiority is mentioned only for three varieties, as the fourth black variety is described to be rare. The white variety is due to the presence of impurities like clay, chalk, *etc.,* and probably because of this reason it is not recommended for internal use and is considered the most inferior. The yellow variety is called *āmala sāra* and/or *śukapiccha* and recommended for *rasa karma* and *rasāyana karma,* both. The red variety is called *śukacañcunibha* or *śukatuṇḍākhya* and is recommended only for *dhātuvāda vidhi* (alchemical practices). It is claimed to be the best amongst all the three available varieties possibly because of its usefulness in *dhātuvāda* (transmutation purposes). The black variety is also claimed to be useful for removing *jarā* (senility) and *mṛtyu* (death) but its availability is described as *durlabha* (rare).

Importance of the Śodhana Process of Sulphur :

In the purification methods, sulphur melted with cow's ghee is poured in milk or in some prescribed vegetable extractives through a cloth so as to allow the filtered sulphur to go into the liquid. The process is advised to be repeated several times to remove the impurities completely. This helps in removing the impurities in three ways, *i.e.,*

(A) by removing insoluble impurities through filtration,
(B) by solubilising fat soluble, and water soluble impurities, and
(C) by adding the property of milk or the vegetable extractive.

It has been mentioned in *Rasa Ratna Samuccaya* that sulphur contains two types of impurities, *viz.*, insoluble or physical impurities such as clay, stony pieces and other materials, and soluble impurities such as arsenic, poisonous materials, *etc.* which are fat soluble or water soluble. The liquids used for its purification help in converting the melted sulphur immediately into the solid form.

For therapeutic purposes purified sulphur may be used externally and internally mainly for skin disorders. It is considered hot in effect, stimulates digestive fire, loosens and absorbs *āma doṣa*, removes toxins, and improves *śukradhātu*, vigour and strength. Internally, it may be used in purified form and in the form of oil or *druti*. It imparts potency to mercury and lessens its toxicity.

GAIRIKA (Hematite/Redoxide of iron, Fe_2O_3)

It is an oxide of iron having red colour and generally in powder form. Chemically it contains 70% iron and 30% oxygen. In addition, it often contains magnesium and titanium. *Gairika* occurs in compact, granular, or earthy masses ; sometimes in crystal form also. The earthy varieties are apparently soft but crystalline hematite is hard. Its hardness varies from 5.5 to 6.5. Red ochre is red earthy hematite. It is very soft and possesses a dull lustre. It often contains considerable amount of clay, sand and other impurities.

Varieties :

Tow main vari ies of *gairika* are mentioned in Āyurveda : *pāṣāṇa gairika*—hard and copperish in colour, and *svarṇa gairika*—soft, smooth and deep red. The *pāṣāṇa gairika* is the hard variety of hematite, while the *svarṇa gairika* is the earthy variety. In *Āyurveda Prakāśa* a third variety, *sāmānya gairika*, is also mentioned which is in between the *pāṣāṇa* and *svarṇa* varieties, *i.e.*, it may contain less clay and sand. The percentage of iron is very high in *pāṣāṇa gairika* and in modern times iron is generally extracted from this variety of hematite.

Significance of the term svarṇa gairika :

The term *svarṇa* added to this mineral is to indicate its brilliant red colour or to indicate its usefulness in making gold very bright and shining, as it is used by the goldsmiths for polishing gold. However, it does not contain gold even in traces. It occurs abundantly in various parts of India.

Properties :

Gairika is astringent in taste and cold in property/effect : hence it is highly useful in checking the bleeding from different parts of the body due to *pittaduṣṭi*. Besides, it is good for hiccough, vomiting and poisons. In *Āyurveda Prakāśa* it is claimed to be *rūkṣa* (dry) and the best drug for itching. On account of its *rūkṣa* property it pacifies *kapha doṣa* also and is a good cure for *kaṇḍu* which is caused by the vitiation of *kapha*.

Processing :

Cow's milk or cow's ghee is indicated for purification of *gairika*. The milk is used for *bhāvanā* (maceration) and ghee is used for *bharjana* (frying).

As regards its *satvapātana*, Nandi has stated that it is in the form of *satva* (metal) but others mention that its *satva* can be extracted by treating it with *kṣāra* and *amla*. According to Prof. D.A. Kulkarni iron may be extracted as its *satva* and that iron is more effective than ordinary iron. It is mentioned in *Rasa Ratna Samuccaya*, that *gairika* in the form of *satva* can mix well with mercury and not in the *gairika* form.

KĀSĪSA (Green vitriol, Ferrous sulphate, $FeSO_4$)

Kāsīsa is a green coloured mineral of iron which is chemically ferrous sulphate. In *Rasa Ratna Samuccaya* its two varieties, *viz., bālukā kāsīsa* and *puṣpa kāsīsa* are mentioned. *Bālukā kāsīsa* and *pāṃśu kāsīsa* are the same and may be called *dhātu kāsīsa* also. It is greenish and granular. The *puṣpa kāsīsa* is yellowish. *Bālukā kāsīsa* converts itself into *puṣpa kāsīsa* in course of time on account of exposure to atmosphere. *Bālukā kāsīsa* is soluble in water while *puṣpa kāsīsa* is insoluble. In local market it is sold in the name of *hīrākas* and is available in the form of big crystals. Now a days it is also prepared artificially by the action of sulphuric acid on iron. In *Rasārṇava* its white and black varieties are also mentioned along with the yellow variety. The white variety is due to the mixture of chalk, or it may be an intermediate state of conversion of *bālukā kāsīsa* to *puṣpa kāsīsa*. The black variety is due to the mixture of black soil with *kāsīsa*.

Properties :

According to the texts *kāsīsa* is claimed to possess sour taste. However, in some texts it is stated to possess astringent taste while some other mention it as of *kṣāra* (alkaline) or *tikta* (bitter) taste. It is hot in property and by virtue of this it is claimed to be *vāta śleṣma hara* and destroys the diseases caused by these *doṣas*. It is antipoisonous, a potent hair dyer, eye tonic and quite effective for *śvitra* and other skin disorders. *Āyurveda Prakāśa kāra* recommends it to be

effective in urinary disorders like difficult micturition, calculous, *etc.* Though it is an iron compound, it is not found indicated in *pāṇḍu* (anaemia) although experimental studies have proved it to be a good haematonic agent.

Processing :

For its purification *Rasa Ratna Samuccaya* advises soaking *kāsīsa* in the juice of *bhṛngarāja*, bile, or menstrual discharge. But Prof. D.A. Kulkarni, while commenting on it, questions how only soaking may remove the impurities. He further mentions that if it is boiled with these liquids then some soluble impurities may go into the liquids used. I think he is very right in this. Hence it is suggested that the term *klinnam* may be changed to *svinnam* and then it may become more meaningful and appropriate. As by this process soluble impurities/materials may dissolve into the solution and insoluble impurities may remain in the cloth.

It is important to mention here that the mineral is already in compound form and advised to be used internally after purification only ; hence its *māraṇa* is not mentioned. Regarding its *satvapātana* (extraction of metal content) the text mentions that its *satva* may be obtained as per the method mentioned for *sphatikā* (alum).

For *rasāyana* effect, *Rasa Ratna Samuccaya* has advised that it should be used in ash form mixed with equal quantity of *kānta bhasma* and in association with *triphalā*, *vella* and unequal parts of ghee and honey in one *śāṇa* (about 3 gm) quantity. It further advises that if it is used by the method of *rasāyana prayoga* continuously for one year it may completely remove *āmadoṣa*, stimulate sluggish digestive fire, and definitely cure greying of hair associated with wrinkles.

SPHAṬIKĀ (Alum/double sulphate of potassium and aluminium) :

Tuvarī, saurāṣṭrī, kāṅkṣī, etc. are its synonyms.

Origin :

It is described in *Rasa Ratna Samuccaya* that it is obtained from the rocks of Saurāṣṭra in the form of clay. It is further said about it that if it is pasted on the cloth it deepens the colour of *mañjiṣṭha* or makes its colour very fast.

As per modern concept, it is presumed that in places where aluminium and sulphur are present as the constituents of soil, the rocks of all such places may contain alum in some amount. In India Saurāṣṭra was the first recognised place for such soil. Hence the soil obtained from here and containing alum is known as *Saurāṣṭrī*. It is full of impurities and from this pure, white and crystalline alum is obtained with great efforts.

Varieties :

In the *Rasa Ratna Samuccaya* two types of *sphaṭikā, viz., phaṭakī,* and *phullikā* are mentioned. Of these *phaṭakī* is heavy, yellowish and brilliant while *phullikā* is light, white and brilliant. Its taste is slightly sour. *Phaṭakī* is antipoisonous and destroys all types of *kuṣṭhas* (skin disorders) and wounds, while *phullikā* is used as a paste on copper sheets for their reduction.

Properties :

Sphaṭikā is *kaṣāya, kaṭu* and *amla* in taste, pacifies all the three *doṣas,* acts as *kaṇṭhya, keśya, netrya, vraṇaghna, viṣanāśī, śvitrāpaha,* and *śāntiprada.* It also helps in the *jāraṇa karma* of mercury.

Note : Initially the earth containing alum was obtained from Saurāṣṭra and supplied throughout India, but later on it was also found in Punjab, Bihar, U.P. and Mahārāṣṭra. It is a type of soil in which aluminium and sulphur are present in a specific combination. It may be obtained either from hilly areas or from planes.

TĀLAKA (Orpiment, Arsenical gold ore ; AS_2S_3)

Orpiment, though more abundant than realger, is not a common mineral. It is usually found in foliated or columnar masses with a bright yellow colour. The pure mineral contains 39% sulphur and 61% arsenic. Thus it contains about 9% more sulphur than realgar. Folios are flexible but not elastic ; slightly sectile ; hardness 1.5 - 2.0 ; sp. gr. 3.5 ; lustre resinous to pearly ; colour lemon-yellow ; streak translucent to opaque. When heated to 100°C it becomes red, however resumes its original colour on cooling but on heating to 150°C the change is permanent. It is commonly associated with realger and often formed from it. It is found in nature and prepared artificially also by the treatment of arsenic acid with H_2S under high pressure.

Mythologically it is said to have originated from the discharge produced at the end of sexual act of Lord Śiva and Goddess Pārvatī.

Varieties :

Two varieties of *tālaka, i.e.,* (1) *patra* and (2) *piṇḍa* are described. The *patra* variety is better than the *piṇḍa* variety. *Patratāla* is heavy, greasy, golden yellow, bright and in the form of thin laminae. *Piṇḍatāla* is light, rough, dull, with low metallic content and in mass form ; supposed to contain more impurities. *Patratāla* is generally obtained from Iran and hence it is also known as *Bagdādī Haratāla.*

Properties :

Therapeutically *patra tāla* is claimed to possess *rasāyana* property while *piṇḍa tāla* is claimed to stop the menses of ladies. Unpurified *tālaka* is said to produce toxic effects in the body and to provoke *kapha* and *vāta doṣas* ; hence it should first be purified and then used internally.

Processing :

For purification *tālaka* should be subjected to either *bhāvanā* or *svedana* with *kūṣmāṇḍa juice, cūrṇodaka* or some other liquids either to remove its soluble impurities or to add some properties of vegetable extractives to counteract its toxic effects. It is recommended for use after purification only but a few scholars suggest its *māraṇa* also which should be done very carefully as its contents volatilise even at a low temperature. Hence *Rasa Ratna Samuccaya* advises to use only ten cow dung cakes as fuel for applying heat while preparing its *bhasma* (ash). Further, the texts have described the period of a few months for extracting its *satva* (metal content) and the colour of its *satva* is described to be white. It means arsenic is obtained from it as *satva.*

MANAḤŚILĀ (Realger, arsenic disulphide, As_2S_2)

It is a drug/mineral of *uparasa* group which occurs as bright red incrustations and coatings on other substances. Colour is aurelian red to orange yellow ; hardness 1.5 - 2.0 ; sp. gr. 3.5 ; transparent to translucent or opaque. *Manaḥśilā* contains 71.1% As and 29.9% S. It catches fire when heated on charcoal and burns with a light blue flame giving out dense clouds of arsenic fumes and odour of SO_2. Its bright red colour and its reactions for sulphur distinguish it from other minerals ; and its softness, low sp. gr. and the arsenic fumes distinguish it from cinnabar. On exposure to air and light realgar gets oxidised yielding orpiment (As_2S_3) and arsenolite (As_2O_3).

Manaḥśilā occurs with the ores of silver, lead and antimony and is usually associated with orpiment ; it is also found as a sublimation product and as a deposit from hot springs. It is a product of an interaction of arsenic with sulphur vapours. It occurs in native form but is also prepared artificially. In almost all the texts its three varieties are mentioned based either on colour or form.

Characteristics :

That *manaḥśilā* which is bright red like that of *japāpuṣpa* is considered the best. It should also be heavy and free from clay and stones.

Properties :

Manaḥśilā is *tikta, kaṭu, uṣṇa, guru* and *snigdha,* best amongst all the *rasāyana* drugs, *lekhana, śoṣaṇa, viṣaghna,* destroys *vraṇa, arśa, bhūtopadrava* and *kaphavāta doṣas.* It should be used after proper purification otherwise it produces many undesired symptoms and diseases.

Processing :

For purification *manaḥśilā* should either be subjected to *bhāvanā, svedana,* or *pācana* in prescribed liquids/extractives for prescribed number of times.

Antidote :

Satvapātana : Cow's milk with honey.

Its *satva* (metal content) may be extracted by mixing it with 18th part ghee, *guḍa, guggulu* and *kiṭṭa* and subjecting it to strong heating in a *mūṣā* for at least two *ghaṭikās.* Arsenic is likely to be extracted as *satva* from it.

AÑJANA (Collyriums Lead/Antimony Compounds)

Regarding occurrence it is said in *Rasakāmadhenu* that the *añjanas* occur either in hilly areas or in rivers.

Five types of *añjanas* are described in the texts which from modern point of view may be taken as different minerals. It may also be mentioned here that many scholars in 20th century mentioned in their respective texts that *sauvīrāñjan* and *srotoñjana* are antimony compounds, *nilāñjana* is lead compound, *rasāñjana* is mercury compound or a solidified vegetable extractive and *puṣpāñjana* is zinc or calcium compound. But on the basis of the findings of experimental study it may be pointed out that the suggestions in some texts that *sauvīrāñjana* and *srotoñjana* are antimony compounds are not proper as the antimony compound, stibnite, proved highly toxic to the eyes and caused blindness in experimental animals when applied locally in the eyes. Further the same study suggests that the lead compound (PbS) proved beneficial for the eyes. Besides, the samples collected from the different parts of the country being used in the name of *añjana* are exclusively the lead compound (PbS). Thus, the present author is of the opinion that all these añjanas described in ancient texts must be only the lead compounds having different characteristics because of the presence of varying percentage of various impurities.

Of the lead compounds, galena (lead sulphide - PbS) is generally taken as *añjana.* It is found in crystalline masses, in large and small crystals and in crease or fine granular aggregates. It contains 86.6% lead and 13.4% sulphur, and usually small quantities of sulphides of silver, zinc, cadmium, copper and

bismuth and in some cases native silver and gold. Sometimes antimony and iron are also present in small quantities. The impurities probably impart different characteristics to this mineral and in ancient times these were known as different types of *añjanas.*

Well developed crystals of galena are common, the usual forms being cubes or octahedrons independently or mixed. It is well characterised by its grey colour, perfect cleavage, high sp. gr. (6.3) and metallic lustre. Hardness is about 2.5 to 2.6. Streak is greyish black. It is a good conductor of electricity, fuses on charcoal yielding sulphureous fumes and globules of metallic lead, soluble in nitric acid with the separation of sulphur.

Galena is a widely occurring mineral and is found in the veins of silver and lead containing igneous rocks, and as deposits in ground water surrounding sedimentary rocks. It is frequently associated with zinc and silver ores.

Properties :

According to Āyurvedic description *nīlāñjana* is bluish, bright, heavy and greasy. Alchemically it is claimed to be *suvarṇaghna* (helps in converting gold to ashes) and *lohamārdava kāraka* (produces softness in metals). Therapeutically it is *netrya* (good for eyes and its diseases) and *rasāyana* (rejuvenates body tissues), destroys the vitiation of all the three *doṣas.*

Processing :

It is purified by subjecting it to *bhāvanā* or *svedana* with vegetable extractives/liquids prescribed for the purpose.

Its *satvapātana* is also recommended and may be done as per the method mentioned for *manaḥśilā* or *rājāvarta.*

Note - According to other scholars (*i.e.* Prof. D.A. Kulkarni) *sauvīrāñjana* and *srotoñjana* are two types of antimony sulphide (Sb_2S_3), *rasāñjana* is yellow oxide of mercury, *puṣpāñjana* is zinc oxide and *nīlāñjana* is lead sulphide. Some scholars suggest that *rasāñjana* is a vegetable product prepared by solidifying *dārvīkvātha* (decoction of burberis species) which is known as *rasonta* in Hindi.

KAṄKUṢṬHA (Rhubarb)

Since ancient times *kaṅkuṣṭha* is considered to be a controversial drug. According to Bhāluki it is an ore of tin probably cassiterite (SnO_2). According to Rasārṇavakāra it is a bright red material similar to *vidruma* (coral). In *Rasa Ratna Samuccaya* it is mentioned about this material that it is obtained from the base of the high peaks of mountains specially of Himālaya. But this text is also not sure about its identity as here the opinions of other scholars have also been

quoted, *viz.*, some say that it is the feces of a newly born baby elephant which is yellowish black in colour. Some others say that it is an umbilical cord of a newly born colt which is yellowish white. According to Dalhaṇa (the commentator of Suśruta) *kaṅkuṣṭha* is *niryāsa* (exudate) of *svarṇakṣīrī*. A few other scholars suggest it to be the *mṛddāra śṛṅga* (yellow oxide of lead) because of its yellow colour. Others mention that because of its relation with Himālaya mountains it should be the root of *Revanda Chīnī* (Rhubarb) which possesses good *virechana* property. Still others say that it is a gum of Mysore Gambose Tree as it is also yellow and has a *rechana* property.

Thus, there are many opinions about *kaṅkuṣṭha* but actually what it is, could not be said definitely.

Varieties :

Rasa Ratna Samuccaya mentions two varieties of *kaṅkuṣṭha viz., nalikā kaṅkuṣṭha* (tube like) and *reṇuka kaṅkuṣṭha* (sand like). Thus, in the opinion of the present author it should be a mineral substance having tubular or sandy appearance, yellow or blackish yellow colour and drastic purgative effect.

SĀDHĀRAṆA RASAS

This is the third group of mineral drugs described in *Rasa Ratna Samuccaya.* In this group the minerals of ordinary utility to mercury have been included. The drugs are *kampillaka, gaurīpāṣāṇa, navasādara, kaparda, agnijāra, girisindūra, hiṅgula* and *mṛddāraśṛṅga.* The drugs of *Sādhāraṇa Rasa* group mentioned in different texts are shown in the table-3.

It is evident from this table that *Rasa Prakāśa Sudhākara* included only six drugs in this group deleting *kampillaka, gaurīpāṣāṇa.* and *capala. Āyurveda Prakāśa* enumerated seven drugs in this group ; *hiṅgula* and *mṛddāraśṛṅga* having been excluded and *capala* being included.

KAMPILLAKA (*Mallotus philipinensis* Muell-Arg)

Kampillaka is a vegetable drug. However, on account of its usefulness in mercurial operations it has been included in this group.

According to description in the texts *kampillaka* is said to be the *phala rajas, i.e.,* it is a powder covering the fruits of this plant. It is a yellowish red sand like powder which floats on water and the wet powder, when rubbed on white paper, produces yellow lining. Its ash content should not be more than 9%, and it should produce sparking if put on fire. It is insoluble in cold water, completely soluble in ether and alcohol, and can be detected microscopically.

It is generally found in Tropical areas—east and south of Himālaya. Saurāṣṭra is specifically mentioned in this context along with Burma, Singapore

TABLE 3

The textwise drugs of Sādhāraṇa rasa group

Sl.	Name of the drug	Name of the Text				
		R.Cū.	*R.P.S.*	*R.D.P.*	*R.R.S.*	*Āy. Pra.*
1.	*Kampillaka*	+	-	+	+	+
2.	*Gaurīpāṣāṇa*	+	-	+	+	+
3.	*Navasādara*	+	+	+	+	+
4.	*Kaparda/ Varāṭa*	+	+	+	+	+
5.	*Agnijāra*	+	+	+	+	+
6.	*Girisindūra*	+	+	+	+	+
7.	*Hiṅgula*	+	+	+	+	-
8.	*Mṛddāraśṛṅga*	+	+	+	+	-
9.	*Capala*	-	-	-	-	+

R.Cu. =*Rasendra Cūḍāmanī*

R.P.S. =*Rasa Prakāśa Sudhākara*

R.D.P. =

R.R.S. = *Rasa Ratna Samuccaya*

Ay. Pra.= *Āyurveda Prakāśa*

and Malaya. The plant is 25 to 30 feet in height and remains green throughout the year. Fruits are small and round, and on ripening become covered with a reddish powder which when collected is known as *kampillaka.* According to *Rasa* texts it is described to be similar to brick powder with some shining and not possessing any taste or smell. It may contain a few particles of plant tissues, and sometimes it is also found adulterated with sand particles which makes it heavy and less shining.

Chemical composition :

Kampillaka contains a crystalline substance known as Rotaline. It also contains another yellow crystalline substance, yellow and red resin, wax, volatile oil, starch, sugars, tannin, oxalic and citric acids.

Properties and Uses :

Kampillaka is *kṛmighna* and specific for the worms, produces purgation,

cures skin disorders, pacifies *vāta* and *kapha doṣas* and should be used mixed with ghee and oil. In large doses it may produce nausea and coma.

Dose : 4 to 6 guñjā with honey.

GAURĪPĀṢĀṆA (White Arsenic)

Gaurīpāṣāna is a mineral of *sādhāraṇa rasa* group and is known as white arsenic. On fresh fracture it looks opaque and tin white but on exposure it tarnishes into dark grey to black. Native arsenic often contains antimony as well as bismuth, cobalt, nickel, silver, iron, or gold. Crystals are hexagonal or psuedocubical, occurs in compact, scaly, granular or fine-grained masses, often breaks into onion like layers, found principally in the veins of rocks with silver, cobalt, and nickel.

As *gaurīpāṣāna* is found in association with sulphur, iron, or copper its ores are roasted in furnace and the arsenic content mixed with oxygen gets accumulated in the pipes and is collected from there. According to texts, it is obtained from two sources, *viz.*, mountains or minerals, *i.e.* it is *parvata sambhava (khanija)* and *tāla sambhava (kṛtrima).*

Varieties :

Three varieties of *gaurīpāṣāna* are mentioned. These are *sphaṭikābha,* which is the best ; *śaṅkhābha,* which is better ; and *haridrābha,* which is good. Its colour is white or yellow/red. *Somala, malla, śaṅkhaviṣa, mūṣaka, etc.* are its synonyms.

Processing :

Gaurīpāṣāna is purified by heating it in cow's milk by *dolāyantra* method. It is also purified by closing it in *kāravallīphala* or *sūraṇa kanda* and then subjected to *svedana.* It may also be obtained as *satva* from *tālaka* and *manaḥśilā.*

NAVASĀDARA (Amonium chloride)

Navasādara is a type of salt which is yellowish white in colour, saltish or alkaline in taste, very light in digestion, cool in touch and sometimes pungent. It is also called *narasāra, cullikā lavaṇa* or *viḍa lavaṇa.*

Sources and method of collection :

Navasādara is obtained from the ash collected from the places where bricks

are burnt using the *karīra* and *pīlu* woods as fuel along with animal excreta and leaves. It is also obtained from small domestic hearths *(cūlhās)* where fire woods and dung cakes are burnt as fuel. It may also be obtained from the ash of camel excreta. In Europe it is made from human urine also and hence it is called *narasāra.* It is also obtained from the volcanic mountains of Sicily. Middle Asia is also its another source.

Navasādara sublimes on heating and on being added to it makes the water to cool.

Properties :

Navasādara is claimed to be *tridoṣa śamana,* and a very good stimulant of digestive fire, helping in the digestion of all types of food. It helps in the *jāraṇa karma* of *pārada* [when mixed with mercury it helps in the digestion and assimilation *(grāsa)* of metal in mercury]. It also helps in the liquefaction of metals and is useful in almost all the diseases specially connected to digestive system.

Processing :

As *navasādara* is soluble in hot water, for purification it is dissolved in hot water, filtered through a thick cloth, and the filtered solution evaporated to obtain it as white crystals. It may also be purified by sublimation through *damaru yantra* method. In this method very pure, light and yellow coloured powder of *navasādara* is obtained.

KAPARDA (*Cowry* ; $CaCO_3$)

Kaparda is a marine product and many varieties, based on size, colour and nodes on the back are obtained. Chemically it is carbonate of calcium.

The *cowry* having yellowish colour, nodes on its back, heavy and big in size is considered the best. The *cowries* other than this are considered inferior as they are heavy to digest and provokes *śleṣma* and *pitta doṣa* in the body.

Properties :

The *kapardas* are hot in action, contain *kaṭu* and *tikta* (pungent and bitter) taste, stimulates digestion, acts as *rasāyana,* proves good for eyes and helps in the *jāraṇa karma* of *pārada.* It is claimed specific for *pariṇāma śūla* and *grahaṇī.*

Processing :

For purification of *kaparda* its external impurities are removed by boiling it

in acidic liquids through *dolāyantra* method. For converting it to ashes it should be heated to 600°C at least for one or one and half hour. About the quantum of heat to be applied for *kaparda* it is said in ancient texts that it should be that much by which these shells could be puffed up *(utphullana).*

AGNIJĀRA (Amber)

It is an animal product *viz.*, the *jarāyu* (an outer covering) of *agninakra* (a sea animal) obtained from sea. *Jarāyu* is *garbha koṣa* (covering of an embryo). According to ancient Āyurvedic view *agnijāra* is the dried external covering of an embryo of *agninakra* dried due to intense heat of sun and taken to the sea shore. According to modern view it is the dried portion of the fecal matter found in the intestines of dead whale, which is separated from it and taken to the sea-shore by the waves.

Agnijāra is obtained from the sea shores of India, Lākṣādvīpa, Nicobar Island and Africa. Its colour is blackish white just like ash and it possesses black spots on its surface. It is opaque, very light, in mass form, insoluble in sea water and contains very pungent or stimulant smell. It resembles musk *(kastūrī)* in properties. It burns in fire leaving no residue.

Agnijāra is light in weight and hot in effects. It pacifies all the three *doṣas* and is useful in cases of *sannipātaja vyādhis.* It stimulates digestive fire and acts as *grāhī.* It is indicated in all the *vāta vyādhis* and specially in *dhanurvāta.* It is the best drug for performing *rasajāraṇa* and *rasavīrya vardhana.*

Śodhana is not essential for this drug as it is obtained from sea water which in itself is saltish and alkaline.

GIRISINDŪRA (Red oxide of mercury)

Girisindūra is a reddish powder similar to *sindūra* and found in very minute quantities in between the rocks of big mountains. It is probably a compound of mercury and oxygen and occurs in traces in mineral form mixed with other minerals. *Montroydite*—a mineral of mercury oxide closely resembles it. It contains a few particles of free mercury also. According to some scholars it is said to be a lead compound *i.e. nāgasindūra* but owing to its occurrence in minute quantity, *girisindūra* should be different from *nāgasindūra* and may be the mercury compound, red oxide of mercury.

According to *Rasa Jala Nidhi sindūra* is of two types, *svabhāvaja,* which is *girisindūra,* and *kṛtrima,* which is *nāgasindūra.*

Properties :

Girisindūra is *uṣṇa* (hot) in effects, pacifies all the three *doṣas (sannipātāvasthā).*

It is claimed to be *netrya, sandhāna kara, vraṇa śodhana* and *ropaṇa, rasabandhana* and *dhātuvedhopayogī.*

HIṄGULA (Cinnabar) - HgS.

In *Rasārṇava, Rasa Hṛdaya Tantra* and *Rasa Kāma Dhenu hiṅgula* is included in *mahārasa* group but in *Rasa Ratna Samuccaya* it is included in *sādharāṇa rasa* group. It is the principal ore of mercury in the world and occurs both in crystalline and massive forms. The red crystalline mass is easily distinguished from all other red minerals by its peculiar shade of colour and its heavy weight. Its hardness is 2.0—2.5, sp. gr. is about 8.1 ; chemically it contains 13.8% sulphur and 86.2% mercury. The massive cinnabar is usually impure and contains clay, iron oxide, bituminous substances and occasionally organic matters.

Usually cinnabar is granular, massive or earthy but sometimes it occurs as beautiful crystals. It is transparent to translucent or opaque ; cochineal red in colour often inclining to brown ; streak scarlet to reddish brown, lustre dull, perfect prismatic cleavage. Usual associates are native mercury, pyrite, marcasite, realgar, calcite, stibnite, quartz, and opal.

Varieties :

Hiṅgula occurs as mineral and/or is made artificially also. It is the main source of mercury since ancient times. Mercury is extracted from it through either *pātana yantra* or *damaru yantra* and the mercury obtained from this mineral is equal to *gandhaka jārita* mercury in properties *i.e.,* it is less toxic and therapeutically much more potent and could be used even without purification. Depending upon the percentage of impurities two or three varieties of *hiṅgula* are described.

According to *Āyurveda hiṅgula* is said to have originated from mercury. Its two or three varieties are mentioned of which *haṃsapāda* is the best. It is red like *japāpuṣpa* or *pravāla,* and full of śalākās (needle like structures). *Śukatuṇḍa* and *carmāra* are the other varieties which according to some texts are different and according to others one and the same. Both are inferior and mixed with impurities and possess reddish white or yellowish black colours.

Properties :

Hiṅgula is *kaṭu, tikta* and *kaṣāya* in taste and *uṣṇa* in effect. It is *dīpana, rasāyaṇa, vṛṣya, balya, vājīkara, medhāgnivardhana* and *sarvadoṣa nāśana* in karmas.

Processing :

Śodhana of *hiṅgula* is done by subjecting it to *bhāvanā* with *ārdraka* juice, *jambīrāmla, lakuca* juice, *meṣīkṣīra, etc.* liquids for at least three times.

For extracting its *satva* (mercury) it is subjected to sublimation or distillation process after triturating it with lemon juice.

Its dose is one *guñjā* and may be used mixed with *marica* and *guḍa* in *jvara* and *mandāgni,* with *pippalī* in *hṛdroga,* and with *guḍūcī* juice in *amlapitta.* It may also be used for *rasāyana, rogaharaṇa* and *lohamāraṇa* purposes.

MṚDDĀRASṚṄGA (Litharge ; lead mono-oxide)

Mṛddārasṛṅga is a yellow oxide of lead and occurs in mines in natural form or prepared artificially in factories. According to Āyurvedic description it is said to occur in *arbuda Parvata* near Gujarat. In nature it occurs as mono-oxide (PbO). When in yellow powder form it is known as massicot and when in buff coloured crystalline form it is known as litharge. On heating, massicot gets converted into litharge. Generally it is of yellow colour but sometimes looks red due to the presence of red oxide of lead. If it is heated with *navasādara* (amonium chloride) its yellow colour becomes more shining.

Varieties :

Its varieties are described on the basis of its source of occurrence,colour and form *i.e.*

Source	Colour	Form
1. *Prākṛta*	*Pīta*	*Sadala*
2. *Kṛtrima*	*Pāṇḍura*	*Nirdala*

Properties :

Mṛddāraśṛṅga is *guru* and *śīta,* pacifies *śleṣmā* and *vāta,* acts as hair dyer, fracture healer, contractor, healer of syphlitic wound, mercury binder and improves the colour of the skin and the complexion.

Processing :

It is advised to purify *mṛddāraśṛṅga* by *bhāvanā* with *mātuluṅga, bījapūra* and *ārdraka* juice.

For extracting its *satva* it should be mixed with 1/4th part *taṅkaṇa* and ground with an acidic liquid and made into *golakas.* The *golakas* are subjected to moderate heating in a *mūṣā* to extract the metal which is claimed to be similar to lead.