



Spectroscopic Analysis of Siddha Medicine: Sirungi Parpam

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Abstract

Siddha medicine receives greater attention nowadays because of the immediate and permanent cure without any side effects. So, one such siddha medicine namely "Sirungi Parpam" has been selected for the present study to analyse it from the physicist point of view. The medicine Sirungi Parpam is mainly prepared from deer's horn and is used for curing rickets, coughs, tuberculosis, small pox and measles. An attempt has been made to analyse the siddha medicine "Sirungi Parpam" by using UV spectroscopy and constant deviation spectrograph. The present study reveals that this medicine "Sirungi Parpam" contains calcium and iron as major components and traces of silicon and sodium. The calcium strengthens the bone and the iron improves the Haemoglobin percentage in blood. The Silicon also helps to improve the health. These favours the Sirungi Parpam to cure the diseases like tuberculosis and Rickets permanently.

Keywords: Sirungi parpam, siddha medicine, spectroscopic analysis

Introduction

Siddha medicine receives greater attention nowadays because of the immediate and permanent cure without any side effects. So, one such siddha medicine namely "Sirungi Parpam" has been selected for the present study with a view to analyse it from the physicist point of view. The medicine Sirungi Parpam is mainly prepared from deer's horn and is used for curing rickets, coughs, tuberculosis, small pox and measles¹. This paper deals with the study of UV spectroscopy and Constant deviation spectrograph on the medicine "Sirungi Parpam".

Material and Methods

The medicine Sirungi Parpam has been purchased from siddha unit and used as such for the present study. The UV- visible spectrum of the sample has been recorded in the region 200-800 nm by using Perkin Elmer-Lamda 35 model UV spectrophotometer and analysed. The emission spectrum of Constant deviation spectrograph has been recorded and the emission lines have been indexed by using the standard reported values².

Results and Discussion

The UV-visible spectrum of the sample is shown in figure 1 and the observed wavelengths of the absorption peaks are tabulated in table 1. Since, the medicine is mainly prepared from the deer's horn, it is expected that the major element present may be calcium and iron. So, the UV spectrum of calcium carbonate has been recorded and the observed wavelengths of absorption peaks are compared with that of the sample and is shown in table 1. These absorption peak wavelengths of Sirungi parpam

are found to be in well agreement with that of Calcium carbonate confirming the presence of Calcium carbonate in the sample³. Since, few other peaks are not able to be indexed, the spectrum of Constant deviation spectrograph has been recorded in order to find the presence of other elements in the medicine.

The observed wavelengths of the emission lines obtained by the constant deviation spectrograph are indexed as shown in table 2 and they are in good agreement with the reported standard values^{2,4}. This study confirms the presence of calcium and iron as major components and traces of sodium and silicon in the sample. Since, the medicine Sirungi Parpam seems to be rich in iron and calcium, it strengthens the bones by calcium and increases the Haemoglobin percentage in blood by iron. This helps to cure the diseases tuberculosis and rickets permanently.

The presence of silicon may be due to the preparation of the medicine in the earthen vessel. This is similar to the preparation of silicon doped Gallium Arsenide. For preparing Si doped GaAs, the Gallium and Arsenic are heated in Silica ampoules instead of adding silicon directly⁵. In the same way, preparation of medicine in earthen vessels at high temperature may add the silicon into the medicine, which may be an advantageous one. Because, In olden days, people used to say that the food cooked in earthen vessel cools our body and is very good for health. Nowadays, even in five star hotels, foods are cooked in earthen vessels to increase the taste of the food. In addition, earthen vessels are protecting the food from the harmful radiations. So, the traditional method of preparation of siddha medicine in earthen vessel also helps to improve the health and hygiene.

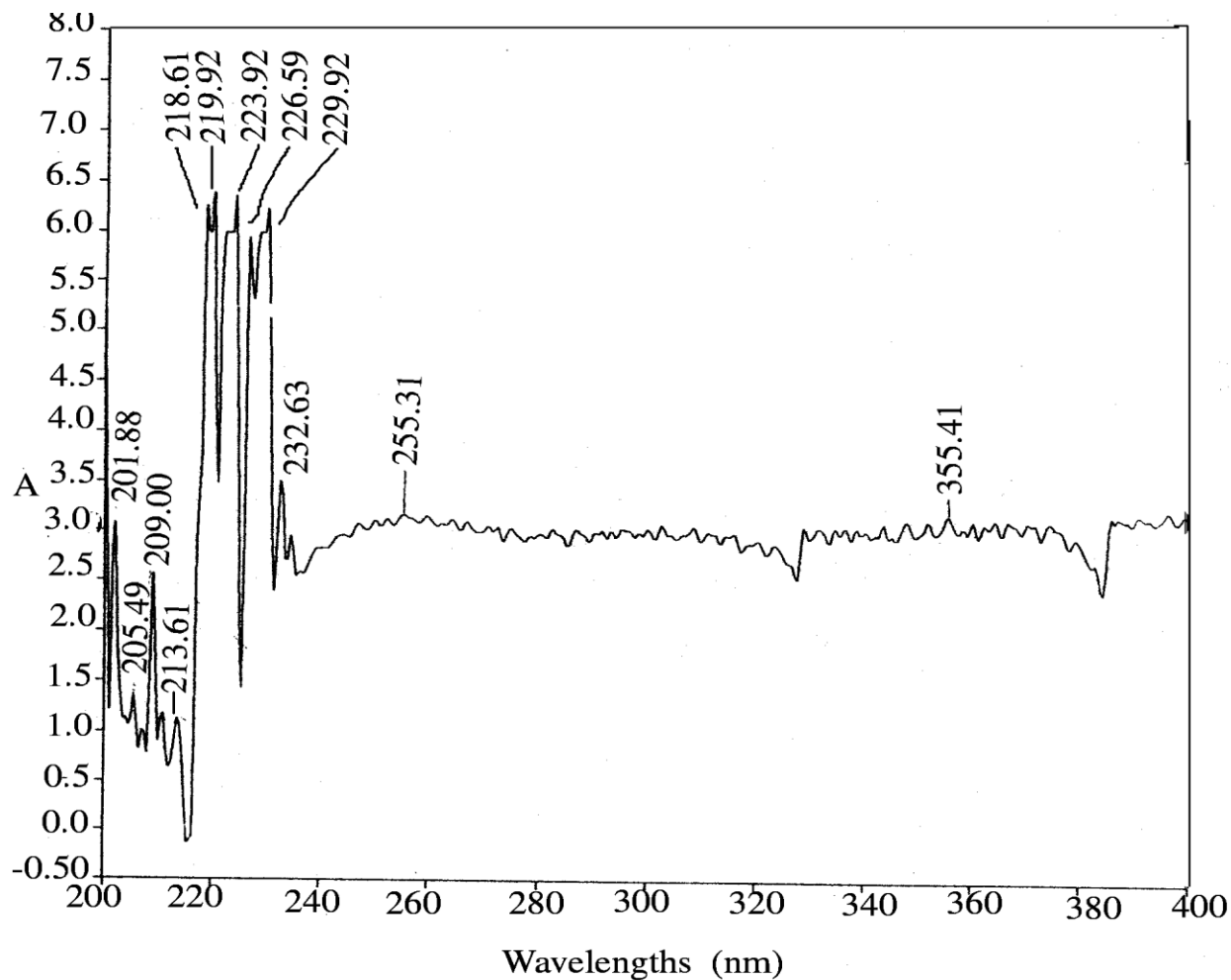


Figure-1
 The UV spectrum of Sirungi Parpam

Table-1
 The observed UV absorption peaks of Sirungi Purpam is compared with that of CaCO₃

S.No	Observed Wavelengths of Absorption Peaks (nm)	
	Sirungi Parpam	Calcium Carbonate
1.	201.88	—
2.	205.49	—
3.	209.00	—
4.	213.61	—
5.	218.61	—
6.	219.92	—
7.	223.92	—
8.	226.59	—
9.	229.92	—
10.	232.63	233.42
11.	255.31	254.91
12.	355.41	356.52

Table-2
The wavelengths of observed emission lines of Sirungi Parpam are compared with the standard values³ and the elements present in Sirungi Purpam are reported

S.No	Observed Wavelengths in Å			S. No	Observed Wavelengths in Å		
	Sirungi Parpam	Standard Value ²	Elements Present		Sirungi Parpam	Standard Value ²	Elements Present
1.	6434.00	6439.07	Ca I	40.	4316.25	4315.084	Fe I
2.	6232.74	6331.97	Fe I	41.	4314.56	4315.08	Fe I
3.	6290.62	6294.50	Fe III	42.	4309.69	4307.90	Fe I
4.	6071.97	6065.48	Fe I	43.	4306.68	4307.74	Ca I
5.	6035.67	6036.56	Fe III	44.	4299.64	4299.23	Fe I
6.	5935.88	5929.69	Fe III	45.	4268.96	4271.76	Fe I
7.	5913.22	5914.11	Fe I	46.	4263.91	4260.47	Fe I
8.	5891.97	5889.95	Na I	47.	4256.07	4258.32	Fe I
9.	5863.64	5862.35	Fe I	48.	4251.72	4250.79	Fe I
10.	5711.36	5708.40	Si I	49.	4247.68	4247.43	Fe I
11.	5678.74	5669.56	Si II	50.	4226.54	4226.73	Ca I
12.	5397.29	5397.13	Fe I	51.	4221.47	4220.07	Ca I
13.	5353.59	5349.47	Ca I	52.	4216.68	4216.18	Fe I
14.	5299.99	5307.22	Ca II	53.	4211.85	4210.34	Fe I
15.	5175.66	5171.60	Fe I	54.	4202.57	4202.03	Fe I
16.	4995.53	5001.86	Fe I	55.	4201.89	4198.30	Fe I
17.	4984.83	4982.81	Na I	56.	4190.21	4191.40	Fe I
18.	4960.89	4957.60	Fe I	57.	4184.97	4184.89	Fe I
19.	4941.54	4947.61	Si I	58.	4180.07	4181.75	Fe I
20.	4667.94	4668.56	Na I	59.	4176.71	4177.59	Fe I
21.	4651.17	4647.43	Fe I	60.	4172.33	4172.74	Fe I
22.	4630.07	4638.28	Si III	61.	4166.23	4166.84	Fe III
23.	4618.57	4621.72	Si II	62.	4161.99	4164.73	Fe III
24.	4617.77	4619.66	Si III	63.	4157.81	4159.80	Fe I
25.	4595.96	4590.92	Na II	64.	4155.34	4154.50	Fe I
26.	4585.62	4585.87	Ca II	65.	4151.99	4153.90	Fe I
27.	4565.43	4567.82	Si III	66.	4141.88	4143.87	Fe I
28.	4556.24	4551.53	Na II	67.	4137.58	4136.99	Fe I
29.	4538.49	4533.30	Na II	68.	4133.32	4130.89	Si II
30.	4492.65	4489.74	Fe I	69.	4128.84	4128.07	Si II
31.	4486.81	4489.04	Ca II	70.	4115.10	4113.70	Na II
32.	4483.39	4482.25	Fe I	71.	4110.37	4109.82	Ca II
33.	4472.27	4472.04	Ca II	72.	4106.62	4107.49	Fe I
34.	4466.45	4466.55	Fe I	73.	4104.99	4102.94	Si I
35.	4460.06	4461.65	Fe I	74.	4101.35	4100.74	Fe I
36.	4455.17	4454.78	Ca I	75.	4099.39	4098.57	Ca I
37.	4323.66	4325.76	Fe I	76.	4097.24	4097.10	Ca I
38.	4321.53	4320.91	Na II	77.	4073.69	4071.74	Fe I
39.	4318.99	4318.65	Ca I				

Conclusion

The present spectroscopic analysis on Sirungi Parapam reveals that it contains iron and calcium as major components and traces of silicon and sodium. The calcium strengthens the bone, the iron improves the haemoglobin percentage in blood and the sodium helps to maintain the water level in our body. The Silicon also helps to improve the health and hygiene. Thus, Sirungi Purpam cures the diseases like tuberculosis and Rickets permanently.

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