

International Journal of Pharmacognosy and Pharmaceutical Research

ISSN Print: 2664-7168
ISSN Online: 2664-7176
Impact Factor: RJIF 8
IJPPR 2024; 6(2): 37-40
www.pharmacognosyjournals.com
Received: 07-06-2024
Accepted: 12-07-2024

Joshi Het Nilesh Kumar
BHMS Student, Jawaharlal
Nehru Homoeopathic Medical
College, Parul University,
Vadodara, Gujarat, India

Dr. Monimala Pramanick
Associate Professor,
Department of Homoeopathic
Pharmacy, Jawaharlal Nehru
Homoeopathic Medical College,
Parul University, Vadodara,
Gujarat, India

Dr. Naresh Bhusara
Assistant Professor,
Department of Homoeopathic
Pharmacy, Jawaharlal Nehru
Homoeopathic Medical College,
Parul University, Vadodara,
Gujarat, India

Dr. PS Mandal
Professor, Department of
Organon of Medicine,
Jawaharlal Nehru
Homoeopathic Medical College,
Parul University, Vadodara,
Gujarat, India

Dr. Poorav Desai
Dean and Principal,
Jawaharlal Nehru
Homoeopathic Medical College,
Parul University, Vadodara,
Gujarat, India

Corresponding Author:
Joshi Het Nilesh Kumar
BHMS Student, Jawaharlal
Nehru Homoeopathic Medical
College, Parul University,
Vadodara, Gujarat, India

Comparative analysis of sol and sugar of milk under Fourier transform infrared spectroscopy

**Joshi Het Nilesh kumar, Dr. Monimala Pramanick, Dr. Naresh Bhusara,
Dr. PS Mandal and Dr. Poorav Desai**

DOI: <https://doi.org/10.33545/26647168.2024.v6.i2a.76>

Abstract

Background: Through this research work the absorbance value of Sol under FTIR is being noticed and surprisingly it has been seen that the value of sugar of milk is different from the sol medicine.

Methodology: For the preparation of sol the ratio of the sugar of milk is 9 part and it has been triturated under the FTIR. (Infrared spectroscopy) for qualitative analysis of dug substances.

Results: FTIR (Fourier transform infrared spectroscopy) suggest maximum transmission of Sugar of milk is at 2899.20 cm^{-1} , at 1399.41 cm^{-1} , at 1031.71 cm^{-1} , Whereas Sol 2X is at 2899.88 cm^{-1} , at 1339.61 , at 1069.97 and sol 1x 1031.36 cm^{-1} and 874.75 cm^{-1} . So the analysis show that the absorbance value of sol and sugar of milk is different.

Keywords: Sugar of milk, sol, FTIR

Introduction

The beginning of Materia medica of Expert Hahnemann was *Fragmenta de viribus* where the pathogenetic force of 27 medications are finished by Dr. HAHNEMANN. Still Today we are demonstrating the obscure medications on sound individual or on do its clinical review.

From the hour of Hahnemann individuals are attempting to give the narrative clarification of Homeopathy. Various apparatuses are useful to gauge the nature of our meds.

Sol is a medication which is ready from the daylight. *Saccharum lactis* is presented to concentrated sun's beams and blended with a glass bar till immersed. Here we have done a solitary change. We have ground up the Sugar of milk on daylight for 1hour. The technique is same as pulverizing.

After that we do the FTIR of this pulverizing AND SEE THE consequence of the pulverizing with that of the main sugar of milk.

On account of Finsen, of Copenhagen, the put of Light in therapeutics is en route to be characterized most definitely, however Finsen is resuscitating and affirming, as opposed to starting, light-treatment. O. V. Thayer (H. R., viii. 463) distributed in 1893 a progression of cases in which he had utilized concentrated beams of daylight (sun based burning), including instances of epithelial malignant growth, rat ulcer, parasitic illnesses, moles, little wens, skin colorations, &c. H. T. Webster (H. R., xv. 126) gives subtleties of an instance of epithelioma in which the development was eliminated by sun oriented burning and a hardly detectable scar left. Swan and his coadjutors researched daylight according to one more perspective. In 1880 (Organization, iii. 275) Swan distributed a pathogenesis of Sol, which I have exemplified in my Outline. Swan's information were acquired from four provers, from encounters got from sensitives by Reichenbach (*Der Touchy Mench*), from a perception by "Highwood" cited by Fincke from *American Onlooker*, ix. 210. Reichenbach's perceptions I have recognized by "(R)," Highwood's by "(H)." The excess side effects are the people who took mainly the 1m lessenings of Fincke. The 15m was taken by one. Two of Reichenbach's side effects were seen on two of the provers additionally, and the letters "(F)" and "(L)" allude to these. Restored side effects will be tracked down in sections. The normal impacts areas of strength for of light, as sniffing, freckling, and sunstroke, might be added to the rundown.

"Daylight itself is useful in skin illnesses. So sol is useful for treating epithelial malignant growth, rat ulcer, parasitic illnesses, moles, little wens and so on"- O.V. Thayerin 1893. We have seen the progressions In the Sol:

"Sunlight itself is helpful in skin diseases. So sol is helpful for treating epithelial cancer, rodent ulcer, parasitic diseases, moles, small wens etc."-O.V. Thayerin 1893.

Some Symptoms

Mind: Restless in the event that someone comes towards her. Mouth: 2 glass of water of equivalent temperature, the one put in conceals, the other in daylight for a fourth of hour, the later taste cool to delicate. Skin:" Dermatitis with cold limits. There are a lot more side effects of Sol in Boericke. Also, a lot more should be demonstrated.

FTIR

Infrared (IR) spectroscopy is perhaps of the most involved spectroscopic strategy in scientific labs for both subjective and quantitative examination. It estimates the collaboration of IR radiation with an example, to give substance distinguishing proof. The three principal regions concentrated by IR are the close IR 14000-4000 cm^{-1} , mid-IR 4000-400 cm^{-1} , and the far-IR 400-10 cm^{-1} .

The mid-IR district is of most interest as it contains the trademark groups for ID and is normally viewed as IR spectroscopy. An IR spectrometer estimates the infrared light energy expected to start atomic vibrations. The useful gatherings inside particles have remarkable vibrational energies making particular groups in the subsequent IR range that permit test ID. Solids, fluids, and gasses can be dissected utilizing IR spectroscopy making it an exceptionally flexible procedure.

Aim

1. To assess the medication Sol under FTIR.
2. To separate Sol the medication from sugar of milk

Sugar of Milk: Sugar of Milk is utilized as a vehicle in Homeopathic Drug store. It is ready from goat's milk and use for the pulverizing of the substances which are insoluble in liquor and water. Pulverizing is a one hour technique by which a substance is completely blended in with the sugar of milk. Sugar of milk is likewise utilized for the administering of drugs and as a fake treatment in solution.

Sol:

Mind: Restless assuming someone comes towards her. Mouth: 2 glass of water of equivalent temperature, the one put in conceals, the other in daylight for a fourth of hour, the later taste cool to delicate. Skin:" Dermatitis with cold furthest points.

Every one of the sensitives are extremely delicate to the prompt activity of daylight on the vertex.-Extreme difficulty on the off chance that the daylight strike the exposed head-Most savage join in cerebrum-Disagreeable sentiments, for example, from retrograde passes, go into mind, cause fastens and migraine, and on the off chance that she doesn't acquire the shade, stomach-hurt and sickness follow - Violent cerebral pain -L.-sided cerebral pain -Headache from daylight on uncovered head, > by laying a glass of water on stomach-pit -In morning, serious torment in crown, and afterward in neck, passing off after breakfast-(Heavy pressive agony in vertex.)-Intense whole cephalalgia.

Abdomen: In midsection, distension and hardness, as extensive as a kid's head, as though it were in belly, and running all through from it into mammæ, as though milk would rush in as when a youngster nurture; this endured the entire first night till morning; before the distension and hardness came on a sensation as after labor or at origination (with extraordinary excitement).-A glass of water presented to the sun for six to eight minutes engenders coolness, in stomach, yet circuitous in the viscera.

Fever-A pleasant coolness stretches out over entire body, however the outer layer of the body sees the actual intensity of the sun's beams.

Materials and Methodology

Type of study: Analytical method.

Site of Study: Jawaharlal Nehru Homoeopathic Medical College, Vadodara & CR4D (Centre of Research & Development of Parul University).

Tool used: FTIR (Fourier Transform Infrared spectroscopy).

Duration of the study: 15 days.

Equipment: Beaker, mortar, Pestle, Electronic balance, Spatula, Stirrer, Electric Potentizer machine.

Procedure

Sterilization: First sterilize all the laboratory equipment's under hot air oven for at least 10-15 Minutes.

Weight Measure: The weight of Sugar of milk 9 gm by electronic balance.

1X Power

Stage I: Take 3 gm of sugar of milk in spotless and dry mortar pestle. Under the direct sunlight (No rain, No Cloudy Weather, procedure is done at noon) make the procedure of grinding for 6 minutes, 3 minutes scraping, 1 minutes mixing, do the similar system for next 10 minutes. At the end of 20 minutes we will go for next stage.

Stage II: Add more 3 grm of sugar of milk in the same mortar, and do the same procedure that is grinding for 6 minutes, 3 minutes scraping, 1 minute mixing, do the similar system for next 10 minutes. At the end of 20 minutes, we will go for next stage.

Stage III: Add 3rd part of sugar of milk (3 gm) in mortar and by similar method for next 20 minutes. Now at the end of 60 minutes we get 1X Sol. Sol 2X.

Stage I: Take 1 part of previous made Sol 1X power in perfect and dry mortar and blended with 2nd part of sugar of milk i.e. (3 gm), from do as before. And by this procedure we get Sol 2X. By this continuous process we will prepare upto Sol 6x. By this procedure we had prepared sugar of milk 1x to 6x with out sun light exposure. And we had gone through FTIR analysis.

Observation

After preparation sample has observed by organoleptic evaluation like smell, colour, consistency etc.

Result

Analysis done by FTIR absorbance value of Sugar of milk

Table 1: Sugar of milk

Substance	Wavenumber cm ⁻¹
Sugar of Milk	2899.20
	1399.41
	1031.71

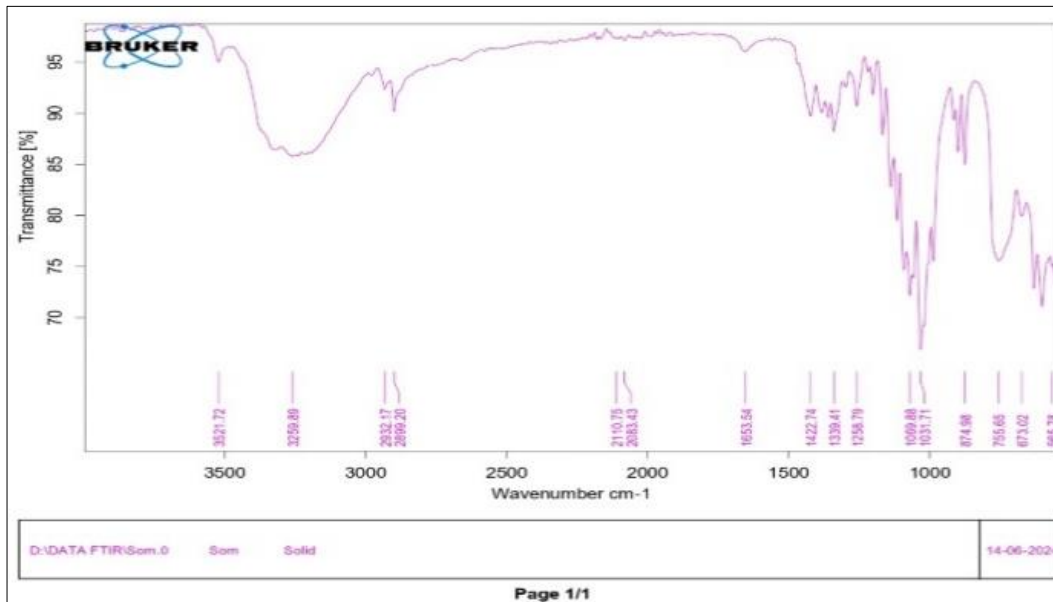


Fig 1: Sugar of Milk

Analysis done by FTIR absorbance value of Sol 1x and 2x

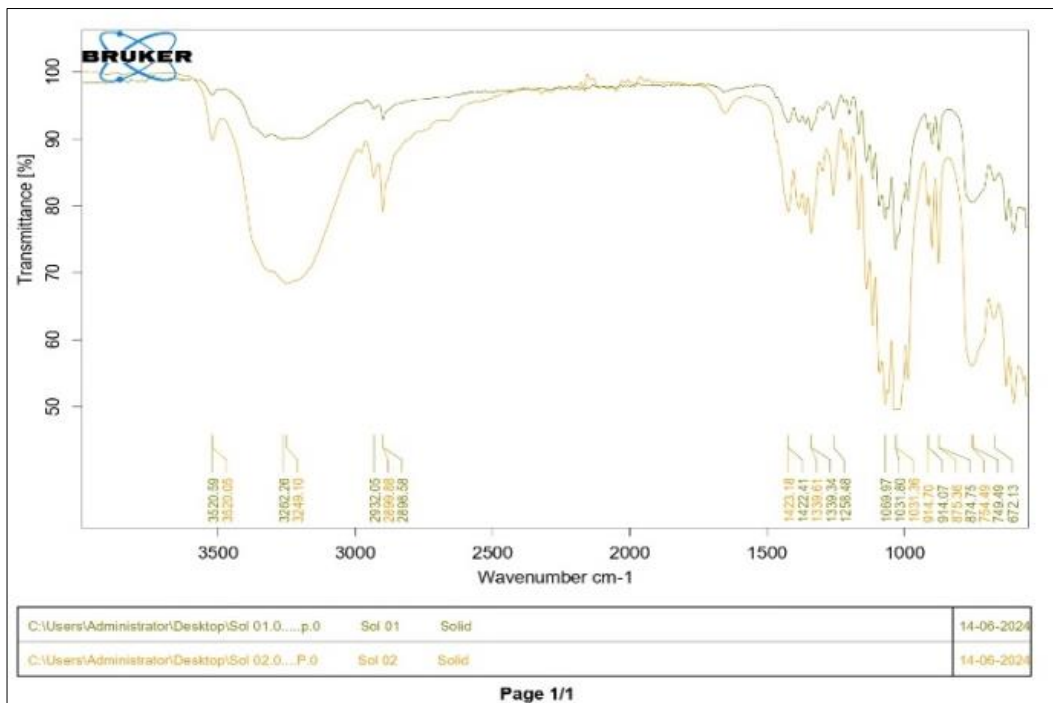


Fig 2: Sol 1x and 2x

Table 2: Sol 1x and 2x

Substance	Wavenumber cm ⁻¹
Sol 1x & 2x	2899.88
	1339.61
	1069.97

Result Analysis under FTIR

(Fourier transform infrared spectroscopy) suggest maximum transmission of Sugar of milk is at 2899.20 cm⁻¹, at 1399.41 cm⁻¹, at 1031.71 cm⁻¹, Whereas Sol 2X is at 2899.88 cm⁻¹, at 1339.61, at 1069.97 and sol 1x 1031.36 cm⁻¹ and 874.75 cm⁻¹

¹. So the analysis show that the absorbance value of sol and sugar of milk is different.

Conclusion

The Trituration of Sol 1x to 2x, in relation to sugar of milk gives a good result in FTIR spectroscopy.

Acknowledgement

Creators might want to say thanks to Staff of CR4D Division for consistent help to this examination work and Parul University for such colossal stage.

References

1. Hunt JA. Pharm J. 1999;263:985.
2. Mishra PK. Effect of homoeopathic remedy Carbo Vegetabilis; c2022 Apr 5. Available from: <https://www.homeobook.com/effect-of-homoeopathicremedy-carbo-vegetabilis/>
3. Rajendran ES. Homeopathy material science and individualized nanomedicine! - Nanoparticle characterization of aurum metallicum C6-CM and carbo vegetabilis C6-CM; c2017 Mar. Available from: https://www.researchgate.net/publication/315509860_Homeopathy_material_science_and_individualized_nano_medicine_-_Nanoparticle_characterization_of_aurum_metallicum_C6-CM_and_carbo_vegetabilis_C6-CM
4. Tournier A, Klein SD, Würtenberger S, Wolf U, Baumgartner S. Physicochemical investigations of homeopathic preparations: A systematic review and bibliometric analysis - Part 2; c2019 Sep 12. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6760181>
5. Hill J, Nelson E, Tilman D, Polasky S, Tiffany D. Biodiesel yields a net energy balance ratio of 1.93 (i.e. 93% more energy produced than the energy invested in its production, whereas ethanol yields only 25% more energy). Proc. Natl. Acad. Sci. USA. 2006;103:11206-11210.
6. Bodeker G, Ong CK, Grundy C. WHO Global Atlas of Traditional, Complementary and Alternative Medicine. Kobe: WHO Centre for Health Development; c2005.
7. Mathie RT, Lloyd SM, Legg LA. Randomised placebo-controlled trials of individualised homeopathic treatment: Systematic review and meta-analysis. Syst. Rev. 2014;3:142.
8. Klein SD, Würtenberger S, Wolf U. Physicochemical investigations of homeopathic preparations: A systematic review and bibliometric analysis - Part 1. J Altern Complement Med. 2018;24:409-421.
9. Clarke JH. A Dictionary of Practical Materia Medica. 1st ed. Noida: B Jain Publishers Pvt. Ltd; c2005. p. 1202-1204.
10. Mayrhofer C. Microscopic investigations of homeopathic metal preparations. Hygea. 1842;16:97-106.
11. Witt C. Physical investigation of high homeopathic potencies. Essen: KVC Verlag; c2005.