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## PP16 Analysis of Salt Forms used in Siddha Medicine

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### Introduction

Salt, a crucial element in human life, is derived from the earth, seawater, or plants. It has antiperiodic, emetic, laxative, stomachic, and vermifuge properties. Diet regulation (*Pathiyam*) is crucial in Siddha Medicine, and includes two types: *Itchapathiyam* and *Kadumpathiyam*. *Kadumpathiyam* applies to medicines containing mercury.

### Objectives

This study aimed to scientifically assess the various salt forms used in siddha medicine, including salt, fried salt, salt fried with *Clerodendrum inerme*, and *Azima tetraacantha*.

### Methods

Four samples were analyzed. There are salt (S1), fried salt (S2), salt fried with leaves of *Clerodendrum inerme* (S3), and *Azima tetraacantha* (S4). Physicochemical assessment, scanning electron microscopy (SEM), Fourier-transform infrared spectroscopy (FTIR), and high-performance thin-layer chromatography (HPTLC) were performed on all four samples.

### Results

These results indicate that all four samples exhibited similar properties. The samples were dissolved in water. FTIR spectroscopy is a valuable tool for determining the structural features of compounds and their bonding environments. In S1, a broad absorption peak was assigned to the O-H stretching vibration, indicating the alcohol characteristics. In S2, an aromatic NH<sub>2</sub> vibration frequency was observed, indicating primary amine characteristics. In S3, a broad absorption peak was observed for the alcohol characteristics, whereas in S4, a broad absorption peak was observed for the O-H stretching vibrations. The HPTLC fingerprinting analysis of S3 and S4 revealed six and eight prominent peaks, respectively, indicating the presence of versatile phytochemicals.

### Conclusion

The combination of spectroscopic and chromatographic techniques facilitated a comprehensive understanding of the chemical composition of the samples. Further analyses can offer valuable insights into the specific pharmacological actions of these compounds.

### Keywords

Salt, *Pathiyam*, Diet, *Clerodendrum inerme*, *Azima tetraacantha*, Siddha medicine