

## Changes on Chemical Composition of "*Thalagam*" Before and After Purification.

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Siddha Medicine was offered to the people from God through Siddhars. There are 64 types of *Paasanam* where four types are mostly poisons such as *Thalagam* (Orpiment-Arsenic trisulphide), *Manoshilai* (Realgar-Arsenic disulphide), White-arsenic (Arsenium Acidum Arseniosum) and *Gouripashanam* (Arsenic oxide). *Thalagam* is an organic compound with the formula  $As_2S_3$ . It is used as internal as well as external medicine after the purification. Our objectives are finding the purification method (using toddy and limestone mixture) and identify the chemical component of Arsenic trisulphide before and after the purification. *Thalagam* was chemically analyzed by the routine qualitative analysis and purified with the method mentioned in the text book. The pH values of toddy and limestone taken from Jaffna shows 3.13, 12.76 respectively and toddy collected Mannar shows pH as 3.01. The sample 1 taken for the analysis for 10 times with the 30 minutes time interval shows Sulphate,  $Mn^{+}$ ,  $Sr^{2+}$  and  $Ca^{2+}$ , Whereas the sample 2, which was analyzed 4 times with the 24 hour time interval shows Sulphate, Arsenate,  $As^{3+}$ ,  $Sr^{2+}$ ,  $Ca^{2+}$ . The detail analysis shows that *Thalagam* contained Sulphate, Arsenate,  $Al^{3+}$ ,  $Ca^{2+}$ ,  $As^{3+}$ ,  $Sr^{2+}$  but after the purification it contained all the ions except  $Al^{3+}$ . This phenomenon is further confirmed by the loss of weight in both samples before and after the purification.

**Key Words:** Siddha Medicine, *Thathu geevam*, *Paasanam*, *Thalagam*, Limestone, Toddy.