

## A RAPID FUSION TECHNIQUE FOR CHEMICAL CHARACTERIZATION OF MONAZITE BY ICP-OES

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### **Abstract**

A simple, rapid, accurate and environmental friendly method for chemical characterization of monazite by ICP-OES is described. Samples were fused with 1:1 mixture of sodium di-hydrogen phosphate and di-sodium hydrogen phosphate and cooled melt was dissolved in distilled water. The solution is stable for more than a month during the period studied. Major oxides except  $P_2O_5$  (including  $SiO_2$ ), minor oxides and a few trace elements were determined from the solution so prepared. Two international reference standards (IGS-36 and IGS-40) were analysed and compared with the recommended values and they are in good agreement. The method is also applied on the 6 monazite samples received from different coastal regions of India.

**Keywords:** Monazite, fusion, mixed phosphate, ICP-OES