

Determination of aluminum in wheaten food by Microwave Digestion Graphite Furnace Atomic Absorption Spectrometry

Objective: to establish a rapid, accurate and highly sensitive method for the determination of aluminum in foods. Methods: Samples were digested by [microwave drying equipment](#), and aluminum in food was determined by Graphite Furnace Atomic Absorption Spectrometry with matrix modifier. Results: the RSD of the method ranged from 1.6% to 3.6%, and the recovery rate was 92.1% to 102.4%. Conclusion: the method is rapid, sensitive and accurate, and is suitable for the determination of aluminum in foods.

In recent years, with the increase of environmental acidification and the increase of aluminum concentration, a large number of fish and aquatic organisms have died. The relationship between trace aluminum and human health has gradually attracted people's attention. Aluminum compounds are the root cause of certain diseases. The World Health Organization (WHO) has formally listed aluminum as a food contaminant to be controlled and proposed that the daily allowable intake of aluminum is 1 mg/kg body weight. The national standard test method for aluminium is chrome azurol spectrophotometry, which has a large amount of reagents and a high detection limit. [Noodle drying equipment](#) It is very necessary to determine aluminum in flour by a rapid and accurate method.