

## Abstract

**Introduction:** About 60% of required daily protein and energy is provided by the bread. One of the materials which is formed by unsuitable condition of baking and based on the kind of bread in this production is acril amid. Based on provement of cancer making of acril amid, the present research aims to determine the amount of acril amid existed in Iranian bread which are provided and distributed in Ardebil city and measure the rate of confronting with this combination.

**Materials and methods:** The grined and bemogenised dry bread is transmited in falcon pipe and then added to the internal standard solution (acrylamide  $d_3$ ). Then 2.5 ml of methanol was added and stirred. The resulting mixture was centrifuged. All of surface solution of centrifuge is taken and 50  $\mu l$  ferocyanid potassium and 50  $\mu l$  Zn acetate solutions are added and Shattered. Then from the solid phase column PSA (primary secondary amin) Passed and Shattered and then centrifuged. Transfer the supernatant into the microtube, the solvent was evaporated by nitrogen gas. The remained solvent was reached to 0.5 volume by Distilled water water and Shattered. Then 70  $\mu L$  of the solution was removed and injected into GCMS. The data was analysed by PRISM software.

**Findings:** the results indicated that the Barbari bread had the most Acril Amid (1A3.5 $\mu g/kg$ ) and Levash bread had the least amount of Acril Amid (17.5 $\mu g/kg$ ).

**Conclusion:** Since the risk of non-carcinogenicity in adults is less than 1 and in infants greater than 1, the risk of non-carcinogenic risk in young children is high. The risk of carcinogenesis in both adults and young people is higher than the 1E\_5 threshold, so all age groups are at high risk for cancer.

**Key words:** Acril Amid, GCMS, Kinds of Iranian Bread, Cancer