

### **O 43. HAZARD IN FOODS; BISPHENOL A AND ITS DETERMINATION**

Nilgün Yenil Harmanci<sup>1\*</sup>, Fadim Yemiş<sup>2</sup>

<sup>1</sup>*Manisa Celal Bayar University, Sciences and Arts Faculty, Department of Chemistry, 45030,  
Muradiye-Manisa*

<sup>2</sup>*Manisa Celal Bayar University, Akhisar Vocational School, Department of Chemical and Chemical  
Processing Technologies, 45200, Manisa-Turkey*

*E-mail: fadimyemis@hotmail.com*

**ABSTRACT:** In our age, the main factors of many health problems such as cancer, obesity and sugar are chemicals used in foods. Many scientists are working on the determination methods for pesticides, hormones, preservatives and food additives that can be found in foods. Bisphenol A is an inner surface coating material used in cardboard milk and metal preserve cans and is also a toxic chemical. However, the transition rate of this substance to food, which also causes hormonal disorders, changes depending on the oil and water content and acidity of food, ambient temperature, contact surface and duration. Sensitive and selective determination of this substance, which is found in water, food, as well as in the blood and urinary systems in the human body, is possible with various separation and determination methods. High-performance liquid chromatography (HPLC), gas chromatography (GC), high-performance liquid chromatography with mass spectrometry (HPLC-MS), gas chromatography with mass spectrometry (GC-MS), liquid chromatography coupled with mass spectrometry (LC-MS), capillary electrophoresis and electrochemical techniques can be used as the determination methods for Bisphenol A. For these kinds of determinations, the use of solid phase extraction and molecularly imprinted polymer materials is highly effective in selective separations.

**Keywords:** *Bisphenol A, Food analysis, Human health.*