# Determination of the Elemental Content in Cigarettes by Instrumental Neutron Activation Analysis

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## ABSTRACT:

Cigarette smoking, a worldwide habit, has a very bad and hazardous effect on the human body. Neutron activation analysis technique is used in the present study. Different kinds of cigarette brands have been collected from local and foreign markets representing ten countries all over the world. All the selected samples are irradiated in first Inshas reactor, ER-1 in Egypt. A comprehensive study of the elemental content in cigarette samples under investigation has been carried out. Concentrations of the polluting elements, tracers' content and more than twenty elements have been determined. The obtained data resulting from the present work are discussed.

*Key Words: Elemental content, Cigarette, Neutron activation analysis.*