

PREFACE

The role of trace elements in the metabolic activities of biological organisms is very subtle. Trace elements are present in different materials from parts per million (ppm) down to parts per billion (ppb) level. They are sometimes essential, sometimes beneficial, and sometimes even toxic to plants and animals. A study of these elements may furnish significant informations regarding the role played by them in various properties of plants, an important one of which is the medicinal property.

The work presented here is an investigation of two trace elements, uranium and boron, whose presences are ubiquitous, in some medicinal plants by using Particle Track Analysis (PTA) method.

The work is presented in the form of following chapters.

Chapter I contains an introduction to the trace elements in plants, with particular reference to uranium and boron, and their possible role in medicinal properties of plant.

The various methods of trace analysis and a detailed description of the method used in the present investigation are given in chapter II.

The experimental procedure with the working formulae and the plants selected for the study are described in chapters III and IV respectively.

Chapters V and VI comprises the results and relevent discussions of uranium and boron estimations respectively.

A comparative discussion regarding the study and possible contribution, of uranium and boron in plants, to the medicinal properties of plants is presented in the concluding chapter VII.

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