A selective method has been developed for the determination of traces of cobalt in different matrices by the sensitive technique of thermal neutron activation analysis employing radiochemical separation and substoichiometric extraction of Co/II/ with iso-nitrosobenzoylacetonate into chloroform.

INTRODUCTION

Cobalt is an important trace element in animal nutrition. Ruminants grazing upon cobalt deficient pastures exhibit retarded growth, loss of appetite and anaemia. Rapid recovery from these symptoms occurs upon feeding the animals with a cobalt supplemented diet. In sufficiently large doses, cobalt is toxic to men. It causes irritation of the gastrointestinal tract, nausea, vomiting and diarrhoea. Small amounts of cobalt are invaluable in the treatment of pernicious anaemia.