FIRST RIO SYMPOSIUM ON FURNACE ATOMIC ABSORPTION SPECTROMETRY

RIO DE JANEIRO, BRAZIL, SEPTEMBER, 18-23, 1988
RIO DATACENTRO AUDITORIUM
PONTIFÍCIA UNIVERSIDADE CATÓLICA DO RIO DE JANEIRO

DETERMINATION OF TRACE AMOUNTS OF RARE EARTH ELEMENTS IN RARE EARTH MATRIX BY GRAPHITE-FURNACE ATOMIC ABSORPTION SPECTROMETRY.

Elizabeth Sonoda Keiko Dantas and Laura Tognoli Atalla

Departamento de Engenharia Química - MQ
Instituto de Pesquisas Energéticas e Nucleares
Comissão Nacional de Energia Nuclear - IPEN/CNEN/SP
Travessa R-Nº 400 - Cidade Universitária - Pinheiros - SP
CEP : 05508

ABSTRACT

A method has been developed for determining traces of Neodimium, Terbium, Dysprosium and Yttrium in samarium oxide; Europium, Terbium, Holmium, Erbium and Yttrium in dysprosium oxide and Samarium, Europium, Dysprosium, Holmium, Erbium and Yttrium in terbium oxide by electrothermal atomization using a grephite furnace.

The best charring and atomization conditions were estabished for each element.

The matrix and the other elements interferences in the sensitivity of the impurity as well as in the linearity of absorbance X lanthanide mass curves are presented.

Sensitivities and detection limits found with the proposed method are given for each element.