

Instituto Tecnológico e Nuclear (ITN)

Research & Development Activities

Annual Report

1998

Introduction

The present annual report closes a cycle started in 1996 whose main goal was the consolidation of ITN, a necessary step for the definition of its mission within the Science and Technology Ministry.

In 1998 two main steps were done towards this consolidation. The first one was the integration of two units which operated already in the Campus of Sacavém: the Department for Nuclear and Radiological Safety, and the Radiation Technology Unit.

The second step was the strengthening of the Portuguese Research Reactor with the first recruitment of three PhDs and the continuation of an operators training course. Still in the Reactor sector, the production of short-lived radioisotopes has started in collaboration with the chemistry sector, and the irradiation of devices ordered by external teams is underway. These are small but significant steps for a real reorganisation of ITN that has to include all sectors.

The scientific and technical activities of ITN in 1998 were grouped in the following areas:

- New Materials and Compounds
- Environmental Sciences
- Inorganic Chemistry, Radiochemistry and Radiopharmacy
- Nuclear Engineering
- Industrial Technologies
- Cultural Heritage and Sciences

The milestone described in the introduction of each chapter on the next pages gives the reader an idea of the scientific capabilities of each group of the Institute.

In the last three years, the ITN scientists are co-authors in 150 papers of a total number of 242 scientists from other portuguese and international institutions. The National Citation Report for Portugal from the Institute for Scientific Information - ISI, Filadelfia (23-08-98) shows for the years 1995, 1996 and 1997 a slight increase in the number of publications, respectively, 47, 50, 53 distributed by different scientific areas. Relevance is given to

Applied Physics	53
Spectroscopy, Instrumentation and Analytical Sciences	28
Physics	13
Inorganic and Nuclear Chemistry	12
Engineering and Materials Science	11
Other different fields	33

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