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ABSTRACTS OF THE 7TH INTERNATIONAL AMS CONFERENCE

BRAZILIAN ACCELERATOR MASS SPECTROMETRY PROGRAM

J. C. ACQUADRO, G. M. SANTOS, R. M. ANJOS, P. R. S. GOMES, C. TENREIRO, M. M. COIMBRA and C. APOLONI

Instituto de Fisica, Universidade de S. Paulo, C.P. 20516, S. Paulo, 01498-970 Brazil
Instituto de Fisica, Universidade Federal Fluminense, Av. Litoranea s/n, Gragoata, Niteroi, R.J., 24210-340 Brazil
Departamento de Fisica, Faculdad de Ciencias, Universidad de Chile, Santiago, Chile
Departamento de Fisica, Universidade Estadual de Londrina, Londrina, Parana, Brazil

The AMS program at the S. Paulo 9MV Tandem accelerator has been initiated with major emphasis on projects based on the determination of ^{10}Be, ^{26}Al and ^{36}Cl concentrations. A first report on this program was presented at the AMS Conference in Canberra (Tenreiro *et al.* 1994). Since then, progress has been achieved on the improvement of the voltage stability of the 8UD-9MV terminal and the ionic optics, controlled only by electrostatic elements, except for the analyzing magnet. An automatic system for changing beams of different isotopes has been developed, allowing the rejection of the stable beams before they reach the detector placed at the beam direction. The group from the Fluminense Federal University (UFF), in Niteroi, has helped in the design and construction of a new Bragg gas chamber detector, coupled with an E X DE telescope and a time-of-flight system. A new scattering chamber has also been designed at UFF, and it will be fully dedicated to the AMS program. Beams of ^{26}Al were produced via the ^{26}Mg (p,n) ^{26}Al reaction; ^{36}Cl beams were produced from samples prepared from sea water from different places in South America and placed at a Cs-sputtering ion source. Both beams were successfully accelerated and detected. Recently, another group, from the Londrina State University, has joined the Brazilian AMS project. The main research programs related with the AMS technique, in Brazil, are based on Geological and Oceanographical studies.

REFERENCE

Tenreiro, C. *et al.* 1994 *Nuclear Instruments and Methods in Physics Research* B92.

AMS SAMPLE HANDLING IN GRONINGEN

A. T. AERTS-BIJMA, H. MEIJER and J. VAN DER PLICHT

Centre for Isotope Research, Groningen, The Netherlands

As is the case with the Groningen conventional laboratory, the AMS laboratory handles *ca.* 1000 samples annually such as water (DIC/DOC from groundwater and the ocean), marine carbonates, atmospheric CO_2, organic deposits such as peat, soils and macrofossils, and the complete spectrum of archaeological datable materials.

The organic samples are combusted in a CN-analyzer, consisting of a flash combustion/purification unit and on-line mass spectrometer. The CO_2 is trapped cryogenically and transferred to the graphitization setup. We employ one 10-fold and one 15-fold graphitization systems (ranging from 3 to 8