



PURIFICATION OF ACTINIDES

This paper describes part of the effort involving about 40 members of the Los Alamos Radiochemistry Group in the analysis and interpretation of results of heavy elements produced by multiple neutron capture in underground thermonuclear explosions.

Shown together from left to right are Kurt Wolfsberg (PhD, Washington University, 1959), William R. Daniels (PhD, University of New Mexico, 1965), and George P. Ford (PhD, Columbia University, 1949), staff members in the Los Alamos Radiochemistry Group. Eldon T. Hitchcock (PhD, University of Michigan, 1961), shown separately, is an Associate Professor of Chemistry at Colorado College and was a Visiting Staff Member at Los Alamos during the academic year 1965-1966.

REACTOR SHUTDOWN MARGIN MEASUREMENTS

Experimentally confirmed theoretical treatment of the behavior of ionization chambers operating in high gamma environments has led to the development of a low-cost chamber suitable for subcriticality measurements in power reactors.

Dominique P. Roux (PhD, Physics University of Geneva, Switzerland, 1958) has been a member of the ORNL Instrumentation and Controls Division since 1960. He is currently in charge of the Reactor Controls Research and Development group. He is also Associate Professor in the Nuclear Engineering Dept., University of Tennessee.

¹⁴N₂O and ¹⁵N₂O DOSIMETERS

Studies using ¹⁴N₂O - ¹⁵N₂O mixtures show that ¹⁴N₂O and ¹⁵N₂O dosimeters can discriminate between ionizing radiation and thermal-neutron effects.

R. D. Brown (shown on upper left) is a research chemist in charge of the high-resolution mass spectroscopy laboratory at the Jackson Laboratory of E. I. DuPont and Company. S. Dondes (shown at right) is a Senior Research Associate in chemistry at Rensselaer Polytechnic Institute, where P. Harteck is a Distinguished Research Professor in Physical Chemistry. All three hold the PhD degree.

LETTER TO THE EDITOR



THE EARTH'S PROBLEMS

Dear Sir:

I read with great interest your recent commentary on "Problems from the Breakfast Table" (*Nucl. Appl.*, **3**, 202 April 1967). It might interest you that our institute is carrying out research work on related problems, parallel to our normal research problems.

You might wonder why an institute for space technology is interested in economic problems and worth analysis type studies. The reason is that space research now receives a good share of the national budget in the USA, and sooner or later this will be the case in the European countries. So one has to ask questions: "What percentage of the budget is justified for space research?" "Would it not be more worthwhile to build more hospitals or help underdeveloped nations?" Questions like this can only be answered if all relevant internal (e.g., society) and external (e.g., relation to other countries) factors are taken into account. The model

we are working with is called: "Socio-Economic Model of the Planet Earth." Two reports on this work,^{1,2} may be of interest to you.

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June 29, 1967

1. H. H. KOELLE, "Sozio-Ökonomisches Modell des Planeten Erde [Socio-Economic Model of the Planet Earth ("SEMPRE")]," TUB-IR 1965/3, Institut für Raumfahrttechnik, Technische Universität Berlin (1965).

2. H. H. KOELLE, "Sozio-Ökonomisches Modell des Planeten Erde ("SEMPRE"). 1. Zwischenbericht," TUB/IR No. 2/1966, Institut für Raumfahrttechnik, Technische Universität Berlin (1966).