

NOTICES

PROCEEDINGS OF THE SECOND INTERNATIONAL CLEAN AIR CONGRESS

This massive volume of 1 380 pages contains all the papers presented at the congress held in December 1971. Copies are obtainable at \$85 each from: Academic Press, 111 Fifth Avenue, New York NY 10003.

The index of contents may be inspected in the Secretary's office.

INDEX TO SOUTH AFRICAN PERIODICALS

This bibliographical work has been produced by the Johannesburg Public Library since 1945, and is of interest to all our readers. It is an alphabetical list of articles appearing in South African periodicals, and is arranged under the name of the author and the subject of the article.

The Index may be consulted in the Johannesburg Public Library and in most of the larger libraries in the country. The current issues are also obtainable from the Johannesburg

Public Library at R10,00 per annual volume.

THE CONTROL OF GASEOUS SULPHUR COMPOUND EMISSION

An international conference on this theme will be held at the Salford University from 10th to 12th April, 1973.

Particulars are obtainable from: The Administrative Assistant, Conference on control of gaseous sulphur compound emission, Room 2, University of Salford, Salford M5 4WT, England.

COLLOQUIUM ON SLIMES DAMS

The South African Institute of Mining and Metallurgy have great pleasure in advising members that a two-day colloquium on Slimes Dams is being arranged for the 14th and 15th November, 1973. Papers will be presented on the following topics:

Comparison of South African and Overseas Practice;

Theoretical and Engineering Aspects of Slimes Dam Construction; Ecological Aspects of Slimes Dam Construction;

Bacterial Leaching and Recovery of Uranium from Slimes Dams;

Problems Associated with the Construction of Slimes Dams from Base Metal Mining Operations;

Economics of Slimes Dam Construction;

Slimes Dams on the Platinum, Antimony, and Diamond Mines;

Legal Aspects of Slimes Dam Construction;

Impact of Slimes Dams on Pollution of Water Resources;

Any members of the Institute who feel they would like to make a contribution to the Colloquium are invited to submit their suggestions to the Chairman of the Organizing Committee, Dr R. E. Robinson, c/o National Institute for Metallurgy (telephone 725-4200), if possible before the end of March, 1973.

NATIONAL INSTITUTE FOR METALLURGY NASIONALE INSTITUUT VIR METALLURGIE

REPORT ● VERSLAG

No. 1424

A REVIEW OF THE WORLD'S FLUORSPAR INDUSTRY, WITH PARTICULAR REFERENCE TO SOUTH AFRICA

1st August, 1972

Investigator: H. H. Gössling

SYNOPSIS

The consumption of fluorspar has increased significantly during the last three years, and a consumption of approximately 5,76 million tonnes per annum is projected for 1975.

In spite of its vast reserves of fluorspar, South Africa contributes only 3,42 per cent of the fluorspar on the World's markets. It should increase its exports of fluorspar from 0,158 to 0,5 million tonnes per annum. At the latter tonnage, a revenue of R21,34 million in foreign currency would be earned, instead of the R3,6 million earned by fluorspar exports in 1971.

It is imperative that the tonnage and grade of the known occurrences of fluorspar should be assessed and that beneficiation methods should be developed so that acid-grade concentrates can be produced economically from ores that have a fluorspar content of about 15 per cent.

REPORT ● VERSLAG

No. 1432

LABORATORY METHOD No. 44/2 THE DETERMINATION OF RUTHENIUM AND OSMIUM IN THE RESIDUES RESULTING FROM THE LEACHING OF MATTES

5th July, 1972

Investigators: Magdalena M. Krüger

R. V. D. Robért

SYNOPSIS

The method described involves the sintering of the residue with barium peroxide, and the distillation of ruthenium and osmium from the sinter. The distillates are collected separately in 6 N hydrochloric acid, the ruthenium being determined by atomic-absorption spectrophotometry and the osmium by a colorimetric method using thiourea.

REPORT ● VERSLAG

No. 1439

THE REACTION OF SULPHIDE MINERALS WITH THIOL COMPOUNDS

29th June, 1972

Investigator: L. A. Goold

SYNOPSIS

A selected group of thiol reagents was reacted with a wide range of sulphide minerals, and products that were formed at the surface were extracted and identified by infrared spectrophotometry. It was found that only pyrite oxidized the thiol reagent. With all other sulphide minerals for which reactions took place, the metal thiolate was formed at the mineral surface. These results agree with predictions from rest-potential measurements.