

vehicle applications but major factors such as cost and unit volume must be reduced in order to compete effectively with the internal combustion engine. It was thought that the most practical application may be in trucks and buses rather than passenger cars.

The papers presented at this meeting which described the use of platinum metals in automotive applications were relatively few in number, but nevertheless represented some of the major potential outlets for these metals over the next two decades.

B.H.

## Studies of Some Platinum Mineral Deposits

A special issue of the journal *Economic Geology* devoted to the platinum-group elements has recently been published; it contains twenty-one of the thirty-nine papers presented at the Third International Platinum Symposium held in Pretoria, South Africa during July 1981 sponsored jointly by the Society of Economic Geologists and the Geological Society of South Africa. Two additional papers not read at the symposium are also incorporated in the issue (*Econ. Geol.*, 1982, 77, (6)).

The most important platinum deposits occur in the Bushveld Igneous Complex of Southern Africa and are located in the Merensky Reef, the UG-2 chromitite layer and the Platereef. Many of the papers in the first half of this journal deal specifically with these deposits, the majority of them being based upon information obtained from drill cores or underground samples released by the mining companies for detailed investigation which have generated significant amounts of quantitative mineralogical and analytical data.

Recent work on compositional variations within and between five Sudbury ore deposits is presented but regrettably there is no contribution on the third great platinum producing area of the world, namely the Noril'sk-Talnakh combine in Siberia, U.S.S.R. However, a number of the smaller scientifically interesting areas of the world are featured including the important Stillwater Complex and the Thetford Ophiolites of North America, the Italian Ivrea-Verbano Basic Complex, the New Caledonian chromitites, and the platinum-group elements in the Polish Zechstein copper deposits.

This journal is not the sole source of the information on the mineralogy of the platinum-group elements and their behaviour during geological time that has accumulated since a previous issue was devoted to the subject, following an earlier symposium at Denver, Colorado in October 1975 (see *Econ. Geol.*, 1976, 71, (7)). The reader is specifically referred to *The Canadian Mineralogist*, 1979, 17, (2) for information on the magmatic nickel, copper

and platinum-group sulphide deposits, and to the book "Platinum-Group Elements: Mineralogy, Geology, Recovery" reviewed here last year (*Platinum Metals Rev.*, 1982, 26, (2), 57). However all the papers are amply supported by references making this issue of *Economic Geology* a most important publication for all students of the platinum deposits.

Copies of the journal can be obtained from The Economic Geology Publishing Company, University of Texas-El Paso, 202 Quinn Hall, El Paso, Texas 79968, U.S.A. Price including postage is \$16.00 (U.S.) or \$17.00 (outside North America.)

I.E.C.

## Alloying Effects of Palladium

A vast and ever increasing amount of scientific and technical information is becoming available throughout the industrialised world; fortunately advances in data generation have not proceeded in isolation. New techniques of information storage and retrieval, particularly on-line searching of national and international computer data bases, constitute an efficient means of searching the literature. Extending these techniques, publication of bibliographies developed from searches of on-line data bases can provide readers with information that enables them to determine rapidly and economically which reports in a data bank are of special interest to them.

A recent bibliography published by the U.S. National Technical Information Service contains 283 fully indexed citations from the Metals Abstracts Data Base concerning the alloying effects of palladium. The topics covered include alloying elements, magnetic and physical properties, effects of temperature and pressure, corrosion resistance and mechanical properties. Metallic glasses and superconductivity are also discussed.

Alloying Effects of Palladium. 1966-July, 1982 (Citations from the Metals Abstracts Data Base), publ. PB82-871823, can be obtained from NTIS, Springfield, VA 22161, U.S.A.