

Uphill Effect research studies, using a tubular form of membrane having a composition similar to that of the initially investigated, and subsequently well-characterised Pd₈₁Pt₁₉ alloy have been extended recently by employing a wider range of temperature, in combination with accurately correlated results from corresponding isothermal equilibrium pressure-hydrogen content (p-n) relationships, by Professor Baranowski and colleagues. A survey of consolidated results and current research progress was comprehensively outlined in a contribution

to the Workshop by D. Dudek and B. Baranowski concerning strain gradient influences on hydrogen diffusion coefficients in the Pd₈₁Pt₁₉-H system.

A total of some fifty participants in the Workshop drawn from 12 different countries, contributed to a programme of approximately twenty-five verbal and fifteen poster presentations. Corresponding refereed articles prepared from these contributions are planned to be published in a forthcoming issue of the journal *Defect and Diffusion Forum*. F.A.L.

Platinum 1995

DEMAND FOR PLATINUM A RECORD HIGH

Since 1985 Johnson Matthey has been publishing an annual survey of the commercial aspects of the platinum group metals, with particular emphasis on platinum. Following tradition, the launch of "Platinum 1995" took place in London during Platinum Week and was well received by the analysts, financial journalists, mining engineers and industrialists who attended. Based, in essence, on information gathered from numerous sources worldwide and well supported by statistical data, "Platinum 1995" details the progress of the platinum metals during 1994 and the events which affected both supply and demand, with forecasts for the coming year.

The price of platinum during the year averaged \$405.25 per ounce, an eight per cent increase over 1993, peaking to \$427.50 in July. This was upheld by factors such as economic recovery, speculation and spasmodic uncertainty over supply. However, prices began a further climb in late March 1995 and soared to reach a four year high of \$459 per ounce on 4th April 1995, following the announcement of a new platinum-based technology for the reduction of ozone and carbon monoxide.

Supplies of platinum during 1994 rose by three per cent to 4.53 million ounces. A fall in output from South Africa was offset by a significant increase in exports from Russia. Supply and demand were closely matched.

The motor industry again led the way in the consumption of platinum, chiefly for

the manufacture of autocatalysts, with the U.S.A. consuming an increased 32 per cent bringing the total for 1994 to 1.86 million ounces. This was followed closely by the Japanese jewellery industry with its eleventh consecutive year of growth. An increase in the fabrication of Platinum 1000 jewellery resulted in escalating demand with sales spiralling by 100,000 ounces to reach 1.45 million ounces. Growing appreciation of platinum jewellery in North America has encouraged established manufacturers to step-up production and also new participants to develop products.

In addition to dealing with industrial and investment demand, "Platinum 1995" has devoted a chapter to mining and exploration, principally in South Africa. It also contains special features covering mining the platinum group metals in Russia, worldwide coverage of emissions legislation and the use of platinum in the car. On a lesser scale, there are also surveys of the other platinum group metals markets, in particular palladium.

This fifty-two page analysis of trends in the platinum group metals market worldwide is regarded as the authoritative source of such information and is highly respected throughout the financial world. If you would like to receive your free copy of "Platinum 1995" or be added to its distribution list, please contact Alison Cowley, Johnson Matthey PLC, 78 Hatton Garden, London EC1N 8JP, England; Fax : 0171-269-8389.