

platinum or silver atoms in hydride formation. A considerably contrasting behaviour has, however, been found in the case of the Pd-Rh series of alloys. Here alloys with contents of rhodium extending up to 40 per cent have been found to exhibit solubilities corresponding to ratios of hydrogen to palladium atoms greater than one (21). These high contents have been measured directly by outgassing specimens removed from the high pressure apparatus after cooling and pressure reduction; the contents are also in keeping with measurement of changes of lattice parameters (15). Data are as yet incomplete over the whole range of alloy compositions but the results available seem to indicate either supplementation by rhodium in certain concentration ranges of the ability of palladium to form distinct hydride phases or the possibility of rhodium itself being able to form a hydride phase.

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Platinum Compounds in Cancer Research

Professor B. Rosenberg of Michigan State University has reported previously that certain platinum compounds are very potent anti-tumour agents against a wide variety of tumours (*Platinum Metals Rev.*, 1971, **15**, (2), 42-51). Tests were carried out initially on laboratory mice but trials of *cis*-dichlorodiamminoplatinum(II) have now been extended to human patients at six hospitals and institutes in the U.S.A. and at one in London.

B. J. Leonard and co-workers of I.C.I. Pharmaceuticals and Dyestuffs Divisions, Macclesfield, Cheshire have also now reported that *cis*-dichlorodiamminoplatinum(II) and *cis*-tetrachlorodiamminoplatinum(IV) have strong antileukaemic effects in rats on myeloid and lymphatic leukaemias (*Nature*,

1971, **234**, (Nov. 5), 43-45). Although the effects are accompanied by uraemia, these two compounds seem to be superior to those in clinical use as they have no undesirable side effects on the normal cells of the marrow, gonads and intestine. These antileukaemic and nephrotoxic properties seem to be related to the molecular configuration of the platinum compounds because the corresponding *trans* compounds had no effect on either type of rat leukaemia or on the kidneys of mice, rats and marmosets. The I.C.I. team suggest that it is not clear whether the antileukaemic effect of the compounds is direct and selective on the tumour cells or indirect and perhaps mediated through the immunological system but they believe that clinical trials on human tumours and leukaemias would be justified.