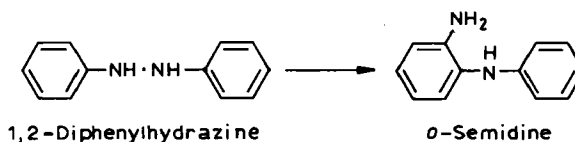


Scheme IV



an overall kinetic model of this reaction is helping to contribute to a greater understanding of chiral heterogeneous catalysis.

Rhodium Catalysed Rearrangement of 1,2-Diphenylhydrazine

The complexation behaviour of 1,2-diphenylhydrazine to metals has not been widely studied, but its reactions with samarium and tungsten complexes have resulted in either the formation of hydrazido complexes or cleavage of the N-N bond; no rearrangement of the aromatic hydrazine has been observed. It has been reported recently that 1,2-diphenylhydrazine rearranges exclusively to *o*-semidine in the presence of square planar rhodium(I) complexes and this reaction is catalytic when there are two *cis*-sites in the square plane which are occupied

by labile ligands (13), see Scheme IV.

Treatment of a dichloromethane solution of $[\text{Rh}(\text{PPh}_3)_2(\text{nbd})]\text{ClO}_4$ (nbd = norbornadiene = bicyclo[2,2,1]hepta-2,5-diene) containing an equimolar amount of 1,2-diphenylhydrazine with hydrogen gas (with caution, bearing in mind the possible explosion hazard) gives a deep red solution of $[\text{Rh}(\textit{o}\text{-semidine})(\text{PPh}_3)_2]\text{ClO}_4$ which contains a bidentate ligand bonded to rhodium.

It is proposed that the rearrangement involves the initial co-ordination of the 1,2-diphenylhydrazine as a bidentate ligand to rhodium(I). Steric constraints then place the phenyl rings of the co-ordinated ligand in a perfect position to allow the exclusive formation of *o*-semidine via a similar mechanism to that which occurs in the acid-catalysed benzidine rearrangement.

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Conference on Chemistry of the Platinum Group Metals

The Sixth International Conference on the Chemistry of the Platinum Group Metals will be held at York University, England, from 21st to 26th July 1996. The conference, organised by the Dalton Division of the Royal Society of Chemistry, is convened by Professor R. N. Perutz.

Keynote speakers are H. Takaya, M. Brookhart, P. Sadler, M. Grätzel, O. Eisenstein and G. Ertl.

Both oral and poster contributions will be welcome. For further information contact Dr John F. Gibson, R.S.C., Burlington House, Piccadilly, London W1V 0BN, UK; Fax: 0171-734-1227.