Acronyms and Abbreviations, contd.

LDT2	light-duty truck 2	**NMHC**	non-methane hydrocarbon
LDT3	light-duty truck 3	**NMOG**	non-methane organic gas
LDT4	light-duty truck 4	**NOx**	nitrogen oxides
LDV	light-duty vehicle	**O_2**	oxygen
LEV	low emission vehicle	**OBD**	on-board diagnostic
LLDT	light light-duty truck	**ppm**	parts per million
MDE	medium-duty engine	**SCR**	selective catalytic reduction
MDPV	medium-duty passenger vehicle	**SI**	spark ignition
NLEV	National Low Emission Vehicle	**SUV**	sport-utility vehicle

Rhodium Bicentenary Competition

In an exciting two-year period in the early nineteenth century, the discovery of four of the platinum group metals was announced in London. Among these was rhodium, which was described by William Hyde Wollaston to the Royal Society on 24th June 1804 (1).

To mark the approaching 200th anniversary of the discovery of rhodium, Johnson Matthey has decided to hold a Rhodium Bicentenary Competition for a new research project involving any aspect of rhodium science, preferably aimed at the development of a new application. The prize will be the sponsorship of a Ph.D. studentship and a loan of metal with which to conduct the investigation. The competition is open worldwide to scientists in universities and institutes of advanced research who train future scientists.

All proposals for research will be treated with confidentiality and ideas will not be disclosed outside Johnson Matthey. The proposers will be advised of any duplication of ideas or projects. The successful project will have contact with Johnson Matthey scientists over its duration. With due regard to the policies of the institution to which the scientists taking part belong, it is assumed that any intellectual property rights arising during the research will become owned by Johnson Matthey, should the project be developed into a commercial product.

Scientists wishing to participate in the Rhodium Bicentenary Competition should submit a 1-page research proposal directly by E-mail to: rhodium@matthey.com by 1st October 2001. Proposals will be evaluated by a committee chaired by the Director of the Johnson Matthey Technology Centre. More detailed proposals may be requested after the initial assessment. An announcement of the winner will be made in the January 2002 issue of *Platinum Metals Review*.

Reference

(1) Donald McDonald and Leslie B. Hunt, "A History of Platinum and its Allied Metals", Johnson Matthey, London, 1982, p. 147

Biomimetic Chiral Rhodium Catalysis

Recent attempts to mimic the high activity of metalloenzymes involve the molecular imprinting of organometallic systems. This involves a polymerisation reaction in which a pseudosubstrate is attached to a catalyst centre. On removal a shape-selective cavity is left.

Researchers at the Institut für Anorganische Chemie der Ludwig-Maximilians-Universität, Germany, now report a highly active and selective (ee > 99%) chiral Rh(III) catalyst which can asymmetrically reduce acetophenone (K. Polborn and K. Severin, *Eur. J. Inorg. Chem.*, 2000, (8), 1687–1692). The organometallic Cp*Rh complex had a chiral *N, N'*-chelate ligand with a styrene side chain; the remaining coordination site was occupied by a methylphenylphosphinato ligand – the pseudosubstrate which mimics acetophenone. During molecular imprinting, the Rh complex was co-polymerised with ethylene glycol dimethacrylate; the phoshinato ligand in the resulting polymer was then replaced by a chloro ligand to generate a shape-selective cavity near the active rhodium centre.