

**P**rofessor Helmut Werner was born in 1934 in Mühlhausen (Thüringen) in the “Green Heart of Germany”. After obtaining his Diploma degree with Franz Hein at the University of Jena,



he went to Munich to study for his PhD with Ernst Otto Fischer. Following postdoctoral research with John Richards at Caltech in Pasadena and having finished his Habilitation at the Technical University in Munich in 1966, he joined the faculty at the University of Zurich, Switzerland, where he became Professor of Chemistry in 1970. In October 1975 he was appointed Professor and Head of the Institute of Inorganic Chemistry at the University of Würzburg. He was Dean of the Faculty from 1987 to 1989 and the Chairman of an Interdisciplinary Research Unit from 1990 to 2001.

Werner's research interests are in the area of synthetic and mechanistic organometallic and coordination chemistry. His years at Munich and Zurich were highlighted by the preparation of the first borazene-transition metal complexes and the isolation and structural characterisation of the first triple-decker sandwiches. Notable research themes in the 1980s and 1990s include the chemistry of dinuclear sandwich complexes containing metal-metal bonds, the concept of metal basicity, the use of electron rich complex fragments to activate organic substrates and stabilise small reactive molecules, oxidative-addition reactions, carbene metal complexes, and metalla-cumulenes. Most recently he has synthesised dinuclear metal complexes with phosphines, arsines and stibines in a truly doubly-bridging position. Werner's work has been published in 630 papers, including a monograph (with EO Fischer) on “Metal  $\pi$ -Complexes” and four books on “Selective Reactions of Metal-Activated Molecules”.

Helmut Werner has lectured widely and been a visiting professor at Cambridge, Santiago, Toulouse, and Zaragoza Universities. His distinguished contributions to chemistry have been recognised by numerous awards including: the Pacific West Coast Inorganic Lectureship (1987), the Alfred-Stock-Preis

of the German Chemical Society (1988), the Centenary Medal and Lectureship of the Royal Society of Chemistry (1993), the Max-Planck-Forschungspreis with Martin Bennett (1994), the Paolo Chini Memorial Lectureship of the Italian Chemical Society (1995) and the Mutis-Humboldt award of the Spanish Ministry of Science (1996). Since 1988 he has been a Fellow of the Royal Society of Chemistry and a member of the Deutsche Akademie der Naturforscher Leopoldina. In 2001 he was awarded a Doctor of Science honoris causa by the University of Zaragoza.

**P**rofessor FGA Stone CBE, FRS was the first holder of the Chair of Inorganic Chemistry at the University of Bristol, a position he held with great distinction from the time the post was created in 1963 until his retirement in 1990. During this



period, in recognition of his many original contributions to organometallic chemistry, he received several major awards including the Davy Medal of the Royal Society, the Longstaff Medal of the Royal Society of Chemistry, and the American Chemical Society Award for Inorganic Chemistry. He is the author and coauthor of over 700 primary journal articles and was Founding Editor of “Advances in Organometallic Chemistry”, now in 49 volumes. His scientific autobiography “Leaving No Stone Unturned” was commissioned by the American Chemical Society and published in 1993 as one of a series by 22 eminent chemists. Approximately 60 of the 200 people who have studied in his laboratory, either as PhD students or as postdoctoral assistants, now hold permanent academic appointments in universities throughout the world. Following retirement from the University of Bristol he has continued his work as the Robert A Welch Foundation Distinguished Professor of Chemistry at Baylor University in Texas. Gordon Stone has received honorary doctorates from 5 universities.

## Previous Lecturers

FA Cotton	1991
R Hoffmann	1992
Lord Lewis	1993
G Wilke	1994
Sir Geoffrey Wilkinson	1995
FGA Stone	1996
LF Dahl	1997
EW Abel	1999
H Schmidbaur	2000
PM Maitlis	2001
AG MacDiarmid	2002
WR Roper	2003

# the GORDON STONE lecture

## Acknowledgments

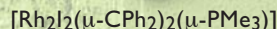
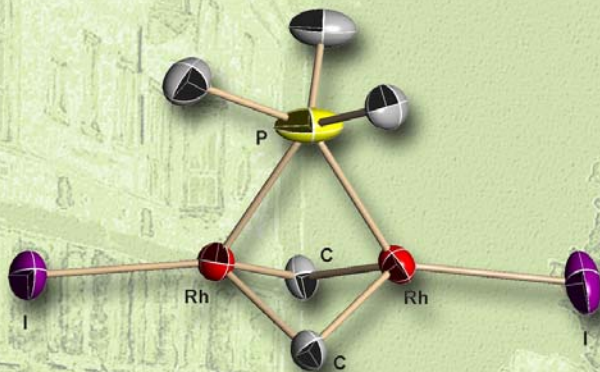
This lecture was established to recognise Gordon Stone's many distinguished contributions to organometallic chemistry and the part he played in establishing at Bristol a major centre for teaching and research in inorganic chemistry. It is funded by contributions from past and current colleagues, friends and coworkers. We are particularly grateful for the generous support provided by the following companies:

BP Chemicals  
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## 2004 Lecturer

**Professor Helmut Werner**  
Institut für Anorganische Chemie  
The University of Würzburg

“Building Bridges: A Scientific Adventure  
and a Personal Consummation”



**SCHOOL OF CHEMISTRY**  
Wednesday 21 April 2004, 2.15 pm