

## CONTENTS

Preface

vii

### PLENARY LECTURES

The development of transition metal chemistry in the United States of America—J. C. BAILAR JR ( <i>USA</i> )	1
Structure and thermodynamics of lanthanide and actinide complexes in solution—G. R. CHOPPIN ( <i>USA</i> )	23
Coordination chemistry and physical properties of transplutonium actinide compounds—B. B. CUNNINGHAM ( <i>USA</i> )	43
Molecular orbital theory $\pi$ -donor and $\pi$ -acceptor complexes—R. F. FENSKE ( <i>USA</i> )	61
Coordination and redox properties in solution—V. GUTMANN ( <i>Austria</i> )	73
Theory and importance of oxygen bridge-bonding—B. JEŻOWSKA-TRZEBIATOWSKA ( <i>Poland</i> )	89
Molecular vibrational spectra in the solid state—S. F. A. KETTLE ( <i>UK</i> )	113
Synthesis, structure and reactions of chelate metal-olefin complexes—R. S. NYHOLM ( <i>UK</i> )	127
Orbital symmetry rules and the mechanism of inorganic reactions—R. G. PEARSON ( <i>USA</i> )	145
Conformational and spin state interconversions in transition metal complexes—L. SACCONI ( <i>Italy</i> )	161
The development of coordination chemistry in the Soviet Union—V. I. SPITSYN ( <i>USSR</i> )	193
Absorption lines in transition metal complexes—IKUJI TSUJIKAWA ( <i>Japan</i> )	227
The role of coordination in catalytic redox processes—K. B. YATSIMIRSKII ( <i>Ukr. SSR</i> )	251