

HIGHLIGHTS OF BRITISH SCIENCE

'Britain has a great tradition in natural science. From the time of the so-called scientific revolution of the mid-seventeenth century with the foundation of the Royal Society at the heart of it, British scientists have been in the forefront of advances not merely in fundamental science but also in its application to the practical problems of everyday life. Science, of course, knows no national boundaries and it owes much of its progress and vitality to the free exchange of information and ideas between scientists in all countries. It is nevertheless true that, for a variety of reasons, some countries, of which Britain is one, have made contributions out of all proportion to their physical size and population. Today we are in the midst of a worldwide economic recession which has indeed affected Britain more severely than some other highly industrialized nations. Since economic progress and with it our living standards depend nowadays almost entirely on advances in science and in technology based upon it, it is perhaps not surprising that some members of the public should wonder whether we have fallen behind other nations and whether our expenditure on science and scientific research is being misdirected. Nothing could be further from the truth. Our record during the past twenty-five years is an enviable one and our scientific research is vigorous as ever, flushed with success and full of promise. Britain has made and continues to make outstanding contributions in many and diverse fields of science. Some of these are set out in this book and it is my hope that its contents will not only stimulate appreciation of some highlights in British science but will indicate also its promise for the future.'

Extract from Lord Todd's Preface

CONTENTS

Discoveries about the universe
Recent advances in weather forecasting
Research in seas and oceans
Contributions of scientific discoveries to increases in agricultural productivity
Science and the development of nuclear energy
The jubilant electron
Developments in electron microscopy and microanalysis
Chemistry in microtime
The intracellular electrode: 25 years of research in cellular electro-physiology
Molecules of life
High blood pressure: the evolution of drug treatment: British contribution

240 pages 44 plates

ISBN 0 85403 104 9

Price including packing and postage

£8.00 (U.K. addresses) £8.25 (overseas addresses)

The Royal Society
6 Carlton House Terrace, London SW1Y 5AG

PROCEEDINGS OF THE ROYAL SOCIETY, SERIES A

Number 1801 8 February 1984 Volume 391

CONTENTS

HUXLEY, SIR ANDREW	<i>pages</i> 215–230
Address of the President at the Anniversary Meeting, 30 November 1983	
WALL, C. T. C.	231–254
Review Lecture. Periods of integrals and topology of algebraic varieties	
PIPPARD, SIR BRIAN	255–268
Resistance of superconducting–normal interfaces at 0 K	
BODDINGTON, T., FENG, C.-G. & GRAY, P.	269–294
Thermal explosion and times-to-ignition in systems with distributed temperatures. II. The influence of reactant consumption	
BEIG, R.	295–304
Integration of Einstein's equations near spatial infinity	
WILKINSON, M.	305–350
Critical properties of electron eigenstates in incommensurate systems	
BLANCHIN, M. G., BURSILL, L. A. & SMITH, D. J.	351–372
Precipitation phenomena in non-stoichiometric oxides. I. Pairs of crystallographic shear planes in reduced rutiles. [Plates 1–12]	
BURSILL, L. A., BLANCHIN, M. G. & SMITH, D. J.	373–391
Precipitation phenomena in non-stoichiometric oxides. II. {100} Platelet defects in reduced rutiles. [Plates 1–11]	
ABDEL-GAYED, R. G., AL-KHISHALI, K. J. & BRADLEY, D.	393–414
Turbulent burning velocities and flame straining in explosions	
KATZ, J.	415–418
Relativistic potential vorticity	
INDEXES	419–421

* * *

VOLUME TITLE PAGE AND CONTENTS

Published by the Royal Society, 6 Carlton House Terrace, London SW1Y 5AG

*Printed in Great Britain
for the Royal Society at the University Press, Cambridge*