

Editorial Foreword

The field of power sources differs from most other sciences and technologies in being extremely interdisciplinary. Workers in the field have watched with dismay the increasing tendency to split subjects into specialised subdivisions. This has meant not only that many more journals must be scanned to ensure that nothing of importance has been missed; but also that some prospective authors have been discouraged, because there appears to be no appropriate outlet for their work. Possibly therefore much valuable information remains unpublished in a wider sense: this seems particularly true with respect to applications of power sources, and with ever increasing costs and shortages of power we surely cannot afford to overlook the benefits which may be gained if this knowledge were made readily available.

The objective of this Journal then is to advance the progress and ultimate development of sources of power by bringing together within one cover as many aspects of the field as possible, so as to give a full picture of what is being developed, how it is being used, why some systems are not available yet, and why others have failed in practice.

In this first issue we present papers dealing with materials for lead acid batteries, for fuel cells and for solid state batteries; on development aspects of fuel cells, a power source which many people believe must make a significant contribution to the economics of future usage of our energy resources; on manufacturing alkaline cells; a metal-air battery for vehicle propulsion, which is perhaps the half-way stage to the all-fuel-cell vehicle; solid electrolyte batteries, possibly the power source for future portable, miniature electronic equipment; and on a means of improving the manganese dioxide electrode and estimating its capabilities.

In future issues there will be papers on what may be the batteries of the future — sodium/sulphur and metal/halogen batteries — and, of immediate practical interest, chargers of lead acid batteries.

In addition to publishing important experimental papers, we hope also to promote through the Journal a critical approach to questions such as: are we developing the right power sources? do we know what is wanted? This means that, as well as forward-looking reviews, we would welcome reports from users on the applications of power sources, of their failures and successes. One example of this could be experience of joint operation of two power systems; the battery to start a car being familiar (indeed essential) to most of us, less familiar but equally important being the use of a storage battery with solar cells. This is one area where I feel much can be achieved by greater publication of available information: readers will be aware of others, and your comments on this and other aspects of the Journal will be as welcome as your papers.

It is by matching our power sources to our requirements and by learning of successful — and not so successful — applications, that we can help to make the best use of our resources.

D. H. COLLINS
Editor