

INTRODUCTION

The *Bulletin of Magnetic Resonance* has been launched to fill a pronounced need for communication among members of the International Society of Magnetic Resonance (ISMAR). The main purposes of the Society are to promote scientific interaction and the diffusion of knowledge among researchers in the fields of nuclear magnetic resonance, electron spin resonance, nuclear quadrupole resonance, and related areas and in the application of their studies to physics, chemistry, and biology. The great breadth of interest represented by the members of the Society, the rapid development of both methodology and applications for our research, and the tremendous impetus given by this work to other fields of inquiry combine to underscore the interdisciplinary character of the magnetic resonance field and the need to exchange findings among scientists. These factors are especially important in the field of nuclear magnetic resonance (nmr) where the work ranges from development of sophisticated methodology and applications such as image formation techniques, to the most routine uses such as chemical analysis.

Researchers in magnetic resonance face a very great challenge, creating and monitoring a complex and evolving methodology, as well as an increasingly broad range of applications for their work. For example, even a magnetic resonance spectroscopist faces difficulty following methodological developments in nuclear magnetic resonance, with its subfields of high-resolution spectroscopy and wide-line spectroscopy and their further subdivisions into studies of gases, liquids, solutions, and solids.

The Society continually strives to foster interaction among scientists in different fields of magnetic resonance and to encourage interdisciplinary exploration. Our main symposia have been open to investigators from different disciplines, and the same spirit underlies the creation of this new BULLETIN. Its purpose is to communicate the most recent developments in the various fields of magnetic resonance, reviewing narrow topics concisely and at a level that makes them accessible to workers in related but different areas. The goal is to pro-

vide readers with insights into the work of others, to stimulate new ideas, and where appropriate, to provide opportunity for further cooperative study on topics of mutual concern. As a further service, it is expected that the BULLETIN will publish proceedings of future international meetings and lectures presented at summer schools and seminars.

The inauguration of the BULLETIN prompts me to reflect on the brief but exciting history of the Society and the meetings that have allowed for stimulating exchanges of ideas and research among members. The first meeting of ISMAR was held in Tokyo, Japan. It was organized by Dr. S. Fujiwara, one of the greatest inspirations and contributors to the creation and development of our organization. The second meeting, held in Sao Paulo, Brazil, was organized by Dr. L. W. Reeves from Waterloo, Canada. Dr. Reeves, an active participant in the exchange program between Canada and Brazil, personifies a spirit of cooperation that can bring together scientists from different countries, cultures, and political beliefs to work toward a better life for all people.

The third international conference took place in Melbourne, Australia. Its organizer, Dr. C. Coogan, was one of the founders of ISMAR, along with Dr. Fujiwara and myself. The fourth international symposium was held in Rehovot and Jerusalem, Israel. I acted as chairman and I hope that the meeting made a significant contribution to the development of both magnetic resonance and the Society. The fifth international symposium, held in Bombay, India, was organized by Dr. B. Venkataraman. Members were impressed with the great scientific achievements made by Indian scientists under the very difficult economic conditions that exist in their country.

Banff, Alberta, Canada, was the site of the sixth international symposium. The meeting's attractive location, as well as the outstanding organizational efforts of co-chairmen Dr. J. Weil and Dr. F. Rummens, attracted a large number of scientists and was a very stimulating experience. The next meeting, to be organized by Dr. J. Smidt, will take place in Delft, The Netherlands. To be held jointly with the Groupement Ampère, it will pre-

cede the more specialized "Magnetic Resonance in Biological Systems" meeting being organized in France by Dr. M. Gueron. In addition to sponsoring these international symposia, ISMAR has held summer schools in Germany, Yugoslavia, and other locations and will sponsor the next International Summer School on Nuclear Magnetic Resonance at the University of Waterloo in 1979. This will be organized by Dr. M. M. Pintar.

It is from the exchange and stimulation fostered by such meetings that the desire for more regular communication emerges and a publication such as this one is born.

The BULLETIN's beginning reflects hard work on the part of many people. Dr. J. H. Bradbury of the chemistry department at the Australian National University is the editor. I thank him for accepting this challenging task and wish him every success. I am also grateful to the publisher, The Franklin Institute Press, and particularly to Dr. W. White, Jr., for his cooperation and support. Thanks go, as well, to the council members of the society: Drs. E. R. Andrew, G. J. Bene, R. Blinc, F. Bloch, M. Bloom, J. H. Bradbury, W. S. Brey, A. D. Buckingham, F. Conti, C. Coogan, J. Danon, J. Depireux, S. Forsen, S. Fujiwara, H. S. Gutowsky, K. H. Hausser, J. Hennel, V.

Hovi, O. Jardetzky, A. Kastler, V. J. Kowalewski, A. Losche, A. Lowenstein, P. T. Narasimhan, W. Philipsborn, L. W. Reeves, A. K. Saha, J. Smidt, I. Solomon, and I. Ursu. I am especially grateful to Dr. Bloch, who with Dr. E. M. Purcell, founded the field of nuclear magnetic resonance. Dr. Bloch's continuing support and active participation have been vital to the development of ISMAR.

With the founding of the *Bulletin of Magnetic Resonance*, many more scientists will become aware of our research and activities, many more will be able to participate in and contribute to the vital work taking place in this field. I encourage all ISMAR members, other magnetic resonance spectroscopists, and interested scientists to contribute to the BULLETIN, and I look forward to a long-lasting partnership among all those who will be involved in this important undertaking.

Daniel Fiat
Chairman, ISMAR
University of Illinois at
the Medical Center
Chicago, Illinois

INTRODUCTORY REMARKS

From modest beginnings magnetic resonance has developed into an important tool of research. Refined and readily available equipment not only allows a wide choice in the methods of operation, but the technique is now fruitfully applied in many fields of investigation.

While this development was most rewarding, the great ramification has made it nearly impossible, even for those actively engaged in certain branches, to remain well informed about all the diverse aspects encountered in the pursuit of different specific studies. In fact, among the large number of pertinent papers, most demand a considerable acquaintance with their particular subject so that they are of major benefit only to some special and usually rather small group of readers.

The review articles to appear in the *Bulletin of Magnetic Resonance* will therefore provide a highly welcome service. Both as a source of information for the interested general public and to aid cross-fertilization among experts, they can be expected to have a significant influence upon maintaining vitality in a field of proven scientific value.

Felix Bloch
Department of Physics
Stanford University
Stanford, California