
FOREWORD

For more than four decades, the Department of Energy, including its predecessor agencies, has supported a program of basic research in nuclear- and energy-related sciences, known as Basic Energy Sciences.

The purpose of the program is to explore fundamental phenomena, create scientific knowledge, and provide unique "user" facilities necessary for conducting basic research. Its technical interests span the range of scientific disciplines: physical and biological sciences, geological sciences, engineering, mathematics, and computer sciences. Its products and facilities are essential to technology development in many of the more applied areas of the Department's energy, science, and national defense missions.

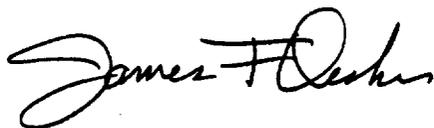
The accomplishments of Basic Energy Sciences research are numerous and significant. Not only have they contributed to Departmental missions, but have aided significantly the development of technologies which now serve modern society daily in business, industry, science, and medicine.

In a series of stories, this report highlights 22 accomplishments, selected because of their particularly noteworthy contributions to modern society. A full accounting of all the accomplishments would be voluminous. Detailed documentation of the research results can be found in many thousands of articles published in peer-reviewed technical literature.

The stories are easy to read and their telling is important. In each, the link is made between the contribution of the research and its larger benefit to society.

Most of the technologies which headline these stories are fully operational. Credit for their development must be widely shared by numerous individuals and institutions. Yet, all grew out of or were aided along the way by Basic Energy Sciences research.

With this report, I invite the public to see, in part, what became of its investment. The accomplishments evidence a creative and productive record. I am confident that, with continued support from the public, Basic Energy Sciences research will contribute in the future as productively, if not more so, as it has in the past.



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