

Origins of and Changes in the Symposium Series on Biotechnology for Fuels and Chemicals

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Abstract

More than two decades ago, a group of research engineers and applied scientists with interest in energy applications of bioprocessing initiated an annual symposium series ultimately entitled "Biotechnology for Fuels and Chemicals." The Department of Energy, several of the national laboratories, and various industrial firms have supported these symposia that are now held alternately in the mountains of Tennessee and Colorado. There has been wide acceptance of these meetings, with participants from the government, academia, and the commercial sector, and more than 20 different nations have been represented. The peer-reviewed proceedings have been published and are an important source for innovative bioprocessing research.

Index Entries: Symposium; biotechnology; fuels; chemicals; bioprocessing.

Introduction

About 26 yr ago when innovative bioprocessing concepts were receiving renewed attention, a group of research engineers and applied scientists with interest and involvement in energy applications got together to plan for a symposium series on bioprocessing in the energy area. The occasional specific sessions emphasizing this area at the various meetings of professional organizations, such as the American Institute of Chemical Engineers and the American Chemical Society, were appreciated, but a more sustained and structured series of meetings was desired.

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It was decided that energy production and conservation would initially be emphasize. Furthermore, it was proposed that an appropriate location be used that could provide a facility that would accommodate 150 to 250 participants so they could engage in intense interactions on a scientific and technical basis. Since wide participation of the attendees was desired, oral presentations, unlimited poster presentations, and discussion topics were to be incorporated. Social functions were also to be planned that would encourage interpersonal interactions and detailed technical discussions. The first meeting was held in 1978.

Location

The Bioprocessing Research and Development Group at Oak Ridge National Laboratory (ORNL) agreed to host the first meeting. This first in the series was specifically entitled "Biotechnology in Energy Production and Conservation" and was held in the mountains of East Tennessee at Gatlinburg. The same location and title were used for the first four annual meetings; however, it became obvious that the more generic area of fuels and chemicals was of most interest. Therefore, the fifth and succeeding symposia were entitled "Symposium on Biotechnology for Fuels and Chemicals."

Later it was decided that the hosting duties would be shared between ORNL and the Solar Energy Research Institute (afterward named National Renewable Energy Laboratory, NREL), with the annual meetings alternating between the mountain areas of Tennessee and Colorado. It was found that alternating these sites provided a bit of welcomed variability, and maintaining the mountain locations provided a good sense of continuity. The use of the Tennessee site in the resort town of Gatlinburg has continued, and several different Colorado sites have also been used, mainly in resort areas such as Colorado Springs, Boulder, and now Breckenridge.

Symposium Support

The interest in and support of these symposia have been quite extensive. Several US Department of Energy (DOE) offices have been involved, including the Office of Alternative Fuels, the Office of Fuels Development, the Office of Waste Reduction Technologies, the Office of Industrial Technologies, the Office of Basic Energy Sciences, and the Office of Health and Environmental Research. Other US governmental agencies such as the National Institute of Standards and Technology and the Tennessee Valley Authority have also been sponsors. There has been international support from National Resources Canada, and numerous industrial firms continue to support the symposia. Several of the national laboratories have supported the meetings both monetarily and organizationally. These have included ORNL, NREL, Argonne National Laboratory, and Idaho National Engineering Laboratory.

Participants

There has been wide acceptance of these annual meetings with participants from the DOE and other government agencies, academia, national laboratories, and many commercial enterprises. There has also been a significant international involvement, with the attendees representing as many as 20 different countries. On average, about 25% of the attendees are international and about 30% are industrial. Typically, the attendance has been between 200 and 300 participants; however, there has been a significant increase in the last 3 yr, reaching a total of 450 for this 25th Symposium (Fig. 1). The total number of submitted manuscripts of the presented papers has also increased to a high of 150 for this symposium.

Publication of Proceedings

From the very beginning, it was decided that the presented papers would be compiled and published in appropriate international journals. This was to include both oral and poster presentations. The first several symposia were published in *Biotechnology and Bioengineering* (1–8), and later proceedings have been published in *Applied Biochemistry and Biotechnology* (9–24). These peer-reviewed proceedings have become an important resource for innovative bioprocessing research.

This annual symposium continues the tradition established 25 yr ago, and we look forward to many more in the future.

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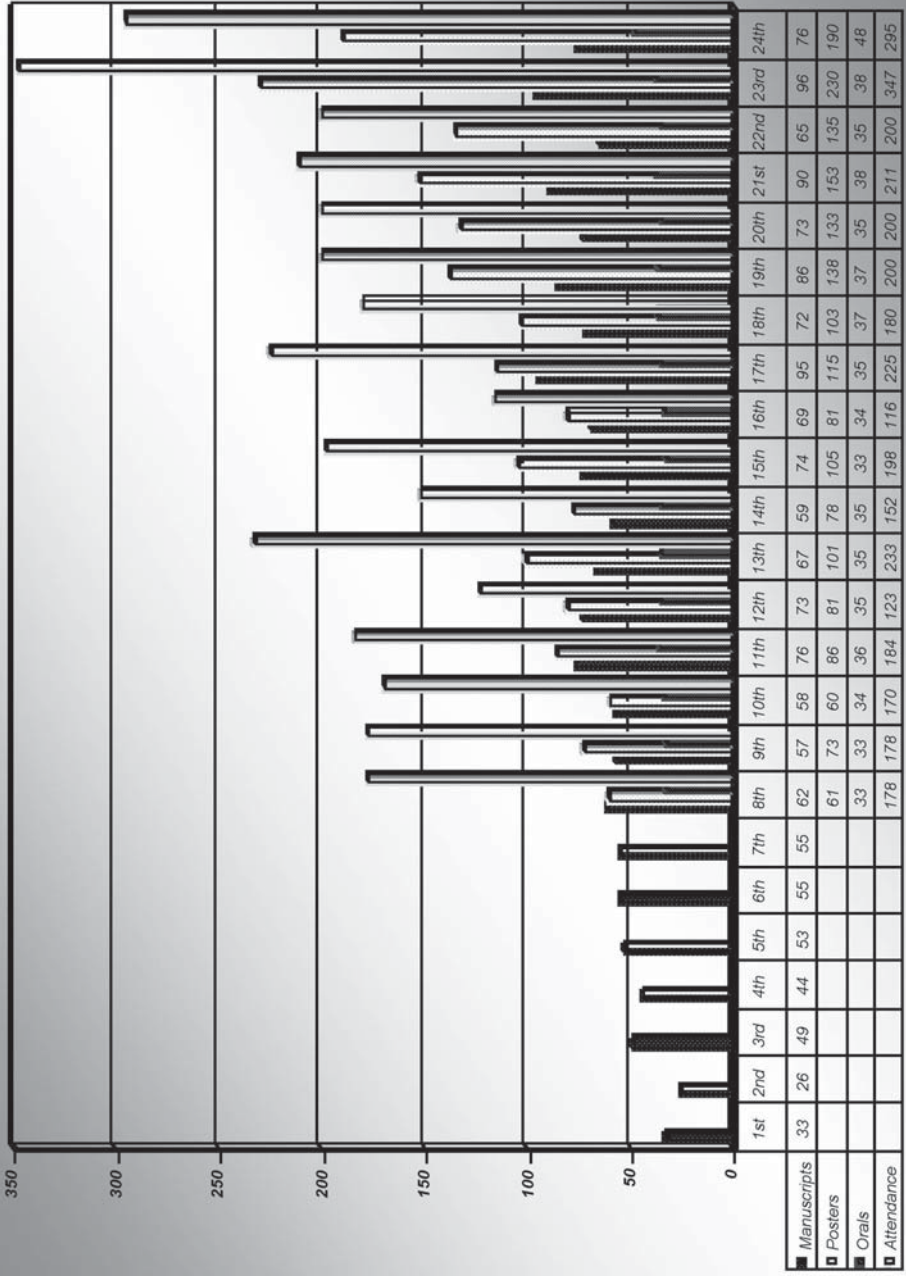


Fig. 1. Growth patterns for this symposium series. Note that complete information for yr 1-7 was not available.

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