

# GUEST EDITOR'S COMMENTS

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The Fourteenth Target Fabrication Specialists' Meeting (TFSM) held at West Point, New York, July 15–19, 2001, continued to provide a forum for international inertial confinement fusion (ICF) programs to exchange technical information specific to the development and fabrication of ICF targets.

The hallmark of the meeting is the diversity of the participants and the opportunity for technical interchanges: from experimental planners and target designers to the target builders and developers, and from the various laboratories in the United States to laboratories in Japan, France, and the United Kingdom. Here, target designers and builders can discuss different designs while considering the feasibility of their fabrication. While this exchange occurs regularly at each laboratory, it is only at the target fabrication meetings that the diverse technical experience from various laboratories can be included in these discussions. The value of this exchange on technical subjects that range from micromachining and assembly techniques to optical, cryogenics, and materials development issues cannot be understated.

An encouraging development evident at this meeting was the increasing breadth and quality of the target-related research occurring throughout the ICF community. The previous predominance of target-related research and development at only a few laboratories is less evident, and the results from additional laboratories expanding their internal target development programs are bringing new approaches and solutions to address common problems. This broadening of the technical base is providing an infusion of new ideas that is enriching the quality of the science and engineering in the field of ICF target fabrication.

The Fourteenth TFSM occurred at an especially poignant time in the cycle of building new facilities: the National Ignition Facility at the Lawrence Livermore National Laboratory and Laser Mega Joule at CESTA near Bordeaux. These facilities require cryogenic target handling systems that are currently in the design phase, and technically relevant data can have a major impact on the designs. Recently completed facilities such as the functional OMEGA Cryogenic Target Handling System and the Cryogenic Pressure Loader (at Los Alamos National Laboratory) are now providing data about the performance of specific cryogenic engineering designs and the prospects for achieving the desired ignition cryogenic target—information that is directly relevant to the proposed facilities.

This special issue contains 23 papers submitted from the 40 oral presentations and 58 posters presented at the meeting. These papers, which originate from all participating countries and U.S. laboratories, represent a good cross section of the topics of importance for developing and fabricating ICF targets.

Finally, I would like to thank all those who contributed papers to this special issue of *Fusion Science and Technology* and to those who reviewed these papers prior to publication. On behalf of all those who attended the Fourteenth TFSM, I would like to extend a special thanks to Jean Steve of the University of Rochester's Laboratory for Laser Energetics, who single-handedly organized the conference. The smooth operation of the conference and the convivial atmosphere in which it was held are a tribute to Jean's professionalism and dedication.