

GUEST EDITOR'S COMMENTS

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The field of inertial confinement fusion (ICF) is poised to take a giant stride with the construction start this year of the National Ignition Facility at Lawrence Livermore National Laboratory. This will be the largest laser facility in the world, both in sheer size and in the energy it can deliver to a target in a single pulse. Once completed, this Department of Energy facility will be available for exploration of high-energy-density physics and materials studies. A very important part of its goal will be the attainment of thermonuclear ignition and energy gain for an ICF target.

A vigorous multinational, multilaboratory effort aimed at developing and fabricating the very special targets for ICF research has existed for the past two decades, and progress in this important area has been reported at a series of target fabrication specialists' meetings. This special issue of *Fusion Technology* comprises papers delivered at the Eleventh Target Fabrication Specialists' Meeting, which was held in September 1996 on Orcas Island, Washington. It was the second such meeting to be truly international, with participants from Canada, France, Japan, Russia, and the United Kingdom. The conference itself had about one hundred papers, so those included here are representative of the topics covered. Most of these papers focus on developments of ignition targets and their components and technologies, particularly capsules and cryogenic fuel layers. Both of these areas have made substantial progress in recent years, but the very exacting tolerances for the fuel capsules and the fuel layers will demand a continuing effort. The papers presented here point toward those future efforts.

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