



Dr. Donald Dudziak of Los Alamos National Laboratory serves as guest editor of this issue, which is devoted to heavy-ion fusion (HIF) systems and their assessment. We are indeed deeply indebted to Don and the various people who helped him put together this most important special issue of *Fusion Technology (FT)*. As you, the reader, go through this issue, I am sure that you will quickly recognize the large amount of effort that went into putting together such a comprehensive set of papers. Don's inspiration and leadership in carrying out this effort is recognized and admired by all involved.

It seems especially appropriate that HIF systems be covered in depth at this time. Papers at the October 1987 meeting of the Plasma Physics Division of the American Physical Society stressed that recent inertial confinement fusion (ICF) experiments at the NOVA laser facility of Lawrence Livermore National Laboratory, as well as several other ICF laboratories, have made remarkable progress—indeed, some of the results have been called “superimplosions” in analogy to the good tokamak results that have been cited as “supershots.” Consequently, there is now a renewed interest in the community in examining the best route to a reactor for ICF.

Three “drivers” remain in contention for reactor grade operation: advanced lasers (e.g., the KrF laser covered in the May 1987 issue of *FT*); light-ion accelerators using pulsed diode technology; and heavy-ion beam accelerations. The present issue of *FT* provides a most comprehensive view of the status, prospects, advantages, and disadvantages of the heavy-ion approach. This collection of papers should be of lasting value to everyone interested in the prospects for ICF power.

*George Miley*