

Preface

Twenty-Second Target Fabrication Specialists Meeting

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The Twenty-Second Target Fabrication Specialists Meeting (TFM-22) was held in Las Vegas, Nevada, March 12–16, 2017. TFM-22 was the largest TFM in recent history, attended by more than 130 scientists, engineers, and technical workers from the United States, the United Kingdom, France, and Japan, bringing together international experts in the design, development, and fabrication of inertial confinement fusion (ICF) and high-energy-density targets fielded on laser and pulsed-power facilities around the world. The program included 68 talks and 64 posters. Also included were several papers by target designers and experimentalists that highlighted recent results and future target needs. A selection of this work is presented in this dedicated issue of *Fusion Science and Technology (FST)*.

In over 130 presentations, advances for all target types made in the 21 months since the previous meeting in this series were discussed. The target fabrication effort has continued to improve the throughput and quality of components and targets over the last 2 years but has also responded to more recently identified requirements for fill tube dimensions, capsule support, and improvements to the hohlraum. The TFM-22 schedule consisted of a total of 12 sessions and 2 poster sessions, subdivided into 7 technical categories: Capsules; Foams; Metrology; Capsule Support and Fill Tubes; Design, Machining, and Assembly; Materials; and Characterization.

As is traditional for the TFM, the Larry Foreman Award was presented to an individual who has made a

substantive contribution toward innovation and excellence in target fabrication. The award was presented this year to retired Lawrence Livermore National Laboratory (LLNL) employee Robert Cook, for his body of work in capsule and coating developments for ICF targets. Bob made essential contributions to the microencapsulation process for making polystyrene and polyalphamethylstyrene shells and to the vapor deposition processes for glow discharge polymer and beryllium shells. Further, he has been a motivating mentor for future scientists in this community and has been a guest editor for the TFM proceedings even in retirement.

We would like to acknowledge several people for their effort in making TFM-22 a successful meeting. Jennifer Anthony and Nyla Wlodarczyk of LLNL are due special appreciation and recognition for their tireless efforts in organizing the conference, dealing with all logistics, and keeping it moving smoothly. Special thanks go to Nancy Holt, Manager of Communications and Government Affairs for National Security Technologies (NSTec), and to the professional staff and management at NSTec for hosting TFM-22 and helping to make the meeting a success. We also thank Bob Cook for his continued service as the guest editor for this special issue of *FST*.

TFM-22 was a fantastic opportunity for the target fabrication community to share research and progress, and this dedicated issue of *FST* documents some of this progress.