

Fusion technology

CONTENTS / JULY 1997—VOL. 31, NO. 4

ELEVENTH TARGET FABRICATION SPECIALISTS' MEETING

- iii Comments / *George Miley*
- v Guest Editor's Comments / *Thomas P. Bernat*

TECHNICAL PAPERS

- 381 The PAMS/GDP Process for Production of ICF Target Mandrels / *B. W. McQuillan, A. Nikroo, D. A. Steinman, F. H. Elsner, D. G. Czechowicz, M. L. Hoppe, M. Sixtus, W. J. Miller*
- 385 The Design of the Ballistic Furnace and Initial Microshells Formation Experiments / *Andrei I. Nikitenko, Sergey M. Tolokonnikov, Robert Cook*
- 391 The Role of Reactant Transport in Determining the Properties of NIF Shells Made by Interfacial Polycondensation / *Kenneth E. Hamilton, Stephan A. Letts, Steven R. Buckley, Evelyn M. Fearon, Gerald Wilemski, Robert C. Cook, Diana Schroen-Carey*
- 402 NIF Capsule Design Update / *T. R. Dittrich, S. W. Haan, S. Pollaine, A. K. Burnham, G. L. Strobel*
- 406 Adapting the Decomposable Mandrel Technique to Build Specialty ICF Targets / *Evelyn M. Fearon, Stephan A. Letts, Leslie M. Allison, Robert C. Cook*
- 411 Influence of the Properties of the Furnace Atmosphere on Microsphere Quality / *Valeriy M. Dorogotovtsev, Alexander A. Akunets*
- 418 Modeling the Effects of Polymer Degradation on the High Temperature Formation of Plastic Microshells / *Yuriy A. Merkuliev, Sergey A. Startsev*
- 424 Thermal Decomposition of Polystyrene in the High Temperature Fabrication Technology of Hollow Microspheres / *Valeriy M. Dorogotovtsev, Alexander A. Akunets, Yuriy A. Merkuliev, Alexander P. Turivnoy, Robert Reibold, Evelyn Fearon, Robert Cook*
- 431 Deposition and Characteristics of Chlorine-Doped Glow Discharge Polymer Films / *Abbas Nikroo*
- 435 Sputter-Deposited Be Ablators for NIF Target Capsules / *R. McEachern, C. Alford, R. Cook, D. Makowiecki, R. Wallace*
- 442 Properties of Beryllium Loaded Plastic Films / *W. S. Shih, W. J. James, N. E. Barr, N. C. Morosoff, Y. Xie, R. B. Stephens*
- 449 New Methods—Experimental and Theoretical—to Control Thin Film Properties for Target Fabrication / *R. W. Springer, B. J. Cameron, G. A. Reeves*
- 456 Evaluation of B₄C as an Ablator Material for NIF Capsules / *Alan K. Burnham, Craig S. Alford, Daniel M. Makowiecki, Thomas R. Dittrich, Russell J. Wallace, Eric C. Honea, Charlotte M. King, David Steinman*

(Continued)

CONTENTS / JULY 1997—VOL. 31, NO. 4

(Continued)

- 463** Testing of a Cryogenic Heat Transfer Joint for Omega / *Karl Boline*
- 468** Hollow Microspheres from Polyethylene Terephthalate / *Valeriy M. Dorogotovtsev, Alexander A. Akunets, Yuriy A. Merkuliev*
- 473** Algorithm for Better X-Radiography Analyses / *David Bernat, Richard B. Stephens*
- 477** The Quick-Flip Precision Locator for Micro Machining / *Leander J. Salzer, Larry R. Foreman, Robert D. Day*
- 482** Crystal Growth and Roughening of Solid D₂ / *B. J. Kozioziemski, G. W. Collins, T. P. Bernat*
- 485** Analysis of Integrating Sphere Performance for IR Enhanced DT Layering / *Richard B. Stephens, G. Collins*
- 491** Polyimide Capsules May Hold High Pressure DT Fuel Without Cryogenic Support for the National Ignition Facility Indirect-Drive Targets / *Jorge J. Sanchez, Stephan A. Letts*
- 497** The Development of Ultrathin Polyimide for Laser Target and Other Applications / *Forbes R. Powell, Heidi H. de Lopez*
- 501** Fabrication of Hydrodynamic Instability Targets / *B. H. Jared, T. A. Dow, K. P. Garrard, G. M. Moorefield III, C. Barnes, R. D. Day, D. J. Hatch, L. J. Salzer, G. Rivera*
- 504** Characterization of Chemical Dopants in ICF Targets / *Martin L. Hoppe, Richard B. Stephens, David Harding*

DEPARTMENTS

- 512** Volume 31 Indexes
- vii Volume 31 Contents