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L. A. Welser, R. C. Mancini, J. A. Koch, N. Izumi, S. J. Louis, I. E. Golovkin, T. W. Barbee, Jr., S. W. Haan, J. A. Delettrez, F. J. Marshall, S. P. Regan, V. A. Smalyuk, D. A. Haynes, Jr., and R. W. Lee, "Multi-Objective Spectroscopic Analysis of Core Gradients: Extension from Two to Three Objectives," J. Quant. Spectrosc. Radiat. Transf. **99**, 649 (2006).

Conference Presentations

The following presentations were made at the 11th International Topical Meeting on Optics of Liquid Crystals, Sand Key, FL, 2–7 October 2005:

S. G. Lukishova, N. Lepeshkin, R. W. Boyd, and K. L. Marshall, "Feedback-Free Hexagon Pattern Formation with Liquid Crystals and Isotropic Liquids."

S. G. Lukishova and A. W. Schmid, "Near-Field Optical Microscopy of Cholesteric Oligomeric Liquid Crystal Layers."

S. G. Lukishova, A. W. Schmid, C. M. Supranowitz, A. J. McNamara, P. Freivald, R. P. Knox, R. W. Boyd, and C. R. Stroud, "Single-Photon Source for Quantum Information Based on Single Dye Molecule Fluorescence in Liquid Crystal Host."

K. L. Marshall, K. Adelsberger, G. Mhyre, and D. W. Griffith, "The LCPDI: A Compact and Robust Phase-Shifting, Point-Diffraction Interferometer Based on Dye-Doped LC Technology."

K. L. Marshall, G. Painter, K. Lotito, A. G. Noto, and P. Chang, "Transition Metal Dithiolene Near-IR Dyes and Their Applications in Liquid Crystal Devices" (invited).

The following presentations were made at the 47th Annual Meeting of the APS Division of Plasma Physics, Denver, CO, 24–28 October 2005:

K. Anderson and R. Betti, "2-D Simulations of Adiabat-Shaped Targets."

R. Betti and C. Zhou, "Fuel Assembly for Fast-Ignition Inertial Confinement Fusion."

R. Betti and C. Zhou, "High-Density and High-ρR-Fuel Assembly for Fast-Ignition Inertial Confinement Fusion."

T. R. Boehly, E. Vianello, J. E. Miller, R. S. Craxton, T. J B. Collins, V. N. Goncharov, I. V. Igumenshchev, D. D. Meyerhofer, D. G. Hicks, P. M. Celliers, and G. W. Collins, "Shock-Timing Experiments Using Double-Pulse Laser Irradiation" (invited).

M. J. Canavan, J. A. Frenje, R. Leiter, C. K. Li, J. R. Rygg, F. H. Séguin, R. D. Petrasso, and S. Roberts, "Characterization of a Fusion Product Source for ICF Diagnostic Development."

D. T. Casey, J. A. Frenje, C. K. Li, J. R. Rygg, F. H. Séguin, R. D. Petrasso, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, C. Stoeckl, S. W. Haan, S. P. Hatchett, P. A. Amendt, D. Eder, N. Izumi, O. L. Landen, R. A. Lerche, D. C. Wilson, R. Leeper, and R. E. Olson, "Design of the Shielding for the Magnetic Recoil Spectrometer (MRS) on OMEGA and the NIF Using the Neutron Transport Code TART2002."

C. D. Chen, C. K. Li, J. A. Frenje, F. H. Séguin, R. D. Petrasso, J. Myatt, and J. A. Delettrez, "Monte Carlo Simulations for Studying Hot-Electron Transport in Nondegenerate Plasmas of Arbitrary Z."

T. J. B. Collins, P. W. McKenty, P. B. Radha, V. N. Goncharov, and S. Skupsky, "Stability and Performance of a Direct-Drive, 1-MJ, Wetted-Foam Target Design."

R. S. Craxton, F. J. Marshall, M. J. Bonino, S. G. Noyes, and V. A. Smalyuk, "Radiation Transport in Saturn Targets Used for Polar Direct Drive."

J. A. Delettrez, J. Myatt, P. B. Radha, C. Stoeckl, and D. D. Meyerhofer, "Hydrodynamic Simulations of Integrated Experiments Planned for the OMEGA/OMEGA EP Laser Systems."

D. H. Edgell, R. S. Craxton, L. M. Elasky, D. R. Harding, L. S. Iwan, R. L. Keck, L. D. Lund, S. J. Verbridge, M. J. Wittman, and W. Seka, "Calibration of Cryogenic Target Optical Shadowgraphic Characterization."

R. Epstein, T. J. B. Collins, J. A. Delettrez, V. N. Goncharov, J. P. Knauer, J. A. Marozas, P. W. McKenty, P. B. Radha, and V. A. Smalyuk, "Effects of Perturbed Picket Pulses in Adiabat-Shaped Direct-Drive Implosion Experiments."

J. A. Frenje, D. T. Casey, C. K. Li, J. R. Rygg, F. H. Séguin, S. Volkmer, R. D. Petrasso, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, C. Stoeckl, S. W. Haan, S. P. Hatchett, P. A. Amendt, D. Eder, N. Izumi, O. L. Landen, R. A. Lerche, D. C. Wilson, R. Leeper, and O. L. Olson, "A Magnetic Recoil Spectrometer (MRS) for ρR, Yield, and T_i Measurements of Implosions on OMEGA and the NIF."

M. Ghilea, D. D. Meyerhofer, T. C. Sangster, D. Lonobile, A. Dillenbeck, R. A. Lerche, and L. Disdier, "Neutron Imaging with Bubble Chambers."

V. Yu. Glebov, T. C. Sangster, S. Roberts, M. J. Moran, and B. Davis, "Neutron Time-of-Flight Detectors Based on Vacuum Photodiodes for the NIF and LMJ."

V. N. Goncharov, G. Li, P. B. Radha, J. A. Delettrez, A. V. Maximov, and R. L. McCrory, "Electron Transport Modeling in Inertial Confinement Fusion Experiments."

O. V. Gotchev, D. D. Meyerhofer, and C. Stoeckl, "A Compact, Multiangle Electron Spectrometer for Ultra-Intense Laser–Plasma Interaction Experiments."

L. Guazzotto, R. Betti, and J. P. Freidberg, "First Results of a Linear MHD Stability Code for Axisymmetric Plasmas with Arbitrary Equilibrium Flow."

D. R. Harding, D. D. Meyerhofer, S. J. Loucks, L. D. Lund, R. Janezic, L. M. Elasky, T. H. Hinterman, D. H. Edgell, W. Seka, M. D. Wittman, R. Q. Gram, and M. J. Bonino, "Forming Smooth Cryogenic Target Layers for OMEGA Direct-Drive ICF Implosions and Prospects for Direct-Drive Targets for the NIF" (invited).

I. V. Igumenshchev, R. S. Craxton, P. W. McKenty, J. A. Marozas, and S. Skupsky, "Reduction of the Effects of Nonuniform Laser Irradiation in Polar-Direct-Drive Implosions on the NIF."

P. A. Jaanimagi, R. Boni, and D. D. Meyerhofer, "Update on the Rochester Optical Streak System."

N. Jang, J. P. Knauer, R. Betti, and D. D. Meyerhofer, "Laser Driven Magnetic Field Compression."

J. P. Knauer, K. Anderson, R. Betti, T. J. B. Collins, V. Yu. Glebov, V. N. Goncharov, F. J. Marshall, D. D. Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, C. Stoeckl, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Direct-Drive, Low-Adiabat ICF Implosions."

C. K. Li and R. D. Petrasso, "Stopping, Straggling and Blooming of Directed Energetic Electrons in Hydrogenic and Arbitrary-*Z* Plasmas" (invited).

C. K. Li, F. H. Séguin, J. R. Rygg, J. A. Frenje, R. D. Petrasso, T. C. Sangster, V. A. Smalyuk, J. A. Delettrez, J. P. Knauer, S. P. Regan, J. M. Soures, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, C. Stoeckl, R. P. J. Town, A. J. MacKinnon, P. A. Amendt, N. Izumi, and O. L. Landen, "Proton Radiography of Electromagnetic Fields Generated by Laser-Driven Plastic Foils."

D. Li and V. N. Goncharov, "Numerical Study of Temporal Density Variation Effects on Nonlinear Perturbation Evolution in Classical Rayleigh–Taylor Instability."

G. Li and V. N. Goncharov, "Effect of Ponderomotive Terms on Heat Flux in Laser-Produced Plasmas."

J. A. Marozas, F. J. Marshall, R. S. Craxton, I. V. Igumenshchev, S. Skupsky, P. B. Radha, T. J. B. Collins, R. Epstein, P. W. McKenty, M. J. Bonino, D. Jacobs-Perkins, D. D. Meyerhofer, T. C. Sangster, J. P. Knauer, V. A. Smalyuk, V. Yu. Glebov, S. G. Noyes, W. Seka, and R. L. McCrory, "Progress in Polar-Direct-Drive Simulations and Experiments" (invited).

F. J. Marshall, R. S. Craxton, M. J. Bonino, R. Epstein, V. Yu. Glebov, D. Jacobs-Perkins, J. P. Knauer, J. A. Marozas, P. W. McKenty, S. G. Noyes, P. B. Radha, W. Seka, S. Skupsky, V. A. Smalyuk, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Polar-Direct-Drive Experiments on OMEGA."

A. V. Maximov, J. Myatt, and R. W. Short, "Electron Distribution and Transport in a Laser Field in Direct-Drive ICF Plasmas."

P. W. McKenty and M. D. Wittman, "Role of Hydrogen Fractionation in ICF Ignition Target Designs."

D. D. Meyerhofer, T. C. Sangster, C. Stoeckl, S. F. B. Morse, J. H. Kelly, S. J. Loucks, and R. L. McCrory, "OMEGA EP: Status and Use Planning."

J. E. Miller, T. R. Boehly, D. D. Meyerhofer, and J. H. Eggert, "Equation-of-State Measurement in High Porosity Ta_2O_5 Foam."

J. Myatt, J. A. Delettrez, W. Theobald, C. Stoeckl, M. Storm, A. V. Maximov, R. W. Short, R. P. J. Town, and L. A. Cottrill, "Numerical Calculations of Laser-Generated MeV Electrons and Characteristic X-Ray Production in Copper Foil Targets."

R. D. Petrasso and C. K. Li, "Energy Deposition, Penetration, and Blooming of Energetic Electrons in Fast Ignition and Preheat Scenarios."

P. B. Radha, R. Betti, V. Yu. Glebov, V. N. Goncharov, J. P. Knauer, P. W. McKenty, J. A. Marozas, D. D. Meyerhofer, S. P. Regan, T. C. Sangster, and C. Stoeckl, "Two-Dimensional Simulations of Low-Adiabat Plastic-Shell Implosions on OMEGA."

S. P. Regan, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, J. A. Marozas, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, P. B. Radha, T. C. Sangster, V. A. Smalyuk, C. Stoeckl, J. R. Rygg, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Target Performance of Direct-Drive, D_2-, D^3He-, and DT-Filled Plastic-Shell Implosions on OMEGA."

C. Ren, G. Li, and V. N. Goncharov, "Hot Electron Generation During ICF Target Compression."

J. R. Rygg, J. A. Frenje, C. K. Li, F. H. Séguin, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, and T. C. Sangster, "Studies of Shock Convergence in ICF Implosions Using Nuclear Burn History Measurements."

O. Sadot, V. A. Smalyuk, J. A. Delettrez, D. D. Meyerhofer, T. C. Sangster, D. Shvarts, R. Betti, and V. N. Goncharov, "Measurements of Bubble Evolution in the Nonlinear Ablative Rayleigh–Taylor Instability."

T. C. Sangster, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, J. P. Knauer, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, P. B. Radha, S. P. Regan, S. Skupsky, V. A. Smalyuk, C. Stoeckl, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Recent Cryogenic Implosion Results on OMEGA."

H. Sawada, S. P. Regan, T. R. Boehly, I. V. Igumenshchev, V. N. Goncharov, F. J. Marshall, B. Yaakobi, T. C. Sangster, D. D. Meyerhofer, G. Gregori, D. G. Hicks, S. H. Glenzer, and O. L. Landen, "Measurements of T_e and Z in Direct-Drive, Shock-Heated Planar Targets."

F. H. Séguin, J. DeCiantis, C. K. Li, J. A. Frenje, J. R. Rygg, R. D. Petrasso, S. P. Regan, J. A. Delettrez, R. Epstein, J. P. Knauer, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, S. Roberts, T. C. Sangster, V. A. Smalyuk, K. Mikaelian, H. S. Park, H. F. Robey, and R. Tipton, "Measured Nuclear Burn Region Sizes and Symmetries for Different Capsule and Drive Conditions in Direct Drive."

W. Seka, H. Baldis, J. Myatt, A. V. Maximov, R. W. Short, R. S. Craxton, R. E. Bahr, and T. C. Sangster, "Stimulated Brillouin Scattering in Plasmas Relevant to Direct-Drive Laser Fusion."

R. W. Short and J. Myatt, "Relativistic Electron Beam Micro-instabilities in the Fast-Ignition Regime."

S. Skupsky, R. S. Craxton, F. J. Marshall, R. Betti, T. J. B. Collins, R. Epstein, V. N. Goncharov, I. V. Igumenshchev, J. S. Keller, J. A. Marozas, P. W. McKenty, P. B. Radha, J. D. Kilkenny, D. D. Meyerhofer, T. C. Sangster, and R. L. McCrory, "Polar Direct Drive on the National Ignition Facility."

V. A. Smalyuk, O. Sadot, R. Betti, V. N. Goncharov, J. A. Delettrez, D. D. Meyerhofer, S. P. Regan, T. C. Sangster, and D. Shvarts, "Rayleigh–Taylor Growth Measurements of 3-D Modulations in Nonlinear Regime" (invited).

A. Solodov, R. Betti, and J. Myatt, "Stopping of Fast Electrons in Dense Hydrogenic Plasmas."

A. Solodov, C. Ren, J. Myatt, R. Betti, and W. B. Mori, "Simulation of Weibel Electromagnetic Instability of Electron Beams in Plasma Using the Codes LSP and OSIRIS."

C. Stoeckl, T. R. Boehly, J. A. Delettrez, J. Myatt, J. E. Miller, R. B. Stephens, W. Theobald, and T. C. Sangster, "Measurements of Plasma Filling Inside a Fast-Ignitor Cone Target Using Streaked Optical Pyrometry."

S. Sublett, J. P. Knauer, I. V. Igumenshchev, A. Frank, and D. D. Meyerhofer, "Temporal Evolution of Directly Driven Hydrodynamic Jets Relevant to Astrophysics."

W. Theobald, J. E. Miller, T. R. Boehly, E. Vianello, I. V. Igumenshchev, V. N. Goncharov, A. V. Maximov, and T. C. Sangster, "Optical Measurements at Preheated Polystyrene and Aluminum Layers."

S. Volkmer, F. H. Séguin, C. K. Li, J. R. Rygg, R. D. Petrasso, T. C. Sangster, V. Yu. Glebov, D. D. Meyerhofer, and C. Stoeckl, "Improved Signal-to-Background for Neutron Spectroscopy Through Coincidence Counting of Charged-Particle Tracks in CR-39 Detectors."

C. Zhou and R. Betti, "Shock Fast Ignition of Thermonuclear Fuel with High Areal Density."

S. G. Lukishova, A. W. Schmid, R. Knox, P. Freivald, S. Schrauth, L. Bissell, R. W. Boyd, C. R. Stroud, Jr., and K. L. Marshall, "Deterministically Polarized, Room Temperature Source of Single Photons," Single-Photon Workshop 2005: Sources, Detectors, Applications and Measurement Methods, Teddington, UK, 24–26 October 2005.

The following presentations were made at Advanced Solid-State Photonics 2006, Incline Village, NV, 29 January–1 February 2006:

I. A. Begishev, V. Bagnoud, M. J. Guardalben, and J. D. Zuegel, "OPCPA Output Wavelength Tuning by Adjusting Time Delay Between Seed and Pump Pulses."

A. V. Okishev and J. D. Zuegel, "Athermal, Diode-Pumped Nd:YLF Regenerative Amplifier."

J. D. Zuegel, V. Bagoud, J. Bromage, and I. A. Begishev, "High-Performance OPCPA Laser System."

K. L. Marshall, A. Trajkovska-Petkoska, T. Z. Kosc, and S. D. Jacobs, "Polymer Cholesteric Liquid Crystal (PCLC) Flake/Fluid Host Electro-Optical Suspensions: Progress Toward Flexible Reflective Displays," USDC Fifth Annual Flexible Microelectronics and Displays Conference, Phoenix, AZ, 6–9 February 2006.

The following presentations were made at the 6th International Conference on High Energy Density Laboratory Astrophysics, Houston, TX, 11–14 March 2006:

S. Sublett, J. P. Knauer, I. V. Igumenshchev, A. Frank, and D. D. Meyerhofer, "Double-Pulse Laser-Driven Jets on OMEGA."

B. Yaakobi, "EXAFS Study of Shock Compression, Isentropic Compression, and Phase Transformation in Metals."

W. Seka, P. Rechmann, J. D. B. Featherstone, and D. Fried, "Lasers in Hard Tissue Dentistry," Academy of Laser Dentistry Annual Conference, Tucson, AZ, 15–18 March 2006.

J. Zhang and T. Y. Hsiang, "Dispersion Characteristics of Coplanar Waveguides at Subterahertz Frequencies," Progress in Electromagnetics Research Symposium, Cambridge, MA, 26–29 March 2006.

S. G. Lukishova, A. W. Schmid, R. S. Knox, P. Freivald, L. Bissell, R. W. Boyd, C. R. Stroud, Jr., and K. L. Marshall, "Deterministically Polarized, Room-Temperature Source of Single Photons," Workshop on Linear Optical Quantum Information Processing, Baton Rouge, LA, 10–12 April 2006.

C. Wu and D. R. Harding, "Chemical Vapor Deposition of Carbon Nanotube-Reinforced Polymer Composites," 2006 MRS Spring Meeting, San Francisco, CA, 17–21 April 2006.

A. K. Knight, F.-Y. Tsai, T. N. Blanton, D. R. Harding, and S. H. Chen, "Optimizing the Vapor Deposition Method of Making Polyimide," 12th Meeting of the Symposium on Polymers for Microelectronics, Wilmington, DE, 3–5 May 2006.

The following presentations were made at the 16th Topical Conference on High-Temperature Diagnostics, Williamsburg, VA, 7–11 May 2006:

V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, C. Stoeckl, S. Roberts, C. A. Barrera, J. R. Celeste, C. J. Cerjan, L. S. Dauffy, D. C. Eder, R. L. Griffith, S. W. Haan, B. A. Hammel, S. P. Hatchett, N. Izumi, J. R. Kimbrough, J. A. Koch, O. L. Landen, R. A. Lerche, B. J. MacGowan, M. J. Moran, E. W. Ng, T. W. Phillips, P. M. Song, R. Tommassini, B. K. Young, S. E. Caldwell, G. P. Grim, S. C. Evans, J. M. Mack, T. J. Sedillo, M. D. Wilke, D. C. Wilson, C. S. Young, D. Casey, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, J. L. Bourgade, L. Disdier, M. Houry, I. Lantejoule, O. Landoas, G. A. Chandler, G. W. Cooper, R. J. Leeper, R. E. Olson, C. L. Ruiz, M. A. Sweeney, S. P. Padalino, C. Horsfield, and B. A. Davis, "Development of Nuclear Diagnostics for the National Ignition Facility" (invited).

V. Yu. Glebov, C. Stoeckl, T. C. Sangster, C. Mileham, and R. A. Lerche, "High-Yield Bang Time Detector for the OMEGA Laser."

J. P. Knauer, F. J. Marshall, B. Yaakobi, D. Anderson, B. A. Schmitt, K. M. Chandler, S. A. Pikuz, T. A. Shelkovenko, M. D. Mitchell, and D. A. Hammer, "Response Model for Kodak Biomax-MS Film to X Rays."

F. J. Marshall, J. P. Knauer, D. Anderson, and B. A. Schmitt, "Absolute Calibration of Kodak Biomax-MS Film to X Rays in the 1.5- to 8-keV Range."

C. Stoeckl, V. Yu. Glebov, P. A. Jaanimagi, D. D. Meyerhofer, T. C. Sangster, M. Storm, S. Sublett, W. Theobald, M. H. Key, A. J. MacKinnon, P. K. Patel, D. Neely, and P. A. Norreys, "Operation of Target Diagnostics in a Petawatt Environment" (invited).

The following presentations were made at the Glass and Optical Materials Division Spring 2006 Meeting, Greenville, SC, 16–19 May 2006:

J. E. DeGroote, A. E. Marino, J. P. Wilson, and S. D. Jacobs, "The Role of Nanodiamond Abrasives in Optical Glass Removal with Magnetorheological Finishing (MRF)."

J. E. DeGroote, J. P. Wilson, T. M. Pfuntner, and S. D. Jacobs, "Incorporating Optical Glass Chemical Durability into a Glass Removal Model for Magnetorheological Finishing (MRF)."

The following presentations were made at CLEO/QELS 2006, Long Beach, CA, 21–26 May 2006:

W. R. Donaldson, D. N. Maywar, R. G. Roides, J. R. Marciante, J. H. Kelly, J. D. Zuegel, and R. L. Keck, "High-Bandwidth, Pulse-Shape Control on a Frequency-Tripled Multiterawatt Solid-State Laser."

C. Dorrer and J. D. Zuegel, "Design and Analysis of Beam Apodizers Using Error Diffusion."

S. G. Lukishova, A. W. Schmid, R. S. Knox, P. Freivald, L. Bissell, R. W. Boyd, C. R. Stroud, Jr., and K. L. Marshall, "Deterministically Polarized, Room-Temperature Source of Single Photons Based on a Single-Emitter Fluorescence in Aligned Liquid Crystal Hosts."

J. R. Marciante, W. A. Bittle, and J. D. Zuegel, "Subpicosecond Jitter from a Precision Optical Triggering and Timing System Without Active Stabilization."

A. K. Knight, F.-Y. Tsai, and D. R. Harding, "Using Experiments and Calculations to Analyze Gas Flow and Surface Reaction in the Vapor Deposition of a Copolymer," FLUENT 2006 CFD Summit, Monterey, CA, 22–24 May 2006.

The following presentations were made at the 36th Anomalous Absorption Conference, Jackson Hole, WY, 4–9 June 2006:

R. S. Craxton, F. J. Marshall, M. J. Bonino, R. Epstein, V. Yu. Glebov, J. A. Marozas, S. G. Noyes, and V. A. Smalyuk, "An Update on Polar-Direct-Drive Experiments on OMEGA."

A. V. Maximov, J. Myatt, and R. W. Short, "Transport Near Critical Density Surface in Direct-Drive ICF Plasmas."

J. Myatt, A. V. Maximov, and R. W. Short, "Laboratory Astrophysics of e^+e^- Pair-Plasma Production on OMEGA EP."

W. Seka, V. N. Goncharov, J. A. Delettrez, R. W. Short, and R. S. Craxton, "Laser Absorption in Spherical Target Experiments on OMEGA."

R. W. Short and J. Myatt, "Filamentation of Fast-Ignition Transport in Plasmas: Spatial Growth and Absolute Modes."

The following presentations were made at the 29th ECLIM, Madrid, Spain, 11–16 June 2006:

R. L. McCrory, "Highlights of the History of the University of Rochester's Laboratory for Laser Energetics."

R. L. McCrory, "Present and Future Research at the Laboratory for Laser Energetics."

R. Betti, K. Anderson, T. R. Boehly, T. J. B. Collins, R. S. Craxton, J. A. Delettrez, D. H. Edgell, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, R. L. Keck, J. H. Kelly, J. P. Knauer, S. J. Loucks, J. A. Marozas, F. J. Marshall, A. V. Maximov, D. N. Maywar, R. L. McCrory, P. W. McKenty, D. D. Meyerhofer, J. Myatt, P. B. Radha, S. P. Regan, C. Ren, T. C. Sangster, W. Seka, S. Skupsky, V. A. Smalyuk, J. M. Soures, C. Stoeckl, W. Theobald, B. Yaakobi, C. Zhou, J. D. Zuegel, C. K. Li, R. D. Petrasso, F. H. Séguin, and J. A. Frenje, "Progress in Hydrodynamic Theory

and Experiments for Direct-Drive and Fast-Ignition Inertial Confinement Fusion," 33rd European Physical Society Conference on Plasma Physics, Rome, Italy, 19–23 June 2006 (invited).

A. Melchior, T. R. Boehly, and J. E. Miller, "High-Pressure and Temperature Equation-of-State Studies Using Laser-Driven Shocks," Gordon Research Conference on High Pressure, Biddleford, ME, 25–30 June 2006.

W. Seka, "Overview of the LLE Effort in Support of the U.S. National HED and ICF Programs," JOWOG 37, Aldermaston, UK, 26–30 June 2006.

V. A. Smalyuk, R. Betti, T. R. Boehly, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, J. P. Knauer, D. Y. Li, R. L. McCrory, D. D. Meyerhofer, P. B. Radha, S. P. Regan, T. C. Sangster, S. Skupsky, J. M. Soures, C. Stoeckl, B. Yaakobi, O. Sadot, D. Shvarts, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Experimental Studies of Nonlinear, Directly-Driven, Rayleigh–Taylor Instability on OMEGA," 10th International Workshop on the Physics of Compressible Turbulent Mixing, Paris, France, 17–21 July 2006.

The following presentations were made at the International Conference on Computational Science and Education, Rochester, NY, 7–10 August 2006:

J. A. Delettrez, "A Survey of the Use of Computer Technology at the Laboratory for Laser Energetics."

P. B. Radha, "Modeling Inertial Confinement Fusion Implosions Through Large-Scale Simulations."

The following presentations were made at Optics and Photonics 2006, San Diego, CA, 13–17 August 2006:

T. Z. Kosc, K. L. Marshall, A. Trajkovska-Petkoska, C. J. Coon, and S. D. Jacobs, "Exploring Motion Reversal in Polymer Cholesteric Liquid Crystal Devices."

N. N. Lepeshkin, S. G. Lukishova, R. W. Boyd, and K. L. Marshall, "Feedback-Free, Single-Beam Pattern Formation by Nanosecond Pulses in Dye-Doped Liquid Crystals."

K. L. Marshall, A. G. Noto, G. Painter, and N. Tabirian, "Computational Chemistry Methods for Predicting the Chiroptical Properties of Liquid Crystal Systems. II. Application to Chiral Azobenzenes."

The following presentations were made at the Applied Superconductivity Conference 2006, Seattle, WA, 27 August–1 September 2006:

G. N. Gol'tsman, A. Korneev, O. Minaeva, A. Antipov, A. Divochiy, N. Kaurova, B. Voronov, D. Pan, A. Cross, A. Pearlman, I. Komissarov, W. Słysz, and R. Sobolewski, "Low-Kinetic-Inductance Superconducting Single-Photon Detectors for GHz-Rate and High Quantum Efficiency Counting of Infrared Photons."

M. Khafizov, X. Li, R. Sobolewski, Y. Cui, and X. X. Xi, "Mechanisms of Light Detection by Superconducting Current-Biased MgB_2 Microbridges."

J. Kitaygorsky, I. Komissarov, A. Jukna, R. Sobolewski, O. Minaeva, N. Kaurova, A. Korneev, B. Voronov, I. Milostnaya, and G. N. Gol'tsman, "Dark Counts in Nanostructured NbN Single-Photon Detectors and Bridges."

X. Li, M. Khafizov, R. Sobolewski, Š. Chromik, V. Štrbík, M. Valerianova, and P. Odier, "Ultrafast Carrier Dynamics and Photoresponse of Hg-Ba-Ca-Cu-O Superconduct ing Microbridges."

S. P. Regan, H. Sawada, D. D. Meyerhofer, R. Epstein, V. N. Goncharov, I. V. Igumenshchev, D. Li, P. B. Radha, J. A. Delettrez, T. R. Boehly, F. J. Marshall, T. C. Sangster, V. A. Smalyuk, B. Yaakobi, S. H. Glenzer, O. L. Landen, G. Gregori, and R. C. Mancini, "Diagnosing Shock-Heated and Compressed Matter in Direct-Drive Inertial Confinement Fusion (ICF)," 12th International Workshop on Radiative Properties of Hot Dense Matter, Albufeira, Algarve, Portugal, 11–15 September 2006.

The following presentations were made at Boulder Damage Symposium XXXVIII, Boulder, CO, 25–27 September 2006:

B. Ashe, K. L. Marshall, C. Giacofei, A. L. Rigatti, T. J. Kessler, A. W. Schmid, J. B. Oliver, J. Keck, and A. Kozlov, "Evaluation of Cleaning Methods for Multilayer Diffraction Gratings."

S. Papernov and A. W. Schmid, "Using Gold Nanoparticles as Artificial Defects in Thin Films: What Have We Learned About Laser-Induced Damage Driven by Localized Absorbers?"

The following presentations were made at ICUIL 2006, Cassis, France, 25–29 September 2006:

J. Bromage, C. Dorrer, I. A. Begishev, N. G. Usechak, and J. D. Zuegel, "Single-Shot Pulse Characterization from 0.4 to 85 ps Using Electro-Optic Shearing Interferometry."

J. Bromage, L. J. Waxer, I. A. Begishev, C. Dorrer, J. H. Kelly, and J. D. Zuegel, "Femtosecond Optimization of a Stretcher–Compressor Pair Using a Picosecond-Resolution Diagnostic."

C. Dorrer, A. Consentino, and J. D. Zuegel, "Development of High-Fluence Beam Shapers."

T. J. Kessler, J. Bunkenburg, C. Kellogg, F. Dewitt, J. Barone, L. S. Iwan, and K. McGowan, "Holographic Exposure System for Patterning Large Gratings with High Wavefront Quality and Uniform Groove Profile."

T. J. Kessler, H. Huang, and D. Weiner, "Diffractive Optics for Compensation of Axial Chromatic Aberration in a High-Energy Short-Pulse Laser."

L. J. Waxer and D. Eimerl, "Modeling the Pulse-Shape Output of OMEGA EP."

J. D. Zuegel, I. A. Begishev, W. A. Bittle, R. Boni, J. Bromage, C. Dorrer, P. A. Jaanimagi, and J. R. Marciante, "Laser and Diagnostic Technologies Developed for Integrated Pulse-Width Control on OMEGA EP."