
Publications and Conference Presentations

Publications

- I. A. Begishev, V. Bagnoud, M. J. Guardalben, J. Puth, L. J. Waxer, and J. D. Zuegel, "Parasitic Second-Harmonic Generation in Optical Parametric Chirped-Pulse Amplification," in *OSA Trends in Optics and Photonics (TOPS) Vol. 94, Advanced Solid-State Photonics*, edited by G. J. Quarles (Optical Society of America, Washington, DC, 2004), pp. 32–34.
- B. Buerke and D. D. Meyerhofer, "Measurement of Hydrogenic Tunneling Rates in a High-Intensity Laser Focus," *Phys. Rev. A* **69**, 051402 (2004).
- A. C. A. Chen, S. W. Culligan, Y. Geng, S. H. Chen, K. P. Klubek, K. M. Vaeth, and C. W. Tang, "Organic Polarized Light-Emitting Diodes via Förster Energy Transfer Using Monodisperse Conjugated Oligomers," *Adv. Mater.* **16**, 783 (2004).
- C. R. Christensen, D. C. Wilson, C. W. Barnes, G. P. Grim, G. L. Morgan, M. D. Wilke, F. J. Marshall, V. Yu. Glebov, and C. Stoeckl, "The Influence of Asymmetry on Mix in Direct-Drive Inertial Confinement Fusion Experiments," *Phys. Plasmas* **11**, 2771 (2004).
- T. J. B. Collins, J. P. Knauer, R. Betti, T. R. Boehly, J. A. Delettrez, V. N. Goncharov, D. D. Meyerhofer, P. W. McKenty, S. Skupsky, and R. P. J. Town, "Reduction of the Ablative Rayleigh–Taylor Growth Rate with Gaussian Picket Pulses," *Phys. Plasmas* **11**, 1569 (2004).
- J. E. DeGroot, H. J. Romanofsky, I. A. Kozhinova, J. M. Schoen, and S. D. Jacobs, "Polishing PMMA and Other Optical Polymers with Magnetorheological Finishing," in *Optical Manufacturing and Testing V*, edited by H. P. Stahl (SPIE, Bellingham, WA, 2003), Vol. 5180, pp. 123–134.
- L. Disdier, R. A. Lerche, J. L. Bourgade, and V. Yu. Glebov, "Capillary Detector with Deuterated Scintillator for Inertial Confinement Fusion Neutron Images," *Rev. Sci. Instrum.* **75**, 2134 (2004).
- J. A. Frenje, C. K. Li, F. H. Séguin, J. Deciantis, S. Kurebayashi, J. R. Rygg, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, C. Stoeckl, F. J. Marshall, D. D. Meyerhofer, T. C. Sangster, V. A. Smalyuk, and J. M. Soures, "Measuring Shock-Bang Timing and ρR Evolution of D³He Implosions at OMEGA," *Phys. Plasmas* **11**, 2798 (2004) (invited).
- L. L. Gregg, A. E. Marino, J. C. Hayes, and S. D. Jacobs, "Grain Decoration in Aluminum Oxynitride (ALON) from Polishing on Bound Abrasive Laps," in *Optical Manufacturing and Testing V*, edited by H. P. Stahl (SPIE, Bellingham, WA, 2003), Vol. 5180, pp. 47–54.
- D. F. Grosz, A. Agarwal, A. P. Küng, S. Banerjee, D. N. Maywar, and T. H. Wood, "Performance of a ULH Single Wide-Band All-Raman DWDM Transmission System Over Dispersion-Managed Spans," *IEEE Photonics Technol. Lett.* **16**, 1197 (2004).
- D. F. Grosz, D. N. Maywar, A. P. Küng, A. Agarwal, and S. Banerjee, "Performance of Non-Fibre Based Dispersion Compensation for Long-Haul 10.7 Gbit/s DWDM Transmission," *Electron. Lett.* **40**, 825 (2004).
- B. Hou, J. A. Nees, W. Theobald, G. A. Mourou, L. M. Chen, J.-C. Kieffer, A. Krol, and C. C. Chamberlain, "Dependence of Hard X-Ray Yield on Laser Pulse Parameters in the Wavelength-Cubed Regime," *Appl. Phys. Lett.* **84**, 2259 (2004).

S. D. Jacobs, "Innovations in Polishing of Precision Optics," in *International Progress on Advanced Optics and Sensors*, Frontiers Science Series, Vol. 40, edited by H. Ohmori and H. M. Shimizu (Universal Academy Press, Tokyo, Japan, 2003), pp. 3–14 (invited).

A. Korneev, P. Kouminov, V. Matvienko, G. Chulkova, K. Smirnov, B. Voronov, G. N. Gol'tsman, M. Currie, W. Lo, K. Wilsher, J. Zhang, W. Slysz, A. Pearlman, A. Verevkin, and R. Sobolewski, "Sensitivity and Gigahertz Counting Performance of NbN Superconducting Single-Photon Detectors," *Appl. Phys. Lett.* **84**, 5338 (2004).

T. Z. Kosc, K. L. Marshall, and S. D. Jacobs, "Polymer Cholesteric Liquid Crystal Flake Particle Displays Utilizing Maxwell-Wagner Polarization Effects for Switching," in the *Conference Record of the 23rd International Display Research Conference* (Society for Information Display, San Jose, CA, 2003), pp. 237–239.

C. K. Li, F. H. Séguin, J. A. Frenje, R. D. Petrasso, J. A. Delettrez, P. W. McKenty, T. C. Sangster, R. L. Keck, J. M. Soures, F. J. Marshall, D. D. Meyerhofer, V. N. Goncharov, J. P. Knauer, P. B. Radha, S. P. Regan, and W. Seka, "Effects of Nonuniform Illumination on Implosion Asymmetry in Direct-Drive Inertial Confinement Fusion," *Phys. Rev. Lett.* **92**, 205001 (2004).

A. V. Maximov, J. Myatt, W. Seka, R. W. Short, and R. S. Craxton, "Modeling of Stimulated Brillouin Scattering Near the Critical-Density Surface in the Plasmas of Direct-Drive Targets," *Phys. Plasmas* **11**, 2994 (2004).

P. W. McKenty, T. C. Sangster, M. Alexander, R. Betti, R. S. Craxton, J. A. Delettrez, L. Elasky, R. Epstein, A. Frank, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, S. Jin, J. P. Knauer, R. L. Keck, S. J. Loucks, L. D. Lund, R. L. McCrory, F. J. Marshall, D. D. Meyerhofer, S. P. Regan, P. B. Radha, S. Roberts, W. Seka, S. Skupsky, V. A. Smalyuk, J. M. Soures, K. A. Thorp, M. Wozniak, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, K. A. Fletcher, S. Padalino, C. Freeman, N. Izumi, J. A. Koch, R. A. Lerche, M. J. Moran, T. W. Phillips, G. J. Schmid, and C. Sorce, "Direct-Drive Cryogenic Target Implosion Performance on OMEGA," *Phys. Plasmas* **11**, 2790 (2004) (invited).

S. P. Regan, J. A. Delettrez, V. N. Goncharov, F. J. Marshall, J. M. Soures, V. A. Smalyuk, P. B. Radha, B. Yaakobi, R. Epstein, V. Yu. Glebov, P. A. Jaanimagi, D. D. Meyerhofer, T. C. Sangster, W. Seka, S. Skupsky, C. Stoeckl, D. A. Haynes, Jr., J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Dependence of Shell Mix on Feedthrough in Direct-Drive Inertial Confinement Fusion," *Phys. Rev. Lett.* **92**, 185002 (2004).

S. Skupsky, J. A. Marozas, R. S. Craxton, R. Betti, T. J. B. Collins, J. A. Delettrez, V. N. Goncharov, P. W. McKenty, P. B. Radha, T. R. Boehly, J. P. Knauer, F. J. Marshall, D. R. Harding, J. D. Kilkenny, D. D. Meyerhofer, T. C. Sangster, and R. L. McCrory, "Polar Direct Drive on the National Ignition Facility," *Phys. Plasmas* **11**, 2763 (2004) (invited).

L. Veisz, W. Theobald, T. Feurer, H. Schwoerer, I. Uschmann, O. Renner, and R. Sauerbrey, "Three-Halves Harmonic Emission from Femtosecond Laser Produced Plasmas with Steep Density Gradients," *Phys. Plasmas* **11**, 3311 (2004).

A. Verevkin, A. Pearlman, W. Slysz, J. Zhang, M. Currie, A. Korneev, G. Chulkova, O. Okunev, P. Kouminov, K. Smirnov, B. Voronov, G. N. Gol'tsman, and R. Sobolewski, "Ultrafast Superconducting Single-Photon Detectors for Near-Infrared-Wavelength Quantum Communications," *J. Mod. Opt.* **51**, 1447 (2004).

D. C. Wilson, C. W. Cranfill, C. Christensen, R. A. Forster, R. R. Peterson, N. M. Hoffman, G. D. Pollak, C. K. Li, F. H. Séguin, J. A. Frenje, R. D. Petrasso, P. W. McKenty, F. J. Marshall, V. Yu. Glebov, C. Stoeckl, G. J. Schmid, N. Izumi, and P. Amendt, "Multifluid Interpenetration Mixing in Directly Driven Inertial Confinement Fusion Capsule Implosions," *Phys. Plasmas* **11**, 2723 (2004).

B. Yaakobi, D. D. Meyerhofer, T. R. Boehly, J. J. Rehr, B. A. Remington, P. G. Allen, S. M. Pollaine, and R. C. Albers, "Extended X-Ray Absorption Fine Structure Measurements of Laser Shocks in Ti and V and Phase Transformation in Ti," *Phys. Plasmas* **11**, 2688 (2004) (invited).

Forthcoming Publications

V. Bagnoud, I. A. Begishev, M. J. Guardalben, J. Keegan, J. Puth, L. J. Waxer, and J. D. Zuegel, "Optical Parametric Chirped-Pulse Amplifier as the Front End for the OMEGA Laser Chain," to be published in *Inertial Fusion Sciences and Applications* 2003.

T. R. Boehly, D. G. Hicks, P. M. Celliers, T. J. B. Collins, J. H. Eggert, S. J. Moon, E. Vianello, D. D. Meyerhofer, and G. W. Collins, "Properties of Fluid Deuterium Under Double-Shock Compression to Several Mbar," to be published in *Physics of Plasmas*.

T. J. B. Collins, S. Skupsky, V. N. Goncharov, R. Betti, P. W. McKenty, P. B. Radha, R. Epstein, A. Poludnenko, A. Frank, and S. Mitran, "High-Gain, Direct-Drive Foam Targets for the National Ignition Facility," to be published in *Inertial Fusion Sciences and Applications* 2003.

R. Epstein, "On the Bell-Plesset Effects: The Effects of Uniform Compression and Geometrical Convergence on the Classical Rayleigh-Taylor Instability," to be published in *Physics of Plasmas*.

Q. Guo, X. Teng, and H. Yang, "Overpressure Contact Printing," to be published in *Nano Letters*.

D. R. Harding, F.-Y. Tsai, E. L. Alfonso, S. H. Chen, A. K. Knight, and T. N. Blanton, "Properties of Vapor-Deposited Polyimide Films," to be published in the *Journal of Adhesion Science and Technology* (invited).

T. J. Kessler, J. Bunkenburg, H. Huang, A. Kozlov, C. Kelly, and D. D. Meyerhofer, "The Coherent Addition of Gratings for Pulse Compression in High-Energy Laser Systems," to be published in *Inertial Fusion Sciences and Applications* 2003.

J. P. Knauer and C. Gindele, "Temporal and Spectral Deconvolution of Data from Diamond, Photoconductive Devices," to be published in *Review of Scientific Instruments*.

J. A. Koch, T. W. Barbee, Jr., S. Dalhed, S. Haan, N. Izumi, R. W. Lee, L. A. Welsler, R. C. Mancini, F. J. Marshall, T. C. Sangster, V. A. Smalyuk, J. M. Soures, and L. Klein, "Core Temperature and Density Profiles from Multispectral Imaging of ICF Plasmas," to be published in *Inertial Fusion Sciences and Applications* 2003.

J. A. Koch, T. W. Barbee, Jr., S. Dalhed, S. Haan, N. Izumi, R. W. Lee, L. A. Welsler, R. C. Mancini, F. J. Marshall, D. D. Meyerhofer, T. C. Sangster, V. A. Smalyuk, J. M. Soures, L. Klein, and I. Golovkin, "Core Temperature and Density Gradients in ICF," to be published in the *Proceedings of the 14th APS Topical Conference on Atomic Processes in Plasmas*.

J. Li, W. R. Donaldson, and T. Y. Hsiang, "Simulation of Submicrometer Metal-Semiconductor-Metal Ultraviolet Photodiodes on Gallium Nitride," to be published in *Solid-State Electronics*.

S. G. Lukishova, A. W. Schmid, C. Supranowitz, A. McNamara, R. W. Boyd, and C. R. Stroud, Jr., "Dye-Doped Cholesteric-Liquid-Crystal Room-Temperature Single Photon Source," to be published in the *Journal of Modern Optics*.

R. L. McCrory, "Progress in Inertial Confinement Fusion in the United States," to be published in *Inertial Fusion Sciences and Applications* 2003.

R. L. McCrory, D. D. Meyerhofer, R. Betti, T. R. Boehly, R. S. Craxton, T. J. B. Collins, J. A. Delettrez, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, R. L. Keck, J. H. Kelly, J. P. Knauer, S. J. Loucks, L. Lund, J. A. Marozas, P. W. McKenty, F. J. Marshall, S. F. B. Morse, P. B. Radha, S. P. Regan, S. Roberts, W. Seka, S. Skupsky, V. A. Smalyuk, C. Sorce, C. Stoeckl, J. M. Soures, R. P. J. Town, B. Yaakobi, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, K. A. Fletcher, S. Padalino, C. Freeman, and T. C. Sangster, "Direct-Drive Inertial Confinement Fusion Research at the Laboratory for Laser Energetics," to be published in the *proceedings of Current Trends in International Fusion Research: A Review*.

R. L. McCrory, D. D. Meyerhofer, S. J. Loucks, S. Skupsky, R. E. Bahr, R. Betti, T. R. Boehly, R. S. Craxton, T. J. B. Collins, J. A. Delettrez, W. R. Donaldson, R. Epstein, J. A. Frenje, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, P. A. Jaanimagi, R. L. Keck, J. H. Kelly, T. J. Kessler, J. P. Knauer, C. K. Li, L. D. Lund, J. A. Marozas, P. W. McKenty, F. J. Marshall, S. F. B. Morse, R. D. Petrasso, P. B. Radha, S. P. Regan, S. Roberts, T. C. Sangster, F. H. Séguin, W. Seka, V. A. Smalyuk, C. Sorce, J. M. Soures, C. Stoeckl, R. P. J. Town, B. Yaakobi, and J. D. Zuegel, "Progress in Direct-Drive Inertial Confinement Fusion Research at the Laboratory for Laser Energetics," to be published in *Nuclear Fusion*.

J. Myatt, A. V. Maximov, W. Seka, R. S. Craxton, and R. W. Short, "Modeling Stimulated Brillouin Scattering in the Underdense Corona of a Direct Drive Inertial Confinement Fusion Target," to be published in *Physics of Plasmas*.

A. V. Okishev and J. D. Zuegel, "Highly-Stable, All-Solid-State Nd:YLF Regenerative Amplifier," to be published in *Applied Optics*.

J.-R. Park, W. R. Donaldson, and R. Sobolewski, "Characterization of Single- and Double-Fiber-Coupled Diffusing Spheres," to be published in *Applied Optics*.

B. A. Remington, G. Bazan, J. Belak, E. Bringa, M. Caturla, J. D. Colvin, M. J. Edwards, S. G. Glendinning, D. Ivanov, B. Kad, D. H. Kalantar, M. Kumar, B. F. Lasinski, K. T. Lorenz, J. M. McNaney, D. D. Meyerhofer, M. A. Meyers, S. M. Pollaine, D. Rowley, M. Schneider, J. S. Stölken, J. D. Wark, S. V. Weber, W. G. Wolfer, and B. Yaakobi, "Materials Science Under Extreme Conditions of Pressure and Strain Rate," to be published in *Metallurgical and Materials Transactions A*.

R. W. Short and A. Simon, "Theory of Three-Wave Parametric Instabilities in Inhomogeneous Plasmas Revisited," to be published in *Physics of Plasmas*.

S. Skupsky, R. Betti, T. J. B. Collins, V. N. Goncharov, J. A. Marozas, P. W. McKenty, P. B. Radha, T. R. Boehly, J. P. Knauer, F. J. Marshall, D. R. Harding, J. D. Kilkenny, D. D. Meyerhofer, T. C. Sangster, and R. L. McCrory, "Advanced Direct-Drive Target Designs for the NIF," to be published in *Inertial Fusion Sciences and Applications 2003*.

V. A. Smalyuk, V. N. Goncharov, T. R. Boehly, J. P. Knauer, D. D. Meyerhofer, and T. C. Sangster, "Self-Consistent Determination of Rayleigh–Taylor Growth Rates and Ablation-Front Density in Planar Targets Accelerated by Laser Light," to be published in *Physics of Plasmas*.

L. Zheng, A. W. Schmid, and J. C. Lambropoulos, "Surface Effects on Young's Modulus and Hardness of Fused Silica by Nanoindentation Study," to be published in the *Journal of Materials Research*.

Conference Presentations

A. Trajkovska-Petkoska, R. Varshneya, T. Z. Kosc, K. L. Marshall, and S. D. Jacobs, "Manufacture of Shaped Polymer Cholesteric Liquid Crystal Flakes Using Soft Lithography," 12th Annual University of Rochester Symposium on Materials Research (SOMR), Rochester, NY, 3 April 2004.

A. Marino, K. Spencer, J. DeGroote, and S. D. Jacobs, "Chemical Durability of Phosphate Glasses," Industrial Associates, Rochester, NY, 5 April 2004.

J. D. Zuegel, "Wavefront Correction of Laser Rods Using Magnetorheological Finishing (MRF)," QED Executive Symposium, Rochester, NY, 7 April 2004.

The following presentations were made at the 15th Topical Conference on High Temperature Plasma Diagnostics, San Diego, CA, 19–22 April 2004:

S. Ghosh, R. Boni, and P. A. Jaanimagi, "Optical and X-Ray Streak Camera Gain Measurements."

V. Yu. Glebov, C. Stoeckl, T. C. Sangster, S. Roberts, G. J. Schmid, R. A. Lerche, and M. Moran, "NIF Neutron Time-of-Flight Detector Prototypes Test on OMEGA."

O. V. Gotchev, P. A. Jaanimagi, J. P. Knauer, F. J. Marshall, and D. D. Meyerhofer, "KB-PJX—A Streaked Imager Based on a Versatile X-Ray Microscope Coupled to a High-Current Streak Tube" (invited).

J. P. Knauer and C. Gindele, "Temporal and Spectral Deconvolution of Data from Diamond, Photoconductive Devices."

F. J. Marshall, J. A. Oertel, and P. J. Walsh, “A Framed, 16-Image Kirkpatrick–Baez Microscope for Laser–Plasma X-Ray Emission.”

V. A. Smalyuk, V. N. Goncharov, T. R. Boehly, J. P. Knauer, D. D. Meyerhofer, and T. C. Sangster, “Self-Consistent Determination of Rayleigh–Taylor Growth Rates and Ablation-Front Density in Planar Targets Accelerated by Laser Light.”

C. Stoeckl, W. Theobald, T. C. Sangster, M. H. Key, P. Patel, B. B. Zhang, R. Clarke, S. Karsch, and P. Norreys, “Operation of a Single-Photon–Counting X-Ray CCD Camera Spectrometer in a Petawatt Environment.”

The following presentations were made at the International Workshop on Fast Ignition and High Field Physics, Kyoto, Japan, 25–29 April 2004:

D. D. Meyerhofer, “Fast Ignition Research at LLE: Progress and Plans.”

D. D. Meyerhofer, “Two High-Energy Beamlines at LLE: OMEGA EP.”

W. Theobald, C. Stoeckl, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, P. B. Radha, T. C. Sangster, V. A. Smalyuk, R. B. Stephens, S. P. Hatchett, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, S. Fujioka, H. Shiraga, and K. A. Tanaka, “Fast-Ignitor Cone Target Fuel Assembly Experiments.”

The following presentations were made at the 34th Anomalous Absorption Conference, Gleneden Beach, OR, 2–7 May 2004:

K. Anderson, R. Betti, J. P. Knauer, and V. N. Goncharov, “Simulations and Experiments on Adiabatic Shaping by Relaxation.”

R. S. Craxton, F. J. Marshall, S. Skupsky, J. A. Delettrez, R. Epstein, J. P. Knauer, P. W. McKenty, and W. Seka, “Polar-Direct-Drive Experiments on OMEGA.”

J. DeCiantis, F. H. Séguin, J. R. Rygg, J. A. Frenje, S. Kurebayashi, C. K. Li, C. Chen, V. Berube, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, S. Roberts, T. C. Sangster, and J. M. Soures, “Studying the Burn Region in ICF Implosions with Proton Emission Imaging.”

J. A. Delettrez, J. Myatt, P. B. Radha, C. Stoeckl, and S. Skupsky, “Simulation of Enhanced Neutron Production in OMEGA EP Cryogenic Implosions.”

R. Epstein and W. Fong, “Non-LTE Speed of Sound, Irreversibility, and Thermodynamic Consistency.”

J. A. Frenje, C. K. Li, F. H. Séguin, J. DeCiantis, S. Kurebayashi, J. R. Rygg, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, J. M. Soures, S. P. Hatchett, S. W. Haan, M. Moran, G. J. Schmid, O. L. Landen, N. Izumi, and R. Stelter, “A High-Resolution Neutron Spectrometer for ρR_{fuel} and Ti Measurements at OMEGA and the NIF.”

C. K. Li and R. D. Petrasso, “Stopping and Scattering of Directed Energetic Electrons in High-Temperature Hydrogenic Plasmas.”

C. K. Li, F. H. Séguin, J. A. Frenje, R. D. Petrasso, J. A. Delettrez, P. W. McKenty, T. C. Sangster, R. L. Keck, J. M. Soures, F. J. Marshall, D. D. Meyerhofer, V. N. Goncharov, J. P. Knauer, P. B. Radha, S. P. Regan, and W. Seka, “Effects of Nonuniform Illumination on Implosion Asymmetry in Direct-Drive Inertial Confinement Fusion.”

A. V. Maximov, J. Myatt, R. W. Short, W. Seka, and C. Stoeckl, “Modeling of Two-Plasmon-Decay Instability in Direct-Drive ICF Experiments.”

J. Myatt, A. V. Maximov, R. W. Short, J. A. Delettrez, and C. Stoeckl, “Hybrid Particle-in-Cell Simulations of MeV Electron Transport in Fast-Ignition Targets.”

J. R. Rygg, J. A. Frenje, C. K. Li, F. H. Séguin, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, D. D. Meyerhofer, T. C. Sangster, J. M. Soures, and C. Stoeckl, “An Empirical, Dynamic Mix Model for ICF Implosions.”

W. Seka, C. Stoeckl, R. Jiang, R. E. Bahr, T. C. Sangster, R. S. Craxton, J. A. Delettrez, A. V. Maximov, J. Myatt, and R. W. Short, “Scattered Light Measurements from Spherical Implosions on OMEGA.”

R. W. Short, “On the Convective Two-Plasmon-Decay Instability in Inhomogeneous Plasmas.”

The following presentations were made at CLEO 2004, San Francisco, CA, 16–21 May 2004:

V. Bagnoud, I. A. Begishev, M. J. Guardalben, J. Puth, and J. D. Zuegel, “Multiterawatt Laser as a Front End for the OMEGA EP (Extended Performance) Laser Chain.”

J. Li, T. Y. Hsiang, and W. R. Donaldson, “Study of Metal–Semiconductor–Metal Ultraviolet Photodiodes in Picosecond Regime.”

A. V. Okishev, J. R. Marciante, and J. D. Zuegel, “A Novel Discrete-Arbitrary-Picket-Pulse-Shaping System for the OMEGA Laser Fusion Facility.”

J.-R. Park, W. R. Donaldson, K. Kearney, and R. Sobolewski, “Arbitrary Wave Profile Generation of a Laser Using a Digital Micromirror Device.”

J. D. Zuegel, V. Bagnoud, T. Mooney, and P. Dumas, “Wavefront Correction of Laser Rods Using Magnetorheological Finishing (MRF).”

S. G. Lukishova, A. W. Schmid, C. M. Supranowitz, N. Lippa, A. J. McNamara, R. W. Boyd, and C. R. Stroud, Jr., “Deterministically Polarized, Room-Temperature Single-Photon Source: Single-Dye Molecule Fluorescence in Liquid Crystal Host,” IQEC, San Francisco, CA, 16–21 May 2004.

A. Trajkovska-Petkoska, R. Varshneya, T. Z. Kosc, K. L. Marshall, and S. D. Jacobs, “Electro-Optical Response of Shaped Polymer Cholesteric Liquid Crystal Flakes in an AC Field,” Great Lakes Photonics Symposium, Cleveland OH, 7–11 June 2004.

L. B. Glebov, L. N. Glebova, V. I. Smirnov, M. Dubinskii, L. D. Merkle, S. Papernov, and A. W. Schmid, “Laser Damage Resistance of Photo-Thermo-Refractive Glass Bragg Gratings,” Solid State and Diode Laser Technology Review, Albuquerque, NM, 8–10 June 2004.

J. B. Oliver and D. Talbot, “Optimization of Electron-Beam Deposition for Large-Aperture NIF Substrates in a Planetary Rotation System,” Optical Interference Coatings, Ninth Topical Meeting, Tucson, AZ, 27 June–2 July 2004.

V. Yu. Glebov, C. Stoeckl, T. C. Sangster, S. Roberts, and G. J. Schmid, “NIF Neutron Bang-Time Detector Prototype Test on OMEGA,” ICOPS 2004 31st IEEE International Conference on Plasma Science, Baltimore, MD, 28 June–1 July 2004.

T. C. Sangster, “Progress Toward Validation of the Direct-Drive Ignition Concept at OMEGA,” 31st European Physical Society Conference on Plasmas Physics, London, United Kingdom, 28 June–2 July 2004.