
Publications and Conference Presentations

Publications

- A. Agarwal, S. Banerjee, D. F. Grosz, A. P. K ung, D. N. Maywar, and T. H. Wood, "Ultralong-Haul Transmission of 40-Gb/s RZ-DPSK in a 10/40 G Hybrid System Over 2500 km of NZ-DSF," *IEEE Photonics Technol. Lett.* **15**, 1779 (2003).
- K. Anderson and R. Betti, "Theory of Laser-Induced Adiabatic Shaping in Inertial Fusion Implosions: The Decaying Shock," *Phys. Plasmas* **10**, 4448 (2003).
- Y. Geng, A. C. A. Chen, J. J. Ou, S. H. Chen, K. Klubek, K. M. Vaeth, and C. W. Tang, "Monodisperse Glassy-Nematic Conjugated Oligomers with Chemically Tunable Polarized Light Emission," *Chem. Mater.* **15**, 4352 (2003).
- Y. Geng, A. Trajkovska, S. W. Culligan, J. J. Ou, H. M. P. Chen, D. Katsis, and S. H. Chen, "Origin of Strong Chiroptical Activities in Films of Nonafluorenes with a Varying Extent of Pendant Chirality," *J. Am. Chem. Soc.* **125**, 14,032 (2003).
- O. V. Gotchev, L. J. Hayes, P. A. Jaanimagi, J. P. Knauer, F. J. Marshall, and D. D. Meyerhofer, "Large-Grazing-Angle, Multi-Image Kirkpatrick-Baez Microscope as the Front End to a High-Resolution Streak Camera for OMEGA," *Rev. Sci. Instrum.* **74**, 5065 (2003).
- M. J. Guardalben, J. Keegan, L. J. Waxer, V. Bagnoud, I. A. Begishev, J. Puth, and J. D. Zuegel, "Design of a Highly Stable, High-Conversion-Efficiency, Optical Parametric Chirped-Pulse Amplification System with Good Beam Quality," *Opt. Express* **11**, 2511 (2003).
- J. Leuthold, R. Ryf, D. N. Maywar, S. Cabot, J. Jaques, and S. S. Patel, "Nonblocking All-Optical Cross Connect Based on Regenerative All-Optical Wavelength Converter in a Transparent Demonstration Over 42 Nodes and 16800 km," *J. Lightwave Technol.* **21**, 2863 (2003).
- X. Z. Lin, X. Teng, and H. Yang, "Direct Synthesis of Narrowly Dispersed Silver Nanoparticles Using a Single-Source Precursor," *Langmuir* **19**, 10,081 (2003).
- J. D. Lindl, B. A. Hammel, B. G. Logan, D. D. Meyerhofer, S. A. Payne, and J. D. Sethian, "The US Inertial Confinement Fusion (ICF) Ignition Programme and the Inertial Fusion Energy (IFE) Programme," *Plasma Phys. Control. Fusion* **45**, A217 (2003).
- S. G. Lukishova, A. W. Schmid, A. J. McNamara, R. W. Boyd, and C. R. Stroud, Jr., "Room-Temperature Single-Photon Source: Single-Dye Molecule Fluorescence in Liquid Crystal Host," *IEEE J. Sel. Top. Quantum Electron.* **9**, 1512 (2003).
- K. L. Marshall, B. Klehn, B. Watson, and D. W. Griffin, "Recent Advances in the Development of Phase-Shifting Liquid Crystal Interferometers for Visible and Near-IR Applications," in *Advanced Characterization Techniques for Optics, Semiconductors, and Nanotechnologies*, edited by A. Duparr  and B. Singh (SPIE, Bellingham, WA, 2003), Vol. 5188, pp. 48–60.
- K. L. Marshall, B. Schudel, and I. A. Lippa, "Transition Metal Dithiolene Complexes as Near-IR Dyes for Liquid Crystal Device Applications," in *Liquid Crystals VII*, edited by I.-C. Khoo (SPIE, Bellingham, WA, 2003), Vol. 5213, pp. 201–212.
- R. Narayan, I. V. Igumenshchev, and M. A. Abramowicz, "Magnetically Arrested Disk: An Energetically Efficient Accretion Flow," *Publ. Astron. Soc. Jpn.* **55**, L69 (2003).
- X. Teng and H. Yang, "Synthesis of Face-Centered Tetragonal FePt Nanoparticles and Granular Films from Pt@Fe₂O₃ Core-Shell Nanoparticles," *J. Am. Chem. Soc.* **125**, 14,559 (2003).

Y. Wang, J. F. Wong, X. Teng, X. Z. Lin, and H. Yang, “‘Pulling’ Nanoparticles into Water: Phase Transfer of Oleic Acid Stabilized Monodisperse Nanoparticles into Aqueous Solutions of α -Cyclodextrin,” *Nano Lett.* **3**, 1555 (2003).

Y. Xu, M. Khafizov, L. Satrapinsky, P. Kúř, A. Plecenik, and R. Sobolewski, “Time-Resolved Photoexcitation of the Superconducting Two-Gap State in MgB_2 Thin Films,” *Phys. Rev. Lett.* **91**, 197004 (2003).

J. Zhang, N. Boiadjeva, G. Chulkova, H. Deslandes, G. N. Gol’tsman, A. Korneev, P. Kouminov, M. Leibowitz, W. Lo, R. Malinsky, O. Okunev, A. Pearlman, W. Slys, K. Smirnov, C. Tsao, A. Verevkin, V. Voronov, K. Wilsher, and R. Sobolewski, “Noninvasive CMOS Circuit Testing with NbN Superconducting Single-Photon Detectors,” *Electron. Lett.* **39**, 1086 (2003).

Forthcoming Publications

E. L. Alfonso, R. Q. Gram, and D. R. Harding, “Modeling Temperature and Pressure Gradients During Cooling of Thin-Walled Cryogenic Targets,” to be published in *Fusion Science and Technology*.

K. Anderson and R. Betti, “Laser-Induced Adiabatic Shaping by Relaxation in Inertial Fusion Implosions,” to be published in *Physics of Plasmas*.

V. Bagnoud and J. D. Zuegel, “Independent Phase and Amplitude Control of a Laser Beam Using a Single-Phase-Only Spatial Light Modulator,” to be published in *Optics Letters*.

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,” to be published in *Physics of Plasmas*.

C. Dorrer and D. N. Maywar, “RF Spectrum Analysis of Optical Signals Using Nonlinear Optics,” to be published in the *Journal of Lightwave Technology* (invited).

L. Guazzotto, R. Betti, J. Manickam, and S. Kaye, “Numerical Study of Tokamak Equilibria with Arbitrary Flow,” to be published in *Physics of Plasmas*.

T. J. Kessler, J. Bunkenburg, H. Huang, A. Kozlov, and D. D. Meyerhofer, “Coherent Addition of Multiple Gratings for High Energy Chirped-Pulse Amplified Lasers,” to be published in *Optics Letters*.

A. K. Knight, F.-Y. Tsai, M. J. Bonino, and D. R. Harding, “Suitability of Different Polyimide Capsule Materials for Use

as ICF Targets,” to be published in *Fusion Science and Technology*.

T. I. Lakoba, C. Dorrer, and D. N. Maywar, “Polarization-Mode Dispersion of a Circulating Loop,” to be published in the *Journal of the Optical Society of America B*.

J. Leuthold, R. Ryf, D. N. Maywar, S. Cabot, and J. Jacques, “Demonstration of a Nonblocking Cross Connect Concept Based on Regenerative All-Optical Wavelength Converter over 42 Nodes and 16800 km,” to be published in *IEEE Photonics Technology Letters*.

J. R. Marcianti and D. H. Raguin, “A New Class of High-Efficiency, High-Dispersion Diffraction Gratings Based on Total Internal Reflection,” to be published in *Optics Letters*.

F. J. Marshall, J. A. Delettrez, R. Epstein, R. Forties, R. L. Keck, J. H. Kelly, P. W. McKenty, S. P. Regan, and L. J. Waxer, “Direct-Drive-Implosion Experiments with Enhanced Fluence Balance on OMEGA,” to be published in *Physics of Plasmas*.

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*.

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," to be published in *Physics of Plasmas* (invited).

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*.

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," to be published in *Physics of Plasmas* (invited).

X. Teng and H. Yang, "Effects of Surfactants and Synthetic Conditions on the Sizes and Self-Assembly of Monodisperse Iron Oxide Nanoparticles," to be published in the *Journal of Materials Chemistry*.

A. Verevkin, A. Pearlman, W. Slysz, J. Zhang, R. Sobolewski, M. Currie, A. Korneev, G. Chulkova, O. Okunev, P. Kouminov, K. Smirnov, B. Voronov, and G. N. Gol'tsman, "Ultrafast Superconducting Single-Photon Detectors for Near-Infrared-Wavelength Quantum Communications," to be published in the *Journal of Modern Optics*.

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," to be published in *Physics of Plasmas* (invited).

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-Induced V and Ti and Crystal Phase Transformation in Ti," to be published in *Physical Review Letters*.

J. D. Zuegel and D. W. Jacobs-Perkins, "An Efficient, High-Frequency Bulk Phase Modulator," to be published in *Applied Optics*.

Conference Presentations

The following presentations were made at the 87th OSA Annual Meeting, Tucson, AZ, 5–9 October 2003:

S. G. Lukishova, A. W. Schmid, A. J. McNamara, R. W. Boyd, and C. R. Stroud, "Efficient Room Temperature Single-Photon Source: Single Dye Molecule Fluorescence in Photonic-Band-Gap Cholesteric Liquid Crystal Host."

J. R. Marciante, N. O. Farmiga, J. P. Kondis, and J. R. Frederick, "Phase Effects of Secondary Reflections on the Performance of Reflective Liquid-Crystal Cells."

J. R. Marciante, N. O. Farmiga, H. T. Ta, J. I. Hirsh, and M. S. Evans, "Optical Measurement of Depth and Duty Cycle for Binary Diffraction Gratings with Sub- λ Features."

J. R. Marciante and D. H. Raguin, "A New Class of High-Efficiency, High-Dispersion Diffraction Gratings Based on Total Internal Reflection."

J. R. Marciante, D. H. Raguin, J. I. Hirsh, and E. T. Prince, "Polarization-Insensitive High-Dispersion TIR Diffraction Gratings."

The following presentations were made at Education and Training in Optics and Photonics, Tucson, AZ, 6–8 October 2003:

S. D. Jacobs and L. L. Gregg, "OSA Rochester Section Optics Suitcase: A Forty-Minute Middle School Outreach Program for the Cost of a Postage Stamp."

S. D. Jacobs, L. L. Gregg, E. M. Fess, and J. M. Schoen, "Optics Manufacturing Research Projects by Undergraduates Who Happen to be Women."

W. R. Donaldson, J. A. Marozas, R. S. Craxton, D. Jacobs-Perkins, and M. Millecchia, "Spectroscopy of Broadband Harmonic Generation," LEOS 2003, Tucson, AZ, 26–30 October 2003.

The following presentations were made at the 45th Annual Meeting of the APS Division of Plasma Physics, Albuquerque, NM, 27–31 October 2003:

K. Anderson, R. Betti, and J. P. Knauer, "Adiabatic Shaping by Relaxation in Plastic and Cryogenic Shells for Experiments on the OMEGA Laser."

R. Betti and K. Anderson, "Laser-Induced Adiabatic Shaping by Relaxation."

T. R. Boehly, D. G. Hicks, T. J. B. Collins, G. W. Collins, P. M. Celliers, E. Vianello, D. D. Meyerhofer, R. C. Cauble, W. Unites, D. Jacobs-Perkins, R. Earley, M. J. Bonino, W. J. Armstrong, S. G. Noyes, D. Turner, D. Guy, S. Scarantino, T. Lewis, F. A. Rister, and L. D. Lund, "Quartz Equation-of-State (EOS) Measurements at the OMEGA Laser Facility."

M. Canavan, J. R. Rygg, J. A. Frenje, C. K. Li, F. H. Séguin, R. D. Petrasso, S. W. Haan, S. P. Hatchett, J. A. Koch, O. L. Landen, V. Yu. Glebov, D. D. Meyerhofer, and T. C. Sangster,

"The Utility of Knock-On D, T, and P for Diagnosing NIF Implosions."

T. J. B. Collins and S. Skupsky, "High-Gain Direct-Drive Foam Target Designs for the National Ignition Facility."

R. S. Craxton, "Hydrodynamic Simulations of Polar Direct Drive on the NIF and LMJ Based on Three-Dimensional Ray Tracing."

J. DeCiantis, B. E. Schwartz, J. A. Frenje, F. H. Séguin, S. Kurebayashi, C. K. Li, R. D. Petrasso, J. A. Delettrez, J. M. Soures, V. Yu. Glebov, D. D. Meyerhofer, S. Roberts, T. C. Sangster, and S. P. Hatchett, "Studying the Burn Region in ICF Implosions with Proton-Emission Imaging."

J. A. Delettrez, P. B. Radha, C. Stoeckl, S. Skupsky, and D. D. Meyerhofer, "Simulation of Enhanced Neutron Production in OMEGA EP Cryogenic Implosions."

R. Epstein, F. J. Marshall, J. A. Delettrez, P. W. McKenty, P. B. Radha, and V. A. Smalyuk, "Effects of Low-Order Irradiation Nonuniformity on X-Ray Images of ICF Implosions Experiments on OMEGA."

J. A. Frenje, C. K. Li, F. H. Séguin, J. DeCiantis, J. R. Rygg, S. Kurebayashi, B. E. Schwartz, R. D. Petrasso, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, J. M. Soures, and C. Stoeckl, "Measuring Shock-Coalescence Timing and ρR Evolution of D^3He Implosions at OMEGA" (invited).

J. A. Frenje, R. D. Petrasso, C. K. Li, F. H. Séguin, J. DeCiantis, S. Kurebayashi, J. R. Rygg, B. E. Schwartz, J. A. Delettrez, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, J. M. Soures, S. P. Hatchett, S. W. Haan, G. J. Schmid, O. L. Landen, N. Izumi, and D. Stelter, "A Magnetic Recoil Spectrometer (MRS) for ρR_{fuel} and Ti Measurements of Warm, Fizzle, and Ignited Implosions on OMEGA and NIF."

V. Yu. Glebov, C. Stoeckl, T. C. Sangster, P. B. Radha, S. Roberts, S. Mott, S. Padalino, L. Baumgart, K. Voltz, H. M. Jiang, S. P. Hatchett, M. J. Moran, S. Kurebayashi, F. H. Séguin, and R. D. Petrasso, "Secondary Neutron Energy Spectra Measurements with the 1020 Array on OMEGA."

V. Yu. Glebov, C. Stoeckl, S. Roberts, T. C. Sangster, J. A. Frenje, R. D. Petrasso, R. A. Lerche, and R. L. Griffith, "Proton Temporal Diagnostic for ICF Experiments on OMEGA."

- V. N. Goncharov, T. R. Boehly, J. P. Knauer, V. A. Smalyuk, S. P. Regan, O. V. Gotchev, P. W. McKenty, S. Skupsky, P. B. Radha, and D. D. Meyerhofer, "Designing Shock-Timing and Imprint Experiments for the Direct-Drive Inertial Confinement Fusion Implosions."
- O. V. Gotchev, V. N. Goncharov, P. A. Jaanimagi, J. P. Knauer, and D. D. Meyerhofer, "Streaked Imaging of Ablative Richtmyer–Meshkov Growth in ICF Targets on OMEGA."
- L. Guazzotto and R. Betti, "High- β Tokamak Equilibria with Poloidal Flows Exceeding the Poloidal Alfvén Velocity."
- J. P. Knauer, V. N. Goncharov, K. Anderson, R. Betti, V. Yu. Glebov, F. J. Marshall, P. W. McKenty, 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 ICF Implosions with Picket-Fence Pulse Shapes."
- J. P. Knauer, S. Sublett, T. J. B. Collins, A. Frank, I. V. Igumenshchev, D. D. Meyerhofer, A. Poludnenko, J. M. Foster, P. A. Rosen, P. Keiter, B. H. Wilde, B. Blue, T. S. Perry, H. F. Robey, A. M. Khokhlov, and R. P. Drake, "Development of a Test Bed for Astrophysical Jet Hydrodynamics."
- S. Kurebayashi, F. H. Séguin, J. A. Frenje, C. K. Li, R. D. Petrasso, J. R. Rygg, B. E. Schwartz, J. DeCiantis, V. Yu. Glebov, J. A. Delettrez, T. C. Sangster, J. M. Soures, and S. P. Hatchett, "Investigation of the Use of Secondary Protons and Neutrons for Studying Fuel Areal Density in Imploded, D₂-Filled Capsules."
- J. A. Marozas, P. B. Radha, T. J. B. Collins, P. W. McKenty, and S. Skupsky, "Optimization of Low-Order Uniformity for Polar Direct Drive on the National Ignition Facility (NIF)."
- F. J. Marshall, J. A. Delettrez, R. Epstein, R. Forties, V. Yu. Glebov, J. H. Kelly, T. J. Kessler, J. P. Knauer, P. W. McKenty, S. P. Regan, V. A. Smalyuk, C. Stoeckl, J. A. Frenje, C. K. Li, R. D. Petrasso, and F. H. Séguin, "Direct-Drive Implosions on OMEGA with Optimized Illumination Uniformity."
- A. V. Maximov, J. Myatt, R. W. Short, W. Seka, and C. Stoeckl, "Modeling of the Two-Plasmon-Decay Instability Driven by Incoherent Laser Beams."
- P. W. McKenty, T. C. Sangster, J. A. Delettrez, R. Epstein, V. Yu. Glebov, D. R. Harding, J. P. Knauer, R. L. Keck, S. J. Loucks, L. D. Lund, R. L. McCrory, F. J. Marshall, D. D. Meyerhofer, S. F. B. Morse, S. P. Regan, P. B. Radha, W. Seka, S. Skupsky, V. A. Smalyuk, J. M. Soures, C. Stoeckl, K. A. Thorp, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, K. A. Fletcher, S. Padalino, and C. Freeman, "Experimental Results from Cryogenic D₂ Implosions on the OMEGA Laser."
- H. Sawada, S. P. Regan, V. N. Goncharov, J. P. Knauer, R. Epstein, R. S. Craxton, J. A. Delettrez, F. J. Marshall, B. Yaakobi, D. D. Meyerhofer, W. Seka, M. Alexander, R. S. Craxton, M. D. Wittman, M. Pandina, L. S. Iwan, L. M. Elasky, D. R. Harding, T. J. Kessler, R. L. Keck, L. D. Lund, D. Weiner, A. Warrick, T. G. Brown, and C. Cotton, "Cryogenic Target Characterization at LLE."
- J. Myatt, A. V. Maximov, R. W. Short, J. A. Delettrez, and C. Stoeckl, "Intense Electron-Beam Transport in Dense Cryogenic DT Fast-Ignition Fusion Targets."
- R. D. Petrasso, J. R. Rygg, C. K. Li, F. H. Séguin, S. P. Hatchett, V. Yu. Glebov, D. D. Meyerhofer, T. C. Sangster, and J. M. Soures, "Experimental Studies of Time-Dependent Mix in OMEGA Direct-Drive Implosions."
- S. P. Regan, H. Sawada, V. A. Smalyuk, V. N. Goncharov, J. A. Delettrez, P. B. Radha, R. Epstein, F. J. Marshall, B. Yaakobi, D. D. Meyerhofer, T. C. Sangster, and D. A. Haynes, Jr., "Diagnosing Shell Mix in Direct-Drive with Time-Resolved X-Ray Spectroscopy."
- J. R. Rygg, F. H. Séguin, C. K. Li, J. A. Frenje, R. D. Petrasso, S. P. Hatchett, J. A. Delettrez, V. Yu. Glebov, V. N. Goncharov, R. L. Keck, J. P. Knauer, F. J. Marshall, D. D. Meyerhofer, T. C. Sangster, and V. A. Smalyuk, "The Effects of Implosion Asymmetry on Shock Dynamics in OMEGA Direct-Drive Experiments."
- T. C. Sangster, J. A. Delettrez, R. Epstein, V. Yu. Glebov, V. N. Goncharov, D. R. Harding, D. Jacobs-Perkins, R. L. Keck, J. D. Kilkenny, J. P. Knauer, S. J. Loucks, L. D. Lund, R. L. McCrory, P. W. McKenty, J. A. Marozas, F. J. Marshall, D. D. Meyerhofer, S. F. B. Morse, S. P. Regan, P. B. Radha, W. Seka, S. Skupsky, V. A. Smalyuk, J. M. Soures, C. Stoeckl, K. A. Thorp, J. A. Frenje, C. K. Li, R. D. Petrasso, F. H. Séguin, K. A. Fletcher, S. Padalino, and C. Freeman, "Experimental Results from Cryogenic D₂ Implosions on the OMEGA Laser."

Meyerhofer, P. B. Radha, T. C. Sangster, and W. Seka, "Experimental Investigation of Coronal Plasma Conditions in Direct-Drive ICF Using Time-Resolved X-Ray Spectroscopy."

F. H. Séguin, J. R. Rygg, J. A. Frenje, C. K. Li, R. D. Petrasso, V. Yu. Glebov, V. N. Goncharov, J. P. Knauer, J. P. Marshall, D. D. Meyerhofer, T. C. Sangster, V. A. Smalyuk, J. M. Soures, and S. P. Hatchett, "Measuring Time Evolution of Areal-Density Asymmetries in OMEGA Direct-Drive Implosions."

W. Seka, C. Stoeckl, A. V. Maximov, R. S. Craxton, R. W. Short, S. P. Regan, H. Baldis, S. Depierreux, J. Myatt, and R. E. Bahr, "Experimental Investigation of the Two-Plasmon-Decay Instability at Oblique Incidence."

R. W. Short, "On the Role of Electron-Acoustic Waves in Two-Plasmon Decay and Stimulated Raman Scattering."

A. Simon and R. W. Short, "Convective Growth of the Three-Wave Parametric Instability in a Nonuniform Plasma."

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" (invited).

J. M. Soures, S. J. Loucks, R. L. McCrory, D. D. Meyerhofer, S. F. B. Morse, T. C. Sangster, and C. Stoeckl, "Inertial Confinement Fusion and High-Energy-Density Physics Research Opportunities at the National Laser Users' Facility (NLUF)."

C. Stoeckl, J. A. Delettrez, T. C. Sangster, R. B. Stephens, S. P. Hatchett, J. A. Frenje, S. Fujioka, H. Shiraga, and K. A. Tanaka, "Fuel Assembly Experiments with Fast-Ignitor Cone Targets on OMEGA."

S. Sublett, J. P. Knauer, H. F. Robey, and B. Blue, "Development of a Point Projection Backlighter for Laboratory Astrophysics Experiments on OMEGA."

W. Theobald, L. Veisz, and R. Sauerbrey, "Three-Halves-Harmonic Generation in Femtosecond-Laser-Produced, Solid-Density Plasmas."

E. Vianello, T. R. Boehly, R. S. Craxton, V. N. Goncharov, J. P. Knauer, D. D. Meyerhofer, J. E. Miller, T. C. Sangster, D. G. Hicks, and P. M. Celliers, "Timing of Multiple Shocks in Planar Direct-Drive Laser-Driven Targets."

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" (invited).

I. V. Igumenshchev, "Radiatively Inefficient Accretion Flows," Stellar-Mass, Intermediate-Mass, and Supermassive Black Holes, Kyoto, Japan, 28–31 October 2003.

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," Third International Symposium on Polyimides and Other High Temperature Polymers, Orlando, FL, 17–19 December 2003 (invited).