Publications and Conference Presentations

Publications

R. Betti, V. N. Goncharov, R. L. McCrory, P. Sorotokin, and C. P. Verdon, "Self-Consistent Stability Analysis of Ablation Fronts in Inertial Confinement Fusion," Phys. Plasmas **3**, 2122 (1996) (invited).

J. D. B. Featherstone, D. Fried, S. M. McCormack, and W. Seka, "Effect of Pulse Duration and Repetition Rate on CO_2 Laser Inhibition of Caries Progression," in *Lasers in Dentistry II* (SPIE, Bellingham, WA, 1996), Vol. 2672, pp. 79–87.

D. Fried, J. D. B. Featherstone, S. R. Visuri, W. Seka, and J. T. Walsh, "The Caries Inhibition Potential of Er:YAG and Er:YSGG Laser Radiation," in *Lasers in Dentistry II* (SPIE, Bellingham, WA, 1996), Vol. 2672, pp. 73–78.

R. S. Marjoribanks, F. W. Budnik, H. Chen, and D. D. Meyerhofer, "Electron Temperature in Transient Plasmas from Quasi-Steady Ratio of Isoelectronic Lines: Application to Picosecond and Subpicosecond Plasmas," J. Opt. Soc. Am. B **13**, 380 (1996).

R. L. McCrory, J. M. Soures, C. P. Verdon, T. R. Boehly, D. K. Bradley, R. S. Craxton, J. A. Delettrez, R. Epstein, P. A. Jaanimagi, S. D. Jacobs, R. L. Keck, J. H. Kelly, T. J. Kessler, H. Kim, J. P. Knauer, R. L. Kremens, S. A. Kumpan, S. A. Letzring, F. J. Marshall, P. W. McKenty, S. F. B. Morse, A. Okishev, W. Seka, R. W. Short, M. D. Skeldon, S. Skupsky, M. Tracy, and B. Yaakobi, "Direct-Drive Laser Fusion Experimental Program at the University of Rochester's Laboratory for Laser Energetics," in *Plasma Physics and Controlled Nuclear Fusion Research 1994* (IAEA, Vienna, 1996), Vol. 3, pp. 33–37.

R. L. McCrory, J. M. Soures, C. P. Verdon, T. R. Boehly, D. K. Bradley, R. S. Craxton, J. A. Delettrez, R. Epstein, P. A. Jaanimagi, S. D. Jacobs, R. L. Keck, J. H. Kelly, T. J. Kessler, H. Kim. J. P. Knauer, R. L. Kremens, S. A. Kumpan, S. A. Letzring, F. J. Marshall, P. W. McKenty, S. F. B. Morse, A. Okishev, W. Seka, R. W. Short, M. D. Skeldon, S. Skupsky, M. Tracy, and B. Yaakobi, "Experiments on the OMEGA Laser to Validate High-Gain, Direct-Drive Performance on the National Ignition Facility," in *Laser Interaction and Related Plasma Phenomena*, edited by S. Nakai and G. H. Miley (American Institute of Physics, Woodbury, NY, 1996), Vol. 369, pp. 71–79.

C. J. McKinstrie, J. S. Li, R. E. Giacone, and H. X. Vu, "Two-Dimensional Analysis of the Power Transfer Between Crossed Laser Beams," Phys. Plasmas **3**, 2686 (1996).

D. Ofer, U. Alon, D. Shvarts, R. L. McCrory, and C. P. Verdon, "Modal Model for the Nonlinear Multimode Rayleigh-Taylor Instability," Phys. Plasmas **3**, 3073 (1996).

S. Papernov and A. W. Schmid, "A Comparison of Laser-Induced Damage Morphology in Three Model Thin-Film Systems: HfO_2, Y_2O_3, and Ta_2O_5," in *Laser-Induced Damage in Optical Materials: 1994*, edited by M. R. Kozlowski, A. H. Guenther, B. E. Newnam, H. E. Bennett, and M. J. Soileau (SPIE, Bellingham, WA, 1995), Vol. 2428, pp. 385–396.

W. Seka, J. D. B Featherstone, D. Fried, S. R. Visuri, and J. T. Walsh, "Laser Ablation of Dental Hard Tissue: From Explosive Ablation to Plasma-Mediated Ablation," in *Lasers in Dentistry II*, edited by J. Neev, H. A. Wigdor, J. M. White, and J. D. Featherstone (SPIE, Bellingham, WA, 1996), Vol. 2672, pp. 144–158 (invited).

J. M. Soures, R. L. McCrory, C. P. Verdon, A. Babushkin, R. E. Bahr, T. R. Boehly, R. Boni, D. K. Bradley, D. L. Brown, R. S. Craxton, J. A. Delettrez, W. R. Donaldson, R. Epstein, P. A. Jaanimagi, S. D. Jacobs, K. Kearney, R. L. Keck, J. H. Kelly, T. J. Kessler, R. L. Kremens, J. P. Knauer, S. A. Kumpan, S. A. Letzring, D. J. Lonobile, S. J. Loucks, L. D. Lund, F. J.

Marshall, P. W. McKenty, D. D. Meyerhofer, S. F. B. Morse, A. Okishev, S. Papernov, G. Pien, W. Seka, R. Short, M. J. Shoup III, M. Skeldon, S. Skupsky, A. W. Schmid, D. J. Smith, S. Swales, M. Wittman, and B. Yaakobi, "Direct-Drive Laser-Fusion Experiments with the OMEGA, 60-Beam, >40-kJ, Ultraviolet Laser System," Phys. Plasmas **3**, 2108 (1996) (invited).

B. Yaakobi, R. S. Craxton, R. Epstein, and Q. Su, "Diagnosis of Core-Shell Mixing Using Absorption and Emission Spectra of a Doped Layer," J. Quant. Spectrosc. Radiat. Transf. **55**, 731 (1996).

B. Yaakobi, R. Epstein, C. F. Hooper, Jr., D. A. Haynes, Jr., and Q. Su, "Diagnosis of High-Temperature Implosions Using Low- and High-Opacity Krypton Lines," J. X-Ray Sci. Technol **6**, 172 (1996).

Forthcoming Publications

E. L. Alfonso, S.-H. Chen, M. D. Wittman, S. Papernov, and D. Harding, "A Parametric Study of Microencapsulation Approach to the Preparation of Polystyrene Shells," to be published in Polymer.

T. R. Boehly, D. L. Brown, R. S. Craxton, R. L. Keck, J. P. Knauer, J. H. Kelly, T. J. Kessler, S. A. Kumpan, S. J. Loucks, S. A. Letzring, F. J. Marshall, R. L. McCrory, S. F. B. Morse, W. Seka, J. M. Soures, and C. P. Verdon, "Initial Performance Results of the OMEGA Laser System," to be published in Optics Communications.

S.-H. Chen, J. C. Mastrangelo, T. N. Blanton, A. Bashir-Hashemi, and K. L. Marshall, "Novel Glass-Forming Liquid Crystals. IV. Effects of Central Core and Pendant Group on Vitrification and Morphological Stability," to be published in Liquid Crystals.

S.-H. Chen, H. Shi, J. C. Mastrangelo, and J. J. Ou, "Thermotropic Chiral Nematic Side-Chain Polymers and Cyclic Oligomers," to be published in Progress in Polymer Science.

S.-H. Chen, H. Shi, B. M. Conger, J. C. Mastrangelo, and T. Tsutsi, "Novel Vitrifiable Liquid Crystals as Optical Materials," to be published in Advanced Materials.

A. V. Chirokikh, W. Seka, A. Simon, and R. S. Craxton, "Brillouin Scattering in Long-Scale-Length Laser Plasmas," to be published in Physics of Plasmas.

C. T. Cotton, "The Design of an All-Spherical, Three-Mirror, Off-Axis Telescope Objective," to be published in the OSA Proceedings of the International Optical Design Conference '94, Rochester, NY.

P. M. Fauchet, "Photoluminescence and Electroluminescence from Porous Silicon," to be published in the Journal of Photoluminescence (invited).

P. M. Fauchet, "Porous Silicon: Photoluminescence and Electroluminescent Devices," to be published in Light Emission in Silicon, Semiconductors, and Semimetals Series.

D. Fried, R. E. Glena, J. D. B. Featherstone, and W. Seka, "Permanent and Transient Changes in the Reflectance of CO_2 Laser-Irradiated Dental Hard Tissues at $\lambda = 9.3, 9.6, 10.3,$ and 10.6 μm and at Fluences between 1–20 J/cm^2," to be published in Lasers in Surgery and Medicine.

D. Golini, Y. Zhou, S. D. Jacobs, F. Yang, D. Quesnel, C. Gracewski, M. Atwood, and E. Fess, "Aspheric Surface Generation Requirements in Magnetorheological Finishing," to be published in Trends in Optics & Photonics (TOPS).

V. N. Goncharov, R. Betti, R. L. McCrory, and C. P. Verdon, "Self-Consistent Stability Analysis of Ablation Fronts with Small Froude Numbers," to be published in Physics of Plasmas.

J. H. Kelly, T. R. Boehly, J. M. Soures, D. L. Brown, R. Boni, R. S. Craxton, R. L. Keck, T. J. Kessler, R. Kremens, S. A. Kumpan, S. A. Letzring, S. J. Loucks, R. L. McCrory, S. F. B. Morse, W. Seka, S. Skupsky, and C. P. Verdon, "The Activation of the Upgraded OMEGA Laser at the University of Rochester," to be published in the SPIE Proceedings of the 15th International Conference on Coherent and Nonlinear Optics, St. Petersburg, Russia, June 1995.

J. H. Kelly, T. R. Boehly, J. M. Soures, D. L. Brown, R. Boni, R. S. Craxton, R. L. Keck, T. J. Kessler, R. L. Kremens, S. A. Kumpan, S. A. Letzring, S. J. Loucks, R. L. McCrory, S. F. B. Morse, W. Seka, S. Skupsky, and C. P. Verdon, "The Activation of the Upgraded OMEGA Laser at the University of Rochester," to be published in the SPIE Proceedings of the 1st Annual International Conference on Solid-State Lasers for Application to Inertial Confinement Fusion (ICF), Monterey, CA, 30 May–2 June 1995.

T. J. Kessler, L. S. Iwan, J. Barone, C. Kellogg, and W. P. Castle, "Optic Fabrication Using Photographic Lithography," to be published in the Bulletin of the American Physical Society.

E. M. Korenic, S. D. Jacobs, S. M. Faris, and L. Li, "Colorimetry of Cholesteric Liquid Crystals," to be published in the Bulletin of the American Physical Society.

K. S. Lebedev, E. A. Magulariya, S. G. Lukishova, S. V. Belyaev, N. V. Malimonenko, and A. W. Schmid, "Reflective Nonlinearities of Nonabsorbing Chiral Liquid Crystals: Frustration of Selective Reflection by Powerful Laser Radiation," to be published in the Bulletin of the American Physical Society.

Y. Lin, T. J. Kessler, and G. N. Lawrence, "Design of Continuous Surface-Relief Phase Plates by Simulated Annealing to Achieve Control of Focal Plane Irradiance," to be published in Optics Letters.

S. G. Lukishova, S. V. Belyaev, K. S. Lebedev, E. A. Magulariya, A. W. Schmid, and N. V. Malimonenko, "cw and High-Repetition-Rate Lasing in Nd:YAG Resonators with Chiral-Nematic Liquid-Crystal Mirrors: A Study of Nonlinear Responses," to be published in Quantum Electronics.

S. G. Lukishova, S. V. Belyaev, K. S. Lebedev, E. A. Magulariya, A. W. Schmid, and N. V. Malimonenko, "Nonlinear Bleaching in the Selective Reflection of Nonabsorbing Chiral-Nematic Liquid-Crystal Thin Films," to be published in JETP Letters and in Molecular Crystals and Liquid Crystals.

J. C. Mastrangelo and S.-H. Chen, "Novel Glass-Forming Organic Materials. 2. Cyclohexane and Bicyclooctene with Pendant Pyrenene and Carbazole," to be published in Chemistry of Materials.

S. M. McCormack, D. Fried, J. D. B. Featherstone, R. E. Glena, and W. Seka, "Scanning Electron Microscope Observations of CO_2 Laser Effects on Dental Enamel," to be published in the Journal of Dental Research.

C. J. McKinstrie and E. A. Startsev, "Electron Acceleration by a Laser Pulse in a Plasma," to be published in Physical Review E.

A. Okishev, M. D. Skeldon, S. A. Letzring, W. R. Donaldson, A. Babushkin, and W. Seka, "The Pulse-Shaping System for the 60-Beam, 30-kJ (UV) OMEGA Laser," to be published in the Proceedings of Laser Optics '95 Conference, St. Petersburg, Russia, 27 June–1 July 1995.

J. Z. Roach, A. Ninkov, S. W. Swales, and T. Morris, "Design and Evaluation of a Screen CCD Imaging System," to be published in Optical Engineering.

A. W. Schmid, T. J. Kessler, S. Papernov, and J. Barone, "Low-Surface-Energy Photoresist as a Medium for Optical Replication," to be published in Applied Physics Letters.

J. D. Schnittman and R. S. Craxton, "Indirect-Drive Radiation Uniformity in Tetrahedral Hohlraums," to be published in Physics of Plasmas.

A. Simon, "Comparison Between SBS Theories and Experiment," to be published in Proceedings of the LaJolla Summer School '95, Plasma Physics and Technology (AIP).

J. M. Soures, S. J. Loucks, R. L. McCrory, C. P. Verdon, A. Babushkin, R. E. Bahr, T. R. Boehly, R. Boni, D. K. Bradley, D. L. Brown, J. A. Delettrez, R. S. Craxton, W. R. Donaldson, R. Epstein, R. Gram, D. R. Harding, P. A. Jaanimagi, S. D. Jacobs, K. Kearney, R. L. Keck, J. H. Kelly, T. J. Kessler, R. L. Kremens, J. P. Knauer, S. A. Letzring, D. J. Lonobile, L. D. Lund, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, S. F. B. Morse, A. Okishev, S. Papernov, G. Pien, W. Seka, R. W. Short, M. J. Shoup, III, M. D. Skeldon, S. Skupsky, A. W. Schmid, D. J. Smith, S. Swales, M. D. Wittman, and B. Yaakobi, "The Role of the Laboratory for Laser Energetics in the National Ignition Facility Project," to be published in Fusion Technology.

M. D. Wittman, R. Q. Gram, H. Kim, C. K. Immesoete, S. G. Noyes, and S. Scarantino, "Increased Retention Time for

Hydrogen and Other Gases by Polymer Shells Using Optically Transparent Aluminum Layers," to be published in the Journal of Vacuum Science and Technology.

W. Xiong, Y. Kostoulas, X. Weng, P. M. Fauchet, and R. Sobolewski, "Femtosecond Study of the Electronic Structure in Semiconducting Y-Ba-Cu-O," to be published in Physical Review B.

B. Yaakobi, F. J. Marshall and J. A. Delettrez, "Abel Inversion of Cryogenic Laser Target Images," to be published in Optics Communications.

B. Yaakobi, F. J. Marshall, and R. Epstein, "High Temperature of Laser-Compressed Shells Measured with Kr^{+34} and Kr^{+25} X-Ray Lines," to be published in Physical Review E.

J. D. Zuegel and W. Seka, "Direct Measurements of Lower-Level Lifetime in Nd:YLF," to be published in the Bulletin of the American Physical Society.

J. D. Zuegel and W. Seka, "Upconversion and Reduced $^4F_{3/2}$ Upper-State Lifetime in Intensely Pumped Nd:YLF," to be published in Optics Letters.

Conference Presentations

The following presentations were made at the Materials Research Society 1996 Spring Meeting, San Francisco, CA, 8–12 April 1996:

B. M. Conger, H. Shi, S.-H. Chen, and T. Tsutsui, "Polarized Fluorescence from Vitrified Liquid Crystalline Films."

S.-H. Chen, H. Shi, B. M. Conger, D. Katsis, and J. C. Mastrangelo, "Novel Vitrified Liquid Crystals and Potential Applications."

J. C. Mastrangelo, S.-H.Chen, T. N. Blanton, and A. Bashir-Hashemi, "Vitrification and Morphological Stability of Liquid Crystals."

H. Shi, D. Katsis, and S.-H. Chen, "Dynamics of Defect Annihilation in Vitrified Liquid Crystalline (VLC) Thin Films."

H. Shi and S.-H. Chen, "Theory of Circularly Polarized Emission from Chiral Nematic Liquid Crystalline Films."

The following presentations were made at the OSA Topical Meeting on Optical Fabrication and Testing, Boston, MA, 29 April–3 May 1996:

B. E. Gillman, S. D. Jacobs, and S. E. Snyder, "New Developments in Bound Abrasive Polishing of Optical Glass on Opticam(R) Machining Centers."

S. D. Jacobs, E. Fess, B. E. Gillman, H. Edwards, D. Golini, W. I. Kordonski, V. W. Kordonski, I. Prokhorov, and F. Yang, "Magnetorheological Fluid Composition and Enhanced Material Removal Rates with Nanodiamonds."

W. I. Kordonski, S. D. Jacobs, D. Golini, E. Fess, D. Strafford, J. Ruckman, and M. Bechtold, "Vertical Wheel Magnetorheological Finishing Machine for Flat, Convex, and Concave Surfaces."

J. Lambropoulous, F. Yang, and S. D. Jacobs, "Toward a Mechanical Mechanism for Material Removal in Magnetorheological Finishing."

D. Golini, Y. Zhou, S. D. Jacobs, F. Yang, D. Quesnel, C. Gracewski, M. Atwood, and E. Fess, "Aspheric Surface Generation Requirements in Magnetorheological Finishing."

The following presentations were made at the 11th Topical Conference on High-Temperature Plasma Diagnostics, Monterey, CA, 12–16 May 1996:

B. DeMarco, C. W. Barnes, K. Kearney, and R. L. Kremens, "Neutron Yield Measurement on the OMEGA Laser System."

R. L. Kremens, J. T. Canosa, D. L. Brown, T. H. Hinterman, M. Litchfield, D. Lonobile, R. G. Roides, M. Thomas, and R. Weaver, "The OMEGA Laser Electronic Timing System."

F. J. Marshall and J. A. Oertel, "A Framed Monochromatic X-Ray Microscope for ICF."

The following presentations were made at the 1996 Annual Meeting of the Division of Atomic, Molecular, and Optical Physics, Ann Arbor, MI, 15–18 May 1996:

M. S. Adams and D. D. Meyerhofer, "Spatial Coherence of Third Harmonic Produced by High-Intensity Interaction in a Noble Gas."

B. Buerke, J. P. Knauer, S. J. McNaught, C. I. Moore, and D. D. Meyerhofer, "Precise Test of Tunneling Theories by the Laser Ionization of Hydrogenic Helium."

S. J. McNaught, J. P. Knauer, and D. D. Meyerhofer, "Measurements of the ac Tunneling Ionization Phase with a Linearly Polarized, High-Intensity Laser."

D. D. Meyerhofer, J. P. Knauer, S. J. McNaught, and C. I. Moore, "Observation of Relativistic Mass Shift Effects during High-Intensity Laser-Electron Interactions."

The following presentations were made at OSA's Tenth International Topical Meeting on Ultrafast Phenomena, San Diego, CA, 28 May–1 June 1996:

P. M. Fauchet, Ju. V. Vandyshev, Z. Xu, C. W. Rella, H. A. Schwettman, and G. W. Wicks, "Mid-Infrared Femtosecond Spectroscopy of Intersubband Hot-Hole Relaxation in Quantum Wells."

O. A. Konoplev and D. D. Meyerhofer, "Cancellation of *B*-Integral Accumulation in CPA Lasers."

Z. Xu, Ju. V. Vandyshev, P. M. Fauchet, C. W. Rella, H. A. Schwettman, and C. C. Tsai, "Ultrafast Excitation and Deexcitation of Local Vibrational Modes in a Solid Matrix: The Si-H Bond in Amorphous Silicon."

The following presentations were made at CLEO/QELS '96, Anaheim, CA, 2–7 June 1996:

A. Babushkin, W. Bittle, S. A. Letzring, A. Okishev, W. Skeldon, and W. Seka, "Stable, Reproducible, and Externally Synchronizable Regenerative Amplifier for Shaped Optical Pulses for the OMEGA Laser System."

T. R. Boehly, R. S. Craxton, P. A. Jaanimagi, R. L. Keck, J. H. Kelly, T. J. Kessler, R. L. Kremens, S. A. Kumpan, S. A. Letzring, R. L. McCrory, S. F. B. Morse, W. Seka, S. Skupsky, J. M. Soures, M. D. Tracy, and C. P. Verdon, "Irradiation Uniformity Studies and Fusion Experiments on the OMEGA Laser Facility."

M. J. Guardalben, "Off-Line Tuning of KDP Frequency Conversion Crystals for the Laboratory for Laser Energetics' 60-Beam OMEGA Laser."

J. H. Kelly, R. L. Keck, T. J. Kessler, S. A. Letzring, S. Skupsky, D. L. Brown, T. A. Safford, W. Seka, A. Babushkin, T. R. Boehly, P. A. Jaanimagi, A. Okishev, and S. F. B. Morse, "Performance of the OMEGA Nd:Glass Laser System" (invited).

O. A. Konoplev and D. D. Meyerhofer, "Cancellation of *B*-Integral Accumulation in CPA Lasers."

A. Okishev, M. D. Skeldon, S. A. Letzring, R. Boni, and W. Seka, "Comparative Investigation of Fast Photodetector Responses to Complex Shaped Optical Pulses."

The following presentations were made at the 24th European Conference on Laser Interaction with Matter (24th ECLIM), Madrid, Spain, 3–7 June 1996:

R. Betti, V. N. Goncharov, R. L. McCrory, and C. P. Verdon, "Linear Theory of the Ablative-Rayleigh Taylor Instability."

R. L. McCrory, "The LLE Direct-Drive Target Physics Experimental Program: First Year of ICF Experiments on OMEGA" (invited).

S. D. Jacobs, B. E. Gillman, J. C. Lambropoulos, T. Fang, Y. Zhou, D. Golini, and M. Atwood, "The Effect of the Coolant on the Glass Work and the Diamond Tool in Deterministic Microgrinding," ASPE Spring Topical Meeting on Precision Grinding of Brittle Materials, Annapolis, MD, 3–6 June 1996.

J. Z. Roach and S. W. Swales, "A Network-Based Imaging System for the OMEGA Laser System," European Symposium on Lasers, Optics, and Vision for Productivity in Manufacturing I, Micropolis, Besangon, France, 10–14 June 1996.

The following presentations were made at the 12th Topical Meeting on the Technology of Fusion Energy, Reno, NV, 16–20 June 1996:

J. P. Knauer, S. J. Loucks, R. L. McCrory, J. M. Soures, C. P. Verdon, A. Babushkin, R. E. Bahr, T. R. Boehly, R. Boni, D. K. Bradley, D. L. Brown, J. A. Delettrez, R. S. Craxton, W. R. Donaldson, R. Epstein, R. Q. Gram, D. R. Harding, P. A. Jaanimagi, S. D. Jacobs, K. Kearney, R. L. Keck, J. H. Kelly, T. J. Kessler, R. L. Kremens, S. A. Letzring, D. J. Lonobile, L. D. Lund, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, S. F. B. Morse, A. Okishev, S. Papernov, G. Pien, W.Seka, R. W. Short, M. J. Shoup III, M. D. Skeldon, S. Skupsky, A. W. Schmid, D.J. Smith, S. Swales, M. D. Wittman, and B. Yaakobi, "Recent Experimental Results from the OMEGA Laser-Fusion Facility."

J. M. Soures, S. J. Loucks, R. L. McCrory, C. P. Verdon, A. Babushkin, R. E. Bahr, T. R. Boehly, R. Boni, D. K. Bradley, D. L. Brown, J. A. Delettrez, R. S. Craxton, W. R. Donaldson, R. Epstein, R. Gram, D. R. Harding, P. A. Jaanimagi, S. D. Jacobs, K. Kearney, R. L. Keck, J. H. Kelly, T. J. Kessler, R. L. Kremens, J. P. Knauer, S. A. Letzring, D. J. Lonobile, L. D. Lund, F. J. Marshall, P. W. McKenty, D. D. Meyerhofer, S. F. B. Morse, A. Okishev, S. Papernov, G. Pien, W. Seka, R. W. Short, M. J. Shoup, III, M. D. Skeldon, S. Skupsky, A. W. Schmid, D. J. Smith, S. Swales, M. D. Wittman, and B. Yaakobi, "The Role of the Laboratory for Laser Energetics in the National Ignition Facility Project."

S. G. Lukishova, S. V. Belyaev, K. S. Lebedev, E. A. Magulariya, A. W. Schmid, and N. V. Malimonenko, "Nonlinear Bleaching in the Selective Reflection of Nonabsorbing Chiral-Nematic Liquid-Crystal Thin Films," 16th International Liquid Crystal Conference, Kent, OH, 24–28 June 1996.