

# PUBLICATIONS AND CONFERENCE PRESENTATIONS

## Publications

1. "High-Density Effects on Thermonuclear Ignition for Inertially Confined Fusion," S. Skupsky; *Phys. Rev. Lett.*, **44**, 26 (June 1980), pp. 1760-63.
2. "Soft X-Ray Population Inversion in Laser Plasmas by Resonant Photoexcitation and Photon-Assisted Processes," V. A. Bhagavatula; *IEEE Journal of Quantum Electronics* **QE-16**, 6 (June 1980), pp. 603-18.
3. "X-Ray Absorption Lines: Signature for Preheat Level in Non-Explosive Laser Implosions," B. Yaakobi, R. L. McCrory, S. Skupsky, J. A. Delettrez, P. Bourke, H. Deckman, C. F. Hooper, and J. M. Soures; *Optics Communications*, **34**, 2 (August 1980), pp. 213-17.
4. "Electro-Optic Prepulse Suppression for Fusion Laser Systems," G. Mourou, J. Bunkenburg and W. Seka; *Optics Communications*, **34**, 2 (August 1980), pp. 252-54.

## Forthcoming Publications

"Laser Fusion Breeder Fueled Electricity Generation Systems,"  
David H. Berwald, James Maniscalco; submitted for publication in *Nuclear Technology*.

- "An Economics Method for Symbiotic Fusion-Fission Electricity," David H. Berwald, James A. Maniscalco; submitted for publication in *Nuclear Technology*.
- "Design and Performance Characteristics of High Power Phosphate Glass Laser System," W. Seka, J. Soures, O. Lewis, J. Bunkenburg, D. Brown, S. Jacobs, G. Mourou, J. Zimmerman; accepted for publication by *Applied Optics*.
- "Spectral Methods for Multi-Dimensional Diffusion Problems," R. L. McCrory, S. A. Orszag; accepted for publication by *Journal of Computational Physics*.
- "A Simple Silicon Switch-Driven Psec Streak Camera," W. Knox, W. Friedman, G. Mourou; accepted for publication by *Applied Physics Letters*.
- "Two-Dimensional Calculations of Non-Spherical Laser Fusion Implosions," R. S. Craxton and R. L. McCrory; submitted for publication in *Nuclear Fusion*.
- "Laser Cross Linking of RNA Polymerase and DNA," Catherine A. Harrison, Douglas H. Turner, Jack Wilson, Mark A. DeWynngaert, and David C. Hinkle; submitted for publication in *Journal of American Chemical Society*.
- "X-Ray Absorption Fine Structure Measurement Using Laser Compressed Target as a Source," B. Yaakobi, H. Deckman, P. Bourke, S. Letzring, J. M. Soures; accepted for publication by *Applied Physics Letters*.
- "Time Resolved Spectroscopy of Large Bore Xe Flashlamps for Use in Large Aperture Amplifiers," John H. Kelly, David C. Brown, and Kenneth Teegarden; accepted for publication by *Applied Optics*.
- "Theory of High Efficiency Third Harmonic Generation of High Power Nd: Glass Laser Radiation," R. S. Craxton; accepted for publication by *Optics Communications*.
- "Demonstration of High Efficiency Third Harmonic Conversion of High Power Nd:Glass Laser Radiation," W. Seka, S. D. Jacobs, J. E. Rizzo, R. Boni, R. S. Craxton; accepted for publication by *Optics Communications*.
- "Picosecond Switching of a Multi-Kilovolt DC Bias with Laser Activated Silicon at Low Temperature," Michael Stavola, Mark G. Sceats, Gerard Mourou; accepted for publication by *Optics Communications*.
- "Picosecond Time Delay Fluorimetry Using a Streak Camera," Michael Stavola, Gerard Mourou, Wayne Knox; accepted for publication by *Optics Communications*.

## Conference Presentations

1. "Synchronization of a Mode-Locked Nd:YAG-Argon Ion Laser System," G. T. Harvey, C. W. Gabel, and G. Mourou; Optical Society of America Topical Meeting on Picosecond

Phenomena, North Falmouth, Massachusetts, June 17-20, 1980.

2. "Alignment System Devices for Medium Repetition Rate Glass Fusion Laser," J. F. Hoose; Society of Photo-Optical Instrumentation Engineers Technical Symposium, San Diego, California, July 28 – August 1.