

Publication List October–March 2004

A

Albritton, J.R., *NLTE/LTE Equation of State Models*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202317.

Amendt, P., *Prospects for hohlraum-driven double-shell ignition on the National Ignition Facility*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202726.

Amendt, P., Izumi, N., Jones, O.S., Dewald, E. L., Glenzer, S. H., Koch, J. A., Landen, O. L., Li, C.K., Petrasso, R. D., *Drive measurements in scale-3/4 hohlraums on Omega using the proton temporal diagnostic (PTD): Design and analysis*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202781.

Anthamatten, M., Letts, S. A. Cook, R. C., *The Physics and Phenomenology of Solvent-Vapor Smoothing*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-154960, Submitted to *The American Physics Society Meeting*, Montreal, Canada, Mar 22–26 2004.

Anthamatten, M., Letts, S. A., Cook, R. C., *Controlling Surface Roughness in Vapor Deposited Poly(amic acid) Films by Solvent-Vapor Exposure*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155696. Submitted to the *Langmuir Journal*.

Anthamatten, M., Letts, S. A., Day, K., Cook, R. C., Gies, A. P., Nonidez, W. H., *An Investigation of the Solid-State Condensation Polymerization Reaction in Vapor-Deposited Poly(amic acid)*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-154959. Submitted to *The American Physics Society Meeting*, Montreal, Canada, Mar 22–26, 2004

B

Back, C.A., Hammer, J.H., Bauer, J.D., Castor, J.I., MacLaren, S.A., Landen, O.L., Hurricane, O.A., Rosen, M.D., *Radiative Hydrodynamics Studied in Laser-Produced Plasmas*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202835.

Back, C. A., Hammer, J. H., Bauer, J. D., Landen, O. L., Rosen, M. D., Castor, J. I., Callahan, D. A., *Supersonic Radiation Transport Experiments with an Embedded Disk*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155807. Submitted to *Physical Review Letters*.

Bell, P.M., Griffith, R.L., Hagans, K.G., Allen, C., Davies, T., Janson, F., Justin, R., Marshall, B., Sweningsen, O., *Compact Optica Technique for Streak Camera Calibration*, UCRL-CONF-202457. Submitted to the *15th Topical Conference on High Temperature Plasma Diagnostics*, San Diego, CA, Apr 19–22, 2004.

Berger, R.L., Valeo, E.J., *The frequency and damping of ion acoustic waves in semi-collisional, two-species plasma*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202975. Prepared for the *34th Annual Anomalous Absorption Conference*, Glenden Beach, OR, May 2-7, 2004.

Berger, R.L., Valeo, E.J., Fisch, N.J., *Creating uniform plasmas with short-pulse lasers by field and collisional ionization*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203275.

Bernat, T.P, CRYO-COOLER, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-203103.

Blue, B. E., Hansen, J. F., Tobin, M. T., Eder, D. C., Robey, H. F., *Debris Mitigation in Pinhole-Apertured Point-Projection Backlit Imaging*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155889. Prepared for the *Review of Scientific Instruments*, March 1, 2004.

Braun, D., *Halfraum Simulations for Los Alamos National Laboratory Workshop*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-203221.

C

Cohen, B.I., Divol, L. Langdon, A.B., Lasinski, B.F., Williams, E.A., *Two-dimensional Kinetic-Ion Simulation of Stimulated Brillouin Backscattering*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202986.

Constantin, C., Back, C. A. Miller, M. C., Suter, L., Fournier, K. B., Landen, O. L., *Optimization of X-ray Source production in Laser-Irradiated Underdense Plasmas*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-155888. Submitted to *The 14th American Physical Society Topical Conference on Atomic Processes in Plasmas*, Santa Fe, NM, Apr 19–22 2004.

Cook, R.C., *Origin of Dome Defects on GDP Shells*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202453.

Cook, R.C., *Single Bump on a Shell Fabrication*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-TR-202464.

D

Dewald, E.L., Glenzer, S.H., Jones, O.L., Campbell, K.M., Suter, L.J., Constantin, C., Kauffman, R.L., Landen, O.L., Turner, R.E., Olson, R., Leeper, R., Jadaud, J.P., Villette, B.M., Babonneau, D., *Progress On Energetics Studies In Au And Cocktail Hohlräume For Indirect Drive ICF*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202470.

Dewald, E.L., Pollaine, S.M., Landen, O.L., Turner, R.E., Wallace, R.J., Amendt, P.A., Campbell, K.M., Glenzer, S. H., *Effects of gas-filled hohlraum hydrodynamics on capsule symmetry in indirect drive implosion experiments*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202471.

Dewald, E.L., Glenzer, S.H., Jones, O.L., Campbell, K.M., Suter, L.J., Constantin, C., Kauffman, R.L., Landen, O.L., Turner, R.E., Olson, R., Leeper, R., Jadaud, J.P., Villette, B.M., Babonneau, D., *Progress On Energetics Studies In Au And Cocktail Hohlräume For Indirect Drive ICF*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202470.

F

Fisher, R.K., Stephens, R.B., Disdier, L., Bourgade, J.L., Rouyer, A., Jaanimagi, P.A., Sangster, T.C., Lerche, R.A., Izumi, N., LLNL *High-resolution neutron imaging of laser fusion targets using bubble detectors*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-203040. Submitted to *Physics of Plasmas*.

Froula, D.H., Divol, L., Offenberger, A., Meezan, N., Ao, T., Gregori, G., Niemann, C., Price, D., Smith, C.A., Glenzer, S.H., *Direct observation of the saturation of stimulated Brillouin scattering by ion-trapping induced frequency shifts*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-202827. Submitted to *Physical Review Letters*.

Froula, D.H., Divol, L., Offenberger, A., Meezan, N., Ao, T., Gregori, G., Niemann, C., Price, D., Smith, C.A., Glenzer, S.H., *Observation of the saturation of stimulated Brillouin scattering by ion-trapping induced frequency shifts*, UCRL-ABS-202825. Submitted to the *34th Anomalous Absorption Conference*, Glenedan Beach, OR, May 2–7, 2004.

G

Glenzer, S. H., *Compton Scattering in Warm Dense Matter*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-155695. Submitted to the *Deutschen Physicalischen Gesellschaft*, Kiel, Germany, Mar 8–11, 2004.

Glenzer, S. H., Arnold, P., Bardsley, G., Berger, R. L., Bonanno, G., Borger, T., Bower, D. E., Bowers, M., Bryant, R., Buckman, S., Burkhart, S. C., Campbell, K., Chrisp, M. P., Cohen, B. I., Constantin, G., Cooper, F., Cox, J., Dewald, E., Divol, L., Dixit, S., Duncan, J., Eder, D., Edwards, J., Erbert, G., Felker, B., Fornes, J., Frieders, G., Froula, D. H., Gardner, S. D., Gates, C., Gonzalez, M., Grace, S., Gregori, G., Greenwood, A., Griffith, R., Hall, T., Hammel, B. A., Haynam, C., Heestand, G., Henesian, M., Hermes, G., Hinkel, D., *Progress in Long Scale Length Laser-Plasma Interactions*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-155301. Submitted to the *3rd International Conference on Inertial Fusion Sciences and Applications*, Monterey, CA, Sep 7-12, 2003.

Glenzer, S.H., Berger, R.L., Bonanno, G., Bower, D.E., Bowers, M., Burkhart, S.C., Campbell, K., Chrisp, M.P., cohen, B.I., Constantin, C., Dewald, e., divol, L., Dixxit, S., Eder, D., Edwards, J., Froula, D.H, Gardner, S.D., Gates, C., Grace, S., Gregori, G., Griffith, R., Hammel, B.A., Haynam, C., Heestand, G., Henesian, M., Hermes, G., Hinkel, D., Holder, J., Holtmeier, G., Hsing, W., Johnson, S., Jones, O.S., Kalantar, D., Kamperschroer, J.H., Kauffman, R., Kelleher, T., Kirkwood, R.K., Kruer, W.L., Landen, O.L., Langdon, A.B., Langer, S., Latray, D., Lee, A., Lee, F.D., MacGowan, B., McCarville, T., Mackinnon, A.J., Manes, K., Marshall, C., Menapace, J., Meezan, N., Miller, G., Montelongo, S., Moody, J.D., Moses, E., Munro, D., Murray, J., Niemann, C., Nikitin, A., Rekow, V., Roberts, V., Robey, H., Saunders, R., Schneider, M.B, Shiromizu, S., Spaeth, M., Still, B., Suter, L.J., Tietbohl, G., Tobin, M., VanWonterghem, B.M., Voloshin, D., Wallace, R., Wegner, P., Whitman, P., Williams, E.A., Young, B., Young, P.E., Fernandez, J., Montgomery, D., Rose, H., *Laser-Plasma Interaction experiments on the National Ignition Facility*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203031. Submitted to the *34th Anomalous Absorption Conference*, Gleneden Beach, OR, May 2-7, 2004.

Glenzer, S.H., Gregori, G, *Proposal for measuring the Plasmon density of states in warm dense matter*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PROP-203000.

Glenzer, S. H., *LDRD-ER Final Report*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-TR-202456.

Gregori, G., Borders, T.M., Campbell, K., Pak, A., Eggert, J., Dewald, E., Glenzer, S.H., Landen, O.L., *Measurements of the electron delocalization in carbon with x ray scattering*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202455.

Gregori, G., Glenzer, S.H., Dewald, E., Landen, O., *Results from OMEGA driven foam experiment*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202684.

H

Haan, S.W., *Progress towards indirect drive ignition on the National Ignition Facility*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202520.

Hammel, B. A., Lindl, J. D., *Recent Advances in Indirect Drive ICF Target Physics*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202239.

Hansen, J. F., Edwards, M. J., Froula, D., Gregori, G., Edens, A., Ditmire, T., *Laboratory Observation of Secondary Shock Formation Ahead of a Strongly Radiative Blast Wave*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155811. Submitted to *Physical Review Letters*.

Hansen, J. F., Tripathi, S. K. P., Bellan, P. M., *Co- and Counter-Helicity Interaction Between Two Adjacent Laboratory Prominences*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155693. Submitted to *Physics of Plasmas*.

J

Jones, O.S., Bradley, D.K., Pollaine, S.M., Marinak, M.M., Amendt, P.A., Terry, M.R., Landen, O.L., *Analysis of NIF-scale hohlraum drive symmetry experiments on Omega using point-projection radiography of thin shells*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202780. Submitted to the *34th Anomalous Absorption Conference*, Glendon Beach, OR, May 2-7, 2004.

K

Kalantar, D.H., Belak, J., Budil, K., Colvin, J., Kumar, M., Meyers, M.A., Rosolankova, K., Rudd, R., Schneider, M., Stolken, J., Wark, J.S., *High-pressure, High-strain-rate Materials Effects*, UCRL-TR-203156.

Kauffman, R. L., *First Experiments on NIF*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-203070.

Key, M. H., Amiranoff, F., Andersen, C., Batani, D., Baton, S. D., Cowan, T., Fisch, N., Freeman, R., Gremillet, L., Hall, T., Hatchett, S., Hill, J., King, J., Kodama, R., Koch, J., Koenig, M., Lasinski, B., Langdon, B., MacKinnon, A., Martinolli, E., Norreys, P., Parks, P., Perrelli-Cippo, E., Rabec Le Gloahec, M., Rosenbluth, M., Rousseaux, C., Santon, J. J., Scianitti, F., Snavely, R., Tabak, M., Tanaka, K., Town, R., Tsutsumi, T., Stephens, R., *Studies of Electron Transport and Isochoric Heating and Their Applicability to Fast Ignition*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-152425, Submitted to the *3rd International Conference on Inertial Fusion Sciences and Applications*, Monterey, CA, Sep 7-12, 2003.

Kirkwood, R.K., Williams, E.A., Cohen, B.I., Divol, L., Dorr, M.R., Hittinger, J.A., Langdon, A.V., Niemann, C., Moody, J., Suter, L.J., Landen, O.L., *Demonstration of a Polarization Dependent Amplification Produced by Crossing Beams in a Flowing Plasma*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202993. Prepared for the *34th Annual Anomalous Absorption Conference*, Glendon Beach, OR, May 2-7, 2004.

Kozioziemski, B. J., *Limits to Enhanced IR Layering Set by Long Scale Ablator Roughness*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-TR-155814.

Letts, S., Anthamatten, M., Buckley, S. R., Fearon, E., Nissen, A. E., Cook, R. C., *Progress Toward Meeting NIF Specifications for Vapor Deposited Polyimide Ablator Coatings*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JC-152586-REV-1. Submitted to *Fusion Science and Technology*.

Kruer, W.L., Suter L.J., Moody, J.D., Glenzer, S., Stevenson, R.M., Oades, K., *Laser plasma coupling with moderate Z, long scalelength underdense plasmas*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS 202978. Submitted to the *34th Annual Anomalous Absorption Conference*, Gleneden Beach, OR, May 2-7, 2004.

L

Letts, S., Anthamatten, M., Buckley, S. R., Fearon, E., Nissen, A. E., Cook, R. C., *Progress Toward Meeting NIF Specifications for Vapor Deposited Polyimide Ablator Coatings*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JC-152586-REV-1. Submitted to *Fusion Science and Technology*.

M

Mackinnon, A.J., *Generation and application of laser driven proton beams*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-203304.

Meyerhofer, D.D., Delettrez, J.A., Epstein, R., Yu Glebov, V., Goncharov, V.N., Keck, R.L., McCrory, R.L., McKenty, P.W., Marshall, F.J., Radha, P.B., Regan, S.P., Roberts, S., Seka, W., Skupsky, S., Smalyuk, V.A., Sorce, C., Stoeckl, C., Soures, J.M., Town, R.P.J., Yaakobi, B., Frenje, J.A., Li, C.K., Petrasso, R.D., Seguin, F.H., Fletcher, K., Freeman, C., Izumi, N., Lerche, R.A., Phillips, T.W., Sangster, C., *Inferences of mix in direct-drive spherical implosions with high uniformity*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-203047. Submitted to *Plasma Physics and Controlled Fusion*.

Meezan, N. B., *Hydrodynamics simulations of laser-plasma interaction experiments for the National Ignition Program*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202164.

Meezan, N. B., Divol, L., Froula, D., Moody, J. D., Niemann, C., Suter, I.J., Stevenson, R.M., Slark, G. E., Oades, K., *Detailed hydrodynamics simulations of 2 (omega) laser-plasma interaction experiments*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203275.

Mizuta, A., Kane, J. O., Pound, M. W., Remington, B. A., Ryutov, D. D., Takabe, H., *Hydrodynamic Instability of Ionization Fronts in HII Regions*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-150195. Submitted to *Astrophysical Journal Letters*.

Moody, J.E., Divol, L., Glenzer, S.H., MacKinnon, A.J., Froula, D.H., Gregori, G., Kruer, W.L., Suter, L.J., Williams, E.A., Bahr, R., Seka, W., *Demonstration of backscattered SRS control from a 527 nm laser in a long scalelength high density laser plasma*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203034. Prepared for the *34th Annual Anomalous Absorption Conference*, Gleneden Beach, OR, May 2-7, 2004.

Moody, J. D., Williams, E. A., Lours, L., Sanchez, J. J., Berger, R. L., Collins, G. A., Decker, C. D., Divol, L., Glenzer, S. H., Hammel, B. A., Jones, R., Kirkwood, R. K., Kruer, W. L., MacGowan, B. J., Pipes, J., Suter, L. J., Thoe, R., Unites, W., Young, P. E., *First Measurement of Backscatter Dependence on Ion Acoustic Damping in a High Density Helium/Hydrogen Laser-Plasma*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JC-150413. Submitted to *Physics of Plasmas*.

N

Nieman, C., Glenzer, S.H., Divol, L., Knight, J., Constantin, C., Froula, D.H., Gregori, G., Johnson, R.P., Montgomery, D.S., Williams, E.A., *Observation of the two-ion decay instability with Thomson scattering*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203039.

Niemann, C., Divol, L., Froula, D.H., Glenzer, S.H., Gregori, G., Kirkwood, R.K, Mackinnon, A.J., Meezan, N.B., Moody, J.D., Sorce, C., Suter, L.J., Bahr, R., Seka, W., *Reduction of laser beam spray at 2ω in an ignition scale length plasma with temporal beam smoothing*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-202679. Submitted to *Physical Review Letters*.

R

Reighard, A. B., Drake, R. P., Dannenberg, K., Perry, T. S., Robey, H. A., Remington, B. A., Wallace, R. J., Ryutov, D. D., Greenough, J., Knauer, J., Boehly, T., Bouquet, S., Calder, A., Rosner, R., Fryxell, B., Arnett, D., Koenig, M., Stone, J., *Collapsing Radiative Shocks in Argon Gas on the Omega Laser*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-155677. Submitted to the *3rd International Conference on Inertial Fusion Sciences and Applications*, Monterey, CA, Sep 7–12, 2003.

Remington, B. A., *Material effects under extreme conditions of pressure and strain rate*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-203173, Prepared for the *Dislocations: Models, Simulations and Experiments symposium*, Kauai (Hawaii), Jan 4–8, 2005.

Remington, B. A., *Material Dynamics Under Extreme HED Conditionse*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-154970. Prepared for the *Multiscale Modeling of Strength and Fracture Workshop*, Berkeley, CA, Jan 7–9, 2004.

Remington, B.A., Allen, P.G., Pollaine, S.M., Rehr, J.J., Albers, R.C., Yaakobi, B., Meyerhofer, D. D., Boehly, T.R., *EXAFS Measurements of Laser-Shocked V and Ti and Crystal Phase Transformation in Ti*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-203138. Submitted to *Physical Review Letters*.

Robey, H., *The Effects of Viscosity and Mass Diffusion in Hydrodynamically Unstable Plasma Flows*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155687. Submitted to *Physics of Plasmas*.

Robey, H. F., Miles, A. R., Blue, B. E., Hansen, J. F., Louis, H., Bono, M., Drake, R. P., Leinbrandt, D. R., Harding, E. C., Kuranz, C. C., Knauer, J., Arnett, D., Meakin, C. A., *Progress toward the study of laboratory scale, astrophysically relevant, turbulent plasmas*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202829.

Rosolankova, K., Kalantar, D. H., Belak, J. F., Bringa, E M., Caturla, M. J., Hawreliak, J., Holian, B. L., Kadau, K., Lomdahl, P. S., Germann, T. C., Ravelo, R., Sheppard, J., Wark, J. S., *X-Ray Diffraction From Shocked Crystals: Experiments and Predications of Molecular Dynamics Simulations*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-155593. Submitted to the *13th American Physical Society Topical Conference on Shock Compression of Condensed Matter* Portland, OR, Sep 21–25, 2003.

Ryutov, D. D., Kane, J. O, Mizuta, A., Pound, M. W., Remington, B. A., *Two models of magnetic support for photoevaporated molecular clouds*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202779. Submitted to *Plasma Phys. Contr. Fus.*

S

Salmonson, J.D., *An Integrated Universal Collapsar Gamma-ray Burst Model*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-201944, Submitted to the *Gamma-ray Burst Symposium*, Santa Fe, NM, Jan 22, 2004.

Sanchez, J. J., *Conceptual Design of Low Pressure, 300 degree K Fill System for Ignition Target Capsules with Micron Size Fill Tubes*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-TR-155608.

Schmid, G. J., Izumi, N., Koch, J. A., Moran, M. J., Phillips, T. W., *Neutron Spectrometers Based on Single Crystal CVD Diamond*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-154198, Submitted to the *2003 American Physical Society Division of Plasma Physics Annual Meeting*, Albuquerque, NM , Oct 26–31, 2003.

Singh, M.S., Mecozzi, J.M., Tobin, M.T., *Neutron Skyshine Considerations For the NIF Shielding Design*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-202214. Submitted to the *49th Annual Meeting of the Health Physics Society*, Washington DC, DC, Jul 11–15, 2004.

Snavely, R. A., Akli, K., Chen, Z., Freeman, R. R., Gu. R., Hatchett, S. P., Hey, D., Hill, J. Key, M. H., Izawa, Y., King, J., Kitagawa, Y., Kodama, R., Langdon, A. B., Lasinski, B. F., Lei, A., MacKinnon, A., Patel, P., Stephens, R., Tampo, Y., Town, R., Toyama, Y., Tsutsumi, T., Wilks, S. C., Yabuuchi, T., Zhang, B. B., Zheng, J., *Proton Beam Focusing and Heating in Petawatt Laser-Solid Interactions*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-152428-ABS. Prepared for the *International Workshop on Fast Ignition and High Field Physics*, Kyoto, Japan, Apr 25–29, 2004.

Suratwala, T. I., Miller, P. E., Ehrmann, P.R., Steele, R. A., *Polishing slurry induced surface haze on phosphate laser glasses*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-203141. Submitted to the *Journal of Non-Crystalline Solids*.

Suter, L., *Progress on the National Ignition Facility (NIF) and ICF target physics*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-PRES-202612.

Suter, L.J., Glenzer, S., Haan, S., Hammel, B., Moody, J., *Recent findings in NIF ignition target physics and potential implications for IFE*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202343.

Suter, L., Langdon, B.A., Williams, E.A., Glenzer, S., Moody, J., *Controlling filamentation in 300eV 2 ω (green) ignition target designs*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202976.

T

Tajima, T., Mourou, G., *Forum on Superstrong Fields and High Energy Physics*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-202913. Prepared for the *Second International Conference on Superstrong Fields in Plasmas*, Varenna,, Italy, Aug 27–Sep 1, 2001.

Tajima, T., Mourou, G., *Superstrong Field Science*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-202924. Prepared for the *Second International Conference on Superstrong Fields in Plasmas*, Varenna,, Italy, Aug 27–Sep 1, 2001.

Tajima, T., *Summary of Working Group 7 on "Exotic Acceleration Schemes,"* Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-202916. Prepared for the *Advanced Accelerator Concepts: Ninth Workshop*, Santa Fe, NM, June 10–16, 2000.

Tajima, T., *Tribute to John M. Dawson: "Pre-historic Days" of the Dawson-Tajima 1979 Paper*, UCRL-CONF-202918. Prepared for the *Advanced Accelerator Concepts: Ninth Workshop*, Santa Fe, NM, Jun 10–16, 2000.

Takagi, M., Cook, R. C., McQuillan, B., Gibson, J., Paguio, S., *Investigation of the Feasibility of Larger Poly((alpha)-Methylstyrene) Mandrels for High Gain Designs*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155649. Submitted to *Fusion Science and Technology*.

Takagi, M., Cook, R., McQuillan, B., Gibson, J., Paguio, S., *Investigation of Larger Poly((alpha)-Methylstyrene) Mandrels for High Gain Designs Using Microencapsulation*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-JRNL-155649-REV-1. Submitted to *Fusion Science and Technology*.

Turner, R. E., *FY'03 OMEGA Summary for LLE Annual Report*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-TR-155665.

W

Williams, E.A., Hinkel, D.E., *Laser Plasma Interactions in NIF ICF target designs*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202948. Submitted to the *34th Annual Anomalous Absorption Conference*, Gleneden Beach, OR, May 2-7, 2004.

Wuest, C. R., *The National Ignition Facility: Enabling High Energy Density and Inertial Fusion Science for the 21st Century*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-ABS-202908,, Prepared for the *Stewardship Science Academic Allliance Symposium*, Albuquerque, NM, Mar 29–30, 2004.

Y

Young, P. E., Hansen, C. T., Wilks, S. C., *Second-Harmonic Generation and Non-resonant Absorption in Sub-picosecond Laser-solid Interactions*, Lawrence Livermore National Laboratory, Livermore, CA, UCRL-CONF-203102, Prepared for the *Third Workshop on High Field Science*, Livermore, CA, Mar 23, 2004.