

# Appendices

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## Appendix A: Acronyms

<b>A</b>		<b>D</b>	
ACT	Air Cerenkov Telescope	DAR	Decay at Rest
ADDS	Asymmetric Direct Drive Spheres	DARHT	Dual-Axis Radiographic Hydrodynamic Test (facility)
ADC	Analog-to-Digital Converter	DCA	Distance of Closest Approach
AFRL	Air Force Research Laboratory	DEMG	Disk Explosive Magnetic Generator
AGASA	Akeno Giant Air Shower Array	DIM	Diagnostic Insertion Manipulator
AGEX	Aboveground Experiment	DoD	Department of Defense
AGN	Active Galactic Nuclei	DOE	Department of Energy
AGS	Alternating Gradient Synchrotron	DT	Deuterium-Tritium
APD	Atmospheric Pressure Decontamination	DT	Diffusion Tensor
APPJ	Atmospheric-Pressure Plasma Jet	DU	Depleted Uranium
ASIP	Applied-Science Internship Program	DynEx	Dynamic Experiment
ASRT	Advanced, Single-Rotor Turbine		
AWE	Atomic Weapons Establishment (United Kingdom)		
<b>B</b>		<b>E</b>	
BATSE	Burst and Transient Source Experiment	EAS	Extensive Air Shower
BCM	Binary Collision Model	ECG	Electrocardiography
BEC	Bose-Einstein Condensation	eCM	Electron-Centimeters
BG	Bacillus Globigii	EDM	Electric Dipole Moment
BGO	Bismuth Germanium Oxide	EEG	Electroencephalography
BNL	Brookhaven National Laboratory	EGRET	Energetic Gamma Ray Experiment Telescope
BooNE	Booster Neutrino Experiment	EM600D	Eberline Radiation Monitor
		EMSP	Environmental Management Science Program
		EOS	Equation of State
		EPW	Electron Plasma Waves
		ES	Elastic Scattering
		ETR	Enhanced Test Readiness (program)
<b>C</b>		<b>F</b>	
CAS	Canberra Alpha Spectrometer	FDM	Finite Difference Method
CBW	Chemical and Biological Warfare	FMCG	Fetal Magnetocardiography
CC	Charged Current	FMP	Flowing Magnetized Plasma (facility)
CCD	Charged-Coupled Device	FNAL	Fermi National Accelerator Laboratory
CERN	European Organization for Nuclear Research	FP	Flight Path
CJ	Chapman-Jouguet	FRC	Field-Reversed Configuration
CMOS	Complementary Metal Oxide Semiconductor	FRX-L	Field-Reversed Experiment-Liner
CMU	Central Measuring Unit	FWHM	Full-Width at Half Maximum
CP	Charge Conjugation/Parity Transformation	FY	Fiscal Year
CPT	Charge Conjugation/Parity Transformation/Time Reversal		
CRADA	Cooperative Research and Development Agreement		
CZT	Cadmium Zinc Telluride		

## Appendix A: Acronyms

<b>G</b>		LHS	Left-Hand Side
GCD	Gas Cerenkov Detector	LICE	Laser-induced Isentropic Compression Experiment
GGG	Gadolinium Gallium Garnet	LLE	Laboratory for Laser Energetics (University of Rochester)
GZK	Greisen, Zatsepin, Kuzmin (effect)	LLNL	Lawrence Livermore National Laboratory
<b>H</b>		LOS	Line of Sight
HDTV	High-Definition TV	LPI	Laser-Plasma Instabilities
HE	High Explosive	LSND	Liquid Scintillator Neutrino Detector
HED	High Energy Density	LSO	Lutetium Oxyorthosilicate
HEDH	High-Energy-Density Hydrodynamics	Lujan Center	Lujan Neutron Scattering Center
HEMG	Helical Explosive Magnetic Generator	<b>M</b>	
HEU	Highly Enriched Uranium	MCMC	Markov Chain Monte Carlo
HEX	Hexagonal	MCP	Microchannel Plate
HiRes	High Resolution Fly's Eye (experiment)	MD	Molecular Dynamics
HPGe	High-Purity Germanium	MDA	Missile Defense Agency
HF	Hydro-Features (experiments)	MEG	Magnetoencephalography
<b>I</b>		MEGA	Multiple Element Germanium Array
ICA	Idaho Accelerator Center	MFE	Magnetic Fusion Energy
ICE	Isentropic Compression Experiments	MHD	Magnetohydrodynamics
ICF	Inertial Confinement Fusion	MIT	Massachusetts Institute of Technology
ICF/RP	Inertial Confinement Fusion/Radiation Physics (program)	MITL	Magnetically Insulated Transmission Line
IEC	Inertial Electrostatic Confinement	MOPA	Master-Oscillator Power Amplifier
IFE	Inertial Fusion Energy	MRC	Mission Research Corporation
<b>J</b>		MRI	Magnetic Resonance Imaging
JLab	Thomas Jefferson National Accelerator Facility	MTF	Magnetized Target Fusion
<b>K</b>		MVD	Multiplicity/Vertex Detector
<b>L</b>		<b>N</b>	
LAMPF	Los Alamos Meson Physics Facility	NC	Neutral Current
LANL	Los Alamos National Laboratory	NCD	Neutral Current Detector
LANSCE	Los Alamos Neutron Science Center	nEDM	Neutron Electric Dipole Moment
LDRD	Laboratory-Directed Research and Development	NIF	National Ignition Facility
LDRD-DR	Laboratory-Directed Research and Development-Director's Reserve	NIH	National Institutes of Health
LDRD-DR	Laboratory-Directed Research and Development-Directed Research	NIR	Near Infrared
LDRD-ER	Laboratory-Directed Research and Development-Exploratory Research	NIS	Nonproliferation and International Security
LEO	Low Earth Orbit	NIST	National Institute of Standards and Technology
LFC	Large Format Camera	NNMCC	Northern New Mexico Community College
		NNSA	National Nuclear Security Administration
		NRL	Naval Research Laboratory
		NRS	Neutron Resonance Spectroscopy
		NSLS	National Synchrotron Light Source
		NSTX	National Spherical Torus Experiment

## Appendix A: Acronyms

NTS	Nevada Test Site	SENSE	Sensory Enhanced Neural Simulation Engine
NTSC	National Television System Committee	SHS	Single Hot Spot
NTXL	Near-Term Liner Experiments	SIM	Six-inch Instrument Manipulator
NUEX	Neutron Experiment	SIS	Superconducting Image Surface
		SNL	Sandia National Laboratories
<b>O</b>		SNM	Special Nuclear Material
ORNL	Oak Ridge National Laboratory	SNO	Sudbury Neutrino Observatory
		SNP	Solar Neutrino Puzzle
<b>P</b>		SNS	Spallation Neutron Source
P Division	Physics Division	SOR	Successive Over-Relaxation
PFL	Pulse-Forming Line	SQUID	Superconducting Quantum Interference Device
PFN	Pulse-Forming Network	SRS	Stimulated Raman Scattering
PHELIX	Precision High Energy Liner Implosion Experiment	SSC	Superconducting Supercollider
PHENIX	Pioneering High Energy Nuclear Interaction Experiment	SSM	Standard Solar Model
PHERMEX	Pulsed High Energy Radiographic Machine Emitting X-rays (facility)	STBI	Spatio-Temporal Bayesian Inference
		STP	Standard Temperature and Pressure
PINEX	Pinhole Neutron Experiment		
PMT	Photomultiplier Tube	<b>T</b>	
POPS	Periodically Oscillating Plasma Sphere	T	Time Reversal
pRad	Proton Radiography	THREX	Threshold Experiment
PSR	Proton Storage Ring	TIM	Ten-inch Instrument Manipulator
PZT	Lead Zirconate Titanate	TIM	Time Interval Meter
		TWH	Thin-Wall Hohlraum
		TXD	Transient X-ray Diffraction
<b>Q</b>		<b>U</b>	
QCD	Quantum Chromodynamics	UCN	Ultra-Cold Neutron
QGP	Quark-Gluon Plasma	UGT	Underground Nuclear Test
QKD	Quantum Key Distribution	UHECR	Ultra-High-Energy Cosmic Ray
		UHV	Ultra-High Vacuum
<b>R</b>		UPOP	Undergraduate Practice Opportunity Program
REH	Radiation Exit Hole	U.S.	United States
rf	Radio Frequency	<b>V</b>	
RFSF	Radio Frequency Spin Flipper	VISAR	Velocity Interferometer System for Any Reflector
RHIC	Relativistic Heavy-Ion Collider	VLAND	Very Large Area Neutron Detector
RHS	Right-Hand Side	VNIIEF	All-Russian Scientific Research Institute of Experimental Physics (Arzamas-16)
RHSR	Russian High Strain Rate (experiment)		
RMI	Richtmyer-Meshkov Instabilities	<b>W</b>	
RSX	Reconnection Scaling Experiment	WACT	Wide-Angle Cerenkov Telescope
		<b>X, Y, Z</b>	
<b>S</b>		ZBL	Z Beamlet Laser
SAGE	Soviet-American Gallium Experiment		
SCE	Subcritical Experiment		
SDP	Silent Discharge Plasma		
SEGA	Segmented Enriched Germanium Assembly		

# Appendix B: Publications

## 2001 Journal Articles

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## Appendix B: Publications—2001 Journal Articles

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## Appendix B: Publications—2003 Journal Articles

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## Appendix B: Publications—2003 Conference Papers

### 2003 Conference Papers

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## Appendix B: Publications—2003 Conference Papers

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## Appendix B: Publications—2003 Conference Papers

- C.R. Christensen, D.C. Wilson, C.W. Barnes, and S.H. Batha, “The influence of asymmetry on mix in direct-drive ICF experiments,” 3<sup>rd</sup> International Conference on Inertial Fusion Sciences and Applications (IFSA 2003), Monterey, California, USA, September 7–12, 2003, Los Alamos National Laboratory report LA-UR-03-1772 (March 2003).
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- N.D. Delamater, G.A. Kyrala, D.C. Wilson, R. Watt, and J. Guzik, “Progress with double shell target implosions at Omega,” 45<sup>th</sup> Annual Meeting of the Division of Plasma Physics of the American Physical Society, Albuquerque, New Mexico, USA, October 27–31, 2003, Los Alamos National Laboratory report LA-UR-03-7721 (October 2003).
- N.D. Delamater, J. Guzik, G.A. Kyrala, D.C. Wilson, R. Watt, W.M. Wood, W. Varnum, D. Haynes, G. Pollak, and M. Gunderson, “Progress with double shell target implosions on Omega,” 3<sup>rd</sup> Inertial Fusion Sciences and Applications Conference (IFSA 2003), Monterey, California, USA, September, 7–12, 2003, Los Alamos National Laboratory report LA-UR-03-1170 (February 2003).
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- B.L. Dingus, M.M. Gonzalez, R.D. Preece, M.S. Briggs, Y. Kaneko, and C. Dermer, “The highest energy gamma rays from gamma-ray bursts,” 10<sup>th</sup> Marcel Grossman Meeting on General Relativity, Rio de Janeiro, Brazil, July 20–26, 2003, Los Alamos National Laboratory report LA-UR-03-4156 (June 2003).
- N.D. Drummond, D.C. Swift, and G.J. Ackland, “*Ab initio* model of porous periclase,” 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-2134 (March 2003).
- S.R. Elliott, “Experimental prospects for direct measurements of neutrino mass (tritium experiments),” Summer Nuclear Institute at TRIUMF, Vancouver, British Columbia, Canada, July 5–16, 2003, Los Alamos National Laboratory report LA-UR-03-5838 (August 2003).
- S.R. Elliott, “Neutrino mass patterns and future double- $\beta$  decay experiment,” 8<sup>th</sup> International Workshop on Topics in Astroparticle and Underground Physics (TAUP 2003), Seattle, Washington, USA, September 5–9, 2003, Los Alamos National Laboratory report LA-UR-03-6815 (September 2003).
- S.R. Elliott, “Radiochemical experiments,” Summer Nuclear Institute at TRIUMF, Vancouver, British Columbia, Canada, July 5–16, 2003, Los Alamos National Laboratory report LA-UR-03-5839 (August 2003).
- S.R. Elliott, “New underground laboratories in North America,” Neutrinos and Dark Matter Meeting, Nara, Japan, June 9–14, 2003, Los Alamos National Laboratory report LA-UR-03-4086 (June 2003).
- S.R. Elliott, “Non-accelerator neutrino physics,” High Energy Particle Physics Advisory Panel Meeting, Bethesda, Maryland, July 24, 2003, Los Alamos National Laboratory report LA-UR-03-5518 (July 2003).
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- M.A. Espy, “HTS SQUID array magnetic field measurements of propagating action potentials in a frog sciatic nerve,” 17<sup>th</sup> National Conference on Undergraduate Research, Salt Lake City, Utah, USA, March 13–15, 2003, Los Alamos National Laboratory report LA-UR-03-2564 (April 2003).
- R.J. Faehl, J.E. Hammerberg, J.S. Ladish, and G. Rodriguez, “Validation tests of an Eulerian legacy code on Atlas (U),” 14<sup>th</sup> Biennial Nuclear Explosives Design Physics Conference (NEDPC 2003), Los Alamos, New Mexico, USA, October 20–24, 2003, Los Alamos National Laboratory report LA-CP-03-0537 (June 2003).

## Appendix B: Publications—2003 Conference Papers

E.N. Ferm, S. Dennison, R. Lopez, K. Prestridge, J.P. Quintana, C. Espinoza, G.E. Hogan, N.S.P. King, F.E. Merrill, C.L. Morris, P. Pazuchanic, A. Saunders, S.A. Baker, and R. Liljestrand, “Proton radiography experiments on shocked high explosives products,” 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-5256 (July 2003).

J.C. Fernández and S.R. Goldman, “Design and characterization of hohlraum targets for long-pulse radiation drive in early NIF operation,” 45<sup>th</sup> Annual Meeting of the Division of Plasma Physics of the American Physical Society, Albuquerque, New Mexico, USA, October 27–31, 2003, Los Alamos National Laboratory report LA-UR-03-7572 (October 2003).

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## Appendix B: Publications—2003 Conference Papers

- N.E. Lanier, M.M. Balkey, C.W. Barnes, S.H. Batha, and R.D. Day, "Richtmyer-Meshkov mixing in directly driven cylindrically convergent systems: Overview," 3<sup>rd</sup> International Conference on Inertial Fusion Sciences and Applications (IFSA 2003), Monterey, California, USA, September 7–12, 2003, Los Alamos National Laboratory report LA-UR-03-6437 (September 2003).
- N.E. Lanier, M.M. Balkey, C.W. Barnes, S.H. Batha, J.R. Fincke, N.D. Delamater, G.R. Magelssen, R.M. Hueckstaedt, J.M. Scott, A.M. Dunne, C. Horsfield, K.W. Parker, and S.D. Rothman, "Richtmyer-Meshkov mixing in directly driven cylindrically convergent systems," 3<sup>rd</sup> International Fusion Sciences and Applications Conference (IFSA 2003), Monterey, California, USA, September, 7–12, 2003, Los Alamos National Laboratory report LA-UR-03-1441 (February 2003).
- N.E. Lanier, S.H. Batha, J.R. Fincke, R.L. Holmes, and G.L. Magelssen, "Enhanced Richtmyer-Meshkov mixing from dominant wavelength in presence of background multimode surface roughness," 45<sup>th</sup> Annual Meeting of the Division of Plasma Physics of the American Physical Society, Albuquerque, New Mexico, USA, October 27–31, 2003, Los Alamos National Laboratory report LA-UR-03-5177 (July 2003).
- D.M. Lee, "Design and performance of the PHENIX muon tracking systems," 2003 IEEE Nuclear Science Symposium and Medical Imaging Conference, Portland, Oregon, USA, October 19–25, 2003, Los Alamos National Laboratory report LA-UR-03-7796 (October 2003).
- C.S. Leichter, "Issues when using independent component analysis and principal component analysis for noise reduction in analysis of single trial SIS magnetoencephalographic data," 2003 Los Alamos Student Symposium, Los Alamos, New Mexico, USA, August 6–7, 2003, Los Alamos National Laboratory report LA-UR-03-5216 (July 2003).
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- M.X. Liu, "Study of heavy quark and quarkonium production in the polarized p-p collisions at RHIC," Conference on the Intersection of Particle and Nuclear Physics (CIPANP), New York, New York, USA, May 19–24, 2003, Los Alamos National Laboratory report LA-UR-03-4381 (June 2003).
- W.C. Louis, "MiniBooNE," 10<sup>th</sup> International Workshop on Neutrino Telescopes, Venice, Italy, March 11–14, 2003, Los Alamos National Laboratory report LA-UR-03-2983 (May 2003).
- S.-N. Luo, T.E. Tierney, D.C. Swift, D.L. Paisley, and R.P. Johnson, "Advances in direct laser drive experiments for dynamic materials testing," 45<sup>th</sup> Annual Meeting of the Division of Plasma Physics of the American Physical Society, Albuquerque, New Mexico, USA, October 27–31, 2003, Los Alamos National Laboratory report LA-UR-03-5064 (July 2003).
- S.-N. Luo, D.C. Swift, and T.J. Ahrens, "Melting at the limit of superheating," 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-5353 (July 2003).
- S.-N. Luo, D.C. Swift, T.E. Tierney, K. Xia, and O. Tschauer, "Time-resolved x-ray diffraction investigation of superheating-melting behavior of crystals under ultra-fast heating," 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-5360 (July 2003).
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- S. Mayor, S. Spuler, J. Fox, B. Morley, N. Kurnit, and R. Karl, "Design of an eye-safe elastic backscatter LIDAR at 1.54 microns," 48<sup>th</sup> Annual Meeting of the International Society for Optical Engineering (SPIE), San Diego, California, USA, August 3–8, 2003, Los Alamos National Laboratory report LA-UR-03-0607 (January 2003).
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- P.W. Milonni, J.H. Carter, C.G. Peterson, and R.J. Hughes, “Effects of propagation in air on photon statistics,” *Proceedings of the Society of Photo Optical Instrumentation Engineers (SPIE)* **5111**, 7–11 (2003).
- G.B. Mills, “The status of the Booster Neutrino Experiment at Fermilab (MiniBooNE),” 4<sup>th</sup> Topical Workshop on Particle Physics and Cosmology, Cairns, Queensland, Australia, June 9–13, 2003, Los Alamos National Laboratory report LA-UR-03-6247 (August 2003).
- R.E. Mischke, “Neutron electric dipole moment,” TRIUMF Seminar (Invited), Vancouver, British Columbia, Canada, October 16, 2003, Los Alamos National Laboratory report LA-UR-03-8716 (November 2003).
- R.E. Mischke *et al.*, “Neutron electric dipole moment,” *American Institute of Physics Conference Proceedings* **675**, 246–250 (2003).
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- D.S. Montgomery, J.L. Kline, R.J. Focia, J.A. Cobble, J.C. Fernandez, and R.P. Johnson, “Recent progress on Trident single hot spot interaction experiments,” 5<sup>th</sup> International Workshop on Laser Plasma Interaction Physics, Banff, Alberta, Canada, February 19–22, 2003, Los Alamos National Laboratory report LA-UR-03-1021 (February 2003).
- C.L. Morris, “Results from proton radiography experiment 963 (U),” 14<sup>th</sup> Biennial Nuclear Explosives Design Physics Conference (NEDPC 2003), Los Alamos, New Mexico, USA, October 20–24, 2003, Los Alamos National Laboratory report LA-CP-03-0702 (September 2003).
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- F.G. Omenetto, "Ultrafast processes in conventional and photonic crystal fibers," Recent Trends in Nonlinear Optics and Ultrashort Pulse Generation, Pavia, Italy, June 15–16, 2003, Los Alamos National Laboratory report LA-UR-03-3624 (May 2003).
- F.G. Omenetto, "Ultra-fast pulses in fibers: A nonlinear playground," Frontiers in Optics: The 87<sup>th</sup> Annual Meeting of the Optical Society of America/Laser Science XIX, Tucson, Arizona, USA, October 5–9, 2003, Los Alamos National Laboratory report LA-UR-03-2889 (April 2003).
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- J. Park, T.P. Intrator, G.A. Wurden, S.C. Hsu, J.M. Taccetti, S. Zhang, J.H. Degnan, C. Grabowski, and E.L. Ruden, "Overview of high density FRC research on FRX-L," IEEE International Conference on Plasma Science, Jeju, South Korea, June 2–5, 2003, Los Alamos National Laboratory report LA-UR-03-0801 (February 2003).
- D.M. Partouche-Sebban, "High-speed multi-wavelength pyrometry and emissivity measurement of shocked metals," 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-4224 (June 2003).
- D.M. Partouche-Sebban, J.-L. Pelissier, W.W. Anderson, R.S. Hixson, and D.B. Holtkamp, "Characterization of sapphire for optical pyrometry to shock experiments," 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-4254 (June 2003).
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- R.J. Perkins and T.P. Intrator, "B-dot probes in FRX-L," 2003 Los Alamos Student Symposium, Los Alamos, New Mexico, USA, August 6–7, 2003, Los Alamos National Laboratory report LA-UR-03-5525 (July 2003).

## Appendix B: Publications—2003 Conference Papers

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R.R. Peterson, G.A. Kyrala, P.A. Keiter, B.P. Wood, and G.C. Idzorek, "Diffusive radiation transport experiments in SiO<sub>2</sub> foams on Z (U)," 14<sup>th</sup> Biennial Nuclear Explosives Design Physics Conference (NEDPC 2003), Los Alamos, New Mexico, USA, October 20–24, 2003, Los Alamos National Laboratory report LA-CP-03-0924 (December 2003).

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- W.A. Reass, S.E. Apgar, D.M. Baca, J.D. Doss, J.M. Gonzales, R.F. Gribble, and P.G. Trujillo, "Design technology of high-voltage multi-megawatt polyphase resonant converter mod," 29<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society (IECON 2003), Roanoke, Virginia, USA, November 2–6, 2003, Los Alamos National Laboratory report LA-UR-03-2205 (March 2003).
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## Appendix B: Publications—2003 Conference Papers

- A. Seifter, "About the meaning of the Hagen-Rubens relation to radiation thermometry," 17<sup>th</sup> IMEKO World Congress, Metrology in the 3<sup>rd</sup> Millennium, Cavtat-Dubrovnik, Croatia, June 22–27, 2003, Los Alamos National Laboratory report LA-UR-03-3754 (June 2003).
- A. Seifter, "High-speed temperature and emissivity measurements at Group P-23 at the Los Alamos National Laboratory," Technical Discussions on Polarimetry on Rough Surfaces, Graz, Austria, July 3–4, 2003, Los Alamos National Laboratory report LA-UR-03-3745 (June 2003).
- A. Seifter, K. Boboridis, and A.W. Obst, "Comparison of emissivity measurements using an integrating sphere reflectometer and a laser polarimeter on surfaces with various degrees of roughness," 17<sup>th</sup> IMEKO World Congress, Metrology in the 3<sup>rd</sup> Millennium, Cavtat-Dubrovnik, Croatia, June 22–27, 2003, Los Alamos National Laboratory report LA-UR-03-3753 (June 2003).
- A. Seifter, K. Boboridis, and A.W. Obst, "Emissivity measurements on metallic surfaces with various degrees of roughness: A comparison of laser polarimetry and integrating sphere reflectometry," 15<sup>th</sup> Symposium on Thermophysical Properties, Boulder, Colorado, USA, June 22–27, 2003, Los Alamos National Laboratory report LA-UR-03-3746 (June 2003).
- A. Seifter, K. Boboridis, and A.W. Obst, "High-speed temperature and emissivity measurements for thermophysical property determination of conducting materials," 9<sup>th</sup> International Symposium on Materials in a Space Environment, Noordwijk, The Netherlands, June 16–20, 2003, Los Alamos National Laboratory report LA-UR-03-3755 (June 2003).
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- D.C. Swift, D.L. Paisley, A. Forsman, T.E. Tierney, R.P. Johnson, G.A. Kyrala, and A. Hauer, "Dynamic flow stress and polymorphism in shocks induced by laser irradiation," 5<sup>th</sup> International Symposium on Behavior of Dense Media Under High Dynamic Pressures, St. Malo, France, June 23–27, 2003, Los Alamos National Laboratory report LA-UR-03-0799 (February 2003).
- D.C. Swift, D.L. Paisley, and M.D. Knudson, "Equation of state measurements for beryllium in the ICF capsule regime," 13<sup>th</sup> Biennial International Conference of the American Physical Society Topical Group on Shock Compression of Condensed Matter, Portland, Oregon, USA, July 20–25, 2003, Los Alamos National Laboratory report LA-UR-03-5219 (July 2003).
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- R.T. Thompson, C.L. Morris, A. Saunders, G.E. Hogan, and E.N. Ferm, "Proton radiography: A verification tool for dynamic models and simulations of HE," 34<sup>th</sup> International Conference of ICT (Fraunhofer Institute for Chemical Technology), Karlsruhe, Germany, June 24–27, 2003, Los Alamos National Laboratory report LA-UR-03-8907 (December 2003).
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- T.E. Tierney, D.C. Swift, S.-N. Luo, J.T. Gammel, and R.P. Johnson, "Near Mbar-level dynamic loading of materials by direct laser-irradiation," American Geophysical Union Fall Meeting, San Francisco, California, USA, December 8–12, 2003, Los Alamos National Laboratory report LA-UR-03-6792 (September 2003).
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- RR. Valdiviez, F.E. Sigler, D.B. Barlow, B. Blind, A.J. Jason, C.T. Mottershead, J.J. Gomez, and C.J. Espinoza, "The mechanical design of a proton microscope for radiography at 800 MeV," 2003 Particle Accelerator Conference (PAC 2003), Portland, Oregon, USA, May 12–16, 2003, Los Alamos National Laboratory report LA-UR-03-3085 (May 2003).
- D.T. Vo, P.-N. Seo, and T.K. Li, "Testing the Ortec's isotopic and Eberline's snap software for uranium waste measurements," 25<sup>th</sup> Annual Meeting of the European Safeguards Research and Development Association (ESARDA), Stockholm, Sweden, May 13–15, 2003, Los Alamos National Laboratory report LA-UR-03-2940 (May 2003).
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## Appendix B: Publications—2003 Conference Papers

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