

PUBLICATIONS AND PRESENTATIONS

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18. "Optics at Texas Tech University: learning by doing," J.F. Walkup, P.F. Williams, and M.A. Gundersen, *IEEE Trans. Educ.* **E-23**, 118 (1980).
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CONFERENCE PROCEEDINGS AND OTHER PUBLICATIONS

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3. "An experimental plasma lens device," M.A. Gundersen, SLAC Workshop on Plasma Lenses, Stanford, California, May 9, 1988.
4. "Preliminary results from the III-V pulsed power device research program at USC," M.A. Gundersen, Semiconductor Switch Workshop, Norfolk, Virginia, May 23-24, 1988.
5. "A review of high power hollow electrode thyatron-type switches," M.A. Gundersen, 1988 IEEE International Conference on Plasma Science, Seattle, Washington, June 6-8, 1988.
6. "Physics of a plasma switch, and applications that include a plasma lense for linear colliders", M.A. Gundersen, USC Department of Physics Atomic and Molecular Physics Seminar, Dec. 1, 1988.
7. "Pulse power research issues", M.A. Gundersen, Investment Strategy Meeting on Pulse Power Technology, Wright-Patterson Air Force Base, March 14, 1989.
8. "New concepts for accelerator components", M.A. Gundersen, Workshop on High Luminosity Asymmetric Storage Rings for B Physics, California Institute of Technology, April 26, 1989.
9. "A partial summary of pulse power research activities at the University of Southern California," M.A. Gundersen, The Second SDIO/ONR Pulse Power Physics Meeting, San Diego, California, July 25-26, 1989.
10. "A review of the back lighted thyatron and its applications", Sixth Key Technologies Score Group Meeting, Huntington Beach CA, 23-27 October 23-27, 1989.
11. "The back-lighted thyatron", Lawrence Livermore National Laboratory, November 8, 1989.
12. "A review of the back-lighted thyatron physics and applications," M. A. Gundersen, 9th Intl. Workshop on Laser Interaction and Related Plasma Phenomena, Monterey, CA, Nov. 6-10, 1989.
13. "Plasma devices based on the back lighted thyatron," M. A. Gundersen, Lawrence Berkeley Laboratory, January 12, 1990.
14. "A review of some recent USC pulsed power physics research," M.A. Gundersen, Third SDIO/ONR Pulse Power Physics Meeting, Norfolk, VA, August 2-3, 1990.
15. "Super-emissive cathode switches", M.A. Gundersen, High Average Power Switching Workshop, Lawrence Livermore National Laboratory, Livermore, CA, October 10-11 1990.
16. "Super-emissive cathodes and their applications," M. A. Gundersen, Plasma Fusion Center, Massachusetts Institute of Technology, Cambridge, MA, November 6, 1990.
17. "Super-emissive cathodes and their applications," M. A. Gundersen, Univ. of California, Irvine, CA, March 6, 1991.
18. "High power modulator development based on the back lighted thyatron switch," G. Kirkman-Amemiya, N. Reinhardt, M.S. Choi and M. A. Gundersen, 4th SDIO/ONR Pulsed Power Meeting, Los Angeles, CA, June 20-21, 1991.
19. "Super-emissive cathode devices," M.A. Gundersen, G. Kirkman, R. Liou, and T. Y. Hsu, 4th SDIO/ONR Pulsed Power Meeting, Los Angeles, CA, June 20-21, 1991.
20. "Cathode physics of pseudosparks and BLT's," M. A. Gundersen, U. of Toulouse, Toulouse, France, July 3, 1991.
21. "Hollow cathode and super-emissive cathode properties of pseudospark and back-lighted thyatron," M. A. Gundersen, G. Kirkman, W. Hartmann, Y. Hsu, and R. Liou, International Conference on Phenomena in Ionized Gases, Barga, Italy, July 8-12, 1991.
22. "Hollow and super-emissive cathode processes in pseudospark discharges," M. A. Gundersen, Physikalisches Institut der Universität Erlangen-Nürnberg, July 17, 1991.

23. "Hollow and super-emissive cathode processes in the pseudospark and back-lighted thyatron," M. A. Gundersen, G. Kirkman-Amemiya, and W. Hartmann, 1991 Gaseous Electronics Conference, October 22-25, 1991.
24. "Hollow and super-emissive cathode processes in the back-lighted thyatron," M. A. Gundersen, 10th Intl. Workshop on Laser Interaction and Related Plasma Phenomena, Monterey, CA, November 11-15, 1991.
25. "The back-lighted thyatron," M. A. Gundersen, SDI Power Technology Applications Review, San Jose, CA, December 2-3, 1991.
26. "Super-emissive cathodes and their applications," M. A. Gundersen, California Institute of Technology, Pasadena, CA, February 26, 1992.
27. "Pseudospark and back-lighted thyatron switches and beams: Hollow and super-emissive cathode devices," M. A. Gundersen, Physics International, San Leandro, CA, March 27, 1992.
28. "Pseudospark and BLT switches and beams: Hollow and super-emissive cathode devices," M. A. Gundersen, University of South Carolina, June 22, 1992.
29. "Pseudospark and BLT switches and beams: Hollow and super-emissive cathode devices," M. A. Gundersen and K. Frank, IX Symposium on High-Current Electronics, Russia, July 21-30, 1992.
30. "Hollow and super-emissive cathode processes in the pseudospark," M. A. Gundersen, Gaseous and Electrode Phenomena in Diffuse High Current Density Discharges Workshop, Bad Honnef, Germany, November 2-6, 1992.
31. "Electron beams during pseudospark hollow - and super - emission," M. A. Gundersen, R. L. Liou, T. Y. Hsu, and G. Kirkman, WE-Heraus Seminar, Gaseous and Electrode Phenomena in Diffuse High Current Density Discharges, Bad Honnef, Germany, Nov. 2-5, 1992.
32. "Electronenstrahlerzeugung während der hohlkathoden-und superemissive-phase eine pseudo-funkentladung," M. A. Gundersen, R. L. Liou, T. Y. Hsu, and G. Kirkman, University of Erlangen, Physics Institute, Erlangen, Germany, Nov. 11, 1992.
33. "GaAs-based power electronic switches", EPRI Workshop on Power Electronics, February 9, 1993.
34. "Electron beams during the hollow cathode and super-emissive phase of pseudospark emission", Texas Tech University Physics seminar, February 18, 1993.
35. "Pulsed power research at USC", Symposium on Electronics Research, Texas Tech University, February 19, 1993.
36. "Non-thermal plasma treatment of effluents", ONR Diesel Pollution Workshop, April 2, 1993.
37. "Pseudospark physics and applications", University of Iowa, June 30, 1993.
38. "Non-thermal processing of effluents", DOE Workshop on Diesel Emission Reduction, La Jolla, CA, July 20, 1993.
39. "Some interesting applications—and physics—of low temperature plasmas", Applied Physics seminar Caltech, Nov. 17, 1993.
40. "Plasma technology and physics of pseudosparks", invited presentation for the March meeting of the Plasma Physics section of the German Physical Society, March 8, 1994.
41. "Physics and applications of beam and plasma processes in the pseudospark," M. Gundersen, R. Liou, T. Y. Hsu, and V. Puchkarev, Third International Workshop on Transient Hollow Cathode Phenomena, Paris, France, September 14 -16, 1994.
42. "Studies of the physics and technology of non-thermal plasma treatment of diesel emission," V. Puchkarev, G. Roth, M. Gundersen, I. Yampolsky, G. Kirkman and M. Choi, DOE Workshop on Diesel Emission Abatement, San Diego, CA, July 24-27, 1995.
43. "High resolution, high throughput microlithography using a back-lighted thyatron", Workshop on the physics of pseudosparks, Erlangen, Germany, September 26, 1995.
44. "Plasma treatment of diesel exhaust," M. Gundersen, V. Puchkarev and G. Roth, Eighth ONR Propulsion Meeting, San Diego, CA, October 11-13, 1995.

45. "Application of pseudosparks and back-lighted thyratrons to high resolution microlithography," M. Gundersen, P. Hadizad, and T. Y. Hsu, Texas Tech., Lubbock, TX, Oct. 27, 1995.
46. "Solid state devices: Opportunities for power modulators," M. Gundersen, 22nd International Power Modulator Symposium, Boca Raton, FL, June 24-27, 1996.
47. "Plasma-Enhanced Combustion for Reduction of Rocket Plume Soot," M. Gundersen, J. Liu, J. Yampolsky, P. Ronney and D. Erwin, 13th ONR Propulsion Meeting, Minneapolis, MN, August 10-12, 2000.
48. "Particulate and Nitrogen Oxide-Based Emissions Control Technology Research at USC," M. Gundersen, J. Liu, J. Yampolsky, C. Sioutas and P. Ronney, DEER 2000, San Diego, CA, August 20-24, 2000.
49. "Pulsed Plasmas for Diesel Emission Reduction," M. Gundersen. 2000 International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii, December 14-19, 2000.
50. Presentation to the Plasma Sciences Committee of the National Academies of Science and Engineering, "Physics and Applications of Partially Ionized Plasmas: Research Needs", M. Gundersen, Beckman Center, National Academies of Science and Engineering, Irvine CA, September 30, 2001.
51. "Ultrashort electric perturbations trigger membrane phospholipid translocation and apoptosis," P. T. Vernier and M. A. Gundersen, Air Force Research Laboratory, Wright-Patterson Air Force Base, Dayton, OH, 2002.
52. "Some Physics and Applications Involving Short, High Field Electrical Pulses," presented by M. Gundersen at University of Southern California, Seminar in Condensed Matter Physics, June 21, 2002.
53. "Ultrashort-Pulsed Electroperturbation: Induced Caspase Activation in Human Lymphocytes," presented by M. Gundersen, UC Irvine, December 12, 2002.
54. "Ultrashort electric perturbations trigger membrane phospholipid translocation and apoptosis", P. T. Vernier and M. A. Gundersen, Air Force Research Laboratory, Wright-Patterson Air Force Base, Dayton, OH, 2002.
55. "Compact, Portable Pulsed Power: Physics and Applications", M. Gundersen, J. Dickens, and W. Nunnally, Plenary presentation for the 2003 IEEE Pulsed Power Conference, June 16, 2003.
56. "Electrical Modeling of Pulsed Power Systems for Biomedical Applications," P. Wijetunga, X. Gu, A. Kuthi, P. T. Vernier, M. Behrend and M.A. Gundersen, 14th International Pulsed Power Conference, Dallas, TX, June 15-18, 2003.
57. "Nanosecond electroperturbation of malignant cells," Vernier, P. T., A. Li, L. Marcu, X. Zhu, C. M. Craft, and M. A. Gundersen, World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, 2003.
58. "Optical imaging of electroperturbative effects in Jurkat T lymphoblasts induced by ultrashort pulsed electric fields," Marcu, L., P. T. Vernier, S. Salemi, M. Behrend, C. M. Craft, and M. A. Gundersen, World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, 2003.
59. "Non-invasive approaches to nano-biology through advanced pulsed power," Sun, Y., P. T. Vernier, M. Behrend, L. Marcu, and M. A. Gundersen, Workshop on High-Field Effects and Fast Pulse Responses in Bio-Systems, IEEE Conference on Electrical Insulation and Dielectric Phenomena, Albuquerque, 2003.
60. "Non-invasive intracellular electroperturbation of human lymphocytes," Vernier, P.T., Y. Sun, L. Marcu, S. Salemi, C. M. Craft, and M. A. Gundersen, Workshop on High-Field Effects and Fast Pulse Responses in Bio-Systems, IEEE Conference on Electrical Insulation and Dielectric Phenomena, Albuquerque, 2003.
61. "Field-dependent nanosecond electroperturbation of Jurkat T lymphoblasts," Vernier, P. T., Y. Sun, L. Marcu, C. M. Craft, and M. A. Gundersen, Scientific Conference, Society for Physical Regulation in Biology and Medicine, San Antonio, 2004.

62. "Transient Plasma Ignition," M. Gundersen, presented to Boeing – Rocketdyne Propulsion & Power, July 15, 2003.
63. "Physics and Applications of Pulsed Power", M. Gundersen, presented to the Physics Department of the Naval Postgraduate School, August 2003.
64. "Challenges and Overview", M. Gundersen, Workshop on Understanding Plasma Ignition, Stanford University, Jan. 9, 2004.
65. "Pulsed Power: Physics, and Two Diverse Applications", M. Gundersen, Lawrence Berkeley Laboratory, February 17, 2004.

Contributed presentations, 1988 to present:

1. "Optically Triggered High Power Glow Discharge Switches," W. Hartmann, G. Kirkman, V. Dominic, and M.A. Gundersen, 1988 High-Voltage Workshop, Monterey, CA, Mar. 8-10, 1988.
2. "The BLT - A High Current Cold Cathode Switch," G. Kirkman, W. Hartmann, V. Dominic and M.A. Gundersen, 1988 Tri-Service Cathode Workshop, Ft. Monmouth, NJ, Mar. 22-24, 1988.
3. "Fundamental Processes in Plasma Devices," G. Kirkman and M. A. Gundersen, Argonne High Energy Physics, Advanced Accelerator Test Facility Workshop, Argonne, Illinois, April 6-7, 1988.
4. "Studies of Fundamental Processes in Plasma Devices," W. Hartmann, G. Kirkman, and M.A. Gundersen, Particle Beam Physics Topical Group/American Physical Society, Baltimore, Maryland, April 18-21, 1988, Bull. Am. Phys. Soc. **33**, 1082 (1988).
5. "New High Power Thyratrons for High Energy Physics Applications," W. Hartmann, G. Kirkman, M.A. Gundersen, K. Frank, and J. Christiansen, Particle Beam Physics Topical Group/American Physical Society, Baltimore, Maryland, April 18-21, 1988, Bull. Am. Phys. Soc. **33**, 1082 (1988).
6. "Optoelectronic bistability in gallium phosphide," M.S. Choi, J.H. Jur, and M.A. Gundersen, 1988 Conference on Lasers and Electro-Optics **59**, 244, Anaheim, California, April 27, 1988.
7. "Studies of fundamental processes in high power switches," W. Hartmann, G. Kirkman, V. Dominic, and M.A. Gundersen, European Particle Accelerator Conference, Rome, Italy, June 7-11, 1988.
8. "High power hollow cathode glow discharge switches," W. Hartmann, G. Kirkman, V. Dominic, and M.A. Gundersen, 18th Power Modulator Symposium, Hilton Head, South Carolina, June 20-22 1988.
9. "Optical diagnostic development for high current pulsed glow discharges," W. Hartmann, V. Dominic, R.L. Liou, T.Y. Hsu, and M.A. Gundersen, OPTCON '88 Technical Digest pg. 153, Santa Clara, California, Nov. 3, 1988.
10. "Optoelectronic bistability in gallium phosphide," M.S. Choi, J.H. Hur, and M.A. Gundersen, OPTCON '88 Technical Digest pg 183, Santa Clara, California, Nov. 4, 1988.
11. "A plasma lens based on a hollow cathode stable Z-pinch," G.F. Kirkman, H. Figueroa, and M.A. Gundersen, 30th Meeting of the Plasma Physics Division, American Physical Society, Hollywood, Florida, Oct. 31-Nov. 4, 1988, Bull. Am. Phys. Soc. **33** (9), 2120, Oct. (1988).
12. "Fundamental processes of high current (10kA/cm^2) pulsed glow discharge," G. Kirkman, Y. Hsu, R.L. Liou, and M.A. Gundersen, 30th Meeting of the Plasma Physics Division, American Physical Society, Hollywood, Florida, Oct. 31-Nov. 4, 1988, Bull. Am. Phys. Soc. **33** (9), 1947, Oct. (1988).
13. "High current cold cathode glow discharge switch," G. Kirkman, W. Hartmann, T.Y. Hsu, R.L. Liou, M.A. Gundersen, P. Ingwersen, and S.S. Merz, 1988 IEEE International Electron Devices Meeting, San Francisco, California, December 11-14, 1988.
14. "High-power thyatron-type switch for laser applications," G. Kirkman, W. Hartmann, T.Y. Hsu, R.L. Liou, M.A. Gundersen, P. Ingwersen, and S.S. Merz, SPIE's OE LASE '89, Pulse Power for Lasers II, Los Angeles, California, Jan. 19-20, 1989.
15. "The development of plasma lenses for linear colliders," J. Norem, W. Gai, R. Konecny, S. Mitingwa, J. Rosenzweig, J. Simpson, P. Schoessow, D. Cline, T. Katsouleas, C. Joshi, C. Nantista, S. Rajagopalan, P. Chen, M.A. Gundersen, H. Figueroa, and G. Kirkman, Bull. Am. Phys. Soc. **34** (2), 212, Feb. (1989); APS Particle Accelerator Conference, Chicago, IL March 20-23, 1989.

16. "Avalanche breakdown in p-n AlGaAs/GaAs heterojunctions," Charles W. Myles, M. Gundersen, and J.H. Hur, *Bull. Am. Phys. Soc.* **34** (3), 1001, March (1989), American Physical Society Meeting, St. Louis, Missouri, March 20-24, 1989.
17. "Transient behavior and modeling of optoelectronic bistable behavior in a gallium phosphide LED," M.S. Choi, J.H. Hur, S.D. Tsiapalas, and M.A. Gundersen, *Cleo '89, CLEO/QELS '89 Advance Program*, 47, Conference on Lasers and Electro-Optics, Baltimore, Maryland, April 24-28, 1989.
18. "New concepts for pulse power components", M.A. Gundersen, 1989 USC Industrial Associates Research Review, USC, May 12 1989.
19. "Modeling of the discharge plasma in a Back Lighted Thyatron," H. Bauer, G. Kirkman, and M.A. Gundersen, 16th IEEE International Conference on Plasma Science, Hyatt Regency, Buffalo, NY, May 22-24, 1989.
20. "Microwave reflectivities of a finite-length plasma with a periodic density variation," H. Figueroa, M.A. Gundersen, and C.Joshi, 16th IEEE International Conference on Plasma Science, Hyatt Regency, Buffalo, NY, May 22-24, 1989.
21. "A device for producing uniform plasmas for advanced accelerator experiments," G. Kirkman, H. Figueroa, and M.A. Gundersen, 16th IEEE International Conference on Plasma Science, Hyatt Regency, Buffalo, NY, May 22-24, 1989.
22. "Modeling of the discharge plasma in a Back Lighted Thyatron," H. Bauer, G. Kirkman, J. Kunc, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
23. "Design of an opening and closing GaAs static induction transistor for pulsed power applications," P. Hadizad, J.H. Hur, M.A. Gundersen, and H.R. Fetterman, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
24. "A large-area high-power superemissive cathode," W. Hartmann, R. Liou, G. Kirkman, V. Dominic, T.Y. Hsu, K. Shanahan, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
25. "A GaAs-AlGaAs based thyristor," J.H. Hur, P. Hadizad, M.A. Gundersen, and H.R. Fetterman, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
26. "Spectroscopic analysis of the BLT switch plasma," G. Kirkman and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
27. "Recent experimental studies of the BLT switch," G. Kirkman, T.Y. Hsu, R. L. Liou, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
28. "Studies of multigap BLTs for high voltage applications," T.Y. Hsu, G. Kirkman, A. Litton, R. L. Liou, P. Ingwersen, H. Bauer, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
29. "Avalanche breakdown in p-n AlGaAs/GaAs heterojunctions," Charles W. Myles, J.H. Hur, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
30. "A high current density thyristor-like gallium phosphide based optoelectronic switch," S.D. Tsiapalas, J.H. Hur, M.S. Choi, and M.A. Gundersen, Seventh IEEE Pulsed Power Conference, Monterey, California, June 11-14, 1989.
31. "An analysis of the high current flow discharge operation of the BLT switch", G.F. Kirkman-Amemiya and M.A. Gundersen, NATO Advanced Research Workshop on the Physics and Applications of High Power Hollow Electrode Glow Switches, Lillehammer, Norway, July 17-21, 1989.
32. "New research directions," M.A. Gundersen, NATO Advanced Research Workshop on the Physics and Applications of High Power Hollow Electrode Glow Switches, Lillehammer, Norway, July 17-21, 1989.

33. "A two-electron-group model for a high current pseudospark or back-lighted thyatron plasma," H. Bauer, G. Kirkman, and M. A. Gundersen, NATO Advanced Research Workshop on the Physics and Applications of High Power Hollow Electrode Glow Switches, Lillehammer, Norway, July 17-21, 1989.
34. "Cathode-related processes in high-current density, low pressure glow discharges," W. Hartmann and M. A. Gundersen, NATO Advanced Research Workshop on the Physics and Applications of High Power Hollow Electrode Glow Switches, Lillehammer, Norway, July 17-21, 1989.
35. "A partial summary of pulse power research activities at the University of Southern California," M.A. Gundersen, The Second SDIO/ONR Pulse Power Physics Meeting, San Diego, California, July 25-26, 1989.
36. "Some new applications for pseudosparks and BLT's," M. A. Gundersen, Transient Hollow Cathode Discharge Phenomena Workshop, Paris, Sept. 11-12, 1989.
37. "The high current glow discharge operation of the back-lighted thyatron and pseudospark switch," G. Kirkman-Amemiya, H. Bauer, R.L. Liou, T.Y. Hsu, H. Figueroa, and M.A. Gundersen, Transient Hollow Cathode Discharge Phenomena Workshop, Paris, Sept. 11-12, 1989.
38. "High power opto-electronic devices – recent results and some new approaches", Quantum Electronics seminar, USC, September 27, 1989.
39. "A Marx generator using back lighted switches", R. Liou, H. Figueroa, Y. Hsu, G. Kirkman-Amemiya and M.A. Gundersen, 1989 High Voltage Workshop, Myrtle Beach SC, October 17-19, 1989.
40. "A proposed microwave plasma mirror," H. Figueroa and M. A. Gundersen, 9th Intl. Workshop on Laser Interaction and Related Plasma Phenomena, Monterey, CA, Nov. 6-10, 1989.
41. "Analysis of the high current glow discharge occurring in the BLT and pseudospark switch", G. Kirkman-Amemiya, H. Bauer and M.A. Gundersen, Thirty-first APS Plasma Physics Meeting, November 13-17, 1989.
42. "GaAs based opto-thyristor for pulsed power applications," J. H. Hur, P. Hadizad, S. G. Hummel, K.M. Dzurko, P. D. Dapkus, M. A. Gundersen, and H. R. Fetterman, 1989 International Electron Devices Meeting, Washington D.C., December 3-6, 1989.
43. "High current back lighted thyatron switches," G. Kirkman-Amemiya, T. Y. Hsu, R. L. Liou, and M. A. Gundersen, International Magnetic Pulse Compression Workshop, Granilbakken, Lake Tahoe, Feb. 12-14, 1990.
44. "Temperature and composition dependence of avalanche breakdown in $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ heterojunctions," C. W. Myles, J. H. Hur, and M.A. Gundersen, American Physical Society, 1990 March Meeting, Anaheim, CA March 12-16, 1990, Bull. Am. Phys. Soc. **35** (3), 738 (1990).
45. "Multigap BLT's for high power applications," T-Y. Hsu, G. Kirkman-Amemiya, R-L. Liou, H. Figueroa, and M.A. Gundersen, Spring Meeting of the American Physical Society, Division of Physics of Beams, Washington, D.C., April 16-19, 1990, Bull. Am. Phys. Soc. **35** (4), 1002 (1990).
46. "Pulsed electron beam production in the back-lighted thyatron," G. Kirkman-Amemiya, H. Bauer, R. Liou, H. Figueroa, T-Y. Hsu, A. H. McCurdy, and M.A. Gundersen, Spring Meeting of the American Physical Society, Division of Physics of Beams, Washington, D.C., April 16-19, 1990, Bull. Am. Phys. Soc. **35** (4), 1002 (1990).
47. "A high power thyatron type switch for high energy physics," M. A. Gundersen, G. Kirkman-Amemiya, R. L. Liou, and T-Y. Hsu, Spring Meeting of the American Physical Society, Division of Physics of Beams, Washington, D.C., April 16-19, 1990, Bull. Am. Phys. Soc. **35** (4), 1002 (1990).
48. "A study of the high current discharge of the pseudospark and back lighted thyatron switch," G. Kirkman-Amemiya, H. Bauer, R. L. Liou, T. Y. Hsu, H. Figueroa, and M. A. Gundersen, 1990 IEEE International Conference on Plasma Science, May 21-23, 1990.

49. "A plasma-based source of pulsed microwave and millimeter wavelength radiation," R. L. Liou, H. Figueroa, G. Kirkman-Amemiya, R. J. Temkin, A. H. McCurdy, H. Fetterman, and M. A. Gundersen, 1990 IEEE International Conference on Plasma Science, May 21-23, 1990.
50. "High-power multiple-gap back-lighted thyratrons," T. Y. Hsu, G. Kirkman, R. L. Liou, H. Figueroa, and M. A. Gundersen, Nineteenth Power Modulator Symposium, San Diego, California, June 26-28, 1990.
51. "Avalanche breakdown characteristics of AlGaAs/GaAs p-n heterojunctions for pulsed power applications," J. H. Hur, C. W. Myles, and M. A. Gundersen, Nineteenth Power Modulator Symposium, San Diego, California, June 26-28, 1990.
52. "High-speed static induction transistor for pulsed-power applications," P. Hadizad, J. H. Hur, H. R. Fetterman, S. Hummel, and M. A. Gundersen, Nineteenth Power Modulator Symposium, San Diego, California, June 26-28, 1990.
53. "GaAs opto-thyristor for pulsed power applications," J. H. Hur, P. Hadizad, S. R. Hummel, P. D. Dapkus, H. R. Fetterman, and M. A. Gundersen, Nineteenth Power Modulator Symposium, San Diego, California, June 26-28, 1990.
54. "A study of the high-current pseudospark and back-lighted thyatron switch," G. Kirkman-Amemiya, H. Bauer, R. L. Liou, T. Y. Hsu, H. Figueroa, and M. A. Gundersen, Nineteenth Power Modulator Symposium, San Diego, California, June 26-28, 1990.
55. "GaAs opto-thyristor for pulsed power applications," J. H. Hur, P. Hadizad, S. G. Hummel, P. D. Dapkus, H. R. Fetterman, and M. A. Gundersen, OPTCON '90, Boston, MA, November 4-9, 1990.
56. "Pulsed microwave and millimeter wavelength radiation from the back-lighted thyatron," R. Liou, H. Figueroa, A. H. McCurdy, G. Kirkman-Amemiya, R. J. Temkin, H. Fetterman, and M. A. Gundersen, 1990 IEEE International Electron Devices Meeting, San Francisco, California, December 12, 1990.
57. "A plasma-based source of pulsed microwave and millimeter wavelength radiation," R. Liou, H. Figueroa, A. H. McCurdy, G. Kirkman-Amemiya, R. J. Temkin, H. Fetterman, and M. A. Gundersen, 15th International Conference on Infrared and Millimeter Waves, Orlando, Florida, December 10-14, 1990.
58. "Model for the "lock-on effect" in semiconductor switches," H. Zhao, J. Hur, P. Hadizad, M. Gundersen, and C. W. Myles, *Bull. Am. Phys. Soc.* **36** (3), 985, March (1989); APS Particle Accelerator Conference, Cincinnati, OH, March 18-22, 1991.
59. "High-voltage, > 100kV hermetically sealed back lighted thyatron switches," G. Kirkman-Amemiya, N. Reinhardt, M. Choi, and M. A. Gundersen, 1991 High-Voltage Workshop, Naval Ship Weapons Systems Engineering Station, Port Heuneme, CA, March 19-21, 1991.
60. "Electron beam generation in the superemissive cathode," T. Y. Hsu, R. L. Liou, G. Kirkman-Amemiya, and M. A. Gundersen, 1991 Particle Accelerator Conference, San Francisco, CA, May 6-9, 1991; *Bull. Am. Phys. Soc.* **36** (4), 1591 (1991).
61. "Fast risetime BLT switches for accelerator applications," G. Kirkman-Amemiya, N. Reinhardt, M. Choi and M. A. Gundersen, 1991 Particle Accelerator Conference, San Francisco, CA, May 6-9, 1991; *Bull. Am. Phys. Soc.* **36** (4), 1515 (1991).
62. "Plasma lenses for SLAC final focus Test Facility," D. Betz, P. Chen, D. Cline, M. Gundersen, C. Joshi, T. Katsouleas, J. Norem, S. Rajagopalan, J. Rosenzweig, J. J. Su, R. Williams, 1991 Particle Accelerator Conference, San Francisco, CA, May 6-9, 1991.
63. "Plasma lens experimental issues", M. Gundersen, Plasma Lens Meeting at USC, May 10, 1991.
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