MORDECHAI LANDO - List of Publications and patents

1.9.2020

Journal papers:

1."*Direct Measurement of the Electron Density in Electron Beam Irradiated Ar/F2 Gas Mixtures by Time Resolved Interferometry*", Z. Rozenberg, M. Lando and M. Rokni, Phys. Rev. A35,4151(1987).

2."*Drift Velocity and Electron Density Measurements in Electron Beam Irradiated Ar/F2 Gas Mixtures subjected to an external field*", Z. Rozenberg, M. Lando, M. Rokni, Phys. Rev. A37,2569(1988).

3."*Direct Measurement of the Electron Density in Electron Beam Irradiated Ar/HCl Gas Mixtures by Time Resolved Interferometry*", M. Lando, Z. Rozenberg and M. Rokni, J. Appl. Phys. 68,2606(1990).

4."*Negative Differential Conductivity in Electron-Beam Irradiated Ar/HCl Mixtures*", M. Lando, Z. Rozenberg and M. Rokni, J. Appl. Phys. 61, 1667(1987).

5."*On the Possibility of Steady State Negative Mobility in Externally Ionized Gas Mixtures*", Z. Rozenberg, M. Lando and M. Rokni, J. Phys. D:Appl. Phys. 21,1593(1988).

6."*Stabilization of high power copper vapor laser*", S. Gabay, P. Blau, M. Lando, I. Druckman, Z. Horvitz, Y. Yfrah, I. Hen, E. Miron and I. Smilanski, Opt. and Quantum Elec. 23,5485(1991).

7. "*A rotatable parallel glass plate periscope for effective aperture magnification in metrology*", Haim Lotem, Zvi Horvitz, Zeev Avnet, Shlomo Hillel and Mordechai Lando. Rev. Sci. Instru. 66, 4467-4469, 1995.

8. "*Visible solar pumped lasers*", Mordechai Lando, Yehoshoa Shimony, Roth M.J. Benmair, Dov Abramovich, Vladimir Krupkin and Amnon Yogev. Optical Materials 13, 111-115 (1999).

9. "*Passive Q-switching of a solar pumped Nd:YAG laser*", M. Lando, Y. Shimony, Y .Noter, R.M.J. Benmair, A. Yogev, Appl. Opt., 39,1962-1965, (2000).

10. " *An astigmaic corrected target aligned solar concentrator*", M. Lando, J. Kagan, B. Linyekin, G. Pecheny, J. Achiam, Optics Communications, 180, 127-132(2000).

11. "A solar pumped Nd:YAG laser in the high collection efficiency regime", M. Lando, J. Kagan, B. Linyekin, V. Dobrusin, Optics Communications, 222, 371-381(2003).

Hebrew proprietary reports on the solar pumped laser project

12. " *Commercial justification of Rotem Industries participation in CONSOLAR*", M. Lando and E. Miron, January 1995.

13. "*Development of solar pumped laser components project -7/95-6/96 report*", M. Lando, 1996.

14. "*Development of solar pumped laser components project –7/96-3/98 report*", M. Lando, 1996.

15."*Development of solar pumped laser components project -4/98-12/98 report*", M. Lando, 1996.

16. "*Astigmatic corrected target aligned solar concentrator-conceptual and optical design*", M. Lando and J. Kagan., 1998.

17. "*Mechanical design of solar concentrator for solid state laser pumping*", J. Kagan, J. Shapira, , B. Linyekin, G. Pecheny, L. Sverdaluv, M. Lando, , 1998.

18. "*Construction and alignment of solar concentrator for solid state laser pumping*", M. Lando, J. Kagan, B. Linyekin, J. Shapira, G. Pecheny, F. Silizky, J. Achiam, 1998.

19. "*Development and construction of solar mirrors for Rotem solar concentrator*", M. Lando, J. Kagan, B. Linyekin, Z. Horviz, D. Sagie, 1999.

20. "*Solar tracking of astigmatic corrected target aligned solar concentrator",* M. Lando, 1999.

21. " *Sub-systems of Rotem solar concentrator", M.Lando, J. Kagan, B. Linyekin, G. Gelman, G. Pecheny, Y. Shimony,* 1999.

22. " *Diode pumped Nd:YAG oscillator solar pumped Nd:YAG amplifier*",V. Dobrusin, M. Lando, J. Kagan, Y. Kalisky, L. Kravchik, September 1999.

23. "*Development of solar pumped laser components project –final report*", M. Lando, July 2000.

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25. " *Photochemical applications of solar pumped laser – O^{18} water enrichment and other processes*" , M. Lando, D. Levron, S. Frier, March 1999.

26. " *Technical and economical feasibility of O^{18} water enrichment by selective decomposition of Formaldehyde under UV laser illumination*", G. Bialolanker, R. David, and M. Lando, September 2000.

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27."*Direct Measurement of the Electron Density in Electron Beam Irradiated Ar/F2 Gas Mixtures by Time Resolved Interferometry*", Z. Rozenberg, M. Lando, and M. Rokni, Bull. of IPS(Israel Physical Society), Annual Meeting (1986).

28."*Direct Measurement of the Electron Density in the Active Medium of E-Beam Pumped Argon Fluoride Laser*", Z. Rozenberg, M. Lando, M. Rokni, Sixth International Symposium on Gas Flow and Chemical Lasers, Jerusalem, Israel, (1986).

29."*Drift Velocity Measurements in Electron Beam Irradiated Ar/F2 Mixtures*", Z. Rozenberg M. Lando and M. Rokni, Bull. of IPS, Annual Meeting (1987).

30."*Direct Measurement of the Electron Density in Electron Beam Irradiated Ar/HCl Gas Mixtures using Time Resolved Interferometry*", M. Lando, Z. Rozenberg and M. Rokni, Bull. of IPS, Annual Meeting(1987).
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31."*Direct Measurement of the Electron Density in Electron Beam Irradiated Ar/HCl Gas Mixtures by Time Resolved Interferometry* ", M. Lando, Z. Rozenberg and M. Rokni, XVIII International Conference on Phenomena in Ionized Gases, Swansea, U.K., (1987).

32."*Drift Velocity Measurements in Electron Beam Irradiated Ar/F2 gas Mixtures*", Z. Rozenberg, M. Lando and M. Rokni, XVIII International Conference on Phenomena in Ionized Gases, Swansea, U.K., (1987).

33."*Drift Velocity and Electron Density Calculations in Electron Beam Irradiated Ar/HCl Gas Mixtures Subjected to an External Electric Field*" M. Lando, Z. Rozenberg and M. Rokni, in Modeling and Simulation of Laser Systems, Donald L. Bullock, editor, Proc. SPIE. 1045, 185(1989).

34."*Negative Differential Conductivity in Electron-Beam Irradiated Ar/HCl Mixtures*", M. Lando, Z. Rozenberg and M. Rokni, Bull. of IPS(Israel Physical Society), Annual Meeting (1986).

35."*The Prediction of Negative Mobility in Electron-Beam Irradiated Argon-Fluoride Ionized Gas Mixtures*", Z. Rozenberg, M. Lando and M. Rokni, Bull. of IPS, Annual Meeting (1988).

36."*A High Power Gold Vapor Laser*" S. Gabay, I. Hen and M. Lando, in High Power Gas Lasers, Petras V. Avizonis, Charles Freed, Jin J. Kim, Frank K. Tittel, Editors, Proc. SPIE. 1225, 260(1990).

37."*A modified off-axis unstable resonator for copper vapor laser*", M. Lando, D. Belker, A. Lerrer, H. Lotem, A. Dikman, G. Bialolanker, S. Lavi and S. Gabay, in Gas and Metal Vapor Lasers and Applications, Jin J. Kim. and Frank K. Tittel, Editors, Proc. SPIE. 1412,19,1991.

38."*Pointing stability of copper vapor laser with novel off-axis unstable resonator*", M. Lando, S. Belker, A. Lerrer, H. Lotem, A. Dikman, G. Bialolanker, S. Lavi and S. Gabay, in 7-th meeting in Israel on Optical Engineering, Moshe Oron and Itzhak Shladov, Editors, Proc. SPIE. 1442,172(1991).

39."*Time dependent gain saturation in a small bore copper vapor laser amplifier*", M. Lando and S. Gabay, Bull. of IPS, Annual Meeting (1991).

40."*Thermally induced window birefringence in high power copper vapor laser*" S. Eisenbach, H. Lotem, Z. Horvitz, G. Miron, M. Lando,S. Gabay, 8th Meeting on Optical Engineering in Israel, Yitzhak Weissman; Moshe Oron; Eds.Proc. SPIE Vol. 1972, p. 13-26, 1993.

41. "*Efficient copper vapor laser pumped Ti:Sapphire laser*", A.Ben-amar, J. Kagan, M.Lando, E. Miron, A. Cohen, M. Nahmani. Bull. of IPS Annual Meeting (1993).

42." *Universal presentation of laser gain saturation laws*" M. Lando, S.Eisenbach, S. Gabay, Laser Resonators and Coherent Optics: Modeling, Technology, and Applications, Anup Bhowmik; Ed. Proc. SPIE Vol. 1868, p. 143-148.1993.

43. "*A rotatable parallel glass plate periscope for effective aperture magnification in metrology*", Z. Avnet , Z. Horvitz, , S. Hillel , H.Lotem and M. Lando, presented in the 26-th Israel conference on Mechanical Engineering, held in Haifa, 1996.

44. "*Angular dispersion of Littrow and of double-diffraction grazing –incidence spectroscope*", H. Lotem and M. Lando, Bull. of IPS Annual Meeting (1995), p. 53.

45. "*Angular dispersion of double-diffraction grazing-incidence spectrograph*" H.Lotem, M. Lando, A. Lorber, D. Manor, 10th Meeting on Optical Engineering in srael, Itzhak Shladov, Stanley R. Rotman; Eds. , Proc. SPIE Vol. 3110, p. 559-565 , 1997.

46. "*Ultra-high flux experiments*", A. Lewandoski, C. Fields, R. Pitts, C. Bingham, D. Jenkins, H. Bernstein, M. Lando, R. Winston and J. O'Gallagher. Presented in the 7-th Int'l Symp. On Solar Thermal Concentration Technology, Moscow, September 1994.

47. "*Application of ultra-high solar flux*", D. Jenkins, R. Winston, J. O'Gallagher, M. Lando, H. Bernstein and A. Lewandowski. Presented in 1994 ASES annual conference, San Jose, June 1994, and in the Third World renewable energy congress, Reading, September 1994.

48. " *High-brightness-solar-pumped Nd:YAG laser design*"
M. Lando, D. G. Jenkins, H. Bernstein, J. O'Gallagher,
R. Winston, A. Lewandowski, 9th Meeting on Optical Engineering, in Israel, Itzhak Shladov; Ed. Proc. SPIE Vol. 2426, p. 478-490, 1995.

49*."Demonstration of new secondary concentrators for powering lasers and producing fullerens*", D. Jenkins, R. Winston, J. O'Gallagher, M. Lando, A. Lewandowski, C. Bingham and R. Pitts, prsented in 1996 ASES annual conference, Asheville, April 1996.

50. "A *solar pumped Nd:YAG laser with a record efficiency of 4.7watt/m^2 of primary mirror area*", D. Jenkins, M. Lando, J. O'Gallagher, R. Winston, A. Lewandowski, C. Bingham and R. Pitts , Bull. of IPS(1996), P. 101.

51. "*Development of application oriented solar pumped lasers*", M. Lando, J. Kagan, A. Ben-Amar Baranga, J. Achiam, presented in SUNDAY symposium on Concentrated Solar Energy, Rehovot, April 1996.

52. "*Solar-pumped solid state laser program*", M. Lando, J. Kagan, Y. Shimony, Y. Kalisky, Y. Noter,A.Yogev, S. R Rotman, S. Rosenwaks,Proc. 10th Meeting on Optical Engineering in Israel, Itzhak Shladov; Stanley R. Rotman; Eds. SPIE Vol. 3110, p. 196-201, 1997.

53. *" Progress of the Solar Pumped Lasers Program*", M. Lando, Bull. of IPS Annual Meeting (1997), P. 76.

54. "*7.5 kW Solar Cassagrainian Concentrator on Equatorial Mount*", M. Lando, J. Kagan, Z. Horvitz, presented in the 8-th Sde Boker Symposium on Solar Electricity Production, Sde-Boker, November 1997.

55. "*Passive Q-switching of high power solar-pumped Nd:YAG laser*", I. Pe'er, D. Abramovic, Y. Noter, A. Yogev, M. Lando and Y. Shimony. In XI international Symposium on Gas Flow and Chemical lasers and High power lasers, Howard J. Baker, Ed., Proc. SPIE 3092, 273-276, 1996.

56. "*Performance of passive Q-switched, solar-pumped, high-power Nd:YAG lasers*", Yoram Noter, Nir Naftali, Idit Pe'Er, Amnon Yogev, Mordechai Lando, Yehoshua Shimony,. In 10th Meeting on Optical Engineering in Israel, Itzhak Shladov; Stanley R. Rotman; Eds., Proc. SPIE Vol. 3110, p. 189-195, 1997.

57. "*Intracavity second harmonic generation in solar-pumped laser*", M. Lando, Y. Shimony, R.M.J. Benmair, I. Vishnevetsky, A. Yogev, Presented in the 5-th French Israeli Conference on Non-Linear and Quantum Optics(FRISNO5), Eilat, December 1997.

58. " *Second Harmonic generation in solar-pumped laser*", M. Lando, Y. Shimony, R.M.J. Benmair, I. Vishnevetsky, A. Yogev, presented in CLEO'98, Conference on Lasers and Electro-optics, San-Francisco, May 1998 (p. 326).

59. " *An astigmaic corrected target aligned solar concentartor for solid state laser pumping*", M. Lando, J. Kagan, . Linyekin, G. Pecheny, J. Achiam, presented in ISES 1999 Solar World Congress, Jerusalem, July 1999.

60. "*38 Watt Nd:YAG laser pumped by a 6.85m^2 target aligned solar concentrator*" M. Lando, J. Kagan, B. Linyekin, V. Dobrusin, presented in the 11-th Int'l Meeting on Electro-optics and Microelectronics in Israel, Tel-Aviv , November 1999.

61. " *Frequency Conversion of Nd:YAG laser pumped by astigmatic corrected target aligned solar concentrator*" , V. Dobrusin, M. Lando, J. Kagan,B. Linyekin, L. Kravchik, Y. Kalisky, Bull. IPS the 46-th annual meeting Haifa, May 2000.

62. "*A proposal for continuous astigmatic correction of a target aligned solar solar concentrator*" , M. Lando, J. Kagan, Proc. Of the 11th Sede Boqer Symposium on Solar Energy Production, Sede Boqer, September 2002.

63**.** "*3D-CPC internal surface preparation: A study comparing diamond turning with polished silver coating*" J. Kagan, M. Lando, Proc. of the 12th Sede Boqer Symposium on Solar Electricity Production , February 23, 2004.

64. "*Conversion of an astigmatic corrected target aligned solar concentrator into an educational demonstration facility*", M. Lando, J. Kagan, E. Kalmanzon, C. de Lange, Proc. of the 12th Sede Boqer Symposium on Solar Electricity Production February 23, 2004.

Patents

1. "A Cube Puzzle" IL 174,729 granted 1 Oct. 2011.
2. " A Latin Game" IL 190,579, granted 1 November 2013.
3. "Mathematical Puzzle Game" IL 179,388, granted 30 October 2015.
4. "Cube Puzzle", US 9,162,139 granted 20 October 2015.
5. "Two Party Puzzle Game" US 9,283,470 granted 15 March 2016 .
6. "Mathematical Puzzle Game" US 9,415,297 granted 16 Aug. 2016.
7. "2X2X2 cube puzzle and a cube stand" US10,029,171 granted July 24,2018.
8. "Dynamic sundial", provisional patent application US 63/069,945,August 25, 2020.