

Date modified: 24/10/2021
CURRICULUM VITAE

Name: Leonid Oster

Date & place of birth: February 15, 1956, Tashkent, USSR.

Citizenship: Israeli

Date of arrival to Israel: May 23, 1990.

Marital Status: Married + 3

Affiliation: SCE - Sami Shamoon College of Engineering, Beer-Sheva, P.O.B. 950, 84100.

Tel: +972-50-7523217.

E-mail: leonido@sce.ac.il

Residence address: 36 Feldberg Shmuel St., Beer-Sheva 84686, Israel.

Tel: +972-8-6494115.

1. Academic education

1981-1986 Ph.D. in Physics. University of Tashkent, USSR. Dissertation title: Photo – and Thermostimulated Exoelectron Emission and Luminescence of Alkali - Earth Sulphates. Adviser: Prof. Yaskolko, V.

1973-1978 M.Sc. in Physics. University of Tashkent, USSR. Dissertation title: Exoelectron Emission of CaSO₄. The influence of surface treatments on EEE. Adviser: Prof. Yaskolko, V.

2. Academic employment

Since 2013 Head of Physics Unit

Since 2009 Full Professor, Physics Unit, Sami Shamoon College of Engineering, Beer-Sheva, Israel.

2003-2009 Associate Professor. Physics Unit, SCE- Sami Shamoon College of Engineering, Israel.

1996-2003 Senior Lecturer. Physics Unit, Negev Academic College of Engineering, Israel.

1995-1996 Senior Lecturer. Physics Department, Ben - Gurion University, Israel.

1991-1995 Lecturer. Physics Department, Ben-Gurion University, Israel.

1991 Scientist. Physics Department, Tel-Aviv University, Israel.

1983 - 1990 Senior Scientist. Physics Department, Tashkent University, USSR.

1979 - 1980 Scientist. Department of Thermal Physics, Tashkent, USSR.

1978 - 1979 Scientist. Institute of Nuclear Physics, Tashkent, USSR.

3. Academic research and development activities:

3.1 Previous research and development activities

1999-2003 The mechanism of exoelectron emission and luminescence of ionic crystals .

1993-1999 Characterisation of Advanced TL Materials(4 peer reviewed papers) .

1991-1995 Optical characteristics of materials used for creation of optical fibers in IR spectral range .

1988-2000 the relationship of exoelectron emission and luminescence to phase transitions in high temperature superconductors .

1974-1989 Influence of surface perturbations on exoelectron emission and luminescence of solids; the role of point (including surface) defects in the formation of exoemission and luminescence properties of solids; development of exoelectron and luminescence dosimeters; .

3.2 Present research and development activities

Since 2007 Spectroscopy of biocompatible materials .

Since 1999 development of "The Unified Interaction-Kinetic-Track Structure Model"

Since 1993 Radiation induced thermoluminescence; TL kinetics; optical spectroscopy of TL and OSL materials.

4. Grants

2019 – 2022 Oster, L. (SCE- Sami Shamoon College of Engineering), Eliyahu, I. (Soreq-NRC), Horowitz, Y. (BGU), The accurate determination of radiation dose in clinical/medical applications. Ministry of Science and Technology, ₪ 1,300,000.

2018 – 2020 Oster, L. (SCE- Sami Shamoon College of Engineering), Eliyahu, I. (Soreq-NRC), Horowitz, Y. (BGU), Fast Neutron – Gamma Discrimination via Combined TL and OSL Measurements. PAZY Foundation, ₪ 900,000.

2009 – 2013 Oster, L. (SCE- Sami Shamoon College of Engineering). Single element high

ionization density discrimination space and clinical dosimetry based on combined thermally stimulated and optically stimulated complex defect system". Israel Science Foundation (ISF), ₪ 351,000.

2005 – 2006 Oster, L. (SCE- Sami Shamoon College of Engineering). Optical Spectroscopy from Ultrathin Films and Quantum Silicon Dots Structures". Grant from Tel-Aviv University, ₪ 20,000.

2004 – 2005 Oster, L. (SCE- Sami Shamoon College of Engineering). Optical Spectroscopy from High-K Dielectric Materials for VLSI". Grant from Tel-Aviv University, ₪ 50,000.

1999 – 2002 Oster, L. (SCE- Sami Shamoon College of Engineering), Horowitz, Y.S. (Ben-Gurion University) Development of a Solid State, Tissue-Equivalent, Microdosimeter Based on LiF:Mg,Ti. United States - Israel Bi-National Science Foundation (BSF), \$111,000.

1997 – 2000 Oster, L. (SCE- Sami Shamoon College of Engineering). Development of a Stable, Highly Efficient LiF:Mg,Cu,P Thermoluminescent Material". Rashi Foundation, \$60,000.

1994 -1995 Oster, L. (Ben-Gurion University). Mechanisms of Thermoluminescence in LiF:Mg,Ti". C'tee for Budgets and Planning-BGU, Faculty of Natural Sciences Seed Funding, \$6,500.

5. List of publications

5.1 Chapters in books

1. Horowitz, Y., Oster, L., Eliyahu, I., "Modeling the Effects of Ionization Density in Thermoluminescence Mechanisms and Dosimetry" in "Advances in Physics and Applications of Optically and Thermally Stimulated Luminescence", 2019, World Scientific.
2. Horowitz, Y., Chen, R., Oster, L., Eliyahu, I., "Thermoluminescence Theory and Analysis: Advances and Impact on Applications" in "Encyclopedia of Spectroscopy and Spectrometry", 3rd edition, 2017, vol. 4, 444-451, Oxford, Academic Press, Elsevier Ltd.

5.2 Peer reviewed papers

3. Y.S. Horowitz¹, L. Oster^{2*}, G. Reshes², D. Nemirovsky³, D. Ginzburg⁴, S. Biderman², Y. Bokobza² M. Sterenberg^{1,2} and I. Eliyahu⁵, Recent developments in computerised analysis of thermoluminescence glow curves: software codes, mechanisms and dosimetric applications, *Radiat. Prot. Dosim.*, 2022, <https://doi.org/10.1093/rpd/ncac147>
4. Eliyahu, I., Horowitz, Y.S., Reshes, G., Shapiro, A., Biderman, S., Assor, Y., Ginsburg, D., Herman, B. and Oster, L., Study of thermally and optically stimulated luminescence in LiF:Mg,Ti following neutron and beta irradiation, *Journal of Physics: Conference Series*
5. Ginzburg, D., Eliyahu, I., Spooner, N., Sterenberg, M., Reshes, G., Shapiro, A., Shlomo Biderman, S., Herman, B., Assor, Y., Nemirovsky, D., Oster, L., Yigal Shalom Horowitz, Y.S. and Hershkovich, D., Search for experimental evidence of dose-rate and wall scattering effects in the thermoluminescence response of LiF:Mg,Ti (TLD-100), *Radiat. Prot. Dosim.*, 198(4), 2022, 222-228.
6. Eliyahu, I., Reshes, G., Alex Shapiro, A., Biderman, S., Oster, L., Nemirovsky, D., Sterenberg, M., Ginzburg, D., Horowitz, Y.S., Herman, B. and Assor, Y., Investigation of the TL characteristics of composite peak 5 in the glow curve of LiF:Mg,Ti (TLD-100) using naturally and furnace cooled samples following the 400°C pre-irradiation anneal, *Radiat. Prot. Dosim.*, 196(1-2), 2021, 53-59.
7. Parisi, A., Olko, P., Bilski, P., Biderman, S., Oster, L., and Horowitz, Y.S., Microdosimetric modeling of the relative efficiency of the optical absorption of LiF:Mg,Ti (TLD-100) detectors exposed to ¹H and ⁴He ions, *Radiat. Meas.*, 145, 2021, doi: 10.1016/j.radmeas.2021.106594, 1-7.
8. Eliyahu, I. and Oster, L., Kinetic simulations of the thermoluminescence characteristics of LiF:Mg,Ti incorporating localized and delocalized recombination, *Radiat. Prot. Dosim.*, 192(2), 2020, 196-204.
9. Ginzburg, D., Oster, L., Biderman, S., Reshes, G., and Eliyahu, I., The Unified Interaction Model: Simulations of TL dose response: Experimental verification of extended dose response linearity by post-irradiation photon excitation, *Radiat. Prot. Dosim.*, 192(2), 2020, 152-164.

10. Eliyahu, I. and Oster, L., Relative HCP thermoluminescence and optical absorption efficiencies: the demise of Track Structure Theory, *Radiat. Prot. Dosim.*, 192(2), 2020 253-265.
11. Ginzburg, D., Oster, L., Eliyahu, I., Reshes, G., S Biderman, S. and Y S Horowitz, Y.S., Experimental measurements confirm decreased supralinearity in the thermoluminescence of beta/gamma irradiated LiF:Mg,Ti (TLD-100) following 3.6 eV and 5 eV optical excitation, *J. Phys.: Conference Series*, 1662, 2020, 1-4.
12. Reshes, G., Eliyahu, I., Oster, L., Horowitz, Y.S., Biderman, S., Ginsburg, D., Bilski, P., Horwacik, T., Swakon, J. and Olko, P., Comparison of Optical Absorption and Thermoluminescence in LiF:Mg,Ti (TLD-100) following irradiation by high energy protons and $^{90}\text{Sr}/^{90}\text{Y}$ beta rays., *Radiat. Meas.*, 132, 2020, doi: 10.1016/j.radmeas.2020.106249, 1-5.
13. Oster, L., Eliyahu, I., Horowitz, Y.S., Reshes, G., Shapiro, A. and Garty, G., Demonstration of the potential and difficulties of combined TL and OSL measurements of TLD-600 and TLD-700 for the determination of the dose components in complex neutron-gamma radiation fields., *Radiat. Prot. Dosim.*, 188(3), 2020, 383-388.
14. Reshes, G., Biderman, S., Horowitz, Y.S., Oster, L., Eliyahu, I., Ginsburg, D., Shapiro, A. and Assor, Y., Dose Dependence of Radiation Induced Damage in The Thermoluminescent Response of LiF:Mg,Ti (TLD-100)., *Radiat. Prot. Dosim.*, 188, 2020, 232-237.
15. Horowitz, Y., Oster, L., Eliyahu, I., The Saga of the Thermoluminescence (TL) Mechanisms and Dosimetric Characteristics of LiF:Mg,Ti (TLD-100), *J. Luminescence*, (16p), 2019, <https://doi.org/10.1016/j.jlumin/2019/116527>.
16. Eliyahu, I., Oster, L., Ginsburg, D., Reshes, G., Biderman, S. and Horowitz, Y.S., Kinetic simulation of dose rate effects in the irradiation stage of LiF:Mg,Ti (TLD-100):

A model based on hole release via V_3-V_k transformation –implications to TL efficiency, Nucl. Instrum. Meth. (B), 440, 2019, 139-145.

17. Ginsburg, D., Oster, L., Eliyahu, I., Reshes, G., Biderman, S., and Horowitz, Y.S., Manipulation of the dose response of composite glow peak 5 in the Thermoluminescence of LiF:Mg,Ti (TLD-100) via optical excitation post irradiation: Potential for improved dose response linearity beyond 1 Gy., Radiat. Prot. Dosim., 184, 2019, 248-255.
18. Eliyahu, I., Horowitz, Y., Oster, L., Biderman, S., Druzhyna, S., Einav, H., Reshes, G., Ginzburg, D., Kinetic simulation of the effect of 3.6 eV and 4.2 eV photon excitation on the optical absorption energy spectrum of ^{137}Cs gamma irradiated LiF:Mg,Ti (TLD-100), Nucl. Instrum. Meth. (B), 431, 2018, 6-11.
19. Horowitz, Y., Oster, L., Eliyahu, I., Biderman, S., Einav, H., Ginzburg, D., Reshes, G., Scientific comment, J. Luminescence, 194, 2018, 379-380.
20. Horowitz, Y., Oster, L., Eliyahu, I., Review of dose-rate effects in the thermoluminescence of LiF:Mg,Ti (Harshaw), Radiat. Prot. Dosim., 179, 2017, 184-188.
21. Eliyahu, I., Horowitz, Y.S., Oster, L., Druzhyna, S., Biderman, S., Ginzburg, D., Reshes, G., Kinetic simulation of the optical absorption dose response of LiF:Mg,Ti (TLD-100) incorporating spatially correlated electron and hole trapping centers, Nucl. Instrum. Meth. (B), 407, 2017, 282-290.
22. Eliyahu, I., Horowitz, Y.S., Oster, L., Druzhyna, S., Biderman, S., Reshes, G., Kinetic simulations of optical absorption in LiF:Mg,Ti (TLD-100) following irradiation by ^{137}Cs gamma rays and bleaching at photon energies of 3.1 eV, 4.0 eV and 5.08 eV: J. Luminescence, 187, 2017, 313-321.
23. Druzhyna, S., Datz, H., Oster, L., Lerch, M., Rosenfeld, A., Cullen, A., Orion, I., Horowitz, Y.S., Thermoluminescence Dose Response of Photon Irradiated NaCl: Unified Interaction Model Analysis of the Dependence of the Supralinearity on Photon Energy, Radiat. Meas., 106, 2017, 455-458.
24. Biderman, S., Druzhyna, S., Reshes, G., Eliyahu, I., Oster, L., Horowitz, Y.S., Investigation of the energy spectrum and dose response of optical absorption bands in 4N single crystal LiF and LiF:Mg,Ti (TLD-100), Radiat. Meas., 2017, 106, 30-34.

25. Reshes, G., Druzhyna, S., Biderman, S., Eliyahu, I., Oster, L., Horowitz, Y.S., Study of the effect of optical bleaching at selected photon energies on the optical absorption and thermoluminescence of LiF:Mg,Ti (TLD-100), *Radiat. Meas.*, 106, 2017, 26-29.
26. Reshes, G., Druzhyna, S., Biderman, S., Eliyahu, I., L.Oster, L., Horowitz, Y.S., The effect of optical bleaching at selected photon energies on the optical absorption and thermoluminescence of LiF:Mg,Ti, *IOP Conference Series, Materials Science and Engineering*, 2017, 169, 1-6.
27. Oster, L., Eliyahu, I., Horowitz, Y.S., Druzhyna, S., Biderman, S., Reshes, G., Kinetic modeling of thermoluminescence, optical absorption and bleaching in LiF:Mg,Ti, *Bulletin of the Russian Academy of Sciences: Physics*, 2017, 81 (9), 1043-1049.
28. Druzhyna, S., Datz, H., Horowitz, Y., Oster, L., Orion, I., Thermoluminescence characteristics of Israeli household salts for retrospective dosimetry in radiological events, *Nucl. Instrum. Meth. (B)*, 2016, 377, 67-76.
29. Druzhyna, S., Eliyahu, I., Oster, L., Horowitz, Y.S., Biderman, S., Reshes, G., Investigation of the optical absorption dose response of LiF:Mg,Ti (TLD-100) and the role of V centers in F center (5.08 eV) bleaching, *Radiat. Meas.*, 2016, 90, 113-116.
30. Eliyahu, I., Druzhyna, S., Horowitz, Y., Reshes, G., Biderman, S., Oster, L., Kinetic simulation of charge transfer following 5.08 eV (F band) optical excitation of irradiated LiF:Mg,Ti (TLD-100): Participation of holes released via V_3-V_K transformation, *Radiat. Meas.*, 2016, 90, 27-32.
31. Oster, L., Horowitz, Y.S., Druzhyna, S., Thermally and optically stimulated luminescence in LiF:Mg, Ti: Application to mixed high/low ionization density radiation dosimetry, *Bulletin of the Russian Academy of Sciences. Physics.*, 2016, 80, 9-13.
32. Horowitz, Y.S., Eliyahu, I., Oster, L., Kinetic simulations of thermoluminescence dose response: Long overdue confrontation with the effects of ionization density, *Radiat. Prot. Dosim.*, 2015, 172(4), 524-540.
33. Datz, H., Druzhyna, S., Oster, L., Orion, I., Horowitz, Y., Study of the suitability of Israeli household salt for retrospective dosimetry, *Radiat. Prot. Dosim.*, 2016, 170, 407-411.
34. Eliyahu, I., Horowitz, Y.S., Oster, L., Mardor, I., Biderman, S., Druzhyna, S., Marino, S., Probing the defect nanostructure of helium and proton tracks in LiF:Mg,Ti using optical absorption: Implications to Track Structure Theory calculations of heavy charged particle relative Efficiency, *Nucl. Instrum. Meth. (B)*, 2015, 349, 209-220.

35. Eliyahu, I., Horowitz, Y.S., Oster, L., Mardor, I., Druzhyzna, S., Biderman, S., Kinetic modeling of Fluorine vacancy/F center creation in LiF:Mg,Ti including vacancy-interstitial recombination: Evaluating the factors leading to the lack of supralinearity in the optical absorption F center concentration dose response, Nucl. Instrum. Meth. (B), 2015, 343, 15-25.
36. Lavon, A., Eliyahu, I., Oster, L., Horowitz, Y.S., The modified Unified Interaction Model: Incorporation of dose dependent localized recombination, Radiat. Prot. Dosim., 2015, 163(3), 362-372.
37. Eliyahu, I., Y S Horowitz, Y.S., Oster, L., Druzhyzna, S., Mardor, I., Nanodosimetric kinetic model incorporating localized and delocalized recombination: Application to the prediction of the electron dose response of the peak 5a/5 ratio in the glow curve of LiF:Mg,Ti (TLD-100), Radiat. Meas, 2014, 71, 226-231.
38. Biderman, S., Eliyahu, I., Y S Horowitz, Y.S., Oster, L., Dose response of F center optical absorption in LiF:Mg,Ti (TLD-100), Radiat. Meas, 2014, 71, 237-241.
39. Sibony, D., Horowitz, Y.S., Oster, L., Wojcik, A., Sollazzo, A., Combined measurement of dose and α/γ radiation-field-components using the shape of composite peak 5 in the glow curve of LiF:Mg,Ti, Radiat. Meas, 2014, Radiat. Meas. , 71, 86-89.
40. Sibony, D., Horowitz, Y.S., Oster, L., The effect of sample/planchet geometry and temperature resolution on the reproducibility of glow curve shapes and precision of the dose measurement in LiF-TLD-100 thermoluminescent dosimetry, Radiat. Meas, 2014, 71, 205-207.
41. Eliyahu, I., Y S Horowitz, Y.S., Oster, L., Mardor, I., A Kinetic Model Incorporating both Localized and Delocalized Recombination: Application to the Dependence of the TL Dose Response on Photon Energy γ , 2014, J. Luminescence, 145, 600-607.
42. Oster, L., Druzhyzna, S., Orion, I., Horowitz, Y.S. Study of Combinations of TL/OSL Single Dosimeters for Mixed High/Low Ionization Density Radiation Fields. Radiat. Meas. 2013, 56, 320-323.
43. Eliyahu, I., Y S Horowitz, Y.S., Oster, L. Conduction band/valence band kinetic modeling of the LiF:Mg,Ti system incorporating creation of defects in the irradiation stage. Nucl. Instrum. Meth. (B), 2012, 293, 26-34.
44. Oster, L., Druzhyzna, S., Orion, I., Horowitz, Y.S. Study of Combinations of TL/OSL Single Dosimeters for Mixed High/Low Ionization Density Radiation Fields. The IFMBE Proceedings, Springer, 2013, 38, 135-138.

45. Horowitz, Y.S., Sibony, D., Oster, L., Livingstone, D.J., Guatelli, S., Rosenfeld, A., Emfietzoglou, D., Bilski, P., Obryk, B. Alpha particle and proton relative thermoluminescence efficiencies in LiF:Mg,Cu,P: Track structure theory up to the task? *Rad. Prot. Dosim.*, 2012, 150, 359-374.
46. Oster, L., Druzhyzna, S., Horowitz, Y.S. Optically stimulated luminescence in LiF:Mg,Ti: application to solid-state radiation dosimetry. *Nucl. Instrum. Meth. (A)*, 2011, 648, 261-265.
47. Horowitz, Y., Fuks, E., Datz, H., Oster, L., Livingstone, J., Rosenfeld, A. Mysteries of LiF TLD response following high ionization density irradiation: glow curve shapes, dose response, the Unified Interaction Model and Modified Track Structure Theory. *Radiat. Meas.*, 2011, 46, 1342-1348.
48. Datz, H., Livingstone, J., Horowitz, Y.S., Oster, L., Horowitz, A., Kol, M., Margaliot, M. Energy dependence of the supralinearity ($f(D)_{\max}$) of peaks 7 and 8 in the High Temperature Thermoluminescence of LiF:Mg,Ti (TLD-100): Interpretation using the Unified Interaction Model. *Radiat. Meas.*, 2011, 46, 1436-1439.
49. Datz, H., Horowitz, Y.S., Oster, L., Margaliot, M. Influence of background subtraction protocol on the High Temperature Thermoluminescence in LiF:Mg,Ti (TLD-100). *Radiat. Meas.*, 2011, 46, 1440-1443.
50. Datz, H., Horowitz, Y.S., Oster, L., Margaliot, M. Critical dose threshold for TL dose response non-linearity: Dependence on the method of Analysis: It's not only the data. *Radiat. Meas.*, 2011, 46, 1444-1447.
51. Oster, L., Druzhyzna, S., Horowitz, Y.S. Cooling rate effects in the thermal and optical excitation of LiF:Mg, Ti. *Radiat. Meas.*, 2011, 46, 1406-1409.
52. Horowitz, Y., Fuks, E., Datz, H., Oster, L., Livingstone, J., Rosenfeld, A. Mysteries of LiF TLD response following high ionization density irradiation: glow curve shapes, dose response, nanodosimetry and Track Structure Theory. *Rad. Prot. Dosim.*, 2011, 145: 356-372.
53. Fuks, E., Horowitz, Y.S., Horowitz, A., Oster, L., Marino, S., Rainer, M., Rosenfeld, A., Datz, H. Thermoluminescence solid state nanodosimetry – the peak 5a/5 dosimeter. *Rad. Prot. Dosim.*, 2011, 143: 416-426.
54. Oster, L., Horowitz, Y.S., Podpalov L. OSL and TL in TLD-100 following alpha and beta irradiation: Application to mixed-field radiation dosimetry. *Radiat. Meas.*, 2010, 45: 1130-1133.

55. Datz, H, Horowitz, Y.S., Oster, L., Margaliot, M. Characteristics of the high temperature thermoluminescence in LiF:Mg,Ti (TLD-100): The effects of batch history. *Radiat. Meas.*, 2010, 45: 710-712.
56. Oster, L, Horowitz Y.S, Zlotopolsky, S. Investigation of the optical absorption characteristics of slow-cooled LiF:Mg,Ti (TLD-100). *Radiat. Meas.*, 2010, 45: 347-349.
57. Livingstone, J, Horowitz, Y.S, Oster, L, Datz, H, Lerch, M, Rozenfeld, A. Horowitz, A. Experimental investigations of the 100 keV x-ray dose response of the high temperature thermoluminescence in LiF:Mg,Ti (TLD-100): Theoretical interpretation using the Unified Interaction Model. *Radiation Protection Dosimetry* 2010, 138: 320-333.
58. Weiss, D, Horowitz, Y.S, Oster, L. Ionization density effects following F-center optical excitation in LiF:Mg,Ti (TLD-100): Analysis via Track Structure Theory. *Journal of Physics D.: Applied Physics* 2009; 42 085113 (11pp) doi: [10.1088/0022-3727/42/8/085113](https://doi.org/10.1088/0022-3727/42/8/085113)
59. Sabayev, V, Aronov, D, Oster, L, Rosenman, G. Electron-induced surface reactivity modification of Zinc Oxide-based thin films. *Applied Physics Letters* 2008; 93: 144104-1-3.
60. Horowitz, Y.S, Horowitz, A, Oster, L, Marino, S, Datz, H, Margaliot, M. Investigation of the ionization density dependence of the glow curve characteristics of LiF:Mg,Ti (TLD-100). *Radiation Protection Dosimetry* 2008; 131: 406-413.
61. Weiss, D, Horowitz, Y.S, Oster, L. Delocalized recombination kinetic modeling of the LiF:Mg,Ti glow peak 5 thermoluminescence system. *Journal of Physics D.: Applied Physics* 2008; 41 185411 (9pp) doi: [10.1088/0022-3727/41/18/185411](https://doi.org/10.1088/0022-3727/41/18/185411)
62. Horowitz, Y.S, Oster, L, Datz, H, Margaliot, M. Some dosimetric characteristics of the high temperature TL in LiF:Mg,Ti (TLD-100). *Radiation Measurements* 2008; 43: 203-207.
63. Fuks, E, Horowitz, Y.S, Oster, L. Investigation of the properties of composite peak 5 in slow-cooled TLD-100. *Radiation Measurements* 2008; 43: 249-253.
64. Weiss, D, Horowitz, Y.S, Oster, L. Kinetic modeling of optical absorption dose response in TLD-100. *Radiation Measurements* 2008; 43: 190-193.
65. Weiss, D, Horowitz, Y.S, Oster, L. Delocalized recombination kinetic model of the LiF:Mg,Ti (TLD-100) glow peak 5 TL system. *Radiation Measurements* 2008; 43: 254-258.

66. Oster, L, Horowitz Y.S, Podpalov, L. OSL and TL in LiF:Mg,Ti following alpha particle and beta ray irradiation: Application to mixed-field radiation dosimetry. *Radiation Protection Dosimetry* 2008; 128: 261-265.
67. Horowitz, Y.S, Oster, L, Datz, H. The thermoluminescence dose-response and other characteristics of the high-temperature TL in LiF:Mg,Ti (TLD-100). Invited Paper, *Radiation Protection Dosimetry* 2007; 124:191-205.
68. Fuks, Y, Horowitz, Y, Oster, L, Belaish, Y, Ben Shachar, B. The effects of ionization density on the glow curve structure of LiF:Mg,Ti (TLD-100): The behaviour of composite glow peak 5 in "Slow-Cooled" material. *Radiation Protection Dosimetry* 2007; 126: 194-197.
69. Weiss, D, Horowitz, Y, Oster, L. Ionisation density effects following optical excitation in LiF:Mg,Ti (TLD-100). *Radiation Protection Dosimetry* 2007; 126: 206-209.
70. Horowitz, Y.S, Fuks, Y, Oster, L, Podpalov, L, Belaish Y, Ben Shachar, B. Advanced multi-stage deconvolution applied to composite glow peak 5 in LiF:Mg,Ti. *Radiation Protection Dosimetry* 2007; 126: 322-325.
71. Rosenman, G, Aronov, D, Oster, L, Haddad, J, Mezinskis, G, Pavlovska, I, Chaikina, M, Karlov, A. Electronic states spectroscopy of Hydroxyapatite Nanoceramics. *Journal of Material Sciences: Materials in Medicine* 2007; 18(5): 865-870.
72. Rosenman, G, Aronov, D, Oster, L, Haddad, J, Mezinskis, G, Pavlovska, I, Chaikina M, Karlov, A. Photoluminescence and surface photovoltage spectroscopy studies of hydroxyapatite nano-Bio-ceramics. *Journal of Luminescence* 2007; 122-123: 936-938.
73. Oster, L, Horowitz, Y.S, Biderman, S, Fuks, Y, Belaish Y, Sattinger, D. Localized and delocalized transitions and optical excitation of LiF:Mg,Ti following alpha and beta irradiation. *Journal of Luminescence* 2007; 122-123: 146-148.
74. Horowitz, Y.S, Belaish Y, Oster, L. Theories of TL systems: Failures, successes, conflicts, trends: Insights into possible future materials and techniques. Invited Paper, *Radiation Protection Dosimetry* 2006; 119: 124-129.
75. Biderman, S, Oster, L, Horowitz, Y. Modeling the dose response of peaks 4, 5 and 5b as a function of recombination temperature. *Radiation Protection Dosimetry* 2006; 119: 285-288.
76. Biderman, S, Oster, L, Horowitz, Y.S. Theoretical and experimental investigation of the $f(D)_{\max}-(S/S_0)_{\max}$ anomaly in LiF:Mg,Ti. *Radiation Protection Dosimetry* 2006; 119: 289-292.

77. Horowitz, Y.S, Fuks, Y, Weiss, D, Oster, L, Podpalov, L. Optical excitation of LiF:Mg,Ti following alpha and beta irradiation. *Radiation Protection Dosimetry* 2006; 119: 386-389.
78. Nail, I, Horowitz, Y.S, Oster, L, Brandan, M.E, Ipe N, Olko, P. Search for ionization density effects in the radiation absorption stage in LiF:mg,Ti. *Radiation Protection Dosimetry* 2006; 119: 180-183.
79. Nail, I, Oster, L, Horowitz, Y.S, Biderman, S. Properties of the 4.45 eV optical absorption band in LiF:Mg,Ti. *Radiation Protection Dosimetry* 2006; 119: 244-247.
80. Oster, L, Horowitz, Y.S, Biderman, S, Haddad, J. The concept of quasi-tissue-equivalent nanodosimeter based on the Glow Peak 5a/5 in LiF:Mg,Ti (TLD-100). *Australasian Physical & Engineering Sciences in Medicine* 2003; 26(4): 78-83.
81. Oster, L, Haddad, J. Kinetic analysis of relaxation electron emission: Exotic cases of the energy transfer. *Material Sciences* 2003; 9: 297-302.
82. Horowitz, Y.S, Satinger, D, Fuks, E, Oster, L, Podpalov, L. On the use of LiF:Mg,Ti in space – a critical review. Invited Paper, *Radiation Protection Dosimetry* 2003; 106: 7-25.
83. Oster, L, Haddad, J. Kinetic modeling of the photo-stimulated exoelectron emission. *Physica Status Solidi (a)* 2003; 196: 471-476.
84. Horowitz, Y.S, Oster, L, Biderman, S, Einav, Y. Localized transitions in the thermoluminescence of LiF:Mg,Ti: potential for nanoscale dosimetry. *Journal of Physics D.: Applied Physics* 2003; 36: 446-459.
85. Nail, I, Horowitz, Y.S, Oster, L, Biderman, S. The Unified Interaction Model Applied to LiF:Mg,Ti (TLD-100): Properties of the luminescent and competitive centres during sensitization. Invited Paper, *Radiation Protection Dosimetry* 2002; 102: 295-304.
86. Oster, L, Horowitz, Y.S, Biderman, S, Haddad, J. Estimation of DNA DSB radiation damage using a solid state nanodosimeter based on glow peak 5a in LiF:Mg,Ti (TLD-100). *Scientific Proceedings of Riga Technical University* 2002; 6: 29-33.
87. Oster, L, Biderman, S. New evidence for spatially correlated TC-LC mechanisms in thermoluminescence of LiF:Mg,Ti. Invited Paper, *Radiation Protection Dosimetry* 2002; 100: 191-198.
88. Biderman, S, Horowitz, Y, Oster, L. Investigation of the emission spectra of LiF:Mg,Ti (TLD-100) during thermoluminescence. *Radiation Protection Dosimetry* 2002; 100: 369-372.

89. Issa, N, Horowitz, Y.S, Oster, L. Optical absorption and sensitization dose response in LiF:Mg,Ti: application to the unified interaction model predictions of thermoluminescence dose response. *Radiation Protection Dosimetry* 2002; 100:107-110.
90. Horowitz, Y.S, Einav, Y, Biderman, S, Oster, L. Localised and delocalised optically induced conversion of composite peak 5 in LiF:Mg,Ti (TLD-100) to glow peak 4 as a function of post-irradiation annealing temperature. *Radiation Protection Dosimetry* 2002; 100: 135-138.
91. Horowitz, Y.S, Oster, L, Satinger, D, Biderman, S, Einav, Y. The composite structure of peak 5 in the glow curve of LiF:Mg,Ti (TLD-100): confirmation of peak 5a arising from a locally trapped electron-hole configuration. *Radiation Protection Dosimetry* 2002; 100: 123-126.
92. Weizman, Y, Horowitz, Y.S, Oster, L. Kinetic modeling of the optically stimulated conversion of peaks 5a and 5 to peak 4 in LiF:Mg,Ti (TLD-100). *Radiation Protection Dosimetry* 2002; 100: 131-134.
93. Biderman, S, Horowitz, Y, Oster, L, Einav, Y, Dubi, Y. Glow curve analysis of composite peak 5 in LiF:Mg,Ti (TLD-100) using optical bleaching, thermal annealing and computerised glow curve deconvolution. *Radiation Protection Dosimetry* 2002; 101: 69-72.
94. Oster, L, Yaskolko, V, Haddad, J. The Experimental Criteria for Distinguishing Different Types of Exoelectron Emission Mechanisms. *Physica Status Solidi (a)* 2001; 187: 481-485.
95. Oster, L, Horowitz, Y.S, Issa, N. Investigation of the "Fine Structure" of the TL and OA Bands of the LiF:Mg,Ti (TLD-100) Using Optical and Thermal Bleaching. *Radiation Measurements* 2001; 33: 491-496.
96. Horowitz, Y.S, Satinger, D, Oster, L, Issa, N, Brandan, M.E, Avila, O, Rodriguez Villafuerte, M, Gamboa-de Buen, I, Buenfil, A, Ruiz-Trejo, C. The Extended Track Interaction Model Supralinearity and Saturation He-Ion TL Fluence Response in Sensitised TLD-100. Invited Paper, *Radiation Measurements* 2001; 33: 459-473.
97. Weizman, Y, Horowitz, Y.S, Oster, L. Optically Induced Conversion of Glow Peaks 4 and 5 in LiF:Mg,Ti due to Localized and De-Localized Recombination Mechanisms. *Journal of Luminescence* 2000; 87-89: 552-554.
98. Oster, L, Haddad, J. Study of the Effective Layer for Luminescence and Exoelectron Emission. *Journal of Luminescence* 2000; 87-89: 724-726.

99. Oster, L, Yaskolko, V, Haddad, J. Classification of Exoelectron Emission Mechanisms. *Physica Status Solidi (a)* 1999; 174: 431-439.
100. Weizman, Y, Horowitz, Y.S, Oster, L. Investigation of the Composite Structure of Peak 5 in the Thermoluminescent Glow Curve of LiF:Mg,Ti Using Optical Bleaching. *Journal of Physics D.: Applied Physics* 1999; 32: 2118-2127.
101. Satinger, D, Horowitz, Y.S, Oster, L. Isothermal decay of isolated peak 5 in 165⁰C/15 minute post-irradiation annealed LiF:Mg,Ti (TLD-100) following alpha particle and beta ray irradiation. *Radiation Protection Dosimetry* 1999; 1-4: 67-72.
102. Satinger, D, Horowitz, Y.S, Oster, L. Dependence of the dose response supralinearity of peak 5 in TLD-100 on recombination temperature: resolution of the discrepancy between readout via linear heating and isothermal decay data. *Radiation Protection Dosimetry* 1999; 1-4: 99-102.
103. Weizman, Y, Horowitz, Y.S, Oster, L, Yossian, D, Bar-Lavi, O, Horowitz, A. Mixed-order kinetic analysis of the glow curve characteristics of single crystal LiF:Mg,Ti as a function of Ti concentration. *Radiation Protection Dosimetry* 1999; 1-4: 47-50.
104. Ben-Amar, G, Ben-Shachar, B, Oster, L, Horowitz, Y.S, Horowitz, A. Investigation of the glow peak parameters, reuseability and dosimetric precision of LiF:Mg,Cu,P at high heating rates up to 20⁰Cs⁻¹. *Radiation Protection Dosimetry* 1999; 1-4: 235-238.
105. Oster, L, Horowitz, Y.S, Issa, N. Optical absorption and thermoluminescence studies in irradiated dosimetric LiF:Mg,Ti (TLD-100). *Radiation Protection Dosimetry* 1999; 1-4: 17-20.
106. Oster, L, Horowitz, Y.S, Issa, N. Identification of competitive trapping centers in irradiated LiF:Mg,Ti via optical absorption studies. *Radiation Effects and Defects in Solids* 1998; 146: 243-249.
107. Horowitz, Y.S, Mahajna, S, Oster, L, Weizman, Y. The Unified Interaction Model applied to the gamma induced supralinearity and sensitisation of peaks 4 and 5 in LiF:Mg,Ti (TLD-100). Invited Paper. *Radiation Protection Dosimetry* 1998; 78: 169-194.
108. Weizman, Y, Horowitz, Y.S, Oster, L, Yossian, D, Bar-Lavi, O, Horowitz, A. Mixed-order kinetic analysis of the glow curve characteristics of single crystal LiF:Mg,Ti as a function of Ti concentration. *Radiation Measurements* 1998; 29: 517-525.

109. Ben-Amar, G, Ben-Shachar, B, Oster, L, Horowitz, Y.S, Horowitz, A. Influence of the heating rate on the TL signal and temperature of the dosimetric peaks of LiF:Mg,Ti and LiF:Mg,Cu,P. IRPA 1998; 20: 34-37.
110. Satinger, D, Oster, L, Horowitz, Y.S, Yossian, D. Study of the kinetics of peak 5 in LiF:Mg,Ti: dose dependence of the thermoluminescence isothermal decay at 165⁰C. Material Science Forum 1997; 239-241: 737-740.
111. Oster, L, Horowitz, Y.S, Issa, N. Identification of multiple charge trapping centers in irradiated LiF:Mg,Ti via optical absorption studies: the 2.78 and 5.0 eV (F center) absorption bands. Material Science Forum 1997, 239-241: 733-736.
112. Satinger, D, Oster, L, Horowitz, Y.S, Yossian, D. The kinetics of the peak 5 in LiF:Mg,Ti dose dependence of the thermoluminescence isothermal decay at 165⁰C. Journal of Physics D.: Applied Physics 1997, 30: 900-911.
113. Oster, L, Horowitz, Y.S, Horowitz, A. Further studies of the stability of LiF:Mg:Cu,P (GR-200) at maximum readout temperatures between 240⁰C and 280⁰C. Radiation Protection Dosimetry 1996; 65: 159-162.
114. Kristianpoller, N, Oster, L. Optically stimulated luminescence in anion-defective carbon doped α -Al₂O₃ crystals. Radiation Effects & Defects in Solids 1995; 134: 311-314.
115. Horowitz, Y.S, Oster, L. Review of TL materials. Radiation Measurements 1995: 24: 105-106.
116. Oster, L, Weiss, D, Kristianpoller, N. A study of photostimulated thermoluminescence in C-doped α -Al₂O₃ crystals. Journal of Physics D.: Applied Physics 1994; 27: 1732-1736.
117. Oster, L, Katzir, A, Chen, R, Kristianpoller, N. Effects of irradiation and of thermal treatment on optical properties of mixed AgCl-AgBr crystals. World Scientific 1993; 2: 883-885.
118. Oster, L, Horowitz, Y.S, Horowitz, A. Glow curve readout of LiF:Mg,Cu,P (GR 200) chips at maximum temperature between 240⁰C and 280⁰C: Elimination of the residual signal. Invited Paper. Radiation Protection Dosimetry 1993; 9: 407-411.
119. Oster, L, Kristianpoller, N, Chen, R, Katzir, A. Photoluminescence of Mixed AgCl_{0.45}Br_{0.55} Crystals. Journal of Physics D.: Applied Physics 1993; 26: 1759-1763.

120. Yaskolko, V.Ya, Oster, L.N, Mukimov, K.M. The relationship of exoelectron emission and luminescence to phase transitions in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$. *Physica Status Solidi (a)* 1991; 123: K35 -K38 .
121. Krasnaya, A.R, Mukhamedkhanova, Sh.I, Oster, L.N, Yaskolko, V.Ya. On the usage of some new methods of luminescence and exoemission in geology. *Uzbek Geological Journal* 1989; 3: 94-95.
122. Mukhamedkhanova, Sh. I, Oster, L.N, Yaskolko, V.Ya. TSL photoexcitation of CaSO_4 -based phosphors. *News of the Tashkent University* 1988, 43-47.
123. Bedilov, M.R, Juraev, D.R, Mukimov, K.M, Oster, L.N. Exoelectron properties of high temperature superconductors. *Izv. (News) AN UZSSR* 1988; 9: 33-35.
124. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya. Measurements of electron affinity and activation energy of electron traps in alkali-earth sulphates. *Phys. Electronics* 1987; 13-17.
125. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya. Exoelectron spectroscopy of dielectrics under photon and low-energy electron excitation. *Physica Status Solidi (a)* 1986; 97: K153-K157.
126. Krasnaya, A.R, Nosenko, B.M, Oster, L.N, Yaskolko, V.Ya. The phenomenon of return coupling during exoemission measurements. *Radiat.- Stimulated Phenom. in Solids* 1985; 7: 30-35.
127. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya. Exoelectron emission of Ca sulphate by slow electron excitation. *Radiat.- Stimulated Phenom. in Solids* 1985; 7: 26-30.
128. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya. To the question on exoelectron emission models. *Izv. (News) AN SSSR, Ser Fiz.* 1985; 49: 1837-1840.
129. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya, Photo- and thermostimulated exoelectron emission of alkali-earth sulphates. *Radiat.- Stimulated Phenom. in Solids* 1984; 6: 88-93.
130. Krasnaya, A.R, Oster, L.N, Yaskolko, V.Ya. Exoelectron emission from calcium sulphate excited by slow electrons. *Physica Status Solidi (a)* 1984; 85: K145-K148.

5.2 Papers and abstracts – proceedings of conferences

5.2.1. Invited conference plenary lectures

1. Oster, L., Eliyahu, I., Horowitz, Y.S., Druzhyna, S., Biderman, S., Reshes, G., Kinetic modeling of thermoluminescence, optical absorption and bleaching in LiF:Mg,Ti, XV International Conference on Luminescence and Laser Physics, Arshan, Russia, 2016.
2. Oster, L., Horowitz, Y.S., Druzhyna, S., Thermally and optically stimulated luminescence in LiF:Mg,Ti: Application to mixed high/low ionization density radiation dosimetry, XIV International Conference on Luminescence and Laser Physics, Arshan, Russia, 2014.
3. Oster, L., Druzhyna, S., Orion, I., Horowitz, Y.S. Study of Combinations of TL/OSL Single Dosimeters for Mixed High/Low Ionization Density Radiation Fields. International Symposium on Biomedical Engineering and Medical Physics, Riga, Latvia, 2012.
4. Horowitz, Y., Fuks, E., Datz, H., Oster, L., Livingstone, J., Rosenfeld, A. Mysteries of LiF TLD response following high ionization density irradiation: glow curve shapes, dose response, the Unified Interaction Model and Modified Track Structure Theory. 16th International Conference on Solid State Dosimetry, Sydney, Australia, 2010.
5. Horowitz, Y.S, Belaish, Y, Oster, L. Theories of TL systems: Failures, successes, conflicts, trends: Insights into possible future materials and techniques. The 14th International Conference on Solid State Dosimetry (ICSSD-2004), Yale University New Haven, Connecticut, USA, 2004.
6. Oster, L, Horowitz, Y.S, Biderman, S, Haddad, J. The glow peak 5a/5 quasi-tissue equivalent nanodosimeter in LiF:Mg,Ti (TLD-100): a potential new paradigm in radiobiological dosimetry. World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, 2003.
7. Oster, L, Biderman, S. New evidence for spatially correlated TC-LC mechanisms in the thermoluminescence of LiF:Mg,Ti. The 13th International Conference on Solid State Dosimetry (ICSSD-2001), Athens, Greece, 2001.
8. Horowitz, Y.S. Oster, L, Issa, N. Optical absorption in LiF:Mg,Ti and its relationship to thermoluminescence and thermoluminescence dose response. The III International Conference and the XIII National Conference on SSD, Toluca, Mexico, 2000.
9. Horowitz, Y.S, Sattinger, D, Oster, L, Issa, N, Brandan, M.E, Avila, O, Rodrigues-Villafuerte, M, Gamboa-de Buen, I, Buenfil, A, Ruiz-Trejo, C. The Extended Track Interaction Model. Supralinearity and saturation He-ion TL fluence response in sensitised TLD-100. International Conference on Luminescent Detectors LUMDETR-2000, Riga, Latvia, 2000
10. Oster, L, Horowitz, Y.S, Weizman, Y, Sattinger, D, Issa, N. The LiF:Mg,Ti

thermoluminescent System: The mixed geminate and conduction band recombination model for composite peak5. International Symposium on Luminescence and its Applications (ISLA-2000), Baroda, India, 2000.

5.2.2. Contributed conference presentations

11. Horowitz, Y.S., Oster, L., Ginzburg, D., Sterenberg, M., Biderman, S., G. Reshes, G. and Eliyahu, I., Extended dose response linearity beyond 1 Gy in LiF:Mg,Ti (TLD-100) using photon excitation post-irradiation, MMND-ITRO 2022, Noosa, Queensland, Australia, 2022.
12. Eliyahu, I., Horowitz, Y.S., Reshes, G., Shapiro, A., Biderman, S., Assor, Y., Ginzburg, D., Herman, B., Oster, L., Study of thermally and optically stimulated luminescence in LiF:Mg,Ti following neutron and beta irradiation, ICDIM2020, Sergipe, Brazil, 2020.
13. Ginzburg, D., Eliyahu, I., Horowitz, Y.S., Reshes, G., Shapiro, A., Biderman, S., Assor, Y., Oster, L., Investigation of dose-rate effects in the thermoluminescence of LiF:Mg,Ti (TLD-100), ICDIM2020, Sergipe, Brazil, 2020.
14. Ginzburg, D., Eliyahu, I., Horowitz, Y.S., Reshes, G., Shapiro, A., Biderman, S., Assor, Herman, B., Oster, L., Elimination of supralinearity in the dose response of LiF:Mg,Ti via postirradiation 3.65 eV and 5.08 eV (Fband) photon excitation, ICDIM2020, Sergipe, Brazil, 2020.
15. Ginzburg, D., Eliyahu, I., Oster, L., Reshes, G., Horowitz, Y.S., Biderman, S., Sibony, D., Unified Interaction Model simulation of the effect of optical excitation on the TL dose response of LiF:Mg,Ti (TLD-100), SSD-19, Hiroshima, Japan, 2019.
16. Eliyahu, I., Oster, L., Reshes, G., Horowitz, Y.S., Biderman, S., Sibony, D., Ginzburg, D., Kinetic Simulations of Complex Phenomena following optical absorption, optical excitation and thermal excitation of LiF:Mg,Ti (TLD-100), SSD-19, Hiroshima, Japan, 2019.
17. Reshes, G., Eliyahu, I., Oster, L., Horowitz, Y.S., Biderman, S., Ginzburg, D., Bilski, P., Horwacik, T., Swakon, J., Olko, P., Comparison of Optical Absorption and Thermoluminescence in LiF:Mg,Ti (TLD-100) following irradiation by high energy protons and $^{90}\text{Sr}/^{90}\text{Y}$ beta rays, SSD-19, Hiroshima, Japan, 2019.

18. Sibony, D., Eliyahu, I., Oster, L., Reshes, G., Horowitz, Y.S., Biderman, S., Ginsburg, D., Fast Neutron-Gamma ray dosimetry via combined TL and Osl measurements on LiF:Mg:Ti (TLD-600 and TLD-700), SSD-19, Hiroshima, Japan, 2019.
19. Eliyahu, I., Oster, L., Ginsburg, D., Reshes, G., Biderman, S., Horowitz Y.S., Kinetic simulation of dose rate effects in the irradiation stage of LiF:Mg:Ti (TLD-100): A model based on hole release via V_3-V_k transformation –implications to TL efficiency, Lumdeter 2018, Prague, Czech Republic, 2018.
20. Ginsburg, D., Oster, L., Eliyahu, I., Reshes, G., Biderman, S., Horowitz Y.S., Manipulation of the dose response of composite glow peak 5 in the Thermoluminescence of LiF:Mg,Ti (TLD-100) via optical excitation post irradiation: Potential for improved dose response linearity beyond 1 Gy, Lumdeter 2018, Prague, Czech Republic, 2018.
21. Eliyahu, I., Ginsburg, D., Oster, L., Reshes, G., Horowitz, Y.S., Biderman, S. Druzhyna, S., Einav, H., The influence of optical bleaching following irradiation on the dose response of TLD-100, Lumdeter 2018, Prague, Czech Republic, 2018.
22. Oster, L., Horowitz, Y., The concept of quasi-tissue-equivalent nanodosimeter based on the Glow Peak 5a/5 in LiF:Mg,Ti (TLD-100): A Potential New Paradigm in Radiobiological Dosimetry, International Conference on Material Science, Rome, Italy, 2017.
23. Druzhyna, S., Datz, H., Oster, L., Lerch, M., Rosenfeld, A., Cullen, A., Orion, I., Horowitz, Y.S., Thermoluminescence Dose Response of Photon Irradiated NaCl: Unified Interaction Model Analysis of the Dependence of the Supralinearity on Photon Energy, The 18th International Conference on Solid State Dosimetry (SSD-18), Munich, Germany, 2016.
24. Biderman, S., Druzhyna, S., Reshes, G., Eliyahu, I., Oster, L., Horowitz, Y.S., Investigation of the energy spectrum and dose response of optical absorption bands in 4N single crystal LiF and LiF:Mg,Ti (TLD-100), The 18th International Conference on Solid State Dosimetry (SSD-18), Munich, Germany, 2016.
25. Galina,R., Druzhyna, S., Biderman, S., Eliyahu, I., Oster, L., Horowitz, Y.S., Study of the effect of optical bleaching at selected photon energies on the optical absorption and thermoluminescence of LiF:Mg,Ti (TLD-100), The 18th International Conference on Solid State Dosimetry (SSD-18), Munich, Germany, 2016.
26. Eliyahu, I., Druzhyna, S., Horowitz, Y.S., Reshes, G., Biderman, S., Oster, L., Kinetic simulation of charge carrier migration during 3.1 eV, 4.0 eV and 5.08 eV photon bleaching of gamma irradiated LiF:Mg,Ti (TLD-100) : The effect on the optical

- absorption energy spectrum, The 18th International Conference on Solid State Dosimetry (SSD-18), Munich, Germany, 2016.
27. Horowitz, Y.S., Eliyahu, I., Oster, L., Pondering the essence of retrapping/recombination probability coefficients in kinetic simulations of radiation induced optical absorption, The 18th International Conference on Solid State Dosimetry (SSD-18), Munich, Germany, 2016.
 28. Reshes, G., Druzhyna, S., Biderman, S., Eliyahu, I., L.Oster, L., Horowitz, Y.S., The effect of optical bleaching at selected photon energies on the optical absorption and thermoluminescence of LiF:Mg,Ti, 19th International Conference on Defects in Insulating Materials (ICDIM -2016), Lyon, France, 2016.
 29. Druzhyna, S., Eliyahu I., Oster, L., Horowitz, Y.S., Biderman, S., Reshes, G., Orion, I., New interpretation of the optical absorption Spectrum of LiF:Mg,Ti and investigation of hole centers participation in F-center bleaching., The 28th Conference of the Nuclear Societies in Israel, Tel Aviv, Israel, 2016, 3E.
 30. Druzhyna, S., Datz, H., Oster, L., Orion, I., Horowitz, Y.S., Israeli Table Salts as Potential Retrospective Dosimeters: Dose Response - Theoretical Interpretation, The 28th Conference of the Nuclear Societies in Israel, Tel Aviv, Israel, 2016, 216-218.
 31. Druzhyna, S., Eliyahu, I., Oster, L., Horowitz, Y.S., Biderman, S., Reshes, G., Orion, I., Experimental investigation of the role of F and V centers in the optical absorption and thermoluminescence mechanisms in LiF:Mg,Ti., LUMDETR 2015, Tartu, Estonia, 2015.
 32. Eliyahu, I., Druzhyna, S., Horowitz, Y., Reshes, G., Biderman, S., Oster, L., Kinetic simulation of charge transfer following 5.08 eV (F band) optical excitation of irradiated LiF:Mg,Ti (TLD-100): Participation of holes released via V_3-V_K transformation., LUMDETR 2015, Tartu, Estonia, 2015.
 33. Datz, H., Horowitz, Y.S., Druzhyna, S., Oster, L., Orion, I., Thermoluminescence characteristics of israeli household salts for retrospective dosimetry in radiological events., LUMDETR 2015, Tartu, Estonia, 2015.
 34. Eliyahu, I., Horowitz, Y.S., Oster, L., Mardor, I., The enigma of linear/supralinear thermoluminescence dose response mixed localized/delocalized recombination describes a solution, The 27th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2014, 123-126.
 35. Eliyahu, I., Horowitz, Y.S., Oster, L., Weissman, L., Kreisel, A., Druzhyna, S., Mardor, I., Proton irradiation of LiF:Mg, Ti at SARAF: Optical absorption relative Efficiency

- calculation using Track Structure Theory, The 27th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2014, 135-138.
36. Datz, H., Druzhyna, S., Oster, L., Orion, I., Darras, I., Hershkovich, D., Horowitz, Y., Suitability of Israeli household salt for retrospective dosimetry, The 27th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2014, 92-95.
 37. Eliyahu, I., Y S Horowitz, Y.S., Oster, L., Druzhyna, S., Mardor, I., Nanodosimetric kinetic model incorporating localized and delocalized recombination: Application to the prediction of the electron dose response of the peak 5a/5 ratio in the glow curve of LiF:Mg,Ti (TLD-100), The 17th International Conference on Solid State Dosimetry (SSD-17), Recife, Brasil, 2013.
 38. Biderman, S., Eliyahu, I., Y S Horowitz, Y.S., Oster, L., Dose response of F center optical absorption in LiF:Mg,Ti (TLD-100), The 17th International Conference on Solid State Dosimetry (SSD-17), Recife, Brasil, 2013.
 39. Sibony, D., Horowitz, Y.S., Oster, L., Wojcik, A., Sollazzo, A., Combined measurement of dose and α/γ radiation-field-components using the shape of composite peak 5 in the glow curve of LiF:Mg,Ti, The 17th International Conference on Solid State Dosimetry (SSD-17), Recife, Brasil, 2013.
 40. Sibony, D., Horowitz, Y.S., Oster, L., The effect of sample/planchet geometry and temperature resolution on the reproducibility of glow curve shapes and precision of the dose measurement in LiF-TLD-100 thermoluminescent dosimetry, The 17th International Conference on Solid State Dosimetry (SSD-17), Recife, Brasil, 2013.
 41. Oster, L., Druzhyna, S., Orion, I., Horowitz, Y.S. Study of Combinations of TL/OSL Single Dosimeters for Mixed High/Low Ionization Density Radiation Fields. LUMDETR, Halle, Germany, 2012.
 42. Sibony, D., Horowitz, Y., Oster, L. The effect of sample/planchet geometry on precision and glow peak shapes in LiF-TLD-100 thermoluminescent dosimetry. The 26th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2012.
 43. Datz, H., Horowitz, Y.S., Epstein, L., Oster, L., Margaliot, M. The energy dependence of the supralinearity of peaks 7 and 8 in LiF:Mg,Ti (TLD-100) can lead to incorrect evaluation of the radiation dose to cancer patients. The 26th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2012.
 44. Eliyahu, I., Horowitz, Y.S., Oster, L. Kinetic modeling for LiF:Mg,Ti incorporating creation of defects in the irradiation stage. The 26th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2012.

45. Datz, H., Livingstone, J., Horowitz, Y.S., Oster, L., Horowitz, A., Kol, M., Margaliot, M. Energy dependence of the supralinearity ($f(D)_{\max}$) of peaks 7 and 8 in the High Temperature Thermoluminescence of LiF:Mg,Ti (TLD-100): Interpretation using the Unified Interaction Model. The 16th International Conference on Solid State Dosimetry, Sydney, Australia, 2010.
46. Datz, H., Horowitz, Y.S., Oster, L., Margaliot, M. Influence of background subtraction protocol on the High Temperature Thermoluminescence in LiF:Mg,Ti (TLD-100). 16th International Conference on Solid State Dosimetry, Sydney, Australia, 2010.
47. Datz, H., Horowitz, Y.S., Oster, L., Margaliot, M. Critical dose threshold for TL dose response non-linearity: Dependence on the method of Analysis: It's not only the data. 16th International Conference on Solid State Dosimetry, Sydney, Australia, 2010.
48. Oster, L., Druzhyna, S., Horowitz, Y.S. Cooling rate effects in the thermal and optical excitation of LiF:Mg, Ti. 16th International Conference on Solid State Dosimetry, Sydney, Australia, 2010.
49. Datz, H., Horowitz, Y., Oster, L., Margaliot, M. Characterization of peaks 7 and 8 irregularities in the high temperature thermoluminescence in LiF:Mg,Ti (TLD-100). The 25th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2010.
50. Oster, L., Horowitz, Y.S., Podpalov, L. OSL and TL in TLD-100 following alpha and beta irradiation: Application to mixed-field radiation dosimetry. Cape Town, South Africa, 2009.
51. Mark, S., Koren, S., Khankin, D., Oster, L., Horowitz, Y.S., Fuks, E. Monte Carlo calculation of 3-D dose distributions of 4 MeV He⁺⁺ in condensed phase LiF. 11th Neutron and Ion Dosimetry Symposium. Cape Town, South Africa, 2009.
52. Datz, H, Horowitz, Y.S., Oster, L., Margaliot, M. Characteristics of the high temperature thermoluminescence in LiF:Mg,Ti (TLD-100): The effects of batch history. 7th International Conference on Luminescent Detectors and Transformers of Ionizing Radiation, Kraków, Poland, 2009.
53. Oster, L, Horowitz Y.S, Zlotopolsky, S. Investigation of the optical absorption characteristics of slow-cooled LiF:Mg,Ti (TLD-100). 7th International Conference on Luminescent Detectors and Transformers of Ionizing Radiation, Kraków, Poland, 2009.
54. Horowitz, Y.S., Horowitz, A., Oster, L., Marino, S., Datz, H., Margaliot, M. Investigation of the ionization density dependence of the glow curve characteristics of LiF:Mg,Ti (TLD-100). 12th International Congress of the International

- Radiation Protection Association, Buenos Aires, Argentina, 2008.
55. Horowitz, Y.S., Horowitz, A., Oster, L., Marino, S. Investigation of the ionization density dependence of the glow curve characteristics of LiF:Mg,Ti. The 24th Conference of the Nuclear Societies in Israel, Dead Sea, Israel, 2008.
 56. Horowitz, Y.S. Oster, L, Datz, H, Margaliot, M. Some dosimetric characteristics of the high temperature TL in LiF:Mg,Ti (TLD-100). 15th International Conference on Solid State Dosimetry, Delft, The Netherlands, 2007.
 57. Fuks, E, Horowitz, Y.S, Oster, L. Investigation of the properties of composite peak 5 in slow-cooled TLD-100. 15th International Conference on Solid State Dosimetry, Delft, The Netherlands, 2007.
 58. Weiss, D, Horowitz, Y.S, Oster, L. Kinetic modeling of optical absorption dose response in TLD-100. 15th International Conference on Solid State Dosimetry, Delft, The Netherlands, 2007.
 59. Weiss, D, Horowitz, Y.S, Oster, L. Delocalized recombination kinetic model of the LiF:Mg,Ti (TLD-100) glow peak 5 TL system. 15th International Conference on Solid State Dosimetry, Delft, The Netherlands, 2007.
 60. Weiss, D, Horowitz, Y, Oster, L. Ionisation density effects following optical excitation in LiF:Mg,Ti (TLD-100). Tenth Symposium on Neutron Dosimetry, Uppsala, Sweden, 2006.
 61. Oster, L, Horowitz, Y.S, Biderman, S, Fuks, Y, Belaish, Y, Sattinger, D. Localized and delocalized transitions and optical excitation of LiF:Mg,Ti following alpha and beta irradiation. 14th International Conference on Luminescence (ICL'05), Beijing, China, 2005.
 62. Biderman, S, Oster, L, Horowitz, Y. Modeling the dose response of peaks 4, 5 and 5b as a function of recombination temperature. The 14th International Conference on Solid State Dosimetry (ICSSD-2004), Yale University New Haven, Connecticut, USA, 2004.
 63. Oster, L, Horowitz, Y, Biderman, S, Haddad, J. Estimation of DNA DSB radiation damage using a solid state nanodosimeter based on glow curve peak 5a in LiF:Mg,Ti. International Conference on Biomedical Engineering and Microtechnologies, Riga, Latvia, 2002.
 64. Biderman, S, Horowitz, Y, Oster, L. Investigation of the emission spectra of LiF:Mg,Ti during thermoluminescence. The 13th International Conference on SSD, Athens, Greece, 2001.

65. Horowitz, Y.S, Einav, Y, Biderman, S, Oster, L. Conversion of composite glow peak 5 in TLD-100 to glow peak 4. The 13th International Conference on SSD, Athens, Greece, 2001.
66. Weizman, Y, Horowitz, Y.S, Oster, L. Kinetic modeling of the optically stimulated conversion of peaks 5a and 5 to peak 4 in TLD-100). The 13th International Conference on SSD, Athens, Greece, 2001.
67. Horowitz, Y.S, Oster, L, Satinger, D, Biderman, S, Einav, Y. The composite structure of peak 5 in the glow curve of LiF:Mg,Ti. The 13th International Conference on SSD, Athens, Greece, 2001.
68. Issa, N, Oster, L, Horowitz, Y.S. Modeling the required absorption stage dose response characteristics of the recombination stage competitor in LiF:Mg,Ti peak 5 supralinearity using UNIM. The 13th International Conference on SSD, Athens, Greece, 2001.
69. Biderman, S, Horowitz, Y.S, Oster, L, Einav, Y, Dubi, Y. Glow curve analysis of composite peak 5 in LiF:Mg,Ti using optical bleaching, thermal annealing and CGCD", The 13th International Conference on Solid State Dosimetry (SSD), Athens, Greece, 2001.
70. Oster, L. To the question on exoelectron emission mechanisms. The EXO-2000, Riga, Latvia, 2000.
71. Oster, L, Weizman, Y, Horowitz, Y.S. Optically induced conversion in LiF:Mg,Ti. The ICL'99, Osaka, Japan, 1999.
72. Oster, L, Haddad, J. Study of the effective layer for TL, PL and EEE", The ICL'99, Osaka, Japan, 1999.
73. Oster, L, Horowitz, Y.S, Issa, N. Optical absorption and thermoluminescence studies in irradiated dosimetric LiF:Mg,Ti (TLD-100). The 12th ICSSD, Burgos, Spain, 1998.
74. Ben-Amar, G, Ben-Shachar, B, Oster, L, Horowitz, Y.S, Horowitz, A. Influence of the heating rate on the TL signal and temperature of the dosimetric peaks of LiF:Mg,Ti and LiF:Mg,Cu,P", The 2nd RMCRP, Tel-Aviv, Israel, 1997.
75. Oster, L, Horowitz, Y.S, Issa, N. Identification of competitive trapping centers in irradiated LiF:Mg,Ti via optical absorption studies. The SDDPIS, Campos de Jordao, Brazil, 1997.
76. Oster, L, Horowitz, Y.S, Issa, N. Identification of multiple charge trapping centers in irradiated LiF:Mg,Ti via optical absorption studies. The 13th International Conference on Defects in Isolating Materials (ICDIM), Wake Forest Univ., USA, 1996.

77. Oster, L, Horowitz, Y.S, Horowitz, A. Further studies of the stability of LiF:Mg,Cu,P (GR-200) at maximum readout temperatures between 240⁰C and 280⁰C. The 11th ICSSD, Budapest, Hungary, 1995.
78. Oster, L, Kristianpoller, N. Optically stimulated luminescence in anion-defective α -Al₂O₃:C crystals. The ECDIM, Lyon, France, 1994.
79. Oster, L, Shubin, O, Yaskolko, V.Ya. A study of luminescence and exoelectron emission in YBa₂Cu₃O_{7- δ} ceramics. The ICCMD, Madrid, Spain, 1994.
80. Kristianpoller, N, Oster, L, Weiss, D. Phototransferred thermoluminescence in α - Al₂O₃:C crystals. The ICL, Connecticut, USA, 1993.
81. Oster, L, Katzir, A, Chen, R, Kristianpoller, N. Effects of irradiation and thermal treatment on optical properties of mixed AgCl-AgBr crystals. The 12th ICDIM, Nordkirchen, Germany, 1992.
82. Nagli, L, Chen, R, Katzir, A, Kristianpoller, N, Oster, L, Schmlevich, A. Optical studies of mixed silver-halides: Single Crystals, Polycrystalline Materials and Optical Fibers. The IPSAM, The Weizmann Institute, Israel, 1992.
83. Oster, L, Krasnaya, A.R, Mukhamedkhanova, Sh.I, Yaskolko, V.Ya. PTTL in CaSO₄:Mn,Sm. The 2nd RCPDS, Osh, USSR, 1989.
84. Oster, L, Yaskolko, V.Ya, Krasnaya, A.R, Exoemission of yttrium-barium cuprates and associated oxides. The Ist Conference on Emission from Semiconductors and Exoemission AUSESE, Lvov, USSR, 1989.
85. Oster, L, Krasnaya, A.R, Mukhamedkhanova, Sh.I, Yaskolko, V.Ya. Photostimulated electron transfer and radiation sensitisation of CaSO₄-based phosphors. The 10th AUSLRCIR, Lvov, USSR, 1989.
86. Oster, L, Bedilov, M.R, Mukimov, K.M, Yaskolko, V.Ya. Exoelectron emission of superconductors Y-Ba-Cu-O in the temperature range of 80-600K. The 11th Conference on New Magnetic Materials in Microelectronics (AUSNMMM), Tashkent, USSR, 1988.
87. Oster, L, Bedilov, M.R, Juraev, D.R, Mukimov, K.M. High temperature Superconductors Y-Ba-Cu-O and their exoelectron emission. The WSHTSC, Sverdlovsk, USSR, 1987.
88. Oster, L, Krasnaya, A.R, Yaskolko, V.Ya, Etching of specific surface points and decay of trapping centers in exoelectron emission of alkali-earth sulphates. The 20th AUCEE, Kiev, USSR, 1987

89. Oster, L, Mitina, E.U, Mukhamedkhanova, Sh.I, Yaskolko, V.Ya. Photoexcitation of thermostimulated luminescence of phosphors on the basis of CaSO₄. The Ist RCIEPIC, Osh, USSR, 1986.
90. Oster, L, Krasnaya, A.R, Yaskolko, V.Ya. Alkali-earth sulphates as photostimulated exoelectron dosimeters”, The 4th AUSEEA, Tbilisi, USSR, 1985.
91. Oster, L, Krasnaya, A.R, Yaskolko, V.Ya. Photostimulated luminescence and photostimulated electron transfer between trapping centers in CaSO₄”, The 30th AUSL, Rovno, USSR, 1984.
92. Oster, L, Krasnaya, A.R, Yaskolko, V.Ya. To the question on exoelectron emission Models. The 19th Conference on Emission Electronics (AUCEE), Tashkent, USSR, 1984.
93. Oster, L., Krasnaya, A.R, Yaskolko, V.Ya. Photo- and thermostimulated exoelectron emission of alkali-earth sulphates. The 2nd Symposium on Exoemission and its Application (AUSEEA), Moskow, USSR, 1982.
94. Oster, L, Krasnaya, A.R, Yaskolko, V.Ya. The influence of grinding on photostimulated exoelectron emission”, The 8th AUSMMS, Tallinn, USSR, 1981.

5.3 Patents

Krasnaya, A.R, Nosenko, B.M, Oster, L.N, Yaskolko, V.Ya. A Control Tool of Surface Defects at Solid Materials. N1196971 , USSR. 1985.

6. Academic roles

Since 2017 Member of the Supreme Committee for the Appointment of Professors in the Exact Sciences and Engineering, Council for Higher Education.

Since 2013 Head of Physics Unit

Since 2011 Member of the Editorial Board

Since 2005 Member of the Publications Committee. SCE – Sami Shamoon College of Engineering, Israel.

Since 2003 Member of the Academic Council. SCE – Sami Shamoon College of Engineering, Israel.

Since 2003 Membert of the Academic Advisory Committee. ISEF - International Education Foundation, Israel.

7. Courses taught

Since 2019 M.Sc. program. Interaction between radiation and environment. SCE – Sami Shamoon College of Engineering, Israel.

Since 1996 B.Sc. program. Introduction in Physics 1. SCE – Sami Shamoon College of Engineering, Israel.

Since 1996 B.Sc. program. Introduction in Physics 2. SCE – Sami Shamoon College of Engineering, Israel.

Since 1996 B.Sc. program. Physics 1. SCE – Sami Shamoon College of Engineering, Israel.

Since 1996 B.Sc. program. Physics 2. SCE – Sami Shamoon College of Engineering, Israel.

8. Courses development

Oster, L. B.Sc. program. Physics 2a for Electrical and Electronical Engineering Students. SCE – Sami Shamoon College of Engineering, Israel.

Oster, L. M.Sc. program. Interaction between radiation and environment. SCE – Sami Shamoon College of Engineering, Israel.

9. Editorial roles

9.1. Editor/member of editorial board of journal

Since 2011 Member of the Editorial Board of the OXFORD Journal "Radiation Protection Dosimetry"

2007. Associate Editor, Proceedings of the 15th International Conference on SSD, Delft, The Netherlands, July, Elsevier.

2008 Editor, Solid State Dosimetry, Proceedings of the XIIIth International Conference on SSD, Athens, Greece, July, Nuclear Technology Publishing.

1998-1999 Editor, Book of Problems "Physics II (Electricity and Magnetism)" for Engineering Students, Negev Academic College of Engineering, Beer-Sheva,.

9.2. Manuscript reviewer

Since 1994 Radiation Protection Dosimetry

Since 1996 Radiation Measurements.

Since 2000 Journal of Luminescence.

Since 2000 Physica Status Solidi

Since 2010 Nucl. Instrum. Meth. (B).

Since 2018 Applied Radiation and Isotopes
Since 2018 Radiation and Environmental Biophysics
Since 2018 Radiation Physics and Chemistry

10. Positions in conferences

1. Session Chairman. XV International Conference on Luminescence and Laser Physics, Arshan, Russia, 2016.
2. Session Chairman. International Symposium on Biomedical Engineering and Medical Physics, Riga, Latvia, 2012.
3. Session Chairman. The 7th International Conference on Luminescent Detectors and Transformers of Ionizing radiation, Kraków, Poland, 2009.
4. Member of the Scientific Advisory Committee, Program Committee, Travel Support Committee and Secretary. The 13th International Conference on Solid State Dosimetry, Athens, Greece, 2001.
5. Session Chairman. The 15th International Conference on Solid State Dosimetry, Gelft, The Netherlands, 2007.
6. Session Chairman. World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, 2003.
7. Session Chairman. The International Conference on Biomedical Engineering and Microtechnologies, Riga, Latvia, 2002.
8. Session Chairman. The 13th International Conference on Solid State Dosimetry, Athens, Greece, 2001.
9. Session Chairman. The International Conference on Luminescence and its Applications, Baroda, India, 2000.
10. Session Chairman. The 12th International Conference on Solid State Dosimetry, Burgos, Spain, 1998.

11. Membership in professional/scientific societies

1. 1998-2007 International Solid State Dosimetry Organization (ISSDO , thirty - member committee).
2. 1999-2001 International Scientific Advisory Committee SSD (twenty-six-member committee), SSD-2001, Athens, Greece.

12. Additional activities

12.1. Research students

1. 1982-1984 - O. Gurgova, M.Sc., Thesis, "Dosimetric Characteristics of Alkali - Earth Sulphates". Tashkent University.
2. 1983-1985 - V. Demina, M.Sc., Thesis, "Dose Dependences of TSEE and Energy Loss in BaSO₄ and SrSO₄". Tashkent University.
3. 1984-1986 E. Mitina, M.Sc., Thesis, "Photoexcitation of Thermostimulated Luminescence in CaSO₄ based Phosphors". Tashkent University.
4. 1994-1996 -D. Sattinger, M.Sc., Thesis, "Isothermal Decay Studies in LiF:Mg,Ti", (with Y.S.Horowitz) Ben Gurion University.
5. 1993-1994 - G. Ben Amar, M.Sc., Thesis, "Kinetic Studies in LiF:Mg,Cu,P", (with Y.S. Horowitz) Ben Gurion University.
6. 1995-1997 - N. Issa, M.Sc., Thesis, "Optical Absorption Studies in LiF:Mg,Ti", (with Y.S. Horowitz) Ben Gurion University.
7. 1999- S.Biderman, Ph.D. "High Resolution Spectral Emission Studies", (with Y.S.Horowitz)
8. 1996-1999- Y.Weizman, Ph.D. "Optical Bleaching Studies", (with Y.S.Horowitz).
9. 1996-2000- D.Sattinger, Ph.D. "The Extended Track Interaction Model", (with Y.S.Horowitz) BGU.
- 10.1998-2003 N.Issa, Ph.D. "The Study of the TL Glow Curve Mechanism in LiF:Mg,T (with Y.S.Horowitz) BGU.
11. 2005- Y. Fuks, Ph.D. "Investigation of the Dosimetric Characteristics of Slow-Cooled LiF:Mg,Ti and its Potential as an Ionization Density Dependent Nano-Dosimeter" (with Y.S.Horowitz) BGU.
12. 2005- D. Weiss, Ph.D. "TL Modeling and Ionisation Density Effects Following Optical Excitation in LiF:Mf, Ti (TLD-100)" (with Y.S.Horowitz) BGU.
13. 2005- S. Zlatopolski, M.Sc., Thesis, "Optical Absorption Studies in Slow-Cooled LiF:Mg,Ti", (with Y.S. Horowitz) BGU.
14. 2008 – H. Datz, Ph.D. " Characteristics of the high temperature thermoluminescence in LiF:Mg,Ti (TLD-100)", (with Y.S. Horowitz) BGU.

15. 2013- S. Druzhyna, M.Sc., Thesis, " Study of Combinations of TL/OSL Single Dosimeters for Mixed High/Low Ionization Density Radiation Fields", (with I. Orion) BGU.
16. 2015 – I. Eliyahu, Ph.D. " Kinetic Modeling of the LiF:Mg,Ti TL System Including Defect Creation: Implications to, and Development of Track Structure Theory Calculations of Heavy Charged Particle Radiation Effects" (with Y.S. Horowitz) BGU.
17. 2015 - S. Druzhyna, Ph.D. " Investigations of radiation induced mechanisms in Alkali-Halides", (with I. Orion) BGU.
18. 2017 – D. Ginsburg, Ph.D. "Investigation of color center properties in alkali halides using the methods of optical and thermal stimulation", (with L. Geber) BGU.
19. 2018 – D. Sibony, Ph.D. "Fast neutron – gamma ray discrimination via combined TL and OSL measurements", (with I. Orion and Y.S. Horowitz) BGU.

12.2. High School Pupil Supervision

1. R. Krasnovid, "Dose Response of the TL as a Function of the Temperature and Heating Rate", 2003. International Prize for Scientific Excellence in High School Studies: "First Step to Nobel Prize in Physics".
2. V. Zion, R. Krasnovid and I. Oshero, "Experimental System for TL Emission Spectra Measurements", 2002 – 2003.
3. M. Cohen, "Dosimetric Properties of LiF:Mg,Ti", 2002 – 2003.