

George Kitis
Associate Professor
Nuclear Physics and Elementary Particle Physics Department
School of Physics
Faculty of Sciences
Aristotle University of Thessaloniki

Curriculum Vitae

Thessaloniki, July 2015



1. Personal Details

1955 Born. Married with two children.

1974 Graduate student in School of Physics of AUTH.

1978 Bachelor in Physics.

1979-1981 Greek army

1981 Scientific assistant in the Department of Nuclear Physics and Elementary Particle Physics in the School of Physics -AUTH..

1984- 1990 School of Theology of AUTH.

1988 PhD in Physics

1989 Lecturer in the School of Physics-AUTH.

1993 Assistant Professor in the School of Physics-AUTH.

2002 Associate Professor in the School of Physics-AUTH.

2016 Professor in the School of Physics-AUTH.

2. Activity in School of Physics AUTH

2.1 Teaching activity.

2.1.1 Teaching

1981-2015 Laboratory exercises in Atomic Physics and Nuclear Physics.

1983-1986 Teaching assistant in Atomic and Molecular Physics.

1986-1994 Teaching assistant in Nuclear Physics.

1989-1997 Teaching Nuclear Physics

1998-2015 Teaching Atomic and Molecular Physics.

1993-2011 Co-teaching Health Physics.

2011-2015 Teaching Health Physics

2002-2012 Co-teaching Dosimetry and Radiation Protection

2.1.2 Notes

Contribution with the other members of department in writing:

1. Laboratory exercises for Nuclear Physics
2. Laboratory exercises for Atomic Physics

2. 1. 3 Supervisor to PhD's

Supervisor

1. Charitidis Konstantinos 1996
2. Anastasia Tzima 2000.
3. George Polymeris 2004
4. Bhagawan Subedi. 2012
5. Ioanna Sfampa., Under preparation
6. Amr Sadek, Under preparation
7. Vasiliki Aggeli. In progress



8. Nikolaos Kazakis, In progress
9. Maria Sotiropoulou, in progress

Member to PhD's committes

1. Asimina Vafeiadou, Ubniversity of Aegean, 2002.
2. Crhistos Lamboudis, 2005.
3. George Dallas, University of Thace, 2010.
4. Nikolaos Laskaris, University of Aegean, 2010.
5. Eleni Vagena. In progress.
6. Christina Tziaka. In rogress.
7. Prokopiow Barbagiannidis. In progress.
8. Aikaterini Giannopoulou. In progress.

2.1.4 Diploma works for graduate students

During the preriod 1986-2015, I supervised and co-supervised about 70 graduate students diploma works. A great part of them was original work published in peer review journals. A catalog with students names is given in Appendix **A**.

2.2 Member of Educational and Administrative Committees at School of Physics of AUTH

Since 1990 I was member of many committees of School of Phyics. The last ten years I participated to the following:

- 2.2.1 Committee for relationships with education
- 2.2.2 Committee for Hygeine and Safety
- 2.2.3 Chairman of the department 2008.
- 2.2.4 Chaiman of the deperntment 2010-11.
- 2.2.5 Responsible for ΦΜΣ Building since 2007
- 2.2.6 Deputy Head of School of Physics 2013-2015

3 Research activities

3.1 Topics

3.1 Theoretical and simulation studies on the basic mechanism of Thermoluminescence (TL) optically stimulated luminescence (OSL) and infrared stimulated luminescence (IRSL).

3.2 Kinetic and dosimetric characterizatoin of new materials for use as radiation dosimeters.



- 3.3** Investigation of new single peak models for all stimulated luminescence modes.
- 3.4** Investigation towards the generalization of computerized curve deconvolution analysis for all stimulated luminescence modes.
- 3.5** Neutron dosimetry
- 3.6** Reserch on TL and OSL dating and authentication of ancient ceramics and artefacts.
- 3.7** Kinetic and dosimetric characterization of natural materials for use in geochronology and retrospective dosimetry.
- 3.8** Post sterilization dosimetry of irradiation sterilized foods and drugs.
- 3.9** Correlation between the various stimulated luminescence modes.
- 3.10** Simulation studies on TL, OSL and IRSL effects.

3.2 Collaborations with abroad Faculties.

3.2.1 Collaboration for 12 years (~ 2 months per year) with Radiation Protection groups of CERN on:

- (a) Kinetic and dosimetric characterization of TL dosimeters.
- (b) Dosimetry around high energy particle physics accelerators.

3.2.2 Participation to the PS211 (TARC) experiment at CERN.
I participaeted as responsible for the Thermoluminescence group of AUTH to the PS211 (TARC) at CERN (Funding from the EU, Nuclear Fission Safety DGXII).

3.2.3 Participation to the PS213 (n-TOF) facility at CERN (For the first two years)

I had collaborated and I am collaborating with:

3.2.4 Physics Department, University of Rome "La Sapienza" with the group of Drκ. C. Furetta.

3.2.5 CIEMAT-Madrid-Spain. With the group of τov Dr. J. M. Gomez-Ros.

3.2.6 Faculty of Physics, University of Belgrade, Serbia, with the group of Dr. M. Prokic.

3.2.7 McDaniel College with the group of prof. V. Pagonis.

3.2.8 Faculty of Sciences and Arts. Physics Department, ISIK University, Istanbul, Turke with prof. κ. N.G. Kiyak.

3.2.9 Instituto de Ciencias Nucleares, Universidad Nacional Autónoma de México (UNAM), with the group of Dr Epifanio Cruz Zaragosa.

3.2.10 Departamento de Investigación en Física. Universidad de Sonora, México, with the group of Dr Rodolfo Bernal.



3.2.11 Ankara Technical University, with the group of prof. Niyazi Meric.

3.2.12 Furthermore I have also collaborated with a large number of investigators all over the world

3.3 Collaboration in Greece

3.3.1 Collaborating with the Medical Physics Department of AUTH, The AXEPA general Hospital, The Papageorgiou general Hospital and Theageneio antic-cancer center. The collaboration is twofold research and education. Within this collaboration many graduated students are educated.

3.3.2 University of the Aegean, Dept. of Mediterranean Studies, Lab. of Archaeometry, Rhodes, Greece, with prof I. Liritzis.

3.3.3 University of Peloponnese, Dept of History, Archaeology & Cultural Management, Kalamata, Greece, withn associate prof N..

3.3.4 Laboratory of Archaeometry in the Institute Research Center "ATHENA" Ερευνητικό Κέντρο «ΑΘΗΝΑ», with Dr N. Tsirliganis.

3.3.5 Greek Atomic Energy Commission, GAEC (EEAE). Dr E.Carinou

4. International Literature

4.1 Reviewer to International Journals

I am continuously reviewing to the following Journals

Applied Radiation and Isotopes
Journal of Luminescence
Nuclear Instrument Methods Section A
Nuclear Instrument Methods Section B
Physica Status Solidi (a)
Radiation Measurements
Radiation Protection Dosimetry

I am also reviewer to a lower rate to the following journals

J. Physics D: Applied Physics
Journal Material Science
Acta physica Polonica
Journal of Alloys and Compounds
Journal of Radioanalytical and Nuclear Chemistry
Mediterranean Archaeology and Archaeometry
Radiation effects and defects in Solids
Journal of Alloys and Compounds
PHYSICA B
The Journal of Biological and Chemical Luminescence



IEEE on nuclear science
Optical Society of America OSA
Modern Physics Letters (MPLB)
PHASE TRANSITION TAYLOR and FRANCIS
Journal of Taibah University for Science

4.2 Citations in International Journals

Citations as they are given in three data bases are shown in Table below.

Source	Total	Self citations excluded	Citations of all authors excluded.	h - index	Book by Springer see 5.2
Scopus	1847	1410	1126	22	86
Web	1805	1346	--	22	-
Google Scholar	2462	-	-	25	126

4.3 Citations in books

1 According to the books of the Physics Department Library there are 58 citations in books of international literature. A detail catalog is given in **Appendix B**.

5 Publications

My publications are systemized as following:

5.1 PhD.

Contribution to Thermoluminescence and regenerated thermoluminescence as a function of irradiation temperature.
Aristotle University of Thessaloniki, 1988.

5.2 Books

V. Pagonis, G. Kitis and C. Furetta.

Numerical and practical exercises in Thermoluminescence, Springer, 2006.

5.3 Article in International peer reviewed journals and in proceedings of International conferences published in International peer reviewed journals.

(The articles with an asterisk correspond to articles published in proceedings of International conferences published in International peer reviewed journals.)



1. F. Hasan, G. Kitis and Stef. Charalambous

The thermoluminescence behavior of CaSO₄:Dy (TLD-900) for doses up to 30 Mrad.

Nucl. Instrum. Meth. Phys. Resear. B9 (1985) 218-222.

2. F. Hasan, G. Kitis and Stef. Charalambous.

Regenerated thermoluminescence in CaSO₄:Dy.

J. Phys. C: Solid State Phys. 18 (1985), 1743-1751.

3. G. Kitis, F. Hasan, M.Tsakiri and S. Charalambous.

The influence of regenerated thermoluminescence on low dose Dosimetry.

Health Phys. 49(6) (1985) 1193-1196.

4.* G. Kitis, F. Hasan, M. Tsakiri, Stef. Charalambous.

Implication of regenerated thermoluminescence on low dose measurements.

Nucl. Tracks 10(4-6) (1985) 571-574.

5.* G. Kitis, F. Hasan, Stef. Charalambous

Regenerated thermoluminescence: Some new data.

Nucl. Tracks 10(4-6) (1985) 565-570.

6.* G. Kitis and Stef. Charalambous.

Enrichment of quartz fine grains for TL and ESR dating.

Nucl. Tracks 10(4-6) (1985) 609-612.

7.* G. Kitis and Stef. Charalambous.

Behaviour of TL-Dosimeters irradiated at various temperatures.

Nucl. Tracks Radiat. Measur. 14(1/2) (1988) 199-202.

8.* G. Kitis and S. Charalambous

Thermoluminescence response as a function of irradiation temperature.

Nucl. Tracks Radiat. Measur. 14(1/2) (1988) 91-95.

9. G. Kitis and S. Charalambous.

Regenerated thermoluminescence as a function of irradiation temperature.

Phys. Stat. Sol. (a) 105 (1988) K175.

10.* G. Kitis and S. Charalambous.

Thermoluminescence of high temperature glow peaks of LiF at various irradiation temperatures.

Radiat. Prot. Dosim. 33 (1990) 259.

11. G. Kitis, E. Kaldoudi and S. Charalambous.

Thermoluminescence dose response of quartz as a function of irradiation temperature.

J. Phys. D: Appl. Phys. 23 (1990), 945.

12. G.Kitis, C.Haritidis and S. Charalambous.



Thermoluminescence sensitization of LiF:Mg,Ti, under heat treatment between 150 and 400°C.

Nucl. Instr. Meth. Phys. Research B 51 (1990), 263.

13.* G. Kitis and S. Charalambous.

Relative thermoluminescence response of alpha to beta radiation as a function of irradiation temperature.

Nucl. Track Radiat. Measur. 18 (1991) 95-99.

14.* G. Kitis, P. Bousbouras, C. Antypas and S. Charalambous.

Anomalous fading in apatite.

Nucl. Tracks Radiat. Measur. 18 (1991) 61-65.

15. G. Kitis and S. Charalambous

Alpha to beta particle thermoluminescence response of quartz as a function of irradiation temperature.

Nucl. Instr. Meth. Phys. Resear. B 58 (1991) 211-215.

16. G Kitis, S. Charalambous and J.W.N Tuyn

Thermoluminescence Response of LiF:Mg,Ti(TLD-100) as a function of irradiation

Radiat. Prot. Dosim. 40 (1992) 117-122.

17. G. Kitis, M. Spiropulu, J. Papadopoulos and Stef. Charalambous

Heating rate effects on the TL glow--peaks of three thermo luminescent phosphors.

Nucl. Instrum. Meth. Phys. Resear. 73 (1993) 367-372.

18. G Kitis, L Katsetsiadis, S Charalambous and G G Cai

The influence of Irradiation Temperature on the TL response of LiF:Mg,Cu,P

J. Phys. D: Appl. Phys. 26 (1993) 1094-1097.

19. G Kitis, S Charalambous and J W N Tuyn

Supralinearity of the glow -peak 5 of LiF(TLD-100) obtained with isothermal measurements.

J. Phys. D: Appl. Phys. 26 (1993) 2036-2040.

20.* G Kitis, S Charalambous and J W N Tuyn

Thermoluminescence response of heavy concrete used in the shielding of the CERN 600 MEV Synchrocyclotron

Radiat. Prot. Dosim. 47 (1993) 489-593.

21. Kitis, J. Papadopoulos, S. Charalambous and J. W. N. Tuyn.

The influence of heating Rate effects on the response and trapping parameters of Al₂O₃:C

Radiat. Prot. Dosim. 55 (1994) 183-190.

22. G. Kitis and C. Furetta

Thermoluminescence characteristics of monocristaline LiF:Mg,Ti (DTG-4).



Nucl. Instr. Meth. Phys. Resear. B 94 (1994) 441-448.

23. G. Kitis, C. Charitidis and C. Furetta

Thermoluminescence kinetics parameters of monocristaline LiF:Mg,Ti (DTG-4)
Nucl. Scin. Jour. 31 (1994) 465-471.

24. G. Kitis, M. Spiropulu. S. Charalambous and E. Weber

Supralinearity of the 110°C thermoluminescence glow-peak of Synthetic Quartz obtained with Isothermal measurements
Nucl. Instrum. Meth. Phys. Resear. B 101 (1995) 255-257.

25. G. Kitis, A. Tzima, G. G. Cai and C. Furetta.

low-temperature (80--2400C) annealing characteristics of LiF:Mg,Cu,P
J. Phys. D: Appl. Phys. 29 (1996) 1601-1612.

26.* G. Kitis and S. Charalambous and J. W. N. Tuyn

The dose response function of α -Al₂O₃:C under isothermal decay conditions
Radiat. Prot. Dosim. 65 (1996) 239-242.

27.* C. Charitidis, G. Kitis and S. Charalambous

Supralinearity of synthetic quartz at different irradiation temperatures
Radiat. Prot. Dosim. 65 (1996) 347-350.

28.* E. Borch, C. Furetta, G. Kitis C. Leroy, R. S. Sussmann and A. J. Whitehead.

Assessment of CVD diamond as a thermoluminescence dosimeter material
Radiat. Prot. Dosim. 65 (1996) 291-295.

29.* G. Kitis, C. Furetta, C. Sanipoli and A. Scacco

Thermoluminescence properties of KMgF₃ doped with Pb, Cr and Ag.
Radiat. Prot. Dosim. 65 (1996) 93-96.

30. C. Furetta, G. Kitis, J.H. Kuo, L. Vismara and P.S. Weng

Impact on non-ideal heat transfer on the determination of thermo luminescent kinetic parameters
Journal of Luminescence 75 (1997) 341-351.

31. G. Kitis and J.W.N. Tuyn.

Sensitivity of LiF:Mg,Ti thermoluminescence detector after various Annealing procedures
Nucl. Instrum. Methods B 132 (1997) 639-646.

32. Kitis and J.W.N. Tuyn

A Simple method to correct for the temperature lag in TL glow-curve measurements.
J. Phys. D: Appl. Phys. 31 (1998) 2065-2073.

33. G.Kitis, J.M. Gomez-Ros and J.W.N. Tuyn.



Thermoluminescence Glow--curve deconvolution functions for first, second and general order of kinetics.

J. Phys. D: Appl. Phys. 31 (1998) 2636-2641

34. C. Furetta, G. Kitis, P. S. Weng and T.C. Kuo.

Thermoluminescence Characteristics of MgB4O7: Dy, Na
Nucl. Instr. Methods Phys. Resear. A 420 (1999), 441-445.

35.* K. Charitidis, G. Kitis, C. Furetta and S. Charalambous

Superlinearity of Synthetic Quartz: Dependance on Pre-dose
Radiat. Prot. Dosim. 84 (1999) 95-98.

36.* C.Furetta, G. Kitis, A. Brambilla, P. Bergonzo and F. Foulon

Thermoluminescence Characteristics of new production Chemical Vapor Deposition diamond.

Radiat. Prot. Dosim. 84 (1999), 201-205.

37.* G. Kitis and J.W.N. Tuyn

Correction of thermal gradient effects arising during Thermoluminescence readout.

Radiat. Prot. Dosim. 84 (1999), 371-374.

38.* G. Kitis, C. Furetta, C. Sanipoli and A. Scacco

KMgF₃: Ce,- an ultra high sensitivity thermoluminescence material.

Radiat. Prot. Dosim. 82 (1999), 151-152.

39. H. Arnould, et al.. G.Kitis...

Experimental Verification of Neutron phenomenology in lead and transmutation by adiabatic resonance crossing in accelerator driven systems.
Phys. Let. B 458 (1999), 167-180.

40. G. Kitis and T. Otto

Isothermal Decay Readout: Application to LiF:Mg,Cu,P and Al₂O₃:C

Radiat. Prot. Dosim. 86 (1999), 181-190

41. G. Kitis and J.M. Gomez-Ros

Glow Curve Deconvolution functions for mixed order kinetics and a continuous trap distribution

Nucl. Instrum. Methods A 440 (1999), 224-231

42. C. Furetta, G Kitis and C--H Kuo

Kinetics Parameters of CVD diamond by computerized glow-curve deconvolution (CGCD)

Nucl. Instrum. Methods B 160, (2000), 65-72.

43 G. Kitis and T. Otto

Peculiarities of the glow Peak 5a of LiF: Mg, Ti

Nucl. Instrum. Method B 160 (2000), 262--273



44. C. Furetta, M. Prokic, R. Solomon and G. Kitis

Dosimetric Characterization of a new production of MgB₄O₇: Dy, Na thermo luminescent material

Appl. Radiat. And Isotopes 52, (2000), 243-250.

45. C. Charitidis, G Kitis, C. Furetta and S. Charalambous

Superlinearity of Synthetic Quartz: Dependence on firing temperature

Nucl. Instrum. Method B 168 (2000), 404-410.

46. G. Kitis, C. Furetta, M. Prokic and V. Prokic

Kinetic Parameters of some tissue equivalent thermoluminescence materials

J. Phys. D: Appl. Phys. 33, (2000), 1252-1262.

47. K.A. Hatzioannou, K. Psarrakos, E. Molyvda--Athanasopoulou, G. Kitis, E. Papanastasiou, I. Sofroniadis, O. Kimoundri

Dosimetric Considerations in mammography

Eur. Radiol. 10 (2000) 1193-1196.

48. V. Pagonis S. Mian and G. Kitis

Fit of first order thermoluminescence glow peaks using the Weibull distribution function

Radiat.. Prot. Dosim. 93(1) (2000) 11-17.

49. C. Furetta, M Prokic, R.Salomon, V. Prokic and G. Kitis

Dosimetric Characteristics of tissue equivalent thermo luminescent solid TL detectors based on Lithium Borate.

Nucl. Instr. Methods Physics Resear. A 456 (2001) 411-417.

50. G. Kitis

TL glow-curve deconvolution functions for various kinetic orders and a continuous trap distribution: Acceptance criteria for E and s values.

J. Radioanalytical and Nuclear Chemistry. 247 (3) (2001) 697-703.

51. C. Furetta, C. Sanipoli and G.Kitis

Thermoluminescence (TL) properties of the perovskite KMgF₃ activated by Ce and Er impurities.

J. Phys. D: Appl. Phys. 34 (2001) 857-861.

52. C. Furetta, F. Santopietro, C. Sanipoli and G.Kitis

Thermoluminescence (TL) properties of the perovskite KMgF₃ activated by Ce and Er impurities.

Applied Radiation and Isotopes 55 (2001) 533-542.

53. V. Pagonis and G. Kitis

Fit of second order thermoluminescence glow peaks using the logistic distribution function

Radiat. Prot. Dosim. 95(3) (2001) 225-229.

54. A. Abanades... G. Kits, K. Ziouitas (66 συγγραφείς)



Experimental verification of neutron phenomenology in lead and transmutation by adiabatic resonance crossing in accelerator driven systems. A summary of the TARC Project at CERN.

Nucl. Instr. Methods in Phys. Res. A 463(2001) 586-592.

55. A. Abanades .. G. Kitis,,.. K. Zioutas (66 συγγραφείς)

Results from the TARC experiment: spallation neutron phenomenology in lead and neutron-driven nuclear transmutation by adiabatic resonance crossing.

Nucl. Instr. Methods in Phys. Res. A 478(2002) 577-730.

56. G. Kitis

Confirmation of the influence of the thermal quenching on the initial rise method in α -Al₂O₃:C.

Phys. Sta. Sol. (a) 191 (2002) 621-627.

57.* J.M. Gomez-Ros and G. Kitis

Computerized glow-curve deconvolution using mixed and general order kinetics.

Radiat. Prot. Dosimetry 101 (2002) 47-52.

58.* E. Savvidis, C.A. Eleftheriadis and G. Kitis.

Mapping of the thermal neutron distribution in the lead block assembly of the PS-211 experiment at CERN, using Thermoluminescence and Nuclear track detectors.

Radiat. Prot. Dosimetry 101 (2002) 103-106.

59.* G.Kitis, C. Furetta and C. Sanipoli

Thermoluminescence Properties of LiMgF₃ doped with Ce, Er and Dy

Radiat. Prot. Dosimetry 100 (2002) 247-250.

60.* V. Pagonis and G. Kitis

On the possibility of using commercial software packages for thermoluminescence glow-curve deconvolution analysis.

Radiat. Prot. Dosimetry 101 (2002) 93-98.

61.* G. Kitis, V. Pagonis H. Carty and E. Tatsis

Detailed kinetic study of the thermoluminescence glow-curve of synthetic quartz.

Radiat. Prot. Dosimetry 100 (2002) 225-228.

62. *V. Pagonis, E. Tatsis G. Kitis and C. Drupieski

Search for common characteristics in the glow-curves of quartz of various origins.

Radiat. Prot. Dosimetry 100 (2002) 373-376.

63. G. Kitis, G. Liritzis and A. Vafeiadou

Deconvolution of Peak--Shaped optical stimulated luminescence decay curve.

J. Radioanalytical and Nuclear Chemistry 254(1) (2002) 143-149.



64. V. Pagonis, G. Kitis, and R. Chen

Applicability of the Zimmerman predose model in the thermoluminescence of predosed and annealed synthetic quartz samples.

Radiat. Measur. 37 (2003) 267-274.

65. G. Kitis V. Pagonis and C. Drupiesky

Cooling rate effects on the thermoluminescence glow curves of Arkansas quartz.

Phys. Stat. Sol (a) 198 (2003) 312-321.

66. R.P Gonzalez, C. Furetta, J. Azorin, T. Rivera, G. Kitis F. Sepulveda and C. Sanipoli.

Thermoluminescence Characterization of the perovskite-like $KMgF_3$, activated by Lu impurity.

Journal of Material science 39(2004) 1601-1607.

67. C. Furetta, and G. Kitis

Review: Models in thermoluminescence

Journal of Material science 39(2004) 2277-2294.

68. T. Rivera Montalvo, C. Furetta, G. Kitis, J. Azorin, and R.M Vite

Influence of heating rate on thermoluminescence of Zirconium oxide UV irradiated.

Radiation Effects & Defects in Solids 150(2004) 217-222.

69. U. Abbondanno.. G, Kitis ... L Zanini (137 συγγραφείς)

New experimental validation of the pulse height weighting technique for capture cross-section measurements.

Nucl. Instr. Methods in Phys. Res. A 521(2004) 454-467.

70. J. Pancin.. G, Kitis ... L Zanini (137 συγγραφείς)

Measurement of the n_{TOF} beam profile with a micromegas detector.

Nucl. Instr. Methods in Phys. Res. A 524(2004) 102-114.

71. G. Lorusso.. G, Kitis ... LK. Wisshak (137 συγγραφείς)

Time-energy relation of the n_{TOF} neutron beam: energy standards revisited.

Nucl. Instr. Methods in Phys. Res. A 532(2004) 622-630.

72. G. Kitis, E. Cruz Zaragoza, C. Furetta

Thermoluminescence properties of Chile Guajillo (paprika) Mexicano..

Appl. Radiat. Isotopes 63(2005) 247-254.

73. G. Kitis and C. Furetta

Simulation of competing irradiation and fading effects in thermoluminescence dosimetry.

Radiation Effects & Defects in Solids 160(2005) 285-296.

74. G.S. Polymeris, N. Tsirliganis, Z. Loukou and G. Kitis



A comparative study of the anomalous fading effects of TL and OSL signals of Durango apatite.
Phys. Sta. Sol. (a) 203(2006) 578-590.

75. G. Kitis, R. Chen, V. Pagonis, E. Carinou and V. Kamenopoulou
Thermoluminescence under an exponential heating function: I. Theory.
J. Phys. D: Appl. Phys. 39 (2006) 1500-1507.

76. G. Kitis, R. Chen, V. Pagonis, E. Carinou, P. Ascounis and V. Kamenopoulou
Thermoluminescence under an exponential heating function: II. Glow-curve deconvolution of experimental glow-curves.
J. Phys. D: Appl. Phys. 39 (2006) 1508-1514.

77. G. Kitis, E. Cruz Zaragoza and C. Furetta
Critical analysis of the peak-shape methods based on only one temperature value
Radiation Effects & Defects in Solids 161(2006) 149-160.

78. E. Cruz Zaragoza, C. Furetta, G. Kitis, B. Torres Gomea, G.S. Polymeris, N. Tsirliganis and Z. Loukou.
Thermoluminescence characterization of the irradiated minerals extracted from nopal.
Radiation Effects & Defects in Solids 161(2006) 267-278.

79. G.S. Polymeris, G. Kitis, A.K. Liolios, N.C. Tsirliganis and K.Zioutas.
Minerals as Time-Integrating Luminescence Detectors for setting bounds on the Dark matter particle characteristics.
Nucl. Instr. Meth. Phys. Res. A 562(2006) 207-213.

80. A. Ortiz Morales, C. Furetta, G. Kitis, A. Negron Mendoza and E. Cruz Zaragoza
Thermoluminescence properties of NaCl monocrystals double doped with CaCl₂ and CdCl₂.
Radiation Effects & Defects in Solids 161(2006) 383-393.

81. G. Polymeris, G. Kitis and V. Pagonis
The effect of annealing and irradiation on the sensitivity and supralinearity properties of the 110°C thermoluminescence peak of quartz.
Radiation Measurements 41(2006) 554-564.

82. G. Polymeris, G. Kitis and N. Tsirliganis
Correlation between TL and OSL properties of CaF₂:N
Nucl. Instr. Meth. Phys. Res. B 251(2006) 133-142.

83.* V. Pagonis, G. Kitis and R. Chen
Theoretical modeling of experimental diagnostic procedures employed during pre-dose dosimetry of quartz.
Radiat. Prot. Dosim. 119(2006) 111-114.



84.* G. Kitis, V. Pagonis, R. Chen and G. Polymeris

A comprehensive comparative study of the pre-dose effect for three quartz crystals of different origin.

Radiat. Prot. Dosim. 119(2006) 438-441.

85.* G. Kitis, V. Pagonis, and R. Chen

Comparison of experimental and modeled quartz thermal-activation curves obtained using multiple- and single- aliquot procedures.

Radiation Measurements 41(2006) 910-916.

86.* N. Tsirliganis, G. Polymeris, Z. Loukou and G. Kitis

Anomalous fading of the Blue-SL and IR-SL signals of fluorapatite

Radiation Measurements 41(2006) 954-960.

87. G. Kitis, G.S. Polymeris, V. Pagonis and N.C, Tsirliganis

Thermoluminescence response and apparent anomalous fading factor of Durango fluorapatite as a function of the heating rate.

Phys. Stat. Sol. (a) 203(2006) 3816-3823.

88. E. Cruz Zaragoza, C. Furetta, G. Kitis, C. Teuffer and M. Borboza-Flores

Oregano and Paprika Spices: Their thermoluminescence Characteristics for Food irradiation dose assessment.

American Journal of Food and Technology (1) (2006)66-76.

89. N.C. Tsirliganis, G.S. Polymeris, G. Kitis, and V. Pagonis

Dependence of the anomalous fading of the TL and Blue-OSL of Fluorapatite on the occupancy of the tunneling recombination sites.

J. Luminescence 126(2007) 303-308.

90. N.G. Kiyak, G.S. Polymeris and G. Kitis

Component resolved OSL dose response and sensitization of various sedimentary quartz samples

Radiation Measurement 42(2007) 144-155.

91. G. Kitis and V. Pagonis

Peak shape methods for general order thermoluminescence glow-peaks: A reappraisal.

Nucl. Instr. Meth. Phys. Reas. B 262(2007) 313-323.

92.* D. Afouxenidis, E.C. Stefanaki, G.S. Polymeris, A. Sakalis, N.C Tsirliganis and G Kitis

TL/OSL properties of natural schist for archaeological dating and retrospective dosimetry.

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Radiat. Measurements 47(2012)864-869.

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Radiat. Measurements 482(2013)47-54.

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J. Luminescence 137(2013)109-115.

145. A.R. Garcia Caro, R.Bernal, C. Cruz-Vazquez, G. Kitis, V.R. Orante - Baron, V.M. Castano.

Thermoluminescence of NaF:Eu⁺ phosphors exposed to beta particle irradiation.

Phys. Stat. Sol. C 10 (2013) 176-179.

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Radiat. Measurements 58(2012)66-74.

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Mediterranean Archaeology and Archaeometry 13(2013)93-103.

150.* G.S. Polymeris, E. Theodosoglou, G. Kitis, N.C. Tsirliganis, A. Koroneos, K.M. Paraskevopoulos.

Preliminary results on structural state characterization of K-feldspas by using thermoluminescence.

Mediterranean Archaeology and Archaeometry 13(2013)155-161.

151. I.K. Sfampa, G.S. Polymeris, N.C. Tsirliganis, V. Pagonis, G. Kitis.

Prompt isothermal decay of thermoluminescence in an apatite exhibiting strong anomalous fading.

Nucl. Istram. Meth. Phys. Res. BV 320(2014)57-63.

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Resolving the limitation of the peak fitting and peak shape methods in the determination of the activation energy of thermoluminescence glow peaks..

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Kinetic analysis of thermoluminescence glow curves in feldspars:evidence for a continuous dstribution nof energies.

Geochronometria 41(2014)168-177.

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Appl. Radiat. Isotopes 91(2014)79-91.

158. H.A. Borbon-Nunez, C. Cruz-Vazquez, R. Bernal, G. Kitis, C. Furetta, V.M. Castano.

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Optical Materials 37(2014)398-403.

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Archaeometry 56(2014)805-817.

160. E. Oniya, G.S. Polymeris, N.N. Jibiri, N.C. Tsirliganis, I. Babalola, G. Kitis.

Contributions of pre-exposure dose and thermal activation in pre-dose sensitizations of unfired and annealed quartz.

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Experimental features of natural thermally assisted OSL (NTA-OSL) signal in various quartz samples: preliminary results.

Nucl. Instr., Meth. Phys. Res. B 349(2015)24-30.

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Properties of the thermoluminescence glow peaks simulated by the interactive multi trap system (IMTS) model.

Phys. Stat. Sol. B 252(2014)721-729.

165. G.S. Polymeris, E. Sahiner, N. Meric, G. Kitis.

Thermal assistance in TA-OSL signals of feldspars and polymineral samples: comparizons with case of pure quartz.

Radiat. Measur. xx-(2015)xx-

166. G.S. Polymeris, G. Kitis, N.G. Kiyak, E. Theodosoglou, N.C. Tsirliganis, A. Ertec, A.E. Erginal.

Dating fossil root cast (Black Sea Coast, Turkey) using thermoluminescence: Implications for windblown drift of self carbonates during MIS-2.

Quaternary International. Article in press.

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Witnessing prehistoric Delphi by luminescence dating

Comptes Rendus - Palevol 14(2015)219-232



5.4 Poubcication to Greek peer reviewed Journal

1. Κ. Χατζηγιάννου, Π.Βερναδάκης, Γ. Κίτης, Σ. Παρασκευαΐδης, Σ. Χατζημιχάλης, Ε. Παπαναστασίου.

Δόση ακτινοβολίας εργαζομένων σε αιμοδυναμικό εργαστήριο.

Radiation dose to a Haimodynamic Laboratory

Ελληνική ακτινολογία (Hellenic Radiology) 28(4) (1997) 304-308.

5.5 Publication to International conferences published in peer reviewed conference proceedingd .

1. A. Siona, F. Hasan, G. Kitis and S. Charalambous.

Regenerated thermoluminescence in pre-irradiated phosphors.

3rd specialist seminar on TL and ESR Dating. Helingnor (Helsinore), Denmark, 1982.

PACT Journal 9 (1983) 133-140.

2. G. Kitis, M. Tsakiri and Stef. Charalambous.

Thermoluminescence Dating Activities by the TL-group of Thessaloniki University.

PACT Journal 15, 117-124, 1985

3. Publications 4, 5 και 6 were presented to:

4th International specialist seminar on Thermoluminescence and Electron-Spin-Resonance Dating, Worms, F.R.G, 1984.

4. Publications 7 και 8 were presented to:

5th International specialist seminar on Thermoluminescence and Electron-Spin-Resonance Dating, Cambridge, U.K, 1987.

5. Publications 10 was presented to:

9th International Conference on Solid State Dosimetry, November 1989, Vienna, Austria.

6. Publications 13 και 14 were presented to:

6th International Specialist Seminar on Thermoluminescence and ESR Dating, July 1990, Clermont-Ferrand, France.

7. Publications 20 were presented to:

10th International Conference on Solid State Dosimetry, Washigton, DC, July 13--17,1992

8. Publications 26, 27, 28 και 29 were presented to:

11th International Conference on Solid State Dosimetry, Budapest July 1995

9. K.A. Hatzioannou, E. Molyvda--Athanasopoulou, E. Papanastasiou, G. Kitis, K. Psarrakos

Bone marrow and Thyroid Absorbed Doses from Mammography

IRPA9, 1996 International Congress on Radiation Protection,



Vienna, Austria, April 14--19, 1996.
Proceedings/Volume 3 (1996), 444-446.

10. Publications 35, 36 και 37 were presented to:

12th International Conference on Solid State Dosimetry, Burgos July 5--10,1998

11. C. Furetta, V. Prokic, G Kitis

Thermoluminescence properties of MgB₄O₇:Dy,Na TL doseimeters

VI International Conference on Medical Physics--Patras Medical Physics "99"
Abstract No.17, in: Physica Medica Vol. XV, N.3 1999.

12. M. Prokic, G. Kitis and C. Furetta

Dosimetric Characteristics of lithium borate solid TL detectors

VI International Conference on Medical Physics-
Abstract No.18, in: Physica Medica Vol. XV, N.3 1999.

13. Publications 50 were presented to:

European Research Workshop "Archaeometry in Archaeology: New trends"
Rhodes 3-7 November 1999.

14. Publications 57, 58, 59, 60, 61 και 62 were presented to:

13th International Conference on Solid State Dosimetry, Athens Greece, 2001

15. Publications 83 και 84 were presented to:

14th International Conference on Solid State Dosimetry, New Heaven, 2004

16. Publications 85 και 86 were presented to:

11th International Conference on Luminescence and Electron Spin Resonance
Dating. Cologne Germany, 2005

17. Publications 92 και 93 were presented to:

10th International Symposium On Radiation Physics. Coimbra, Portugal, 2006.

18. Publications 99, 100 και 101 were presented to:

15th International Conference on Solid State Dosimetry, Delft, The Nederland's,
2007

19. G.S. Polymeris, G. Kitis, A. Sakalis, N.C. Tsirliganis

IRSL dating of a deep water core from Pylos, Greece: comparison to post IR
Blue OSL and TL dating results.

37th International Symposium on Archaeometry (ISA37), 2008, Siena, Italy.

(Book of Abstracts)

20. S. Rapti, G.S. Polymeris, D. Afouxenidis, N.G. Kiyak, N.C. Tsirliganis, G. Kitis

*Thermally assisted OSL from deep traps in Al₂O₃:C samples exhibiting wide
main dosimetric TL peak; comparison with samples exhibiting narrow main TL*



dosimetric peak.

2nd Asia-Pacific Conference on Luminescence and Electron SPIN resonance Dating (APLED2), 12 – 15 November 2009, Ahmedabad, India. (Poster)

21 Publications 114, 115 και 116 were presented to:

7th European Conference on Luminescence Detectors and Transformers of Ionizing Radiation, Krakow, Poland, 2009.

22. Publications 118, 119, 120, 121, και 122 were presented to:

1st LAIS Symposium «Luminescence in Archaeology International symposia» Delphi, Greece, 2009.

23. N.G. Kiyak, G.S. Polymeris, T. Takaoglu, A.E. Erginal, G. Kitis

Dating studies of pottery and sediment materials from prehistoric site of Smintheion with the application of luminescence techniques.

38th International Symposium on Archaeometry (ISA 2010), Tampa Bay, Florida, USA 2010.

(Book of abstracts)

24. D. Afouxenidis, G.S. Polymeris, O.M. Goudouri, E. Kontonasaki, X. Chatzistavrou, N.C. Tsirliganis, K.M. Paraskevopoulos, G. Kitis, .

Thermoluminescence as an experimental tool towards the characterization of bioactive materials; the case of 58S bioactive glass.

Presented to: 23th European Conference on Biomaterials (ESB23), 11-15 September 2010, Tampere, Finland.

25. Publications 148, 149, 150 were presented to:

2st LAIS Symposium «Luminescence in Archaeology International symposia» Lisbon, Portugal, 2013.

5.6 Yellow Report στο CERN

1. The TARC Collaboration (Στην οποία συμμετείχα)

The TARC Experiment (PS211): Neutron-Driven Nuclear transmutation by adiabatic resonance crossing.

Editor J.P. Revol, Geneva 1999.

My own contribution appear at pages 117-125 of the Report, which had been included in the publication catalog.

5.7 International Conferences without peer review

1. G. Kitis, L. Katsetsiadis and S. Charalambous.

The influence of irradiation temperature on the TL response of LiF:Mg,Cu,P

Presented in 10o General Conference of Balkan Physical Union , Thessaloniki 1991.



2. C. Furetta and G. Kitis

Parametri cinetici del LiF:Mg,Ti (DTG-4)

XXVII Congresso Nazionale AIRP. Taormina, ottobre 1993: Atti 289-294.

Universita di Palermo, marzo 1995

3. C. Furetta and G. Kitis

Some Observations on the TL-Dose response curves

Proceedings of the 1997 International conference on Radiation Dosimetry and Safety

Mar.31-Apr.2, 1997, Taipei, Taiwan, ROC. Page 260--263

5.8 Internal Reports to Radiation Protection at CERN

1. G. Kitis, S. Charalambous and J.W.N Tuyn

Thermoluminescence Response of LiF:Mg,Ti(TLD-100) as a function of irradiation

Temperature for various types of radiation.

CERN/TIS-RP/91-12/4 July 1991

2. G. Kitis, S. Charalambous and J.W.N Tuyn

Thermoluminescence Response of Heavy Concrete used in the Shielding of the CERN

600 MEV Synchrocyclotron.

CERN/TIS-RP//7 January 1992

3. G. Kitis and J.W.N. Tuyn

Dosimetry in CERN-CEC reference high energy radiation fields using thermoluminescence dosimeters

CERN/TIS-RP/95-13.

4. G. Kitis and J.W.N. Tuyn

Dosimetry in various radiation fields using Cd-Covered and uncovered TLD-600,TLD-700 pairs inside a 25 cm polyethylene sphere

CERN/TIS-RP/97-3.

5. G. Kitis and J.W.N. Tuyn

Dosimetry in CERN-CEC reference high energy radiation fields using TLD-700 TL doseimeters

CERN/TIS-RP/97-1.

6. G. Kitis and J.W.N. Tuyn

Thermal gradient effects on the Thermoluminescence glow-curves

CERN/TIS-RP/97-32.

5.9 Publication in Greek Conferences (In Greek)



1. Γ. Κίτης, και Σ. Χαλαλάμπους

Απόκριση Θερμοφωταύγειας χαλαζία σαν συνάρτηση της θερμοκρασίας ακτινοβόλησης

Παρουσιάστηκε στο 3^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Πάτρα 1987.

Πρακτικά σελίς 144-146.

2. Γ. Κίτης, Ε. Καλδούδη και Σ. Χαλαλάμπους

Απόκριση Θερμοφωταύγειας χαλαζία σαν συνάρτηση της θερμοκρασίας ακτινοβόλησης και δόσης

Παρουσιάστηκε στο 4^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Μαραθώνας Αττικής 1988.

Πρακτικά σελίς 158-161.

3. Γ. Κίτης, Δ. Δεληκώστα και Σ. Χαλαλάμπους

Απόκριση Θερμοφωταύγειας χαλαζία σαν συνάρτηση του μεγέθους των κόκκων.

Παρουσιάστηκε στο 4^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Μαραθώνας Αττικής 1988.

Πρακτικά σελίς 194-197.

4. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαλαλάμπους

Ευαισθητοποίηση Θερμοφωταύγειας του LiF(TLD-100) συναρτήσει της θερμοκρασίας ανόπτησης, πριν, κατά, και μετά την ακτινοβόληση.

Παρουσιάστηκε στο 5^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Ξάνθη 1989.

Πρακτικά σελίς 53-57.

5. Γ. Κίτης, Μ. Σπυροπούλου, Ι. Παπαδόπουλος και Σ. Χαλαλάμπους

Φαινόμενα ρυθμού θέρμανσης στο SiO₂ και LiF(TLD-100).

Παρουσιάστηκε στο 7^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Θεσσαλονίκη 1991.

Πρακτικά σελίς 158-161.

6. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαλαλάμπους

Υπεργραμμικότητα της Θερμοφωταύγειας της κορυφής 110^οC ου χαλαζία συναρτήσει του ρυθμού θέρμανσης

Παρουσιάστηκε στο 8^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως .. 1992.

Πρακτικά σελίς 345-348.

7. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαλαλάμπους

Ισοθερμική ανάλυση της κορυφής 5 του LiF:Mg,Ti.

Παρουσιάστηκε στο IX Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Πάτρα 1993.

Πρακτικά σελίς 278-281.

8. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαλαλάμπους



Υπεργραμμικότητα συναρτήσει της θερμοκρασίας ακτινοβόλησης στον συνθετικό χαλαζία.

Παρουσιάστηκε στο IX Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Πάτρα 1993.

Πρακτικά σελίς 282-285.

9. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαραλάμπους

Αναγεννώμενη Θερμοφωταύγεια—Αναγέννηση Φωταύγειας, Σχέση-Προέλευση.

Παρουσιάστηκε στο X Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Δελφοί 1994.

Πρακτικά σελίς 183-186.

10. Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαραλάμπους

Εξάρτηση της υπεργραμμικότητας της κορυφής 110°C του SiO₂ από τις κορυφές υψηλών θερμοκρασιών.

Παρουσιάστηκε στο 5^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Δελφοί 1994.

Πρακτικά σελίς 187-190.

11. Κ.Ζιούτας, Γ. Κίτης, Κ. Χαριτίδης και Σ. Χαραλάμπους

Επί της δυνατότητας ανίχνευσης ηλιακών αξιονίων μέσω προτρεπομένης φωταύγειας.

Παρουσιάστηκε στο 5^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Δελφοί 1994.

Πρακτικά σελίς 191-194.

12. Γ. Κίτης, Α. Λασκαράκης και J.W.N. Tuyn

Υπεργραμμικότητα της Θερμοφωταύγειας του LiF:Mg,Ti (TLD-700).

Παρουσιάστηκε στο 13^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Θεσσαλονίκη 1997.

Πρακτικά σελίς 607-610.

13. Α. Λιόλιος, Γ. Κίτης, και G.G.Cai

Επίδραση της ατμόσφαιρας ανόπτωσης στα χαρακτηριστικά θερμοφωταύγειας του LiF:Mg,Cu,P.

Παρουσιάστηκε στο 13^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Θεσσαλονίκη 1997.

Πρακτικά σελίς 611-614.

14. Κ. Χαριτίδης, Α.Λασκαράκης, Γ. Κίτης και Σ. Χαραλάμπους

Υπεργραμμικότητα συνθετικού χαλαζία: Εξάρτηση από την προ-δόση.

Παρουσιάστηκε στο 13^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως Θεσσαλονίκη 1997.

Πρακτικά σελίς 615-618.

15. Κ. Χαριτίδης, Α.Λασκαράκης, Γ. Κίτης και Σ. Χαραλάμπους

Υπεργραμμικότητα συνθετικού χαλαζία: Εξάρτηση από την θερμοκρασία ανόπτωσης.

Παρουσιάστηκε στο 13^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως



Θεσσαλονίκη 1997.
Πρακτικά σελίς 619-622.

16. Κ. Χαριτίδης, Α.Λασκαράκης, Γ. Κίτης και Σ. Χαραλάμπους
Υπεργραμμικότητα συνθετικού χαλαζία: Εξάρτηση από τον ρυθμό θέρμανσης.
Παρουσιάστηκε στο 13^ο Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως
Θεσσαλονίκη 1997.
Πρακτικά σελίς 623-626.

17. Η. Τάτσης και Γ. Κίτης
*Συναρτήσεις ανάλυσης φωτοκαμπυλών θερμοφωταύγειας για μικτή τάξη
κινητικής και συνεχή κατανομή παγίδων.*
Παρουσιάστηκε στο XIV Πανελλήνιο συνέδριο Φυσικής Στερεάς Καταστάσεως
Ιωάννινα 1998.
Πρακτικά σελίς 213-216.

18. A. K. Liolios, G.S. Polymeris, G. Kitis, N. C. Tsirliganis, K. Zioutas.
Earth's Minerals as time-integrated detectors for Axions.
Hellenic High Energy Physics Symposium (HEP06), 2006, Ioannina, Greece

19. E. C. Stefanaki, D. Afouxenidis, G. S. Polymeris, A. Sakalis, N. C. Tsirliganis, G. Kitis. *"Optically Stimulated Luminescence Properties of natural Schist".*
5th Hellenic Archaeometry Society Symposium, 2008, Athens, Greece.

20. D. Gogou, G. Kitis, G. S. Polymeris, D. Afouxenidis, S. Rapti, G. I. Dallas, N. C. Tsirliganis.
Thermoluminescence properties of natural and artificially irradiated obsidian.
5th Hellenic Archaeometry Society Symposium, 2008, Athens, Greece.

21. G.I. Dallas, G.S. Polymeris, D. Afouxenidis, N.C. Tsirliganis, G. Kitis.
Correlation between TL and OSL signals in KMgF₃:Ce; bleaching study of individual glow peaks.
XXV Pan-Hellenic Conference on Solid State Physics and Materials Science.
Thessaloniki, Greece, 2009. Book of Abstracts page 83.

22. G.S. Polymeris, S. Raptis, D. Afouxenidis, N.C. Tsirliganis, G. Kitis.
Thermally assisted photo transfer OSL from deep traps in Al₂O₃:C
XXV Pan-Hellenic Conference on Solid State Physics and Materials Science.
Thessaloniki, Greece, 2009.
Book of Abstracts page 84.

23. B. Subedi, D. Afouxenidis, G. S. Polymeris, N. C. Tsirliganis, K. M. Paraskevopoulos, G. Kitis.



Towards luminescence dating of turquoise gemstone using TL and OSL methods.

XXV Pan-Hellenic Conference on Solid State Physics and Materials Science, Thessaloniki, Greece, 2009.

Book of Abstracts page 251.

24. D. Afouxenidis, X. Chatzistavrou, G.S. Polymeris, N.C. Tsirliganis, G. Kitis, K.M. Paraskevopoulos.

Preliminary TL and OSL characterization on synthetic bioactive materials.

XXV Pan-Hellenic Conference on Solid State Physics and Materials Science. Thessaloniki, Greece, 2009.

Book of Abstracts page 367.

25. I.K. Sfamba, G. S. Polymeris, N. Zacharias, G. Kitis, J. Henderson, “towards answering technological and provenance questions of archaeological glass materials by using luminescence techniques” , XXVIII PanHellenic Conference on Solid State Physics and Materials Science, Patra, Greece.

26. V. Giannoulatou, I.K. Sfamba, G. S. Polymeris, G. Kitis, “anomalous fading effect of luminescence signals in five different apatite samples”,

XXVIII PanHellenic Conference on Solid State Physics and Materials Science, Patra, Greece.

27. I.K. Sfamba, G. S. Polymeris, N. Zacharias, G. Kitis, J. Henderson, “luminescence as a tool for assisting technological and provenance studies of archaeological glasses”, 3rd Symposium of Archaeological Research and New Technologies, Kalamata, Greece.

28. I. K. Sfamba, N. Zacharias, G. S. Polymeris, E. Palamara, G. Kitis, M. Papageorgiou,

“analytical and spectroscopical approaches for the holistic characterization of archaeological glasses: the case of blue glasses from messene, greece”,

6th Symposium of the Hellenic Society for Archaeometry, May 16-18, 2013, Athens, Greece.

29. V. Giannoulatou, I.K. Sfamba, N. Nerantzis, D. Afouxenidis, S. Dimitriadis, N. Kazakis, G.S. Polymeris, G. Kitis, N.C. Tsirliganis,

“technological characterization and thermoluminescence dating of metallurgical furnaces in northeastern greece”,

6th Symposium of the Hellenic Society for Archaeometry, May 16-18, 2013, Athens, Greece.

30. I. Liritzis, V. Aravantinos, G. Polymeris, Agiomarnitis, N. Zacharias, I. Fappas, I. Sfamba, A. Vafiadou, G. Kitis,

“prehistoric delphi: luminescence dating on ceramics and stone from koumoula (livadhi valley, parnassus mountain, delphi, greece)”,

6th Symposium of the Hellenic Society for Archaeometry, May 16-18, 2013, Athens, Greece.

31. Sfampa, I.K., Polymeris, G.S., Tsirliganis, N.C., Pagonis, V., Kitis, G.,

“Prompt Isothermal Decay of Thermoluminescence in a Material Exhibiting Strong Anomalous Fading”,

XXIX Panhellenic Conference on Solid State Physics and Materials Science, Athens

32. V. A. Ageli, I.K.Sfampa, G. Kitis, G.S.Polymeris,

“Pre-dose effect in BaSO₄ and possibility of zeroing thermoluminescence signal of gypsum by petrification: two luminescence features affecting dating of portable paintings through ground layers by using luminescence”,

XXIX Panhellenic Conference on Solid State Physics and Materials Science, Athens

33. S.K.Dimitriadis, I.K.Sfampa, G.S.Polymeris, G. Kitis,

“Separating the Contribution of Thermal Activation in the Predose-Effect of Quartz”,

XXIX Panhellenic Conference on Solid State Physics and Materials Science, Athens

6. Publications with abstracts

6.1 PhD

Contribution to Thermoluminescence and regenerated thermoluminescence as a function of irradiation temperature.

Aristotle University of Thessaloniki

The main topic of the PhD the study of the TL response as a function of irradiation temperature. The study was applied to both artificial dosimeters like LiF:Mg,Ti, CaF₂:Dy and CaSO₄:Dy as well as to natural materials as Norwegian quartz, quartz extracted from pottery of various historical periods, annealed quartz and meteorites.



The regeneration thermoluminescence was investigated to LiF:Mg,Ti and CaF₂:Dy. The irradiation temperature region was from 77 up to 523 K, whereas the dose range was 1-10⁴ Gy.

The dependence of the TL response upon the irradiation temperature is a general effect appearing in many TL materials. The TL glow-curve shape depends on irradiation temperature especially in the high temperature region. The dependence of the high temperature TL peak was more intense in the case of LiF:Mg,Ti and Norwegian quartz, being, additionally dose dependent. There is a crucial difference between pure Norwegian quartz and quartz extracted from pottery.

When the pure Norwegian quartz is annealed to very high temperatures then the dependence of its response on irradiation temperature is significantly decreased.

The TL response of meteorite samples studied do not show an important dependence on irradiation temperature.

6.2. Book

Numerical and Practical Exercises in Thermoluminescence,
V. Pagonis, G. Kitis and C. Furetta., Springer, 2006.

Chapter 1: Presents the most basic Thermoluminescence (TL) analytical expressions which are used for the analysis of experimental data.

Chapter 2: Presents systematic examples analysis of experimental data for TL glow peaks obeying first, second as general order kinetics. A detail analysis of numerical data concerning the majority of methods appearing in literature.

Chapter 3: For first time in literature detail examples are presented for the numerical solution of the systems of differential governing the TL process and the comparison of the results with the existing analytical TL expressions commonly used to describe TL experimental data.

Chapter 4: Contains numerical exercises for the study of the TL as a function of dose. The models used are that of the most recent literature. All programs are written in MATHEMATIKA in the «modular» mode, which can be used by any future reader of the book

Chapter 5: Contains many exercises for practical application appearing very often in literature. Some exercises deal with accuracy, precision and reproducibility of TL measurements of dosimeters. Exercises dealing with the effect of Thermal Quenching and of its implication on TL measurements are also included.

