

## CURRICULUM VITAE

### Vasilis Pagonis

McDaniel College  
Physics Department  
Westminster, MD 21157, USA

Academic Rank: Full Professor  
E-mail: vpagonis@mcdaniel.edu  
Marital Status: Married, 2 children.

### **PROFESSIONAL PREPARATION**

University of Athens, Athens, Greece  
University of Birmingham, Birmingham, England

Northeastern University, Boston, Massachusetts  
Northeastern University, Boston, Massachusetts

Major: Physics B.S. 1976  
Major: Physics M.Sc. 1978  
Specialty: Applied Radiation Physics  
Major: Physics M.S. 1979  
Major: Physics Ph.D. 1982  
Specialty: Experimental Solid State Physics

Title of Master's Thesis: Thermoluminescence study of meteorites  
Title of Doctoral Dissertation: Neutron studies of ferromagnetic materials  
Name of Doctorate Supervisor: Prof. C. Perry.

### **ACADEMIC AND PROFESSIONAL EXPERIENCE:**

|                         |                   |   |
|-------------------------|-------------------|---|
| McDaniel College        | (6/20 to Present) | Professor of Physics Emeritus           |
| McDaniel College        | (8/96 to 6/20)    | Professor Dept. of Physics              |
| McDaniel College        | (9/07 to Present) | Kopp Endowed Chair Professor of Physics |
| McDaniel College        | (9/12 to 2014)    | Department Chair Dept. of Physics       |
| McDaniel College        | (8/87 to 2001)    | Department Chair Dept. of Physics       |
| McDaniel College        | (8/89 to 8/96)    | Associate Professor Dept. of Physics    |
| McDaniel College        | (8/86 to 8/89)    | Assistant Professor Dept. of Physics    |
| Allegheny College       | (8/82 to 8/86)    | Assistant Professor Dept. of Physics    |
| Northeastern University | (8/79 to 8/82)    | Lecturer Dept. of Mathematics           |
| Northeastern University | (8/79 to 8/82)    | Research Assistant Dept. of Physics     |

### **Awards:**

McDaniel College *Faculty Book award*: 2011  
McDaniel College *Kopp Endowed Chair in the sciences award*: 2007-present  
McDaniel College *Faculty Book award*: 2006  
McDaniel College *Faculty Research award for Scholarly publications*: 2006  
McDaniel College *Faculty Research award for Scholarly publications*: 2002  
McDaniel College *Faculty Research award for Scholarly publications*: 1998

## **PUBLISHED UNDERGRADUATE AND GRADUATE TEXTBOOKS**

- 1. Pagonis, V., Kitis, G. and Furetta, C., 2006 “Practical and Numerical Exercises in Thermoluminescence” (Springer).** The book is co-authored with Dr. George Kitis of the Aristotle University in Thessaloniki-Greece, and with Dr. Claudio Furetta of the University of Rome-Italy. This is a graduate level textbook for training graduate students in the field of Thermoluminescence, and contains complete numerical and theoretical exercises and their solutions. The textbook was published in 2006 by Springer-Verlag-USA.
- 2. Chen, R. and Pagonis, V., 2011 “Thermally and Optically Stimulated Luminescence: A simulations approach” (Wiley).** The book is co-authored with Dr. Reuven Chen, Professor Emeritus of Tel-Aviv University, Israel. The book is essentially an encyclopedia of models in thermally and optically stimulated processes (TL, OSL, time-resolved OSL etc).
- 3. Chen, R. and Pagonis, V., 2019. Editors “Recent Advances in Physics and Applications of TL and OSL” (World Scientific).** This Advanced Topics Review book contains 12 chapters written by experts in TL, OSL and their applications.
- 4. Pagonis, V., and Kulp, C., 2020. Classical Mechanics: a computational approach, with examples in Python and Mathematica (CRC Press).** This undergraduate physics textbook covers the traditional aspects of Classical Mechanics for physics and engineering students, and contains extensive computer code examples in Python and Mathematica.
- 5. Pagonis, V., 2021. Luminescence Data Analysis and Modeling Using R (Use R! Series) (Springer Nature).** This graduate level book covers applications of R to luminescence dosimetry, luminescence dating, and radiation protection dosimetry. It features more than 90 detailed worked examples of R, fully integrated into the text, including the relevant theory and equations. Users can easily modify the R codes for their own experimental data and models.

### **Editorial work**

**Member of Editorial board, Radiation Measurements (since January 2021)**

**Reviewer** for these journals:

Journal of Luminescence

Radiation Measurements

The Physics Teacher

Int. Journal of Radiation Effects and Isotopes

Journal of Physics D: Applied Physics

Physica B

Nuclear Instruments Methods and Instruments B

European Journal of Physics

Journal of Archaeological Science

Applied Radiation and Isotopes

Mediterranean Archaeology

Boreas

Journal of Archaeology Science Reports

## **PUBLISHED ARTICLES IN REFEREED JOURNALS**

### **148. Simulating feldspar luminescence phenomena using R**

Vasilis Pagonis, Christoph Schmidt, Sebastian Kreutzer  
Journal of Luminescence, (2021)

### **147. Thermoluminescence due to simultaneous recombination of two electrons into two-hole centers**

R. Chen, J.L. Lawless, V. Pagonis  
Radiation Measurements 141 (2021) 106521

### **146. Superlinearity revisited: A new analytical equation for the dose response of defects in solids, using the Lambert W function**

Vasilis Pagonis, George Kitis, Reuven Chen  
Journal of Luminescence 227 (2020) 117553

### **145. Influence of scatter data and temperature lag on the analysis of thermoluminescence glow peak: A Monte Carlo simulation study**

A.M. Sadek, Vasilis Pagonis, G. Kitis  
Applied Radiation and Isotopes 167 (2021) 109405

### **144. Inherent statistics of glow curves from small samples and single grains**

J. L. Lawless, R. Chen, V. Pagonis  
Journal of Luminescence 226 (2020) 117389

### **143. Sequential two-step optical stimulation in K-feldspars: Correlation among the luminescence signals and implications for modeling parameters**

V. Angeli, G. Kitis, V.Pagonis, G.S. Polymeris  
Journal of Luminescence 226 (2020) 117425

### **142. Simulation of thermoluminescence dose response in cluster systems with deep trap**

A.S. Merezchnikov, S.V. Nikiforov, V. Pagonis  
Radiation Measurements 134 (2020) 106307

### **141. Competition between long time excitation and fading of thermoluminescence (TL) and optically stimulated luminescence (OSL)**

R. Chen, J.L. Lawless, V. Pagonis

Radiation Measurements 136 (2020) 106422

**140. Quantum tunneling processes in feldspars: Using thermoluminescence signals in thermochronometry**

Vasilis Pagonis, George Kitis, George S. Polymeris  
Radiation Measurements 134 (2020) 106325

**139. A new analytical equation for the dose response of dosimetric materials, based on the Lambert W function**

Vasilis Pagonis, George Kitis, Reuven Chen  
Journal of Luminescence 225 (2020) 117333

**138. Investigation of thermoluminescence processes during linear and isothermal heating of dosimetric materials**

George S. Polymeris, Vasilis Pagonis, George Kitis  
Journal of Luminescence 222 (2020) 117142

**137. A Monte-Carlo study of the fading of TL and OSL signals in the presence of deep-level competitors**

R. Chen, V. Pagonis  
Radiation Measurements 132 (2020) 106257

**136. On the stochastic uncertainties of thermally and optically stimulated luminescence signals: A Monte Carlo approach**

Vasilis Pagonis, Sebastian Kreuzer, Alex Roy Duncan, Ena Rajovic, Christian Laag, Christoph Schmidt  
Journal of Luminescence 219 (2020) 116945

**135. Stimulated luminescence emission: From phenomenological models to master analytical equations**

George Kitis, George S. Polymeris, Vasilis Pagonis  
Applied Radiation and Isotopes 153 (2019) 108797

**134. Comprehensive analysis of thermoluminescence signals in MgB<sub>4</sub>O<sub>7</sub>:Dy,Na dosimeter**

Vasilis Pagonis, Nathan Brown, George S. Polymeris, George Kitis  
Journal of Luminescence 213 (2019) 334–342

**133. Simulation of TL kinetics in complex trap cluster systems: Some new approaches**

A.S. Merezchnikov, S.V. Nikiforov, V. Pagonis  
Radiation Measurements 125 (2019) 78–84

**132. Correlation between isothermal TL and Irsl in K-Feldspars of various types**

Ioanna K. Sfampa, George S. Polymeris, Vasilis Pagonis, George Kitis  
Radiation Physics and Chemistry 165 (2019) 108386

**131. A model explaining the anomalous heating-rate effect in thermoluminescence as an inverse thermal quenching based on simultaneous thermal release of electrons and holes**

R. Chen , V. Pagonis  
Radiation Measurements 106 (2017) 20-25

**130. Influence of the infrared stimulation on the optically stimulated luminescence in four K-feldspar samples**

G. Kitis , G.S.Polymeris , E. Şahiner , N.Meriç , V.Pagonis  
Journal of Luminescence 176 (2016) 32–39

**129. Evaluated thermoluminescence trapping parameterseWhat do they really mean?**

R. Chen , V. Pagonis , J.L. Lawless  
Radiation Measurements 91 (2016) 21-27

**128. On the unchanging shape of thermoluminescence peaks in preheated feldspars: Implications for temperature sensing and thermochronometry**

Vasilis Pagonis, Nathan Brown  
Radiation Measurements 124 (2019) 19–28

**127. Thermoluminescence governed by the Auger-recombination process**

J.L. Lawless, R. Chen, V. Pagonis  
Radiation Measurements 124 (2019) 40–47

**126. Excited state luminescence signals from a random distribution of defects: A new Monte Carlo simulation approach for feldspar**

Vasilis Pagonis, Johannes Friedrich, Michael Discher, Anna Müller-Kirschbaum□, Veronika Schlosser, Sebastian Kreuzer, Reuven Chen, Christoph Schmidt  
Journal of Luminescence, Volume 207, March 2019, Pages 266-272

**125. Thermoluminescence glow curves in preheated feldspar: A Monte Carlo study**

Vasilis Pagonis, Francisco Marques dos Santos Vieira, Antony Chambers, Lucas Anthony  
Nuclear Inst. and Methods in Physics Research B 436 (2018) 249–256

**124. On the resolution of overlapping peaks in complex thermoluminescence glow curves**

George Kitis , Vasilis Pagonis  
Nuclear Inst. and Methods in Physics Research, A 913 (2019) 78–84

**123. Thermoluminescence associated with two-hole recombination centers**

R. Chen, J.L. Lawless, V. Pagonis  
Radiation Measurements 115 (2018) 1–6

**122. Localized transition models in luminescence: A reappraisal**

George Kitis and Vasilis Pagonis  
Nuclear Instruments and Methods in Physics Research B 432 (2018) 13-19

**121. On the half-life of luminescence signals in dosimetric applications: A unified presentation**

Vasilis Pagonis , George Kitis, George Polymeris  
Physica B: Condensed Matter 539 (2018) 35–4

**120. Thermoluminescence due to tunneling in nanodosimetric materials: A Monte Carlo study**

Vasilis Pagonis , Phuc Truong  
Physica B: Condensed Matter 531 (2018) 171–179

**119. Anomalous fading in TL, OSL and TA – OSL signals of Durango apatite for various grain size fractions; from micro to nano scale**

G.S. Polymeris, I.K. Sfampa, M. Niora, E.C. Stefanaki, L. Malletzidou, V. Giannoulidou, V. Pagonis, G. Kitis  
Journal of Luminescence 195 (2018) 216–224

**118. The effect of crystal size on tunneling phenomena in luminescent nanodosimetric materials**

Vasilis Pagonis, Shannon Bernier, Francisco Marques dos Santos Vieira, Shane Steele  
Nuclear Inst. and Methods in Physics Research, B 412 (2017) 198–206

**117. Can thermoluminescence be used to determine soil heating from a wildfire?**

Francis K. Rengers, Vasilis Pagonis, Shannon A. Mahan  
Radiation Measurements 107 (2017) 119-127

**116. Sublinear dose dependence of thermoluminescence as a result of competition between electron and hole trapping centers**

S.V. Nikiforov , V. Pagonis , A.S. Merezchnikov  
Radiation Measurements 105 (2017) 54-61

**115. Quantum tunneling recombination in a system of randomly distributed trapped electrons and positive ions**

Vasilis Pagonis, Christopher Kulp, Charity-Grace Chaney and M Tachiya  
J. Phys.: Condens. Matter 29 (2017) 365701

**114. Tunnelling recombination in conventional, post-infrared and post-infrared multi-elevated temperature IRSL signals in microcline K-feldspar**

Eren Şahiner, George Kitis, Vasilis Pagonis, Niyazi Meriç, George S. Polymeris  
Journal of Luminescence 188 (2017) 514–523

**113. Quartz radiofluorescence: a modelling approach**

Johannes Friedrich, Vasilis Pagonis, Reuven Chen, Sebastian Kreuzer, Christoph Schmidt  
Journal of Luminescence, 186 (2017) 318-325

**112. The influence of competition effects on the initial rise method during thermal stimulation of luminescence: A simulation study**

George Kitis, Vasilis Pagonis, S. E. Tzamarias  
Radiation Measurements 100 (2017) 27-36

**111. Thermoluminescence associated with two-electron traps**

R. Chen , J.L. Lawless, V. Pagonis  
Radiation Measurements 99 (2017) 10-17

**110. An overview of recent developments in luminescence models with a focus on localized transitions**

Vasilis Pagonis, Reuven Chen, Christopher Kulp, George Kitis  
Radiation Measurements 106 (2017) 3-12

**109. New expressions for half life, peak maximum temperature, activation energy and kinetic order of a thermoluminescence glow peak based on the Lambert W function**

George Kitis , Vasilis Pagonis  
Radiation Measurements 97 (2017) 28-34

**108. Thermoluminescence glow curves in preheated feldspar samples: An interpretation based on random defect distributions**

George S. Polymeris, Vasilis Pagonis, George Kitis  
Radiation Measurements 97 (2017) 20-27

**107. Quantitative analysis of time-resolved infrared stimulated luminescence in feldspars**

Vasilis Pagonis, Christina Ankjærgaard, Mayank Jain, Makaiko L. Chithambo  
Physica B 497 (2016) 78–85

- 106. On the intrinsic accuracy and precision of the standardised growth curve (SGC) and global-SGC (gSGC) methods for equivalent dose determination: A simulation study**  
Jun Peng, Vasilis Pagonis , Bo Li  
Radiation Measurements 94 (2016) 53-64
- 105. Monte Carlo simulations of tunneling phenomena and nearest neighbor hopping mechanism in feldspars**  
Vasilis Pagonis, Christopher Kulp  
Journal of Luminescence 181 (2017) 114–120
- 104. Reliability of single aliquot regenerative protocol (SAR) for dose estimation in quartz at different burial temperatures: A simulation study**  
D.K. Koul , V. Pagonis, P. Patil  
Radiation Measurements 91 (2016) 28-35
- 103. Spectral and kinetic analysis of thermoluminescence from manganiferous carbonatite**  
M.L. Chithambo, V. Pagonis, F.O. Ogundare  
Journal of Luminescence 145 (2014) 180–187
- 102. Prompt isothermal decay of thermoluminescence in MgB4O7:Dy, Na and LiB4O7:Cu, In dosimeters**  
G. Kitis , G.S. Polymeris , I.K. Sfampa, M. Prokic, N. Meriç , V. Pagonis  
Radiation Measurements 84 (2016) 15-25
- 101. Simulating comprehensive kinetic models for quartz luminescence using the R program KMS**  
Jun Peng, Vasilis Pagonis  
Radiation Measurements, Vol. 86, (2016), 63–67
- 100. Mathematical aspects of ground state tunneling models in luminescence materials**  
Vasilis Pagonis , George Kitis  
Journal of Luminescence 168 (2015) 137–144
- 99. Time-resolved luminescence from quartz: An overview of contemporary developments and applications**  
M.L. Chithambo, C.Ankjærgaard, V.Pagonis  
Physica B 481 (2016) 8–18
- 98. Time and dose-rate dependence of TL and OSL due to competition between excitation and fading**  
R. Chen , V. Pagonis , J.L. Lawless  
Radiation Measurements 82 (2015) 115-121
- 97. Dating quartz near saturation – Simulations and application at archaeological sites in South Africa and South Carolina**  
James K. Feathers , Vasilis Pagonis



Quaternary Geochronology xxx (2015) 1-6

**96. On the effect of optical and isothermal treatments on luminescence signals from feldspars**

Vasilis Pagonis, George Polymeris, George Kitis  
Radiation Measurements 82 (2015) 93-101

**95. Correlation of basic TL, OSL and IRSL properties of ten K-feldspar samples of various origins**

I.K. Sfampa, G.S. Polymeris, V. Pagonis, E. Theodosoglou, N.C. Tsirliganis, G. Kitis  
Nuclear Instruments and Methods in Physics Research B 359 (2015) 89–98

**94. Monte Carlo simulations of TL and OSL in nanodosimetric materials and feldspars**

Vasilis Pagonis, Reuven Chen  
Radiation Measurements (2015), <http://dx.doi.org/10.1016/j.radmeas.2014.1>

**93. Radiation-induced growth and isothermal decay of infrared-stimulated luminescence from feldspar**

Benny Guralnik, Bo Li, Mayank Jain, Reuven Chen, Richard B. Paris, Andrew S. Murray, Sheng-Hua Li, Vasilis Pagonis, Pierre G. Valla, Frédéric Herman  
Radiation Measurements (2015),  
DOI: 10.1016/j.radmeas.2015.02.011

**92. Study of the stability of the TL and OSL signals**

R. Chen, V. Pagonis  
Radiation Measurements (2015),  
<http://dx.doi.org/10.1016/j.radmeas.2015.01.006>

**91. Intrinsic superlinear dose dependence of thermoluminescence and optically stimulated luminescence at high excitation dose rates**

R. Chen, J.L. Lawless, V. Pagonis  
Radiation Measurements 71 (2014) 220-225

**90. Mathematical characterization of continuous wave infrared stimulated luminescence signals(CW-IRSL) from feldspars**

V. Pagonis, Huy Phan, Rebecca Goodnow, Sara Rosenfeld, P.Morthekai  
Journal of Luminescence 154 (2014) 362–368

**89. Monte Carlo simulations of luminescence processes under quasiequilibrium (QE) conditions**

Vasilis Pagonis, Ethan Gochnour, Michael Hennessey, Charles Knowler  
Radiation Measurements 67 (2014) 67-76

**88. Kinetic analysis of thermoluminescence glow curves in feldspar: evidence of a continuous distribution of energies**

Vasilis Pagonis, P. Morthekai and George Kitis  
GEOCHRONOMETRIA 41(2) 2014: 168–177

**87. On the shape of continuous wave infrared stimulated luminescence signals from feldspars: A case study**

Vasilis Pagonis, M.Jain, K.J.Thomsen , A.S.Murray  
Journal of Luminescence 153 (2014) 96–103

**86. Properties of thermoluminescence glow curves from tunneling recombination processes in random distributions of defects**

George Kitis and Vasilis Pagonis  
Journal of Luminescence 153 (2014) 118–124

**85. The role of simulations in the study of thermoluminescence (TL)**

Reuven Chen, Vasilis Pagonis  
Radiation Measurements (2014), <http://dx.doi.org/10.1016/j.radmeas.2013.12.011>

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

I.K. Sfampa, G.S. Polymeris, N.C. Tsirliganis, V. Pagonis, G. Kitis  
Nuclear Instruments and Methods in Physics Research B 320 (2014) 57–63

**83. Further investigations of tunneling recombination processes in random distributions of defects**

Vasilis Pagonis, Huy Phan, David Ruth, George Kitis  
Radiation Measurements (2013), <http://dx.doi.org/10.1016/j.radmeas.2013.08.006>

**82. Modeling TL-like thermally assisted optically stimulated luminescence (TA-OSL)**

R. Chen, V. Pagonis  
Radiation Measurements 56 (2013) 6-12

**81. On the expected order of kinetics in a series of thermoluminescence (TL) peaks**

R. Chen and V. Pagonis  
Nuclear Instruments and Methods in Physics Research B 312 (2013) 60–69

**80. THERMAL DEPENDENCE OF LUMINESCENCE LIFETIMES AND RADIOLUMINESCENCE IN QUARTZ**

V. Pagonis, M.L. Chithambo, R. Chen, A. Chruścińska, M. Fasoli, S.H. Li, M. Martini, K. Ramseyer  
Journal of Luminescence 145(2014)38–48

**79. Anomalous heating rate effect in thermoluminescence intensity using a simplified semi-localized transition (SLT) model**

Vasilis Pagonis, Leigh Blohm, Mark Brengle, Gina Mayonado, Patrick Woglam  
Radiation Measurements 51-52 (2013) 40-47

**78. Analytical solutions for stimulated luminescence emission from tunneling recombination in random distributions of defects**

George Kitis and Vasilis Pagonis  
Journal of Luminescence 137 (2013) 109–115

- 77. Anomalous fading of OSL signals originating from very deep traps in Durango apatite**  
G. Kitis , G.S. Polymeris, V. Pagonis , N.C. Tsirliganis  
Radiation Measurements 49 (2013) 73-81
- 76. Thermal dependence of time-resolved blue light stimulated luminescence in a-Al<sub>2</sub>O<sub>3</sub>:C**  
Vasilis Pagonis, Christina Ankjærgaard, Mayank Jain, Reuven Chen  
Journal of Luminescence 136 (2013) 270–277
- 75. On the quasi-equilibrium assumptions in the theory of thermoluminescence(TL)**  
R. Chen and V.Pagonis  
Journal of Luminescence 143 (2013) 734–740
- 74. Time-resolved infrared stimulated luminescence signals in feldspars: Analysis based on exponential and stretched exponential functions**  
V. Pagonis, P.Morthekai, A.K.Singhvi, J.Thomas, V.Balaram, G.Kitis, R.Chen  
Journal of Luminescence 132 (2012) 2330–2340
- 73. Reconstruction of thermally quenched glow curves in quartz**  
Bhagawan Subedi, George S. Polymeris, Nestor C. Tsirliganis, Vasilis Pagonis and George Kitis  
Radiation Measurements 47 (2012) 250-257
- 72. Modeling of the shape of infrared stimulated luminescence signals in feldspars**  
Vasilis Pagonis, Mayank Jain, Andrew S. Murray, Christina Ankjærgaard and Reuven Chen  
Radiation Measurements (2012), doi:10.1016/j.radmeas.2012.02.012
- 71. Superlinear dose response of thermoluminescence (TL) and optically stimulated luminescence (OSL) signals in luminescence materials: An analytical approach**  
Vasilis Pagonis, Reuven Chen and John L. Lawless  
Journal of Luminescence 132 (2012) 1446–1455
- 70. A model for explaining the concentration quenching of thermoluminescence**  
R. Chen , J.L. Lawless, V. Pagonis  
Radiation Measurements 46 (2011) 1380-1384
- 69. Two-stage thermal stimulation of thermoluminescence**  
R. Chen, J.L. Lawless, V. Pagonis  
Radiation Measurements 47 (2012) 809-813
- 68. Prevalence of first order kinetics in thermoluminescence materials: An explanation based on multiple competition processes**  
Vasilis Pagonis and George Kitis Phys. Status Solidi B, 1–12 (2012) / DOI 10.1002/pssb.201248082
- 67. Preliminary results towards the equivalence of transformed continuous wave OSL (CW-OSL) and LM-OSL signals in quartz**  
G. Kitis, G. Polymeris, N. Kiyak and V.Pagonis

GEOCHRONOMETRIA (2011), DOI 10.2478/s13386-011-0031-8

**66. Analytical expressions for time-resolved optically stimulated luminescence experiments in quartz**

V. Pagonis, J. Lawles, R. Chen, M.L. Chithambo  
Journal of Luminescence 131 (2011) 1827–1835

**65. Simulations of thermally transferred OSL signals in quartz: Accuracy and precision of the protocols for equivalent dose evaluation**

Vasilis Pagonis, Grzegorz Adamiec, C. Athanassas, Reuven Chen, Atlee Baker, Meredith Larsen, Zachary Thompson  
Nuclear Instruments and Methods in Physics Research B 269 (2011) 1431–1443

**64. On the intrinsic accuracy and precision of luminescence dating techniques for fired ceramics**

Vasilis Pagonis, Reuven Chen, George Kitis  
Journal of Archaeological Science 38 (2011) 1591-1602

**63. Dissolution and subsequent re-crystallization as zeroing mechanism, thermal properties and dose response of salt (NaCl) for retrospective dosimetry**

G. Polymeris, G. Kitis, N. Kiyak, I. Sfamba, B. Subedi, V. Pagonis  
Applied Radiation and Isotopes 69 (2011) 1255–1262

**62. Precision and accuracy of two luminescence dating techniques for retrospective dosimetry: SAR-OSL and SAR-ITL**

Vasilis Pagonis, Atlee Baker, Meredith Larsen, Zachary Thompson  
Nuclear Instruments and Methods in Physics Research B 269 (2011) 653–663

**61. Simulations of time-resolved photoluminescence experiments in a-Al<sub>2</sub>O<sub>3</sub>:C**

Vasilis Pagonis, Reuven Chen, John W. Maddrey, Benjamin Sapp  
Journal of Luminescence 131 (2011) 1086–1094

**60. Simulation of the Nonlinear Dose Dependence of Stabilized Point Defects**

R Chen, V Pagonis and J L Lawless  
IOP Conf. Series: Materials Science and Engineering 15 (2010) 012071  
doi:10.1088/1757-899X/15/1/012071

**59. Simulation of the influence of thermal quenching on thermoluminescence glow-peaks**

B. Subedi, G. Kitis and V. Pagonis  
Phys. Status Solidi A 207, No. 5, 1216–1226 (2010)

**58. Simulations of isothermal processes in the semilocalized transition (SLT) model of thermoluminescence (TL)**

V. Pagonis and C. Kulp  
J. Phys. D: Appl. Phys. 43 (2010) 175403 (8pp)

**57. On the initial-occupancy dependence of some luminescence phenomena under the one-trap-one-recombination-center (OTOR) model**

R.Chen, V. Pagonis, J. Lawless, 2010  
Radiation Measurements 45 (2010) 147–150

**56. Nonlinear dose dependence of TL and LM-OSL within the one trap-one center model**

R.Chen, V. Pagonis, J. Lawless  
Radiation Measurements 45 (2010) 277–280

**55. Investigation of OSL signals from very deep traps in unfired and fired quartz samples**

G. Kitis, N.G. Kiyak, G.S. Polymeris, V. Pagonis  
Nuclear Instruments and Methods in Physics Research B 268 (2010) 592–598

**54. Mixed-order kinetics model for optically stimulated luminescence**

G. Kitis, C. Furetta and V.Pagonis  
Modern Physics Letters B, Vol. 23, No. 27 (2009) 3191–3207

**53. Modelling the thermal quenching mechanism in quartz based on time-resolved optically stimulated luminescence**

V. Pagonis, C. Ankjærgaard, A.S. Murray, M. Jain, R. Chen, J. Lawless, S. Greilich  
Journal of Luminescence 130 (2010) 902–909

**52. Sublinear dose dependence of thermoluminescence and optically stimulated luminescence prior to the approach to saturation level**

J.L. Lawless, R. Chen, V. Pagonis  
Radiation Measurements (2009), doi:10.1016/j.radmeas.2009.03.003

**51. Simulations of thermally transferred OSL experiments and of the ReSAR dating protocol for quartz**

Vasilis Pagonis, Ann G. Wintle, Reuven Chen, X.L. Wang  
Radiation Measurements (2009), doi:10.1016/j.radmeas.2009.02.009

**50. Radioluminescence in Al<sub>2</sub>O<sub>3</sub> : C – analytical and numerical simulation results**

V Pagonis, J Lawless, R Chen and C Andersen  
J. Phys. D: Appl. Phys. 42 (2009) 175107 (9pp)

**49. On the theoretical basis for the duplicitous thermoluminescence peak**

J L Lawless, R Chen and V Pagonis  
J. Phys. D: Appl. Phys. 42 (2009) 155409 (8pp)

**48. A new look at the linear-modulated optically stimulated luminescence (LM-OSL) as a tool for dating and dosimetry**

Reuven Chen, Vasilis Pagonis, John L. Lawless  
Radiation Measurements 44 (2009) 344–350

**47. Optically stimulated exoelectron emission processes in quartz: comparison of experiment and theory**

V. Pagonis, C. Ankjærgaard, A.S. Murray, R. Chen  
Journal of Luminescence 129 (2009) 1003–1009

**46. Simulations of the predose technique for retrospective dosimetry and authenticity testing**

V. Pagonis, E. Balsamo, C. Barnold, K. Duling, S. McCole  
Radiation Measurements 43 (2008) 1343–1353

**45. Thermoluminescence kinetic study of binary lead-silicate glasses**

V. Pagonis, S. Mian, R. Mellinger, K. Chapman  
Journal of Luminescence 129 (2009) 570–577

**44. Experimental and modelling study of pulsed optically stimulated luminescence in quartz, marble and beta irradiated salt**

V Pagonis, S M Mian, M L Chithambo, E Christensen and C Barnold  
J. Phys. D: Appl. Phys. 42 (2009) 055407 (12pp)

**43. A simulation of OSL pulse annealing at different heating rates: Conclusions concerning the evaluated trapping parameters and lifetimes**

V. Pagonis, R. Chen  
GEOCHRONOMETRIA, 30 (2008), pp xx-xx: DOI 10.2478/v10003-008

**42. A theoretical model for a new dating protocol for quartz based on thermally transferred OSL (TT-OSL)**

V. Pagonis, A.G.Wintle, R. Chen, X.L.Wang  
Radiat. Meas. (2008), doi: 10.1016/j.radmeas.2008.01.025

**41. Computerized curve deconvolution analysis for LM-OSL**

G. Kitis, V. Pagonis  
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### **PAPERS CO-AUTHORED WITH MCDANIEL STUDENTS**

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**Bold** indicates McDaniel College undergraduate students

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