

# **Luiz Gustavo Jacobsohn - Publications**

Department of Materials Science and Engineering , Clemson University

Last update: April 2023

## □ Book Chapters

1. *Structure and mechanical properties of boron carbide films deposited by sputtering*  
**L.G. Jacobsohn**  
**Invited chapter** to volume *Diamond and Related Materials Research* edited by Shôta Shimizu (Nova Science Publishers, 2008, New York, ISBN 978-1-60456-145-6) chapter 5, pp. 181-191

## □ Full Peer-Reviewed Publications (141 total)

1. *Dosimetric and scintillation properties of Tm-doped BaF<sub>2</sub> translucent ceramics*  
N. Kawano, T. Kato, D. Nakauchi, Y. Takebuchi, H. Fukushima, **L.G. Jacobsohn**, and T. Yanagida  
Accepted for publication in *Journal of Materials Science: Materials in Electronics* (2023)
2. *Luminescence of alkali rare earth borates A<sub>3</sub>Ln(BO<sub>3</sub>)<sub>2</sub> (A = Na, K; Ln = Eu, Tb)*  
A.T. Hines, G. Morrison, B.J. Yarbrough, N.B. Shustova, **L.G. Jacobsohn**, and H.-C. zur Loye  
*Solid State Sciences* **138**, 107130 (6 pages) (2023)  
DOI: 10.1016/j.solidstatesciences.2023.107130
3. *Tunable salt-inclusion chalcogenides for ion-exchange, photoluminescence, and scintillation*  
A. Berseneva, L. Masachchi, **L.G. Jacobsohn**, and H.-C. zur Loye  
*Chemistry of Materials* **35**, 1417–1431 (2023) + supporting information  
DOI: 10.1021/acs.chemmater.2c03592 +
4. *Semiconducting and scintillating glasses for X-ray detection*  
B. Smith, J. Mucciaccio, T. Caplace, L. Wadle, L. McClanahan, **L.G. Jacobsohn**, and U. Akgun  
Accepted for publication in *Glass Technology: European Journal of Glass Science and Technology Part A* (2023)
5. *Tungsten gallium-phosphate glasses as promising intrinsic scintillators*  
T.A. Lodi, G. Galleani, L.G. Merízio, **L.G. Jacobsohn**, V.R. Mastelaro, and A.S.S. de Camargo  
*Journal of Non-Crystalline Solids* **603**, 122097 (7 pages) (2023)  
DOI: 10.1016/j.jnoncrysol.2022.122097

6. *Fabrication of ceramic scintillators by laser sintering: the case of  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Pr}$*   
Y. Shao, R.L. Conner, N.R.S. Souza, R.S. Silva, and **L.G. Jacobsohn**  
**Invited paper** accepted for publication in the Selected Topics in Applied Physics (STAP) issue "Recent Advances in Radiation-Induced Luminescence Materials" of the Japanese Journal of Applied Physics **62**, 010601 (7 pages) (2023)  
DOI: 10.35848/1347-4065/ac9941
7. *Microstructure, luminescence and thermoluminescence of laser-sintered polycrystalline ceramic  $\text{YAG}:\text{Ce}$  scintillators*  
A.A. Trofimov, J.C.A. Santos, D.V. Sampaio, R.S. Silva, T.A. DeVol, and **L.G. Jacobsohn**  
Journal of Luminescence **251**, 119206 (9 pages) (2022)  
DOI: 10.1016/j.jlumin.2022.119206
8. *Photoluminescence and X-ray induced scintillation in  $\text{Gd}^{3+}$ -modified fluorophosphate glasses doped with  $\text{Ce}^{3+}$*   
G. Galleani, T.A. Lodi, V.R. Mastelaro, **L.G. Jacobsohn**, and A.S.S. de Camargo  
Optical Materials **133**, 112934 (6 pages) (2022)  
DOI: 10.1016/j.optmat.2022.112934
9. *Luminescence and scintillation in the niobium-doped oxyfluoride  $\text{Rb}_4\text{Ge}_5\text{O}_9\text{F}_6:\text{Nb}$*   
D. Carone, V.V. Klepov, S.T. Misture, J.C. Schaeperkoetter, **L.G. Jacobsohn**, M. Aziziha, J. Schorne-Pinto, S.A.J. Thomson, A.T. Hines, T.M. Besmann, and H.-C. zur Loye  
Inorganics **10**, 83 (12 pages) (2022) (Special Issue Inorganics: 10<sup>th</sup> Anniversary)  
DOI: 10.3390/inorganics10060083
10. *The kinetic parameters of the main thermoluminescence glow peak of  $\text{Al}_2\text{O}_3:\text{C,Mg}$ : A critical evaluation of different analytical methods*  
J.M. Munoz, E.M. Yoshimura, M.L. Chithambo, **L.G. Jacobsohn**, and N.M. Trindade  
Journal of Luminescence **247**, 118848 (6 pages) (2022)  
DOI: 10.1016/j.jlumin.2022.118848
11. *Synthesis, structure, and scintillation of  $\text{Rb}_4\text{Ta}_2\text{Si}_8\text{O}_{23}$*   
D. Carone, **L.G. Jacobsohn**, L.S. Breton, and H.-C. zur Loye  
Solid State Sciences **127**, 106861 (5 pages) (2022)  
DOI: 10.1016/j.solidstatesciences.2022.106861
12. *Luminescence and scintillation of  $[\text{Nb}_2\text{O}_2\text{F}_9]^{3-}$ -dimer containing oxide-fluorides:  $\text{Cs}_{10}(\text{Nb}_2\text{O}_2\text{F}_9)_3\text{F}$ ,  $\text{Cs}_{9.4}\text{K}_{0.6}(\text{Nb}_2\text{O}_2\text{F}_9)_3\text{F}$ , and  $\text{Cs}_{10}(\text{Nb}_2\text{O}_2\text{F}_9)_3\text{Cl}$*   
G.B. Ayer, G. Morrison, M.D. Smith, **L.G. Jacobsohn**, and H.-C. zur Loye  
Inorganic Chemistry **61**, 3256-3262 (2022)  
DOI: 10.1021/acs.inorgchem.1c03787
13. *Promising  $\text{Tb}^{3+}$ -doped gallium tungsten-phosphate glass scintillator: spectroscopy,*

- energy transfer, and UV/X-ray sensing*  
T.A. Lodi, J.F.M. dos Santos, G. Galleani, **L.G. Jacobsohn**, T. Catunda, and A.S.S. de Camargo  
Journal of Alloys and Compounds **904**, 164016 (10 pages) (2022)  
DOI: 10.1016/j.jallcom.2022.164016
14. *Synthesis of hydrated ternary lanthanide-containing chlorides exhibiting X-ray scintillation and luminescence*  
G.B. Ayer, M.D. Smith, **L.G. Jacobsohn**, G. Morrison, H.B. Tisdale, L.S. Breton, W. Zhang, P.S. Halasyamani, and H.-C. zur Loye  
Inorganic Chemistry **60**, 15371–15382 (2021)  
DOI: 10.1021/acs.inorgchem.1c02004
15. *Magnesium aluminate spinel for optically stimulated luminescence dosimetry*  
L. Pan, S. Sholom, S.W.S. McKeever, and **L.G. Jacobsohn**  
Journal of Alloys and Compounds **880**, 160503 (9 pages) (2021)  
DOI: 10.1016/j.jallcom.2021.160503
16. *Comparative investigation of transparent polycrystalline ceramic and single crystal  $\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Ce}$  scintillators: Microstructural and thermoluminescence analyses*  
A.A. Trofimov, T.A. DeVol, and **L.G. Jacobsohn**  
Journal of Luminescence **238**, 118229 (11 pages) (2021)  
DOI: 10.1016/j.jlumin.2021.118229
17. *Low/Intermediate temperature pyrolyzed polysiloxane derived ceramics with increased carbon for electrical applications*  
M. Greenough, Z. Zhao, **L.G. Jacobsohn**, J. Tong, and R.K. Bordia  
Journal of the European Ceramic Society **41**, 5882-5889 (2021)  
DOI: 10.1016/j.jeurceramsoc.2021.04.007
18. *OSL response of  $\alpha\text{-Al}_2\text{O}_3:\text{C,Mg}$  exposed to beta and UVC radiation: a comparative investigation*  
J.M. Munoz, L.S. Lima, E.M. Yoshimura, **L.G. Jacobsohn**, and N.M. Trindade  
Journal of Luminescence **236**, 118058 (7 pages) (2021)  
DOI: 10.1016/j.jlumin.2021.118058
19. *Fluorophosphate glasses doped with  $\text{Eu}^{3+}$  and  $\text{Dy}^{3+}$  for X-ray radiography*  
I.C. Pinto, G. Galleani, **L.G. Jacobsohn**, Y. Ledemi, Y. Messaddeq, and A.S.S. de Camargo  
Journal of Alloys and Compounds **863**, 158382 (8 pages) (2021)  
DOI: 10.1016/j.jallcom.2020.158382
20. *Luminescence of undoped and Ce-doped hexagonal  $\text{BiPO}_4$*   
L. Pan, K. Koehler and **L.G. Jacobsohn**  
Journal of Luminescence **228**, 117626 (9 pages) (2020)

DOI: 10.1016/j.jlumin.2020.117626

21. *Insights into the proton transport mechanism in TiO<sub>2</sub> simple oxides by in-situ Raman spectroscopy*  
J. Gao, Y. Meng, A. Benton, J. He, **L.G. Jacobsohn**, J. Tong, K. Brinkman  
ACS Applied Materials & Interfaces **12**, 38012-38018 (2020)  
DOI: 10.1021/acsami.0c08120
22. *Characterization of the optically stimulated luminescence (OSL) response of beta-irradiated alexandrite-polymer composites*  
M.C.S. Nunes, L.S. Lima, E.M. Yoshimura, L.V.S. França, O. Baffa, **L.G. Jacobsohn**,  
A.L.M.C. Malthez, R. Kunzel, and N.M. Trindade  
Journal of Luminescence **226**, 117479 (6 pages) (2020)  
DOI: 10.1016/j.jlumin.2020.117479
23. *Luminescence of ZnS:Ag scintillator prepared by the hydrothermal reaction method: effects of reaction temperature and time, Ag concentration, and co-doping with Al*  
Y. Wu, Y. Shao and **L.G. Jacobsohn**  
Optical Materials **107**, 110015 (7 pages) (2020)  
DOI: 10.1016/j.optmat.2020.110015
24. *Scintillation, luminescence and optical properties of Ce-doped borosilicate glasses*  
L. Pan, J.K.M.F. Daguano, N.M. Trindade, M. Cerruti, E.D. Zanotto, and **L.G. Jacobsohn**  
Optical Materials **104**, 109847 (5 pages) (2020)  
DOI: 10.1016/j.optmat.2020.109847
25. *Thermoluminescence of UV-irradiated  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>:C,Mg*  
N.M. Trindade, M.G. Magalhães, M.C.S. Nunes, E.M. Yoshimura, and **L.G. Jacobsohn**  
Journal of Luminescence **223**, 117195 (5 pages) (2020)  
DOI: 10.1016/j.jlumin.2020.117195
26. *Radioluminescence of Lu<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>:Ce single crystal and transparent polycrystalline ceramic at high temperatures*  
A.A. Trofimov, and **L.G. Jacobsohn**  
Ceramics International **46**, 26335-26338 (2020)  
DOI: 10.1016/j.ceramint.2019.12.247
27. *Luminescence of Ce-doped aluminophosphate glasses*  
M.W. Kielty, L. Pan, M.A. Dettmann, V. Herrig, U. Akgun, and **L.G. Jacobsohn**  
Journal of Materials Science: Materials in Electronics **30**, 16774-16780 (2019)  
DOI: 10.1007/s10854-019-01301-4
28. *A glass neutron detector with machine learning capabilities*  
G.L. Ademoski, S. Simko, M. Teeple, I. Morrow, P. Kralik, C.J. Wilkinson, G. Varney, M.

- Martinez-Szewczyk, L. Yinong, J.K. Nimmagadda, S. Samant, Y. Wu, L. Pan, **L.G. Jacobsohn**, Q. Wilkinson, F. Duru, and U. Akgun  
Journal of Instrumentation **14**, P06013; 11 pages (2019)  
DOI: 10.1088/1748-0221/14/06/P06013
29. *Progress and challenges towards the development of a new optically stimulated luminescence (OSL) material based on MgB<sub>4</sub>O<sub>7</sub>:Ce,Li*  
T.D. Gustafson, E.D. Milliken, **L.G. Jacobsohn**, and E.G. Yukihiro  
Journal of Luminescence **212**, 242-249 (2019)  
DOI: 10.1016/j.jlumin.2019.04.028
30. *Effects of sintering temperature on the microstructure and luminescence of LuAG:Pr ceramics*  
A.A. Trofimov, M.R. Marchewka, and **L.G. Jacobsohn**  
Radiation Measurements **122**, 34-39 (2019)  
DOI: 10.1016/j.radmeas.2019.01.005
31. *Luminescence of undoped commercial ZnS crystals: evidence on the role of impurities using photoluminescence and electrical transient spectroscopy*  
M. Saleh, K. Lynn, **L.G. Jacobsohn**, and J.S. McCloy  
Journal of Applied Physics **125**, 075702-1 to 21 (2019)  
DOI: 10.1063/1.5084738
32. *Fabrication and characterization of ZnS:Ag-based ultrafiltration membrane scintillator*  
Y. Wu, A.W. Darge, A.A. Trofimov, C. Li, K.S. Brinkman, S.M. Husson, and **L.G. Jacobsohn**  
Optical Materials **88**, 424-428 (2019)  
DOI: 10.1016/j.optmat.2018.12.009
33. *Laser sintering and photoluminescence study of Tb-doped yttrium aluminum garnet ceramics*  
J.C.A. Santos, E.P. Silva, N.R.S. Souza, Y.G.S. Alves, D.V. Sampaio, C. Kucera, **L.G. Jacobsohn**, J. Ballato, and R.S. Silva  
Ceramics International **45**, 3797-3802 (2019)  
DOI: 10.1016/j.ceramint.2018.11.048
34. *Thermoluminescence and radioluminescence of alexandrite mineral*  
N.M. Trindade, M.R. da Cruz, H. Kahn, **L.G. Jacobsohn**, and E.M. Yoshimura  
Journal of Luminescence **206**, 455-461 (2019)  
DOI: 10.1016/j.jlumin.2018.10.114
35. *Correlation between thermoluminescence and optically stimulated luminescence of  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>:C,Mg*  
N.M. Trindade, **L.G. Jacobsohn**, and E.M. Yoshimura

- Journal of Luminescence **206**, 298-301 (2019)  
DOI: 10.1016/j.jlumin.2018.10.084
36. *Fabrication and characterization of a composite dosimeter based on natural alexandrite*  
N.M. Trindade, A.L.M.C. Maltez, A.C. Nascimento, R.S. Silva, **L.G. Jacobsohn**, and E.M. Yoshimura  
Optical Materials **85**, 281-286 (2018)  
DOI: 10.1016/j.optmat.2018.08.066
37. *Thermoluminescence and radioluminescence of  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>:C,Mg at high temperatures*  
N.M. Trindade and **L.G. Jacobsohn**  
Journal of Luminescence **204**, 598-602 (2018)  
DOI: 10.1016/j.jlumin.2018.08.018
38. *Investigation of Ce<sup>3+</sup> luminescence in borate-rich borosilicate glasses*  
M.W. Kielty, M. Dettmann, V. Herrig, M.G. Chapman, M.R. Marchewka, A.A. Trofimov, U. Akgun, and **L.G. Jacobsohn**  
Journal of Non-Crystalline Solids **471**, 357-361 (2017)  
DOI: 10.1016/j.jnoncrysol.2017.06.022
39. *Radioluminescence and thermoluminescence of rare earth doped and co-doped YF<sub>3</sub>*  
**L.G. Jacobsohn**, C.L. McPherson, L.C. Oliveira, C.J. Kucera, J. Ballato, and E.G. Yukihara  
Radiation Measurements **106**, 79-83 (2017)  
DOI: 10.1016/j.radmeas.2017.05.001
40. *Permeation and optical properties of YAG:Er<sup>3+</sup> fiber membrane scintillators prepared by novel sol-gel/electrospinning method*  
Z. Chen, A.A. Trofimov, **L.G. Jacobsohn**, H. Xiao, K. Kornev, D. Xu, and F. Peng  
**Cover** - Journal of Sol-Gel Science and Technology **83**, 35-43 (2017)  
DOI: 10.1007/s10971-017-4387-y
41. *Laser sintering of persistent luminescent CaAl<sub>2</sub>O<sub>4</sub>:Eu<sup>2+</sup>Dy<sup>3+</sup> ceramics*  
N.R.S. Souza, D.C. Silva, D.V. Sampaio, M.V.S. Rezende, C. Kucera, A.A. Trofimov, **L.G. Jacobsohn**, J. Ballato, and R.S. Silva  
Optical Materials **68**, 2-6 (2017)  
DOI: 10.1016/j.optmat.2016.10.050
42. *Luminescence investigation of Ce incorporation in garnet-type Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub>*  
A.A. Trofimov, C. Li, K.S. Brinkman, and **L.G. Jacobsohn**  
Optical Materials **68**, 7-10 (2017)  
DOI: 10.1016/j.optmat.2016.09.058
43. *Direct inkjet printing of miniaturized luminescent YAG:Er<sup>3+</sup> from sol-gel precursor*

- Y. Hong, Z. Chen, A.A. Trofimov, J. Lei, J. Chen, L. Yuan, W. Zhu, H. Xiao, D. Xu, **L.G. Jacobsohn**, K.G. Kornev, R.K. Bordia, and F. Peng  
Optical Materials **68**, 11-18 (2017)  
DOI: 10.1016/j.optmat.2016.12.020
44. *Incorporation of Pr into LuAG ceramics*  
M.R. Marchewka, M.G. Chapman, H. Qian and **L.G. Jacobsohn**  
Optical Materials **68**, 53-57 (2017)  
DOI: 10.1016/j.optmat.2016.09.056
45. *High-density scintillating glasses for a proton imaging detector*  
I.J. Tillman, M.A. Dettman, V.V. Herrig, Z.L. Thune, A.J. Zieser, S.F. Michalek, M.O. Been, M.M. Martinez-Szewczyk, H.J. Koster, C.J. Wilkinson, M.W. Kielty, **L.G. Jacobsohn**, and U. Akgun  
Optical Materials **68**, 58-62 (2017)  
DOI: 10.1016/j.optmat.2016.10.015
46. *Thick Er-doped silica films sintered using CO<sub>2</sub> laser for scintillation applications*  
J. Lei, A.A. Trofimov, J. Chen, Z. Chen, Y. Hong, L. Yuan, W. Zhu, Q. Zhang, **L.G. Jacobsohn**, F. Peng, R.K. Bordia, and H. Xiao  
Optical Materials **68**, 63-69 (2017)  
DOI: 10.1016/j.optmat.2017.03.035
47. *Effects of sintering temperature on open-volume defects and thermoluminescence of yttria and lutetia ceramics*  
M.G. Chapman, R.C. Walker II, J.M. Schmitt, C.L. McPherson, F. Ameena, C.J. Kucera, C.A. Quarles, T.A. DeVol, J. Ballato, and **L.G. Jacobsohn**  
Journal of the American Ceramic Society **99**, 1449-1454 (2016)  
DOI: 10.1111/jace.14119
48. *A neutron detector based on boron-10 enriched scintillating glasses*  
D. Vu, M. Dettmann, V. Herrig, **L.G. Jacobsohn**, M.W. Kielty, J. Wetzel, Y. Onel, and U. Akgun  
Additive Manufacturing and Strategic Technologies in Advanced Ceramics, Ceramic Transactions vol. **258**, 59-68 (2016)  
DOI: 10.1002/9781119236016.ch6
49. *Stability of grafted polymer nanoscale films toward gamma irradiation*  
N. Borodinov, J. Giammarco, N. Patel, A. Agarwal, K.R. O'Donnell, C.J. Kucera, **L.G. Jacobsohn**, and I. Luzinov  
ACS Applied Materials & Interfaces **7**, 19455-19465 (2015) (+ supplement S1-S5)  
DOI: 10.1021/acsami.5b05863
50. *Luminescence and scintillation enhancement of Y<sub>2</sub>O<sub>3</sub>:Tm transparent ceramic through*

*post-fabrication thermal processing*

M.G. Chapman, M.R. Marchewka, S.A. Roberts, J.M. Schmitt, C. McMillen, C.J. Kucera, T.A. DeVol, J. Ballato, and **L.G. Jacobsohn**

Journal of Luminescence **165**, 56-61 (2015) + supplementary material

DOI: 10.1016/j.jlumin.2015.03.041

51. *Investigation of Er-doped Sc<sub>2</sub>O<sub>3</sub> transparent ceramics by positron annihilation spectroscopy*  
**L.G. Jacobsohn**, K. Serivalsatit, C.A. Quarles, and J. Ballato  
Journal of Materials Science **50**, 3183-3188 (2015)  
DOI: 10.1007/s10853-015-8881-8
52. *Luminescence and thermal lensing characterization of singly Eu<sup>3+</sup> and Tm<sup>3+</sup> doped Y<sub>2</sub>O<sub>3</sub> transparent ceramics*  
P. Y. Poma, K. Upendra Kumar, M. V. D. Vermelho, K. Serivalsatit, S. A. Roberts, C. J. Kucera, J. Ballato, **L. G. Jacobsohn**, and C. Jacinto  
Journal of Luminescence **161**, 306-312 (2015)  
DOI: 10.1016/j.jlumin.2015.01.003
53. *Rare earth-doped nanocrystalline MgF<sub>2</sub>: synthesis, luminescence and thermoluminescence*  
**L.G. Jacobsohn**, A.L. Roy, C.L. McPherson, C.J. Kucera, L.C. Oliveira, E.G. Yuki-hara, and J. Ballato  
Optical Materials **35**, 2461-2464 (2013)  
DOI: 10.1016/j.optmat.2013.06.045
54. *Systematic development of new thermoluminescence and optically stimulated luminescence materials*  
E.G. Yuki-hara, E.D. Milliken, L.C. Oliveira, V.R. Orante-Barrón, **L.G. Jacobsohn**, and M.W. Blair  
Journal of Luminescence **133**, 203-210 (2013)  
DOI: 10.1016/j.jlumin.2011.12.018
55. *Spectral engineering of LaF<sub>3</sub>:Ce<sup>3+</sup> nanoparticles: the role of Ce<sup>3+</sup> in surface sites*  
**L.G. Jacobsohn**, A. Toncelli, K.B. Sprinkle, C.J. Kucera, and J. Ballato  
Journal of Applied Physics **111**, 074315 (5 pages) (2012)  
DOI: 10.1063/1.3700343
56. *Electron energy-loss spectroscopy investigation of dopant homogeneity in Tb-doped Y<sub>2</sub>O<sub>3</sub> nanoparticles prepared by solution combustion synthesis*  
**L.G. Jacobsohn**, R. Wang, P. Crozier, B.L. Bennett and R.E. Muenchausen  
Optical Materials **34**, 671-674 (2012)  
DOI: 10.1016/j.optmat.2011.09.015



57. *Scintillation of rare earth doped fluoride nanoparticles*  
**L.G. Jacobsohn**, C.L. McPherson, K.B. Sprinkle, E.G. Yukihiro, T.A. DeVol and J. Ballato  
Applied Physics Letters **99**, 113111 (3 pages) (2011)  
DOI: 10.1063/1.3638484
58. *Synthesis, structure and scintillation of Ce-doped gadolinium oxyorthosilicate nanoparticles prepared by solution combustion synthesis*  
**L.G. Jacobsohn**, S.C. Tornga, M.W. Blair, B.L. Bennett, R.E. Muenchausen, R. Wang, P.A. Crozier and D.W. Cooke  
Journal of Applied Physics **110**, 083515 (7 pages) (2011)  
DOI: 10.1063/1.3647304
59. *Fluoride nanoscintillators*  
**L.G. Jacobsohn**, K.B. Sprinkle, S.A. Roberts, C.J. Kucera, T.L. James, E.G. Yukihiro, T.A. DeVol and J. Ballato  
Special issue "Nanocrystals-Related Synthesis, Assembly, and Energy Applications" of  
Journal of Nanomaterials **2011**, article ID 523638 (6 pages) (2011)  
DOI: 10.1155/2011/523638
60. *Luminescence properties of MgO produced by solution combustion synthesis and doped with lanthanides and Li*  
V.R. Orante-Barrón, L.C. Oliveira, J.B. Kelly, E.D. Milliken, G. Denis, M.W. Blair, **L.G. Jacobsohn**, J. Puckette, and E.G. Yukihiro  
Journal of Luminescence **131**, 1058-1065 (2011)  
DOI: 10.1016/j.jlumin.2011.01.022
61. *Structural and optical properties of rare earth-doped  $(Ba_{0.77}Ca_{0.23})_{1-x}RE_xTiO_3$  ( $RE = Sm, Nd, Pr, Yb$ )*  
A.P.A. Moraes, P.T.C. Freire, J. Mendes Filho, A.G. Souza Filho, J.C.M'Peko, A.C. Hernandez, E. Antonelli, **L.G. Jacobsohn**, Michael W. Blair, Ross E. Muenchausen, and W. Paraguassu  
Journal of Applied Physics **109**, 124102 (8 pages) (2011)  
DOI: 10.1063/1.3594710
62. *Synthesis, luminescence and scintillation of rare earth doped lanthanum fluoride nanoparticles*  
**L.G. Jacobsohn**, K.B. Sprinkle, C.J. Kucera, T.L. James, S.A. Roberts, H. Qian, E.G. Yukihiro, T.A. DeVol and J. Ballato  
Optical Materials **33**, 136-140 (2010)
63. *Luminescence properties of Ce-doped oxyorthosilicate nanophosphors and single crystals*  
E.G. Yukihiro, **L.G. Jacobsohn**, M.W. Blair, B.L. Bennett, S.C. Tornga and R.E. Muenchausen  
Journal of Luminescence **130**, 2309-2316 (2010)

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64. *Synthesis and luminescent characteristics of one-dimensional europium doped Gd<sub>2</sub>O<sub>3</sub> phosphors*  
T.-K. Tseng, J. Choi, **L.G. Jacobsohn**, E. Yukihiro, M. Davidson, and P.H. Holloway  
*Applied Physics A* **100**, 1137-1142 (2010)
65. *Annealing effects on the photoluminescence yield of Gd<sub>2</sub>O<sub>3</sub>:Eu nanoparticles produced by solution combustion synthesis*  
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□ Non Peer-Reviewed Publications

1. *Preface to the Special Issue of Optical Materials associated with the "Photoluminescence in Rare Earths 2016: Photonic Materials and Devices (PRE'16)" Workshop*  
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2. *The effects of thermal processing on the luminescence of Y<sub>2</sub>O<sub>3</sub>:Tm transparent ceramic*  
M.G. Chapman, M.R. Marchewka, S.A. Roberts, J.M. Schmitt, C.J. Kucera, J. Ballato, T.A. DeVol, and **L.G. Jacobsohn**  
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3. *Investigation of Pr incorporation in LuAG powders and ceramics*  
M.R. Marchewka, M.G. Chapman, H. Qian, and **L.G. Jacobsohn**  
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4. *Photonic crystals for enhanced light outcoupling of scintillation based detectors*  
R.D. Torres, L.T. Sexton, G. Koley, and **L.G. Jacobsohn**  
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5. *Scintillation of nanoparticles: case study of rare earth doped fluorides*  
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