1) Books and Book Chapters


2) Peer Reviewed Publications (>150 since 2000)

Journals


30. Frequency shift of Raman modes due to an applied electric field and domain inversion in LiNbO$_3$, G Stone, B Knorr, V Gopalan, V Dierolf. Physical Review B 84 (13), 134303 (2011).


36. Approaches for high internal quantum efficiency green InGaN light-emitting diodes with large overlap quantum wells, H Zhao, G Liu, J Zhang, JD Poplawsky, V Dierolf, N Tansu, Optics Express 19 (104), A991-A1007, 13 (2011)


56. Design and characteristics of staggered InGaN quantum-well light-emitting diodes in the green spectral regime, H Zhao, G Liu, X Li, R Arif, G Huang, J Poplawsky, S Tafon Penn, V. Dierolf, N. Tansu, Optoelectronics, 3, 283 (2009).


66. Defect-Domain Wall Interactions in Ferroelectrics, V. Gopalan, V. Dierolf, and D. Scrymgeour, Annual Reviews in Material Science 37, 449-489, (2007), invited review article


70. Raman studies of ferroelectric domain walls in lithium tantalate and niobate, P. Capek, G. Stone, V. Dierolf, C. Althouse, and V. Gopalan, phys. stat. sol. (c) 4, No. 3, 830–33 (2007).


82. Ferroelectric domain patterns are directly written into lithium niobate, V. Dierolf, News Breaks, Laser Focus World, July 2004, pg. 13 (invited).


Proceedings


117. Investigation of Eu3+ emission centers in Eu-doped ZnO by combined excitation emission spectroscopy, T. Tsuji, Y. Terai, W. Miao, V. Dierolf, and Y. Fujiwara, Extended Abstract for JSAP Fall meeting 2012.


140. **Direct Mapping of UV Surface Plasmon Interference**. Q. Gan*, L. Zhou, V. Dierolf, and F. J. Bartoli. Asia Communications and Photonics Conference and Exhibition (ACP) 2009 paper: TuD1


147. **Luminescence and Raman Based Real Time Imaging of Ferroelectric Domain Walls**


159. **In-situ confocal luminescence microscopy study of lithium niobate during domain inversion**, C. Sandmann, S. Tafon Penn*, and V. Dierolf, Proceedings CLEOEurope Munich 2005


3) Other Publications

172. Photorefractive Damage and Waveguides from a Defect Perspective, Technology Report for Industrial Partner (confidential).


174. The Wideband Gap Semiconductor Thrust at Lehigh University; Information material of the Center for Optical Technologies (yearly updates).

In the News and on the Web

★ Uncovering oxygen's role in enhancing red LEDs, Lehigh News, this news item about our Scientific report article has also been taken up by other news outlets. A list can be found here
★ Lehigh scientists fabricate a new class of crystalline solid, Lehigh News, this news item about our Scientific report article has also been taken up by other news outlets. A list can be found here

★ Lehigh scientists extend the reach of single crystals, Lehigh News, this news item about our Scientific report article has also been taken up by other news outlets. A list can be found here

★ A community of physics researchers, Lehigh News, Article about our Physics REU program, Summer 2015.

★ Crossing a critical threshold, Lehigh News, this news item about our Scientific report article has also been taken up by other news outlets. A list can be found here

★ Flawless Imperfections Acumen, Fall 2014

★ KUDOS FOR A GROUNDBREAKING SUMMER PROGRAM, Lehigh News, March 21, 2014:

★ V. Dierolf and al: Top 5 Physics Paper, Science Watch, January 2014

★ Physics students take on a summer challenge, Lehigh WebSite

★ Hurricane Sandy sparks panel discussion at Lehigh, Brown and White, November 2012

★ Harnessing the electron spin, Lehigh Alumni Magazine Fall 2011

★ Imaging the spot of UV light produced by a “bow tie” nano-antenna, Resolve magazine, Vol 1.2011, Lehigh University, see also here

★ Bridging the “green” LED gap to provide greener lighting, Lehigh News Story, http://www3.lehigh.edu/News/V2news_story.asp?iNewsID=2708&strBack=%2Fnews%2FV2news%5Fsearchresults%2Easp%3FiCurPg%3D1