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Education

Undergraduate: University of Hawaii, Manoa B.Sc. in Physics 1972
Graduate: State University of New York at Stony Brook Ph.D. in Physics 1981
Thesis Advisor: Prof. Harold Metcalf

Appointments

CINT scientist, 2008-present
Principal Member of Technical Staff, Sandia National Laboratories, 1999-present
Contractor, Sandia National Laboratories, 1998-1999
Assistant Professor of Physics, U. of Wyoming, 1994-1999
Research Professor, University of Illinois at Chicago, 1982-1994
Postdoctoral research, University of Illinois at Chicago, 1981-1982

Publications

1. T.S. Luk, S.Xiong, B.G. Farfan, W.W. Chow, I. El-Kady, X. Miao, P.J. Resnick, M.F. Su, G. Subramania, M.R. Taha, C.J. Brinker, "Enhanced Emission from Close-Packed PbS Quantum dots on a Photonic-crystal Microcavity", submitted to Optic Express.
2. G. Subramania, Y. J. Lee, A. J. Fischer, T. S. Luk, C. J. Brinker, and D. Dunphy, "Emission modification of CdSe quantum dots by titanium dioxide visible logpile photonic crystal," Applied Physics Letters 95 (15), 151101-151103 (2009)
3. T.S. Luk, T. Mclellan, G. Subramania, J.C. Verley, I. El-Kady, "*Emissivity measurements of 3D photonic crystals at high temperatures*", Photonics and Nanostructures - Fundamental and Applications, 6, 81 (2008).
4. G. Subramania, Y. Lee, B.A. Hemandez-Sanchez, A.J. Fischer, T.S. Luk, I. Brener, P.G. Clem, and T.J. Boyle, "CdSe infiltrated TiO₂ based onmidirectional photonic crystals for visible light control", Photonics and Nanostructures – Fundamental and Applications, vol. 6, 12 (2008)
5. G. Subramania, Y-J Lee, I Brener, T. S. Luk, and P. G. Clem, "Nano-lithographically fabricated titanium dioxide based visible frequency three dimensional gap photonic crystal," Opt. Express 15 (20) (2007)
6. M. L. Naudeau, R. J. Law, T. S. Luk, T. R. Nelson, S. M. Cameron, and J. V. Rudd, "Observation of nonlinear optical phenomena in air and fused silica using a 100 GW, 1.54 μ m source " Opt. Express 14 (13) (2006).
7. J. V. Rudd, R. J. Law, T. S. Luk, and S. M. Cameron, "High-power optical parametric chirped-pulse amplifier system with a 1.55 μ m signal and a 1.064 μ m pump " Optics Letters 30 (15) (2005).
8. Pin Yang, George R. Burns, Junpeng Guo, Ting Shan Luk, and G. Allen Vawter, "Femtosecond laser-pulse-induced birefringence in optically isotropic glass," Journal of Applied Physics 95 (10), 5280-5283 (2004)

9. T.A. Pitts, T.S. Luk, J.K. Gruetzner, T.R. Nelson, A. McPherson, S. M. Cameron, A.C. Bernstein, "Propagation of self-focusing laser pulses in atmosphere: experiment versus numerical calculation", JOSA B: Optical physics, 21, 2008 (2004).
10. A. C. Bernstein, J. C. Diels, T. S. Luk, T. R. Nelson, A. McPherson, and S. M. Cameron, "Time-resolved measurements of self-focusing pulses in air " Optics Letters 28 (23) (2003).

Collaborators: J.C. Brinker, University of New Mexico; J. Joannopoulos, MIT; A.C. Bernstein, U. of Texas; I. Brener, Sandia National Laboratories; S. M. Cameron, government security agency; P.G. Clem , Sandia National Laboratories; I. El-Kady, Sandia National Laboratories; A.J. Fischer, Sandia National Laboratories; J.K. Gruetzner, Sandia National Laboratories; J.P. Guo, U. of Arkansas; Y. Lee, Sandia National Laboratories; A. McPherson, Sandia National Laboratories; M.L. Naudeau, Kirtland Airforce Laboratories; T.R. Nelson, Sandia National Laboratories; T.A. Pitts, Sandia National Laboratories; J.V. Rudd, Coherent Research Corporation; G. Subramania, Sandia National Laboratories; J.C. Verley, Sandia National Laboratories; G.A. Vawter, Sandia National Laboratories; P. Yang, Sandia National Laboratories.