

2011 Publications

IRG 1

1. N. F. Baril, R. He, T. D. Day, J. R. Sparks, B. Keshavarzi, M. Krishnamurthi, **A. Borhan**, **V. Gopalan**, A. C. Peacock, N. Healy, P. J. A. Sazio, and **J. V. Badding**, "Confined High-pressure Chemical Deposition of Hydrogenated Amorphous Silicon," *J. Am. Chem. Soc.*, 134, 19-22 (2012).
2. **V. Gopalan** and D. B. Litvin, "Rotation-reversal Symmetries in Crystals and Handed Structures," *Nature Materials*, 10, 376 (2011).
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IRG 2

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IRG 3

1. J. Wang, A. M. DaSilva, C.-Z. Chang, K. He, **J. K. Jain**, **N. Samarth**, X.-C. Ma, Q.-K. Xue, and **M. H. W. Chan**, “Evidence for Electron-electron Interaction in Topological Insulator Thin Films,” *Phys. Rev. B*, 83, 245438 (2011).
2. J. Wang, C.-Z. Chang, H. Li, K. He, D. Zhang, M. Singh, X.-C. Ma, **N. Samarth**, M. Xie, Q.-K. Xue, and **M. H. W. Chan**, “Interplay Between Topological Insulators and Superconductors,” *Phys. Rev. B*, 85, 045415 (2012).
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IRG 4

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11. P. Mehta, N. Healy, T. D. Day, J. R. Sparks, P. J. A. Sazio, **J. V. Badding**, and A. C. Peacock, “All-optical Modulation using Two-photon Absorption in Silicon Core Optical Fibers,” *Optics Express*, 19(20), 19078-19083 (2011).
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SEED PROJECTS

1. R. L. Johnson-Wilke, D. S. Tinberg, C. B. Yeager, Y. Han, I. M. Reaney, I. Levin, D. D. Fong, T. T. Fister, and **S. Trolrier-McKinstry**, "Tilt Transitions in Compressively Strained AgTa₁/2Nb₁/2O₃ Thin Films," *Phys. Rev. B*, 84(13), 134114 (2011).
2. D. S. Tinberg, R. L. Johnson-Wilke, D. D. Fong, T. T. Fister, S. K. Streiffer, Y. Han, I. M. Reaney, and **S. Trolrier-McKinstry**, "Octahedral Tilt Transitions in Relaxed Epitaxial Pb(Zr_{1-x}Ti_x)O₃ Films," *J. Appl. Phys.*, 109, 094104 (2011).
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Shared Facilities

1. X. Hong, S.-H. Cheng, C. Herding, and **J. Zhu**, "Colossal Negative Magnetoresistance in Dilute Fluorinated Graphene," *Phys. Rev. B*, 83, 085410 (2011).