

Curriculum Vitae

Robert H. Hyde

CONTACT INFORMATION

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EDUCATION

Ph.D., Applied Physics
University of South Florida, Tampa FL, degree expected Fall 2010
M.S., Physics and Engineering Science
University of South Florida, Tampa FL, Fall 2006
M.S.E.S, Engineering Science
University of South Florida, Tampa FL, Fall 2006
B.S., Physics
Lock Haven University of Pennsylvania, Lock Haven PA, Fall 1991

HONORS AND AWARDS

University of South Florida Graduate Research Symposium Award, Spring 2007
Frank E. Duckwall Graduate Fellowship, Summer 2007 and Spring 2002
Fred L. & Helen M. Tharp Endowment Scholarship, Summer 2010 and Summer 2005

JOURNAL PUBLICATIONS

T. Dhakal, D. Mukherjee, **R. Hyde**, P. Mukherjee, M.H. Phan, H. Srikanth, and S. Witanachchi.
“Magnetic Anisotropy and Field-Switching in Cobalt Ferrite Thin Films Deposited by Pulsed Laser Ablation”, *Journal of Applied Physics*, Vol. 107, pg., No. 5, 053914 1-6 (2010).

PUBLISHED CONFERENCE PROCEEDINGS

D. Mukherjee, **R. Hyde**, T. Dhakal, H. Srikanth, P. Mukherjee and S. Witanachchi.
“Investigation of the Pb Depletion in Single and Dual Pulsed Laser Deposited Epitaxial PZT Thin Films and Their Structural Characterization”, in *Multiferroic and Ferroelectric Materials* (A. Gruverman, C.J. Fennie, I. Kunishima, B. Noheda, T.W. Noh, eds.) 2009 Materials Research Symposium Proceedings, Vol. 1199E, pg. 1199-F03-37, Warrendale, PA (2010).

T. Dhakal, D. Mukherjee, **R. Hyde**, H. Srikanth, P. Mukherjee and S. Witanachchi.
“Enhancement in Ferroelectricity in V-Doped ZnO Thin Film Grown Using Laser Ablation”, in *Multiferroic and Ferroelectric Materials* (A. Gruverman, C.J. Fennie, I. Kunishima, B. Noheda, T.W. Noh, ed.) 2009 Materials Research Symposium Proceedings, Vol. 1199E, pg. 1199-F03-44, Warrendale, PA (2010).

R. Hyde, M. Beekman, G.S. Nolas, P. Mukherjee, and S. Witanachchi, "Growth and Characterization of Germanium-Based Type I Clathrate Thin Films Deposited by Pulsed Laser Ablation," in *Advances in Electronic Ceramics, Ceramic Engineering and Science Proceedings* (C. Randal, Hua-Tay Lin, K. Koumoto, and P. Clem, eds.), 2007 Proceedings of the 31st International Conference on Advanced Ceramics and Composites, American Ceramic Society, Vol. 28, Issue 8, pg. 211, Wiley (2008).

S. Witanachchi, **R. Hyde**, M. Beekman, D. Mukherjee, P. Mukherjee, and G. S. Nolas, "Synthesis and Characterization of Bulk and Thin Film Clathrates for Solid State Power Conversion Applications," *IEEE Proceedings of the 25th International Conference on Thermoelectrics*, Vienna, Austria, pg. 44-47 (2006).

S. Witanachchi, **R. Hyde**, H. S. Nagaraja, M. Beekman, G. S. Nolas, and P. Mukherjee, "Growth and Characterization of Germanium-Based Type I Clathrate Thin Films Deposited by Pulsed Laser Ablation," in *Materials and Technologies for Direct Thermal-to-Electric Energy Conversion* (J. Yang, T.P. Hogan, R. Funahashi, G.S. Nolas, eds.) 2005 Materials Research Society Symposium Proceedings, Vol. 886, pg. 0886-F10-03, Warrendale, PA (2006).

CONFERENCE PRESENTATIONS - Presentations

D. Mukherjee, T. Dhakal, **R. Hyde**, H. Srikanth, P. Mukherjee, and S. Witanachchi, "Investigation of the Pb Depletion in Single and Dual Pulsed Laser Deposited Epitaxial PZT Thin Films and Their Ferroelectric Characterization", *Materials Research Society Fall Meeting*, Boston, MA (Dec. 2009).

D. Mukherjee, **R. Hyde**, T. Dhakal, H. Srikanth, P. Mukherjee, and S. Witanachchi, "Dual-Laser Deposition of Stoichiometric PZT/CoFe₂O₄ Epitaxial Heterostructures" *Materials Research Society Spring Meeting*, San Francisco, CA, (April 2010).

R. Hyde, P. Mukherjee, M. Beekman, G. S. Nolas, and S. Witanachchi, "Growth and Characterization of Dual-Laser Deposited Films of Ba₈Ga₁₆Ge₃₀ for Thermoelectric Applications," 27th *International Conference on Thermoelectrics*, Corvallis OR (2008).

R. Hyde, P. Mukherjee, M. Beekman, G. S. Nolas, and S. Witanachchi, "Growth of Stoichiometric Ba₈Ga₁₆Ge₃₀ Films by Dual-Laser Ablation and Study of Growth Dynamics by Emission Spectroscopy," *Materials Research Society Fall Meeting*, Boston MA (2007).

R. Hyde, M. Beekman, G. S. Nolas, P. Mukherjee, and S. Witanachchi, "Growth and Characterization of Germanium-Based Type I Clathrate Thin Films Deposited by Pulsed Laser Ablation," *Univ. of South Florida CAS 6th Graduate Research Symposium*, Tampa FL (2007).

M. Beekman, **R. Hyde**, D. Mukherjee, S. Witanachchi, P. Mukherjee, and G. S. Nolas, "Preparation and Physical Properties of Group IV Clathrates," 31st *Int. Conf. on Advanced Ceramics and Composites*, American Ceramic Society, Daytona Beach FL (2007).

R. Hyde, M. Beekman, G. S. Nolas, P. Mukherjee, and S. Witanachchi, "Growth and Characterization of Germanium-Based Type I Clathrate Thin Films Deposited by Pulsed Laser Ablation," *31st Int. Conf. on Advanced Ceramics and Composites*, American Ceramic Society, Daytona Beach FL (2007).

Sarath Witanachchi, **R. Hyde**, V. Vithianathan, M. Beekman, P. Mukherjee, and G. S. Nolas, "Synthesis and Characterization of Bulk and Thin Film Type I and Type II Clathrate Materials for Thermoelectric and Optoelectric Applications," *25th Int. Conf. on Thermoelectrics*, Vienna Austria (2006).

M. Beekman, D. Wang, **R. Hyde**, H. S. Nagaraja, P. Mukherjee, S. Witanachchi, and G. S. Nolas, "Synthesis and Characterization of Bulk and Thin Film Silicon and Germanium Clathrate Materials," *Materials Research Society Spring Meeting*, San Francisco CA (2006).

Sarath Witanachchi, P. Mukherjee, H. S. Nagaraja, **R. Hyde**, M. Beekman, H. F. Rubin, and G. S. Nolas, "Dual-Laser Deposition of Type I Clathrate Films," *Materials Research Society Fall Meeting*, Boston MA (2005).

R. Hyde, P. Mukherjee, and S. Witanachchi, "Role of the Magnetic Field on Large-Area Carbon Film Growth on Silicon in a Hollow-Anode Arc Plasma Process", *Materials Research Society Spring Meeting*, San Francisco CA (2002).

CONFERENCE PRESENTATIONS - Poster Presentations

D. Mukherjee, **R. Hyde**, T. Dhakal, S. Hariharan, P. Mukherjee, and S. Witanachchi. "Investigation of the Pb Depletion in Single and Dual Pulsed Laser Deposited Epitaxial PZT Thin Films and Their Structural Characterization." *Materials Research Society Fall Meeting*, Boston MA (2009).

T. Dhakal, D. Mukherjee, **R. Hyde**, H. Srikanth, P. Mukherjee, and S. Witanachchi. "Enhancement in Ferroelectricity in V-Doped ZnO Thin Film Grown Using Laser Ablation," *Materials Research Society Fall Meeting*, Boston MA (2009).

J. Rejman, T. Dhakal, **R. Hyde**, H. Srikanth, P. Mukherjee, and S. Witanachchi. "Pulsed Laser Deposition as a Novel Growth Technique for Thin Film LuFe_2O_4 and Related Multiferroic Nature," *Materials Research Society Fall Meeting*, Boston MA (2009).

D. Mukherjee, T. Dhakal, **R. Hyde**, P. Mukherjee, S. Hariharan, and S. Witanachchi. "Growth of Epitaxial $\text{CoFe}_2\text{O}_4/\text{PZT}$ Heterostructures and Ferroelectric-Ferromagnetic Characterization," *Materials Research Society Fall Meeting*, Boston MA (2008).

D. Mukherjee, T. Dhakal, **R. Hyde**, P. Mukherjee, S. Hariharan, and S. Witanachchi. "Growth of Epitaxial $\text{CoFe}_2\text{O}_4/\text{PZT}$ Heterostructures and Ferromagnetic Characterization" *University of South Florida Poster Symposium & Competition*, Tampa FL (2008).

R. Hyde, P. Mukherjee, M. Beekman, G. S. Nolas, and S. Witanachchi, "Growth of $\text{Ba}_8\text{Ga}_{16}\text{Ge}_{30}$ Films by Pulsed Laser Ablation and Study of Growth Dynamics by Optical Emission Spectroscopy," *Univ. of South Florida Poster Symposium & Competition*, Tampa FL (2008).

R. Hyde, M. Beekman, G. S. Nolas, P. Mukherjee, and S. Witanachchi, "Growth and Characterization of Germanium-Based Type I Clathrate Thin Films Deposited by Pulsed Laser Ablation," *Univ. of South Florida CAS 5th Graduate Research Symposium*, Tampa FL (2006).

R. Hyde, P. Mahawela, S. Witanachchi, and P. Mukherjee, "A Laser-Triggered, Pulsed Plasma Process for Large-Area Thin Film Growth," *Joint 29th Applied Vacuum Science and Technology Symposium and 19th Meeting of the Florida Society for Microscopy Surface Analysis*.