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Academic History

Ph.D.: Physics, August 1985, Clemson University (*Advisor: Prof E. P. Stillwell*)
 B.A.: Physics with honors, December 1980, Clemson University

Summary Professional History

2009-Present Alumni Distinguished Professor of Physics, Dept. of Physics, Clemson University
 2000-2009 Professor of Physics w/ tenure Department of Physics, Clemson University
 1999-2000 Assoc. Prof. of Physics, Department of Physics, Clemson University
 1996-1999 Asst. Prof. of Physics, Department of Physics, Clemson University
 1989-1996: Research Physicist at Naval Research Lab (Code 6341)
 1985-1989: NRC & ONT Research Associate at NRL (*Advisor: Dr. A. C. Ehrlich*)

Synergistic Activities:

March APS Focused Session Organizer 1996, 2001, 2002 & 2003 & 2004
 MRS Symposium: Thermoelectric Materials, Conference Chairman 1997 1998 2000, & 2007
 Materials Research Society, Volumes **478** (1997), **545** (1998) **626** (2000) & **1044** (2007)
 1999-2008 International Thermoelectrics Society Board of Directors (\approx 500 members)
 24th International Conference on Thermoelectrics, June 19-23, 2005, Clemson University,
 Clemson, SC, Conference Organizer & Chairman, Editor of Proceedings
 Awarded *The Clemson University 2008 Alumni Award For Outstanding Achievement In Research*
 Awarded *The Clemson University 2008 CoES Outstanding Achievement in The Sciences*
 Awarded *The 2008 SC Academy of Sciences Governor's Award for Excellence in Scientific Research*
 Materials Research Society *Spring 2009 Meeting Chairman* (over 5000 attendees)

Editorial:

- *Thermoelectric Phenomena, Materials & Applications: "A Bird's Eye View"*
 Terry M. Tritt and Mas A. Subramanian,
MRS Bulletin Theme on Thermoelectrics, Vol. 31, pp 188-198, March 2006
- * 2000 **Semimetals and Semiconductors** (3 Volumes, **69**, **70** & **71**)
 Thermoelectric Materials - Recent Trends and Approaches
 Editor: Terry M. Tritt, Academic Press
- * 2005 **Thermal Conductivity: Theory, Properties and Applications**
 Editor **Terry M. Tritt**, Kluwar Press, (2005)

Present & Recent Collaborators: Joe Kolis, Jian He, A. Rao, Fivos Drymiotis & Murray Daw (Clemson University) George Nolas and Lilia Woods (Univ. of S. Fla.), Joe Poon (Univ. of Va), Xinfeng Tang (Wuhan Univ. of Technology, Wuhan, China) Xinbing Zhao and T. J. Zhu (Zhejiang Univ., Hangzhou, China) Husam Alshareef (KAUST) M. Kanatzidis (Northwestern Univ.) Dave Johnson (Univ. of Oregon), Jim Krajewski (Dupont Central R & D), Xiaofeng Tang (St. Gobains) Jae Ryh (Aspen Systems), Holger Kleinke (Univ. of Waterloo), and J. Martin and W. Wong (NIST), J. Snyder (Caltech), V. Keppens (Univ. of TN)

Selected Recent And Related Publications: (over 150 total refereed publications)

1.) *Nanoscale Granular Boundaries in Polycrystalline $Pb_{0.75}Sn_{0.25}Te$: An Innovative Approach to Enhance the Thermoelectric Figure of Merit*

Xiaohua Ji, Bo Zhang, Zhe Su, Tim Holgate, Jian He and Terry M. Tritt
 Phys. Stat. Sol. A, **206**, No. 2, 221–228 (2009) Editor's Feature Article

- 2.) *Thermoelectric and Transport Properties of n-type Bi₂Te₃ Nanocomposites*
N. Gothard, X. Ji, J. He, and Terry M. Tritt* Jour Appl. Phys., **103**, 054314 (2008)
- 3.) *Improved Thermoelectric Performance in the Zintl Phase Compounds YbZn_{2-x}Mn_xSb₂ (0.0 ≤ x ≤ 0.4) via an Iso-Electronic Substitution in the Anionic Framework*
C. Yu, Tie-Jun Zhu, S. N. Zhang, X.B. Zhao, Jian He, Zhe Su and Terry M. Tritt
Journal Applied Physics, 104, 013705 (2008)
- 4.) *Size-Selective High-yield Growth of Lead Telluride (PbTe) Nanocrystals Using a Chemical Vapor Deposition Technique*, Bo Zhang, J. He and **Terry M. Tritt***
Appl. Phys. Lett., **88**, 043119 (2006)
- 5.) *Effect of substitutions on the Thermoelectric Figure of Merit of Half-Heusler Phases at 800°C*, Slade R. Culp and S. Joseph Poon, Nicoleta Hickman, **Terry M. Tritt** and J. Blumm Appl. Phys. Lett., **88**, 042106 (2006)
- 6.) *Thermoelectric Properties of La_{0.9}CoFe₃Sb₁₂-CoSb₃ Skutterudite Nanocomposites*, Paola Alboni , Xiaohua Ji , Nick Gothard , Jian He and T. M. Tritt, Journal Applied Physics, **103**, 113707, (2008)
Selected for the June 23, 2008 issue of “*Virtual Journal of Nanoscale Science & Technology*”
- 7.) *Effects of various Grain structure and Sizes on the Thermal Conductivity of Ti-based Half-Heusler alloys* S.Bhattacharya, **Terry M.Tritt**, Y.Xia, V. Ponnambalam, S.J.Poon and N. Thadhani, Appl. Phys. Lett., **81**, 43 (2002)
- 8.) *Thermoelectric properties of (In, Yb) double-filled CoSb₃ Skutterudite*
J.Y. Peng, P.N. Alboni, J. He, B. Zhang, Z. Su, T. Holgate, N. Gothard and Terry M. Tritt
Jour. of Appl. Phys., **104**, 053710 (2008)
- 9.) *Controlled Two-Dimensional Coated Nanostructures for Bulk Thermoelectric Composites*
B. Zhang, J. He, X. Ji and Terry M. Tritt, Amar Kumbhar
Appl. Phys. Lett., **88**, 042106 (2006)
- 10.) *Thermoelectric Materials: Holey and Unholey Semiconductors*
Terry M. Tritt, Science, **283**, 804 (1999)

Development, Education and Outreach Activities (selected)

Each summer, I employ one or two undergraduates to work in my laboratory who are typically mentored by one of my graduate students. Each semester, I supervise one or two physics majors in our independent research study course Physics 401. I am also a Physics undergraduate academic advisor.

Present Graduate Students: S. Lindsey (Ph.D), D. Thompson (Ph.D), T. Holgate (Ph.D), Song Zhu (Ph.D), P. Pooja (Ph.D) and J. Hubbard (MS)

Former Ph.D Grad. Students: R. T. Littleton (MS-98 & Ph.D-2001), Amy Pope (MS-99 & Ph.D - 2002), S. Bhattacharya (Ph.D-2003), D. Weston (Ph.D-2004) G. A. Lambertson, Jr. (MS-01 & Ph.D-2004), N. Lowhorn (MS-00 & Ph.D-2005), N. Sorloaica (MS-04 and Ph.D-06), T. Xiaofeng (Ph.D-05), Nick Gothard (Ph.D-08), Bo Zhang (Ph.D-08), P. Alboni (MS-06 & Ph.D-09), Su Zhe (Ph.D-09),

Present Postdoctoral Associates: Dr. V. Ponnas,

Former Postdoctoral Associates: Drs. R. L. Jacobsen, M. Marone, M. Wilson, Bart Zawilski, Doug Ketchum, Bob Scheidmiller, K. Rao, S. Bhattacharya, Jian He, X. Ji,