

Book and Journal Publications

- Edward Wheeler, Jianjian Song and David R. Voltmer, "Transmission line time-domain analysis and signal integrity," accepted for publication in *IEEE Industrial Electronics Handbook*, 2nd ed., J. David Irwin and Bogdan M. Wilamowski editors, 2010.
- Jianjian Song, Keith Hoover, and Edward Wheeler, Effectiveness of PCB Simulation in Teaching High-Speed Digital Design, *EMC Newsletter*, **Winter 2008**, pp. 80-84 (INVITED)
- J.W. Farmer, Jack L. Boone, Nickolas L. Brakensiek, E.D. Wheeler, C.H. Chandrasekhar, and C.M. Martin, "Incorporation of As_{Se} centers in ZnSe far-from-equilibrium," *J. Phys. Chem. Solids* **63**, 1921 (2002)
- Edward Wheeler and Robert L. McDonald, "Writing in Engineering Courses," *J. Engineering Education* **89**, 481 (2000)
- E.D. Wheeler, Jack L. Boone, J.W. Farmer, and H.R. Chandrasekhar, "Incorporation of Cu_{Zn} centers in ZnSe far from equilibrium," *J. Phys. Chem. Solids* **58**, 79 (1997)
- E.D. Wheeler, Jack L. Boone, J.W. Farmer, and H.R. Chandrasekhar, "Neutron transmutation doping as an experimental probe for Cu_{Zn} in ZnSe," *J. Appl. Phys.* **81**, 524 (1997)
- E.D. Wheeler, Jack L. Boone, J.W. Farmer, and H.R. Chandrasekhar, "Neutron transmutation doping as an experimental probe for As_{Se} in ZnSe," *Phys. Rev. B* **53**, 15617 (1996)
- Edward D. Wheeler, Jack L Boone, and James L. Drewniak, "A contactless method for measuring the bulk resistance of II-VI compound semiconductors," *Rev. Sci. Instrum.* **65**, 3844 (1994)

Conference Publications

- Amendra Koul, Andrew Conrad, Russell Jackson, Alex Packard, Jianjian Song, Edward Wheeler, and James L. Drewniak, "Developing an SI tool set for engineering design discovery, physical insight, and education." *2009 IEEE EMC Symposium*
- Jianjian Song, Edward Wheeler, David Pommerenke and James L. Drewniak, "Development of a Concept Inventory Test for Signal and Power Integrity in Electronic Design," *2009 ASEE/IEEE Frontiers in Education*
- Keith Hoover, Jianjian Song, Edward Wheeler and James L. Drewniak, "Three Practical and Effective RF and EMC Experiments for a Computer Engineering Course on Electromagnetics and EMC," *2009 ASEE Annual Conference and Exposition*.

- Jianjian Song, Edward Wheeler and Keith Hoover, "Effectiveness of PCB simulation in teaching high-speed digital design," *2007 IEEE EMC Symposium*
- Edward Wheeler, Thomas Werne, and Azad Siahmakoun, "Contactless method of measuring resistivity and loss," *2007 ICONIC Conference*
- Edward Wheeler, Jianjian Song, and David Voltmer, "Effective integration of electromagnetic compatibility and signal integrity in electrical and computer engineering curricula," *2006 ASEE Annual Conference & Exposition*
- Jianjian Song and Edward Wheeler, "Teaching Signal Integrity for High-Speed Digital Systems with Hyperlynx," *2006 IEEE EMC Symposium*
- Deckert, M., Kirkpatrick, S., Adams, T., Wheeler, E. and Siahmakoun, A., (2006), "SMA Energy-Scavenger MEMS Device," *Proceedings of SEM 2006*, St Louis, MO, June 4-7, 2006
- Siahmakoun, A., Adams, T. Wheeler, E. and Kirkpatrick, S., (2006), "Undergraduate MEMS-Nano Courses for Everyone," *Proceedings of MRS 2006 Conference*, San Francisco, CA, April 17-21, 2006
- Ed Wheeler, Dave Voltmer and Jianjian Song, "Effective Integration of Electromagnetic Compatibility and Signal Integrity in Electrical and Computer Engineering Curricula," *2005 EEC NSF Grantees Conference*
- Jianjian Song, Dave Voltmer, and Ed Wheeler, "A Required EMC Course for Computer Engineering Undergraduates," *2005 IEEE EMC Symposium*
- Tina Hudson and Ed Wheeler, "Interdisciplinary Laboratory-Based Advanced MEMS Course for Undergraduates," *2004 Frontiers in Education Conference*
- Edward Wheeler and Cliff Grigg, "Improving the electrical engineering service course," *2003 ASEE Annual Conference & Exposition* in Nashville
- E.D. Wheeler, Jack L. Boone, Nickolas L. Brakensiek, J.W. Farmer, C.H. Chandrasekhar, and C.M. Martin "A study of far-from-equilibrium doping in ZnSe, extended abstracts *2002 U.S. Workshop on the Physics and Chemistry of II-VI Materials*, San Diego, CA
- Edward Wheeler, Cliff Grigg, Zachariah Chambers, and Richard A. Layton, "Effective Practices in the Electrical Systems Service Course," *2002 ASEE Annual Conference & Exposition* in Montreal
- Edward Wheeler and Cliff Grigg, "Improving the Effectiveness of the Electrical Engineering Service Course," *2002 ASEE Annual Conference & Exposition* in Montreal
- Julia M. Williams and Edward Wheeler, "Using Audience Accommodation for Effective and Ethical Communication," *Proceedings of the 2000 ASEE/IEEE Frontiers in Education Conference*, IEEE catalog number 00CH37135

- Jack L. Boone, Nickolas L. Brakensiek, J.W. Farmer, H.R. Chandrasekhar, Shu-Chun Yang, and E.D. Wheeler, "An investigation in ZnSe via far-from-equilibrium dopant incorporation," *Bulletin of the American Physical Society*, ISSN number 3-0503, March 1999
- Edward Wheeler and Robert L. McDonald, "Using writing to enhance collaborative learning in engineering courses," *Proceedings of the 1998 ASEE/IEEE Frontiers in Education conference*. IEEE catalog number 98CH36214, page 236
- Robert Johnson and Edward Wheeler, "Detailed assessment of engineering curricula," *Proceedings of the 1998 ASEE/IEEE Frontiers in Education Conference*, IEEE catalog number 98CH36214, page 778
- H.R. Chandrasekhar, Shu-Chun Yang, Nickolas L. Brakensiek, Jack L. Boone, J.W. Farmer, and E.D. Wheeler, "Photoluminescence of homoepitaxial films grown from non-stoichiometric mixtures of Zn and Se," *Bulletin of the American Physical Society*, ISSN number 3-0503, March 1998, page 378
- Nicholas L. Brakensiek, Shu-Chun Yang, Jack L. Boone, J.W. Farmer, H.R. Chandrasekhar, and E.D. Wheeler, "Transmutation doping of ZnSe homoepitaxial films using the single isotope Se-74," *Bulletin of the American Physical Society*, ISSN number 3-0503, March 1998, page 718
- E.D. Wheeler and Jack L. Boone, "The Origin of the I_1^d excitonic emission in ZnSe," *Proceedings of the 1998 IEEE Southeastcon*, IEEE catalog number 98CH36170, page 275
- E.D. Wheeler, G.G. Balazs, and Robert L. McDonald, "Writing as a teaching and learning tool in engineering courses," *Proceedings of the 1997 ASEE/IEEE Frontiers in Education Conference*, IEEE catalog number 97CH36099, page 1538
- Nickolas L. Brakensiek, Jack L. Boone, E.D. Wheeler, J.W. Farmer, and H.R. Chandrasekhar, "Homoepitaxial growth of ZnSe by PVT of the elements in a sealed ampoule," *Bulletin of the American Physical Society*, ISSN number 3-0503, March 1997, page 515
- E.D. Wheeler, Nicholas L. Brakensiek, Jack L. Boone, and Gene Cantwell, "Doping ZnSe far from equilibrium," *Proceedings of the 1997 IEEE Southeastcon*, IEEE catalog number 97CH36044, page 267
- E.D. Wheeler, Jack L. Boone, J.W. Farmer, and H.R. Chandrasekhar, "Neutron transmutation doping as an experimental probe for As_{Se} in ZnSe," *Bulletin of the American Physical Society*, ISSN number 3-0503, March 1996, page 715

Conference Presentations

- "Transmission line fundamentals," EMC Fundamentals Workshop at 2009 IEEE EMC Symposium, Austin, Texas. (INVITED)

- “Contactless method of measuring resistivity and loss,” *2007 ICONIC Conference*, St. Louis, Missouri
- “A study of far-from-equilibrium doping in ZnSe, *2002 U.S. Workshop on the Physics and Chemistry of II-VI Materials*, San Diego, California
- “Using audience accommodation for effective and ethical engineering,” Session **S1F**, *2000 ASEE/IEEE Frontiers in Education Conference*, Kansas City, Kansas
- “An investigation in ZnSe via far-from-equilibrium dopant incorporation,” Session **JC22**, *1999 American Physical Society March Meeting*, Atlanta, Georgia
- “Using writing to enhance collaborative learning in engineering courses,” Session **T2H**, *1998 ASEE/IEEE Frontiers in Education Conference*, Tempe, Arizona
- “Writing as a teaching and learning tool in engineering courses,” Session **S4F**, *1997 ASEE/IEEE Frontiers in Education conference*, Pittsburgh, Pennsylvania
- “The origin of the I_1^d excitonic emission in ZnSe,” Session **18**, *1998 IEEE Southeastcon*, Orlando, Florida
- “Doping ZnSe far from equilibrium,” Session **B7**, *1997 IEEE Southeastcon*, Blacksburg, Virginia
- “Neutron transmutation doping as an experimental probe for As_{Se} in ZnSe,” Session **Q26**, *1996 American Physical Society March Meeting*, St. Louis, Missouri