

Dr. Tomasz M. Giebultowicz
CURRICULUM VITAE

Education:

1975: Ph.D. in Physics, University of Warsaw, Poland. Thesis: *The influence of a single crystal specimen motion on the effect of extinction in neutron diffraction.*

1968: M.Sc. in Physics, University of Warsaw, Poland. Thesis: *The design of a neutron time-of-flight diffractometer for single-crystal structural studies.*

Professional experience:

2009-10: On sabbatical leave in Warsaw, Poland, as a Fulbright Scholar (lecturing at the University of Warsaw and at the Warsaw University of Technology).

2001-present: Associate Professor, Department of Physics, Oregon State University

2001-2002: Visiting Professor at the Department of Physics, University of Warsaw, Poland (sabbatical leave).

1995-2001: Assistant Professor, Department of Physics, Oregon State University

1993-95 Visiting Professor, Department of Physics and Astronomy, George Mason Univ., Frederick, VA. **Research:** Neutron scattering studies of magnetic semiconductors at National Institute of Standards and Technology, Gaithersburg, MD. **Teaching:** Physics/astronomy labs.

1987-93 Associate Faculty Fellow, Department of Physics, University of Notre Dame, Notre Dame, IN. **Research:** Stationed at the National Institute of Standards and Technology for conducting neutron scattering studies of magnetic semiconductors and their superlattices.

1983-87 Visiting Assistant Professor, Purdue University, West Lafayette, IN. **Research:** Neutron scattering research on diluted magnetic semiconductors and on simple metals in search for spin/charge density waves conducted at the National Institute of Standards and Technology.

1982 - Visiting Scientist, Risoe National Laboratory, Denmark (summer months). **Research:** Studies of spin dynamics in diluted magnetic semiconductor system $Cd_{1-x}Mn_xTe$.

1976-83: Adiunkt (equivalent to Assistant Professor in the US), Department of Physics, University of Warsaw, Poland. **Research:** inelastic neutron scattering studies of semiconducting materials and metallic magnetic alloys (performed at reactor facilities at Swierk, Poland, and at Risoe, Denmark). **Teaching:** electronics theory and labs (similar to the Ph411/12 course at OSU).

1975-76: Research Scientist, Institute for Nuclear Research, Dubna, Soviet Union. **Research:** Time-of-flight neutron diffraction studies of magnetic materials in strong pulsed magnetic fields.

1969-75: Research and Teaching Assistant, Department of Physics, University of Warsaw.
Research: Doppler effect in neutron diffraction from fast-spinning and vibrating single crystals (Ph.D. project). **Teaching:** mostly labs and experiment demonstrations at physics lectures.

Dr. T. M. Giebultowicz
List of publications since the year 2000
(68 papers published prior to 2000; overall h-index: 21)

1. Holl, F. Schinagl, **T. M. Giebultowicz**, H. Krenn, *Monte Carlo study of fractional (111) monolayers of EuTe*, J. Mag. Mag. Mat. **220**, 293-301 (2000).
2. **T. M. Giebultowicz**, *Breathing life into an old model*, NATURE **408**, 299-301 (2000).
3. **T. M. Giebultowicz**, H. Kepa, J. Blinowski, P. Kacman, *Neutron Diffraction and Reflectivity Studies of Interlayer Correlations in Magnetic Semiconductor Superlattices*, Physica E **10**, 411 (2001).
4. H. Kepa, J. Kutner-Pielaszek, A. Twardowski, A. Yu. Sipatov, C. F. Majkrzak, T. Story, R.R. Galazka, **T. M. Giebultowicz**, *Interlayer correlations in ferromagnetic semiconductor superlattices EuS/PbS*, J. Magn. Magn. Mat. **226-230**, 1795 (2001).
5. H. Kepa, J. Kutner-Pielaszek, J. Blinowski, A. Twardowski, C.F. Majkrzak, T. Story, P. Kacman, R.R. Galazka, K. Ha, H. J. M. Swagten, W. J. M. de Jonge, A. Yu. Sipatov, V. Volobuev, **T.M. Giebultowicz**, *Antiferromagnetic Interlayer Coupling in Ferromagnetic Semiconductor EuS(001)/PbS(001) Superlattices*, Europhys. Lett. **56**, 54 (2001).
6. H. Kepa, J. Kutner-Pielaszek, A. Twardowski, J. Sadowski, T. Story. **T. M. Giebultowicz**, *Ferromagnetism of GaMnAs studied by polarized neutron reflectometry*, Phys. Rev. B **64**, 121302(R) (2001).
7. S. M. Scott, **T. M. Giebultowicz**, *Monte Carlo simulation of magnetism in EuTe under high pressure*, J. Appl. Phys. **91**, 8724 (2002).
8. H. Kepa, **T. M. Giebultowicz**, *Studies of interlayer magnetic coupling in all-semiconductor superlattices by neutron scattering techniques*, Acta Physica Polonica A **102**, 21-34 (2002).
9. P.Kacman, J.Blinowski, H.Kepa, **T.M.Giebultowicz**, *Interlayer exchange coupling in IV-VI semiconductor magnetic/nonmagnetic superlattices*, Physics of Semiconductor Devices, vol. **1**, p. 982, eds. V.Kumar, P.K.Basu, Allied Publishers Ltd., New Delhi, (2002).
10. H.Kepa, J.Kutner-Pielaszek, A.Twardowski, C.F.Majkrzak, T.Story, J.Sadowski, **T.M.Giebultowicz**, *Polarized neutron reflectometry studies of GaMnAs/GaAs superlattices* - Applied Physics A S1526-S1528 (2002).
11. H.Kepa, G.Springholz, **T.M.Giebultowicz**, K.I.Goldman, C.F.Majkrzak, P.Kacman, J.Blinowski, S.Holl, H.Krenn, G.Bauer, *Magnetic interactions in EuTe epitaxial layers and EuTe/PbTe superlattices*, Phys. Rev. B **68**, 024419 (2003).

12. H. Kepa, C.F.Majkrzak, A.Yu.Sipatov, **T.M.Giebultowicz**, *Polarized neutron reflectivity studies of magnetic semiconductor superlattices*, Physica B **335**, 44-49 (2003).
13. H.Kepa, Le Van Khoi, C.M.Brown, M.Sawicki, J.K.Furdyna, **T.M.Giebultowicz**, T.Dietl, *Probing hole-induced ferromagnetic exchange by inelastic neutron scattering*, Phys. Rev. Lett. **91**, 0807205 (2003).
14. H.Kepa, Le Van Khoi, C.M.Brown, T.Dietl, J.K.Furdyna, **T.M.Giebultowicz**, *Determination of hole-induced ferromagnetic Mn-Mn exchange in p-type $Zn_{1-x}Mn_xTe$ by inelastic neutron scattering*, Physica B **350**, 36-39 (2004).
15. Le Van Khoi, J.Kossut, H.Kepa, **T.M.Giebultowicz**, and R.R.Galazka, *Optical determination of phosphorus acceptor binding energy in bulk wide-gap II-V semimagnetic semiconductors*, Pys. Stat. Sol. (c) **1**, 973-976 (2004).
16. P.Sankowski, H.Kepa, P.Kacman, A.Yu.Sipatov, C.F.Majkrzak, **T.M.Giebultowicz**, *Interlayer coupling in EuS-based superlattices deduced from neutron scattering experiments*, Acta Phys. Polon. **105**, 607-614 (2004).
17. H.Kepa, C.F.Majkrzak, A.Yu.Sipatov, **T.M.Giebultowicz**, *Domain structure of EuS/PbS and EuS/YbSe superlattices studied by polarized neutron reflectometry*, Physica B **345**, 93-196 (2004).
18. H.Kepa, P.Sankowski, P.Kacman, A.Yu.Sipatov, C.F.Majkrzak, **T.M.Giebultowicz**, *Antiferromagnetic interlayer coupling in EuS/YbSe superlattices*, J. Magn. Magn. Mater. **272-276**, 323-324 (2004).
19. H.Kepa, L.V.Khoi, C.M.Brown, T.Dietl, J.K.Furdyna, **T.M.Giebultowicz**, *Determination of hole-induced ferromagnetic exchange between nearest-neighbor Mn spins in strongly p-type $Zn_{1-x}Mn_xTe$* , J. Magn. Magn. Mater. **272-276**, e1545-e1546 (2004).
20. H. Kepa, P. Sankowski, P. Kacman, C. Majkrzak, **T. M. Giebultowicz**, *Neutron scattering studies of the spin structure of semiconducting superlattices*, in *Physics of Semiconductors*, eds: Jose Menendes and Chris G. Van de Walle, AIP Conference Proceedings **772**, 313 (2005).
21. Van Khoi Le, R.R. Galazka, M. Dobrowolska, K. Yee, X. Liu, W-L. Lim, J. K. Furdyna, **T. M. Giebultowicz**, *Electrical, magnetic and magneto-optical properties of bulk $(Zn,Mn)Te$ doped with phosphorus*, in *Physics of Semiconductors*, eds. Jose Menendes and Chris G. Van de Walle, AIP Conference Proceedings **772**, 337 (2005).
22. H.Kepa, C.F.Majkrzak, P.Sankowski, A.Yu.Sipatov, **T.M.Giebultowicz**, *Neutron diffraction and reflectivity studies of Eu chalcogenide based superlattices*, J. Alloys & Compounds **401**, 238-248 (2006)
23. S. Kolesnik, B. Dabrowski, Z. Wiren, H. Kepa, **T.M.Giebultowicz**, C. M. Brown, J. Leao, J. K. Furdyna, *Determination of Antiferromagnetic Interactions in $Zn(Mn)O$, $Zn(Co)O$ and $Zn(Mn)Te$ by Inelastic Neutron Scattering*, Journal of Applied Physics **99**, 08M122 (2006).
24. H.Kepa, S. Kolesnik, B. Dabrowski, Z. Wiren, J. Leao, C. M. Brown, J. K. Furdyna, **T.M.Giebultowicz**, *Inelastic neutron scattering from antiferromagnetically coupled nearest-neighbor spin pairs in $Zn(Mn)O$ and $Zn(Mn)Te$* , Physica B **385**, 388 (2006).
25. Z. Q. Wiren, H. Kepa, C. Brown, J. Leao, S. Kolesnik, B. Dabrowski, J. K. Furdyna, **T. M. Giebultowicz**, *Studies of intrinsic exchange interactions in $Zn(Mn)O$, $Zn(Mn)S$, and $Zn(Mn)Te$ at 4 kbar by inelastic neutron scattering*, AIP Conference Proceedings, **893**, 1197 (2007).

26. H. Kepa, C. F. Majkrzak, A. Yu. Sipatov, Z. Q. Wiren, **T. M. Giebultowicz**, *Neutron reflectivity investigation of EuS/PbS superlattices grown on (111) BaF₂ substrate*, Journal of Magnetism and Magnetic Materials, **310**, 2280 (2007).
27. H. Kepa, C. F. Majkrzak, A. Yu. Sipatov, **T. M. Giebultowicz**, *Ferromagnetic semiconductor superlattices studied by polarized neutron reflectometry*, Physica B **397**, 36-42 (2007).
28. E. Przedziecka, E. Dynowska, W. Paszkowicz, W. Dobrowolski, H. Kepa, **T. M. Giebultowicz**, E. Janik, J. Kossut, *MnTe and ZnTe grown on sapphire by MBE*, Thin Sol. Films **516**, 4813-18 (2008).
29. H. Kepa, C. F. Majkrzak, A. Sipatov, A. G. Fedorov, T. A. Samburskaya, and **T. M. Giebultowicz**, *Interlayer coupling in EuS/SrS, EuS/PbSe and EuS/PbTe magnetic semiconductor superlattices*, J. Phys. Condens. Matter **21**, 124207 (2009).
30. **T. M. Giebultowicz** and H. Kepa, *Neutron Scattering Studies of Interlayer Magnetic Coupling*, Chapter 12, pp. 419-464 in *Introduction to the Physics of Diluted Magnetic Semiconductors (Springer Series in Material Science)*, editors: J. A. Gaj and J. Kossut, Springer (2011).
31. Kuntol Rakshit, Rebecca Wambua, **Tomasz M. Giebultowicz**, Jadwiga M. Giebultowicz, *Effects of exercise on circadian rhythms and mobility in aging Drosophila melanogaster*, Experimental Gerontology **48**, 1260-65 (2013).