

SHANE STADLER, Ph.D.

Assistant Professor
 Department of Physics
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 Southern Illinois University
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Employment Status:

Department of Physics
 Southern Illinois University
 Rank: Assistant Professor

Citizenship: U.S.A.

Education:

- *Doctorate of Philosophy* in Physics, Tulane University (May 1998).
- *Master of Science* in Physics, University of North Dakota (May 1994).
- *Bachelor of Arts* in Physics, Beloit College (May 1992).

Professional Appointments:

- August 2001 – present: Tenure-Track Assistant Professor, Southern Illinois University, Department of Physics.
- August 1998 through August 2001: National Research Council (NRC)-Naval Research Laboratory (NRL) Postdoctoral Fellowship.
- May 1998 through August 1998: Postdoctoral Research Associate at Tulane University.

PUBLICATIONS

Magnetocaloric effect in ferromagnetic $Ni_{50}Mn_{37+x}Sb_{13-x}$ Heusler type alloys, Mahmud Khan, Naushad Ali, and Shane Stadler (Submitted to J. Appl. Phys.).

Magneto-resistance and field-induced structural transitions in $Ni_{50}Mn_{50-x}Sn_x$ Heusler alloys, Mahmud Khan, Arjun K. Pathak, Moti R. Paudel, Igor Dubenko, Shane Stadler, and Naushad Ali, (Submitted to Phys. Rev. B – Rapid Comm.).

Evidence for Co platelet clusters in $CoPt_3$ films having perpendicular magnetic anisotropy, J. O. Cross, M. Newville, F. Hellman, Y. U. Idzerda, S. Stadler, and V. G. Harris (Submitted to Phys. Rev. B).

Magnetocaloric properties of Fe and Ge doped $Ni_2Mn_{1-x}Cu_xGa$, Mahmud Khan, Shane Stadler, and Naushad Ali, J. Appl. Phys. (Accepted for Publication) (2007).

The overlap of first and second order phase transitions and related magnetic entropy changes in $Ni_2Mn_{1-x}Cu_xGa$ Heusler alloys, Mahmud Khan, Shane Stadler, and Naushad Ali, IEEE Trans. Mag. **42** (10), 3108 (2006).

Magnetocaloric properties of $Ni_2Mn_{1-x}Cu_xGa$, Shane Stadler, Mahmud Khan, Joseph Mitchell, Naushad Ali, Angelo M. Gomes, Igor Dubenko, Armando Y. Takeuchi, and Alberto P. Guimarães, Applied Physics Letters **88**, 192511 (2006).

Intermartensitic transformations in $Ni_2Mn_{1-x}Co_xGa$ Heusler alloys, Mahmud Khan, Shane Stadler, and Naushad Ali, J. Appl. Phys. **99**, 08M705 (2006).

Magnetocaloric properties of the $Ni_2Mn_{1-x}(Cu,Co)_xGa$ Heusler alloys, A. M. Gomes, M. Khan, S. Stadler, N. Ali, I. Dubenko, A. Y. Takeuchi, and A. P. Guimarães, J. Appl. Phys. **99**, 08Q106 (2006).

Physical and chemical properties of sputter-deposited TaC_xN_y films, S. M. Aouadi, Y. Zhang, P. Basnyat, S. Stadler, P. Filip, M. Williams, J. N. Hilfiker, N. Singh, and J. A. Woollam, J. Phys.: Condens. Matter **18**, 1977 (2006).

X-ray magnetic circular dichroism of pulsed laser deposited Co_2MnSi thin films, S. Stadler, D. L. Harley, J. P. Craig, D. H. Minott, M. Khan, I. Dubenko, N. Ali, J. Dvorak, Y. U. Idzerda, D. A. Arena, and V. G. Harris, J. Appl. Phys. **97**, 10C302 (1-3) (2005).

The structural and magnetic properties of $Ni_2Mn_{1-x}M_xGa$ ($M=Co, Cu$), M. Khan, I. Dubenko, S. Stadler, and N. Ali, J. Appl. Phys. **97**, 10M304 (1-3) (2005).

Using Circularly Polarized Soft X Rays to Probe Antiferromagnetically Correlated Co/Cu Multilayers, S. Stadler, Y. U. Idzerda, J. Dvorak, and J. Borchers, J. Appl. Phys. **95**, 6672-6674 (2004).

Properties of Thin Film Europium Oxide by X-Ray Magnetic Circular Dichroism, J. Holroyd., Y.U. Idzerda, and S. Stadler, J. Appl. Phys. **95**, 6571-6573 (2004).

Magnetic and Structural Phase Transitions in Heusler Type Alloys $Ni_2MnGa_{1-x}In_x$, M. Khan, I. Dubenko, S. Stadler, and N. Ali, J. Phys: Condensed Matter **16**, 5259-5266 (2004).

Orientation Studies of Si-phthalocyanine Sulphonic Acids Cast on SiO_x Substrates, G. Appel, H. Ade, A. G. Guerek, S. Stadler, R. P. Mikalo, and D. Schmeiber, Appl. Phys. A **76**, 177-182 (2003).

Characterization for Strontium Titanate/ Fe_3O_4 and TiN/Fe_3O_4 Interfaces, A. Lussier, Y. U. Idzerda, S. Stadler, S. B. Ogale, S. R. Shinde, and T. Venkatesan, J. Vac. Sci. Technol. B **20** (4), 1609-1613 (2002).

Evidence for Temperature Dependent Moment Ordering in Ferromagnetic $NiMnSb(100)$, C.N. Borca, T. Komesu, H.-K. Jeong, P. A. Dowben, D. Ristoiu, Ch. Hordequin, J. P. Nozieres, J. Pierre, S. Stadler, and Y. U. Idzerda, Phys. Rev. B **64** (5) 52409-1 (2001).

Potential Phase Control of Chromium Oxide Thin Films Prepared by Laser Initiated Organometallic Chemical Vapor Deposition, Ruihua Cheng, C. N. Borca, P. A. Dowben, Shane Stadler and Y. U. Idzerda, Appl. Phys. Lett. **78** (5), 521-523 (2001).

Electronic Structure Modifications Induced by Surface Segregation in $La_{0.65}Pb_{0.35}MnO_3$, C. N. Borca, B. Xu, T. Komesu, H.-K. Jeong, M. T. Liu, S.-H. Liou, S. Stadler, Y. U. Idzerda, and P. A. Dowben, Europhys. Lett. **56** (5), 722 (2001).

X-Ray Absorption Spectroscopy of Single-Crystalline $(VO)_2P_2O_7$: Electronic Structure and Possible Exchange Paths, S. Gerhold, N. Nucker, C. A. Kuntscher, A. Schuppler, S. Stadler, Y. U. Idzerda, A. V. Prokofiev, F. Bullesfeld, and W. Assmus, Phys. Rev. B **63**, 073103 (2001).

Resonant Raman Scattering in Nd_2O_3 and the Electronic Structure of Sr_2RuO_4 Studied by Synchrotron Radiation Excitation, D. L. Ederer, A. Moewes, E. Z. Kurmaev, T.A. Callcott, M.M. Grush, S. Stadler, R. Winarski, R.C.C. Perera, and L. J. Terminello, J. Phys. Chem. Solids **61** (3) 435 (2000).

The Polarization of Sb Overlayers on $NiMnSb(100)$, Takashi Komesu, C. N. Borca, Hae-Kyung Jeong, P. A. Dowben, Delia Ristoiu, J. P. Nozieres, Shane Stadler, and Y. U. Idzerda, Phys. Lett. A **273** 245 (2000).

The Effects of $YBa_2Cu_3O_{7-\delta}$ Overlayers on the Magnetic and Electronic Properties of $La_{1-x}Sr_xMnO_3$, S. Stadler, Y. U. Idzerda, Z. Chen, S. B. Ogale, and T. Venkatesan, J. Appl. Phys. **87** (9) 6767 (2000).

Soft X-ray fluorescence study of the quasi-one-dimensional Heisenberg antiferromagnet Tetraphenylverdazyl, E.Z. Kurmaev, V.R. Galakhov, S. Shimada, T. Otsuka, K. Endo, S. Stadler, D.L. Ederer, A. Moewes, H. Schuermann, M. Neumann, S. Tomiyoshi, N. Azuma, and M. Iwami, Phys. Rev. B **62** 15660 (2000).

Soft X-Ray Scattering Dominates Emission near the Giant Resonance of the Rare Earth Compounds, A. Moewes, S. Stadler, R.P. Winarski, D.L. Ederer, and T.A. Callcott, J. Elec. Spec. Rel. Phen. **110-111**, 189-196, (2000).

The Effects of Boron Impurities on the Atomic Bonding and Electronic Structure of Ni_3Al , R.P. Winarski, T. Eskildsen, S. Stadler, J. van Ek, D.L. Ederer, E.Z. Kurmaev, M.M. Grush and T.A. Callcott, A. Moewes, J. Elec. Spec. Rel. Phen. **110-111**, 69-74 (2000).

Electronic Structures of the Tungsten Borides WB , W_2B , and W_2B_5 , S. Stadler, R.P. Winarski, J.M. McLaren, D.L. Ederer, J. van Ek, A. Moewes, M.M. Grush, T.A. Callcott, and R.C.C. Perera, J. Elec. Spec. Rel. Phen. **110-111**, 75-86 (2000).

Origin of the Magnetic Moments in $La_{0.65}Pb_{0.35}MnO_3$ Epitaxial Thin Films, C. N. Borca, R. H. Cheng, Q. L. Xu, S. H. Liou, Shane Stadler, Y. U. Idzerda, and P. A. Dowben, J. Appl. Phys. **87** (9) 5606 (2000).

C.N. Borca, R.H. Cheng, Shane Stadler, Y.U. Idzerda, Jaewu Choi, D.N. McIlroy, Q.L. Xu, S.H. Liou, Z.C. Zhong and P.A. Dowben, "Is Magnetic Circular Dichroism Surface Sensitive In The Manganese Perovskites ?", in: Magnetoresistive Oxides and Related Materials, Edited by: M. Rzchowski, M. Kawasaki, A.J. Millis, M. Rajeswari, S. von Molnár, MRS Symp. Proc. **602** (2000).

Hole Distribution in $(Sr, Ca, Y, La)_{14}Cu_{24}O_{41}$ Ladder Compounds Studied by X-Ray Absorption Spectroscopy, N. Nucker, M. Merz, C. A. Kuntscher, S. Gerhold, S. Schuppler, R. Neudert, M. S. Golden, J. Fink, D. Schild, S. Stadler, V. Chakarian, J. Freeland, Y. U. Idzerda, K. Conder, M. Uehara, T. Nagata, J. Goto, J. Akimitsu, N. Motoyama, H. Eisaki, S. Uchida, U. Ammerahl, and A. Revcolevschi, Phys. Rev. B **62** (21) 14384 (2000).

The Magnetism of a Buried $La_{0.7}Sr_{0.3}MnO_3$ Interface, S. Stadler, Y. U. Idzerda, Z. Chen, S. B. Ogale, and T. Venkatesan, Appl. Phys. Lett. **75** (21) 3384 (1999).

X-Ray Emission and Photoelectron Spectra of $Pr_{0.5}Sr_{0.5}MnO_3$, E. Z. Kurmaev, M. A. Korotin, V. R. Galakov, L. D. Finklestein, E. I. Zabolotzky, M. N. Efremova, N. I. Lobashevskaya, S. Stadler, D. L. Ederer, T. A. Callcott, L. Zhou, A. Moewes, S. Bartowski, M. Neumann, J. Matsuno, T. Mizokawa, A. Fujimori, and J. Mitchell, Phys. Rev. B **59**, 12799 (1999-II).

Examples of Soft X-Ray Emission and Inelastic Scattering Excited by Synchrotron Radiation, D. L. Ederer, E. Z. Kurmaev, S. Shin, A. Moewes, M. Grush, T. A. Callcott, R. C. C. Perera, J. van Ek, S. Stadler, R. Winarski, L. J. Terminello, and L. Zhou, J. Alloys and Compounds **286** 47 (1999).

X-Ray Emission Study of Ion Beam Mixed Cu/Al Films on Polyimide, E. Z. Kurmaev, D. A. Zatsepin, R. P. Winarski, S. Stadler, D. L. Ederer, A. Moewes, V. V. Fedorenko, S. N. Shamin, V. R. Galakhov, G. S. Chang, C. N. Whang, J. Vac. Science Tech. A, **17** (2) 593 (1999).

X-Ray Emission and Photoelectron Spectra of $Pr_{0.5}Sr_{0.5}MnO_3$, E. Z. Kurmaev, M. A. Korotin, V. R. Galakov, L. D. Finklestein, E. I. Zabolotzky, M. N. Efremova, N. I. Lobashevskaya, S. Stadler, D. L. Ederer, T. A. Callcott, L. Zhou, A. Moewes, S. Bartowski, M. Neumann, J. Matsuno, T. Mizokawa, A. Fujimori, and J. Mitchell, J. Elec. Spec. Rel. Phenom. **101**, 793 (1999).

Core-hole Induced Charge-transfer in Lanthanum and Koster-Kronig Enhanced Fluorescence at the 3d Threshold of $LaAlO_3$ Studied by Resonant Inelastic Scattering, A. Moewes, S. Stadler, R. P. Winarski, M. M. Grush, T. A. Callcott, and D. L. Ederer, Phys. Rev. B **58**, Rap. Comm. R15951 (1998).

Sulphur Precipitation in Annealed Sulphur-Doped Nickel Studied by Fluorescent X-Ray Emission, E. Z. Kurmaev, S. Stadler, D. L. Ederer, Yu. M. Yarmoshenko, D. A. Zatsepin, M. Neumann, T. A. Callcott, M. M. Grush, R. C. C. Perera, S. E. Danilov, V. L. Arbuzov, Materials Transactions **39** 570 (1998).

Electronic Structure of Sr_2RuO_4 : X-Ray Fluorescence Study, E. Z. Kurmaev, S. Stadler, D. L. Ederer, Y. Harada, S. Shin, M. M. Grush, T. A. Callcott, R. C. C. Perera, D. A. Zatsepin, N. Ovechkina, M. Kasai, Y. Tokura, and T. Takahashi, Phys. Rev. B **57** 1558 (1998).

X-Ray Emission Spectra and Electronic Structure of $CuIr_2S_4$ and $CuIr_2Se_4$, E. Z. Kurmaev, V. R. Galakhov, D. A. Zatsepin, V. A. Trofimova, S. Stadler, D. L. Ederer, A. Moewes, M. M. Grush, T. A. Callcott, J. Matsuno, A. Fujimori, and S. Nagata, Solid State Commun. **108** 235 (1998).

Excitation Energy Dependence of X-ray Emission Spectra and Electronic Structure of $Eu_{1-x}Ca_xMnO_3$, E. Z. Kurmaev, V. M. Cherkashenko, M. Neumann, S. Stadler, D. L. Ederer, Ya. M. Mukovskii, I. V. Solovyev, N. A. Ovechkina, V. R. Galakhov, A. Fujimori, M. M. Grush, T. A. Callcott, and R. C. C. Perera, J. Electr. Spectr. Relat. Phenom. **96** 187 (1998).

Electronic Structure of Ternary Transition Metal Oxides and Sulfides: X-Ray Photoelectron and X-Ray Emission Spectroscopy Study, E. Z. Kurmaev, V. M. Cherkashenko, M. Neumann, S. Stadler, D. L. Ederer, V. R. Galakhov, Yu. M. Yarmoshenko, I. V. Solovyev, S. N. Shamin, V. A. Trofimova, and D. A. Zatsepin, J. Electr. Spectr. Relat. Phenom. **88-91** 441 (1998).

Valence Band Spectra of $BaCo_{1-x}Ni_xS_2$, E. Z. Kurmaev, Yu. M. Yarmoshenko, M. Neumann, S. Stadler, D. L. Ederer, I. Hase, A. Fujimori, M. Sato, Y. Yasui, R. C. C. Perera, M. M. Grush, T. A. Callcott, D. A. Zatsepin, V. A. Trofimova, and V. V. Sokolov, J. Phys. Chem. Solid State Chem. **9** 1459 (1998).

Soft X-ray Emission Spectroscopy of Early Transition Metal Compounds, S. Shin, M. Fujisawa, H. Ishii, Y. Harada, M. Watanabe, M. M. Grush, T. A. Callcott, R. C. C. Perera, E. Z. Kurmaev, A. Moewes, R. Winarski, S. Stadler, and D. L. Ederer, J. Electr. Spectr. Relat. Phenom. **92** 197 (1998).

Excitation Energy Dependence of $S L_{2,3}$ X-Ray Fluorescent Emission of $BaNiS_2$ Near the $S 2p$ -Threshold, E. Z. Kurmaev, S. Stadler, D. L. Ederer, I. Hase, Yu. M. Yarmoshenko, M. Neumann, D. A. Zatsepin, A. Fujimori, M. Sato, R. C. C. Perera, M. M. Grush, and T. A. Callcott, Phys. Lett. A **235** 191 (1997).

Papers Presented at Professional Meetings (2001-present)

Invited Talk: *Giant Magnetocaloric Effects in Mn-Based Heusler Alloys*, S. Stadler, M. Khan, A. Pathak, I. Dubenko, and N. Ali, 53rd Midwest Solid State Conference (Session **D4**), Kansas City, MO October 7-8 (2006).

Intermartensitic Transformations in $Ni_2Mn_{1-x}Co_xGa$ Heusler Alloys. M.U. Khan, S. Stadler, and N. Ali, 50th Annual Conference on Magnetism and Magnetic Materials (Session **EQ-10**), San Jose, CA, October 30th-November 3rd (2005).

Cation Valence and Magnetic Order in Cu-ferrite thin films: An XAS & XMCD Study, D.A. Arena, A. Yang, S. Stadler, and V.G. Harris, 50th Annual Conference on Magnetism and Magnetic Materials (Session **ER-08**), San Jose, CA, October 30th-November 3rd (2005).

Magnetocaloric effect of $Ni_2Mn_{1-x}M_xGa$ $M=(Cu,Co)$, A.M. Gomes, M. Khan, S. Stadler, N. Ali, I. Dubenko, A. Takeuchi, and A.P. Guimaraes, 50th Annual Conference on Magnetism and Magnetic Materials (Session **FP-14**), San Jose, CA, October 30th-November 3rd (2005).

Stress effects on chemical and magnetic properties of thin film, $La_xSr_{1-x}CoO_3$. J.S. Holroyd, M. Liberati, Y. Idzerda, E. Arenholz, and S. Stadler, 50th Annual Conference on Magnetism and Magnetic Materials (Session **FU-18**), San Jose, CA, October 30th-November 3rd (2005).

Local atomic structure and magnetism of Mn-ferrite films having large out-of-plane magnetic anisotropy. A. Yang, D. Arena, X. Zuo, S. Stadler, C. Vittoria, and V.G. Harris, 50th Annual Conference on Magnetism and Magnetic Materials (Session **HF-02**), San Jose, CA, October 30th-November 3rd (2005)..

Soft X-Ray Resonant Scattering from Weakly Coupled Cu/Co Multilayers, S. Stadler, Y.U. Idzerda, J. Dvorak, and J. A. Borchers, 9th Joint Magnetism and Magnetic Materials/INTERMAG Conference (Session **BG-15**), Anaheim, CA January 5-9 (2004).

X-Ray Magnetic Circular Dichroism in Co_2MnSi Thin Films, S. Stadler, D. L. Harley, J. P Craig, M. Khan, N. Ali, J. Dvorak, Y. U. Idzerda, D. A. Arena, and V. G. Harris, 49th Annual Conference on Magnetism and Magnetic Materials (Session **AF-05**), Jacksonville, FL, November 7-11 (2004).

The Structural and Magnetic Properties of $Ni_2Mn_{1-x}M_xGa$, M. Khan, I. Dubenko, S. Stadler, and N. Ali, 49th Annual Conference on Magnetism and Magnetic Materials (Session **BU-05**), Jacksonville, FL, November 7-11 (2004).

Real Time Spectroscopic Ellipsometry Study During the Growth of Nanocrystalline and Nanolaminate Nitride Coatings, S. M. Aouadi, M. Debessai, T. Maeruf, and S. Stadler, ICMCTF Symposium, San Diego, CA, (April 19 - 23, 2004).

Soft X-ray Resonant Magnetic Scattering from Weakly Coupled Cu/Co Multilayers, S. Stadler, Y. U. Idzerda, J. Dvorak, and J. A. Borchers, 9th Joint MMM/INTERMAG Conference (Session **BG-15**) Anaheim, CA January 5-9 (2004).

Characterization for $SrTiO_3/Fe_3O_4$ and TiN/Fe_3O_4 Interfaces, A. Lussier, Y. U. Idzerda, S. Stadler, S. B. Ogale, S. R. Shinde, and T. Venkatesan, 29th Conference on the Physics and Chemistry of Semiconductor Interfaces (PCSI) (Session **WE1155**), Santa Fe, NM January 6-10 (2002).

Nanostructures, Magnetic Materials, Ceramics, and Thin Films Probed by X-Rays, D. L. Ederer, T. M. Schuller, S. Itza-Ortiz, J. Jimenez, S. Stadler, and T. A. Callcott, (INVITED) XI International Materials research Congress 2002, Cancun, Mexico August 25-29 (2002).

Electronic Structure Changes in Capped and Uncapped Films of $La_{0.7}Sr_{0.3}MnO_3$, S. Stadler, Y. U. Idzerda, D. L. Ederer, T. Schuller, S. Itsi-Ortiz, G. Woods, and T. A. Callcott, 2001 Annual APS March Meeting, Seattle, WA Bull. Am. Phys. Soc. **46**, 256 (2001).

Is there a PS-Skin on Annealed polystyrene/poly(methyl methacrylate) samples? G. Appel, D. Winesett, K.Kaznachejev, H. Ade, S. Stadler, A. Marsh, D. Fischer, A. Scholl, F. Nolting, J. Luning, C. Morin, and A. Hitchcock 2001 Annual APS March Meeting, Seattle, WA Bull. Am. Phys. Soc. **46**, 959 (2001).

Potential Phase Control of Chromium Oxide Thin Films Prepared by Laser-Assisted Organometallic CVD, R. Cheng, C. N. Borca, P. A. Dowben, S. Stadler, and Y. U. Idzerda, 2001 Annual APS March Meeting, Seattle, WA Bull. Am. Phys. Soc. **46**, 1053 (2001).

The Effects of TiN Overlayers on Fe_3O_4 Thin Films, A. Lussier, Y. U. Idzerda, S. Stadler, J. Dvorak, Z. Chen, S. B. Ogale, and T. Venkatesan, 46th Annual Conference on Magnetism and Magnetic Materials, Seattle, WA (2001) (Session **BF-10**).

Destruction of Magnetic Domain Correlation in Co/Cu Multilayers with Field Application, Y. U. Idzerda, S. Stadler, and J. A. Borchers, 46th Annual Conference on Magnetism and Magnetic Materials, Seattle, WA (2001) (Session **GT-06**).

PATENTS

A New Heusler Alloy-Based Giant Magnetocaloric Material

Submitted: 07/28/05

Status: PENDING (Co-PI)

SERVICE ACTIVITY**I. Departmental**

Graduate Chair

Graduate Admissions Committee (5 years),

Theory Faculty Search Committee (4 years and currently).

Master's Thesis Committees (8 completed).

Ph.D. Committee (one completed).

College of Science New Student Orientation (Physics Representative) (2003).

II. External

Illinois Junior Academy of Science Region 8 Science Fair, Judge (2001).

24th Illinois Junior Science and Humanities Symposium, Laboratory Visit (2002).

25th Illinois Junior Science and Humanities Symposium, Laboratory Visit (2003).

26th Illinois Junior Science and Humanities Symposium, Laboratory Visit (2004).

27th Illinois Junior Science and Humanities Symposium, Laboratory Visit (2005).

Dissertation Award Committee (2004).

Dissertation Award Committee (2006).

International Graduate Student Language Evaluation (2002-2003).

III. Professional

Magnetism and Magnetic Materials Conference Steering Committee (2005).

Magnetism and Magnetic Materials Conference Steering Committee (2004).

External Tenure Review Committee (2004).

NSF Proposal Reviews (2004, 2005, and 2006); *DOE Reviews* (2006).

Research Corporation Proposal Review (2004).

Session Chair, Magnetism and Magnetic Materials Conference (2001).

Refereed numerous manuscripts for Physical Review B, Journal of Applied Physics, and Applied Physics letters

TEACHING

2002	(Spring): Physics 520B <i>Classical Electrodynamics</i>	Eval: 3.30/4.00.
2002	(Fall): Physics 101 <i>Physics that Changed the World</i> Physics 428 <i>Optics</i>	Eval: 2.89/4.00. Eval: 3.67/4.00.
2003	(Spring): Physics 520B <i>Classical Electrodynamics</i> Physics 101 <i>Physics that Changed the World</i>	Eval: 3.33/4.00. Eval: 3.31/4.00.
	(Fall): Physics 101 <i>Physics that Changed the World</i> Physics 428 <i>Optics</i>	Eval: 3.53/4.00. Eval: 3.83/4.00.
2004	(Spring): Physics 101 <i>Physics that Changed the World</i> (Fall): Physics 101 <i>Physics that Changed the World</i>	Eval: 3.39/4.00. N/A
2005	(Spring): Physics 101 <i>Physics that Changed the World</i> (Fall): Physics 101 <i>Physics that Changed the World</i>	Eval: 3.64/4.00. Eval: 3.64/4.00.
2006	(Spring): Physics 101 <i>Physics that Changed the World</i>	Eval: 3.41/4.00.

FUNDED GRANT PROPOSALS

I. External Funding:

NSF: CAREER: *Seeking Half-Metallic Alloys*, \$483,271 (5 years), (Project Dates: June 1, 2006—May 31, 2011).

STATUS: CURRENT (Stadler PI)

USDOE: *Understanding compound phase transitions in new Heusler alloy colossal magnetocaloric materials*, \$623,520 (4 years), (Project Dates: February 1, 2006—January 31, 2010)

STATUS: CURRENT (Stadler co-PI)

USDOE: Battelle Memorial Institute/ Montana State University, *Pulsed Laser Deposition of Co- and Fe-based Fuel Cell Oxides*, \$32,455 (Project Dates: December 1, 2005—November 30, 2006).

STATUS: CURRENT (Stadler PI)

Petroleum Research Fund (PRF), *Seeking the Origin of Martensitic-like Transitions in Co₂MnSi Thin Films*, \$35,000 (Project Dates: January 1, 2005 – December 31, 2006).

STATUS: CURRENT (Stadler PI)

Research Corporation (Cottrell): *Half-Metallic Nanocomposites*, \$38,500 (Project Dates: August 1, 2003—July 31, 2007).

STATUS: CURRENT (Stadler PI)

NSF: *Research Education for Undergraduates (REU) - Chemistry*

STATUS: CURRENT (Stadler listed as Senior Personnel)

University of Chicago/IBHE: *Probing buried epitaxial Heusler alloy thin film interfaces using magnetically sensitive soft x ray techniques*, \$44,876 (Project Dates: September, 2002—July, 2003).

STATUS: EXPIRED (Stadler PI)

University of Chicago/IBHE: *Synchrotron experiments on novel magnetic thin film materials fabricated using pulsed laser deposition*, \$22,600 (Project Dates: September, 2003—July, 2004).

STATUS: EXPIRED (Stadler PI)

NSF: *Enhancement of a synchrotron beamline for magnetics research and education*, \$94,500 (Project Dates: June, 2002—May, 2003).

STATUS: EXPIRED (Stadler co-PI)

II. Internal Funding: (Note: negotiated STARTUP FUNDS: \$240,000 distributed over FY's 2001 and 2002)

ORDA Faculty Research Grant : *The fabrication and characterization of ferrite thin films*, \$5,000 + 1 month summer salary

STATUS: EXPIRED (Stadler PI)

Materials Technology Center (MTC) Seed Grant: *Understanding ferromagnetic shape-memory effects in Heusler alloy thin films*, \$14,000 (Project Dates: September 1, 2004—July 1, 2005)

STATUS: EXPIRED (Stadler PI)

Materials Technology Center (MTC) Seed Grant: *Giant Magnetocaloric Effects in Doped Heusler Alloys* \$20,000, (Project Dates: September 1, 2005—July 1, 2006)

STATUS: EXPIRED (Stadler PI)

Undergraduate Research Assistantship 2002-2003 (SIU-Internal).

Undergraduate Research Assistantship 2003-2004 (SIU-Internal).