

Curriculum Vitae

Dr. Manh-Huong Phan

Full Professor

Director, Advanced Materials and Sensors Laboratory

Department of Physics

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EDUCATION

2006 **Ph.D. in Engineering Physics**, Bristol University, United Kingdom

2003 **M.S. in Applied Physics**, Chungbuk National University, South Korea

2000 **B.S. in Solid State Physics**, Vietnam National University - Hanoi, Vietnam

EMPLOYMENT EXPERIENCE

- Mar. 2019 – present
Full Professor, Department of Physics, University of South Florida, USA
- Aug. 2015 – Feb. 2019
Associate Professor (*permanent*), Department of Physics, University of South Florida, USA
- Sept. 2010 – August 2015
Assistant Professor (*Research*), Department of Physics, University of South Florida, USA
- Dec. 2007 – Sept. 2010
Postdoctoral Researcher, Department of Physics, University of South Florida, USA
- Oct. 2006 – Nov. 2007
Postdoctoral Researcher, Advanced Composites Centre for Innovation and Science (ACCIS), Bristol University, UK
- Sept. 2000 – Aug. 2001
Research Scientist, Centre for Materials Science, Vietnam National University-Hanoi, Vietnam

VISITING ACTIVITIES

- July 1, 2018 - present
Distinguished Visiting Professor, Phenikaa Institute for Advanced Studies & Phenikaa Nano Institute, Phenikaa University, Hanoi, Vietnam

- December 2 – 7, 2023
Visiting Professor, University of Cambridge, UK
- November 25 – December 1, 2023
Visiting Professor, University of Cantabria in Santander, Spain
- January 23-27, 2018
Visiting Professor, Department of Physics, Ecole Normale Supérieure Paris Saclay, Paris, France
- July 1 – July 21, 2016
Visiting Professor, Department of Physics, Vietnam National University, Hanoi, Vietnam
- July 14 – 18, 2012
Visiting Professor, Department of Physics, Cheongju, South Korea

RESEARCH INTERESTS & LEADING EXPERTISE

- New thermomagnetic and thermoelectric materials for energy-efficient refrigeration technologies; giant magnetoimpedance materials for advanced magnetic sensor technology; magnetic thin films for magnetic recording technology and spintronics; magnetic polymer composites for structural health self-monitoring applications; magnetic nanoparticles and biodetection technology for biomedical applications; collective magnetic phenomena in complex oxide nanostructures; and exchange bias in magnetic nanostructures for advanced spintronics; helimagnets and Skyrmion structures; transition metal dichalcogenides for van der Waals spintronics and quantum computing technology.
- Research breakthroughs have included the discoveries of (1) *giant magnetocaloric materials* for energy-efficient magnetic refrigeration technology, (2) *giant magnetoimpedance materials and devices* for biosensing and real-time healthcare monitoring (e.g., Covid-19 detection), (3) *multifunctional magnetic nanoparticles* for hyperthermia therapy and targeted drug delivery, (4) *the spin Seebeck effect* for spin caloritronics, and (5) *two-dimensional quantum magnets and heterostructures* (e.g., transition metal dichalcogenides) for spintronics, opto-spintronics, opto-spin-caloritronics, valleytronics, and quantum communications ([featured on USF news](#)).
- Director, The Laboratory for Advanced Materials and Sensors (established in 2010) for technological applications in industry, army, and biomedical engineering.

AWARDS & ACHIEVEMENTS

- **Outstanding American-Vietnamese Scientist**, honored by the Prime Minister of Vietnam, 2023
- **The Outstanding Faculty Research Achievement Award**, University of South Florida, USA, 2021 ([featured on USF news](#))
- **Featured in The List of The World's Top 1 Percent Scientists**, 2020-present ([Journal news](#))

- **The Honorary Doctorate Degree Award**, Vietnam National University - Hanoi, 2021 ([featured on VOV2](#))
- **Certificate of Merit for the Development of Physical Sciences in Vietnam**, awarded by the Minister of Science and Technology of Vietnam, 2021
- **The Outstanding Faculty Research Achievement Award**, University of South Florida, USA, 2019 ([featured on USF news](#))
- **The Outstanding Graduate Faculty Mentor Award** (HM), University of South Florida, USA, 2018 ([featured on USF news](#))
- **The Medal for The Development Cause of Vietnam National University** - Hanoi, Vietnam, 2018 ([featured on VNU news](#))
- **The University of South Florida Nexus Initiative (UNI) Award**, USA, 2018
- **The Outstanding Faculty Research Achievement Award**, University of South Florida, USA, 2017 ([featured on USF news](#))
- **Outstanding Referee Certificates**, ISI journals (Advanced Materials, 2021; Biosensors and Bioelectronics, 2018; Materials Today Energy, 2018; Applied Energy, 2018; Composites Science and Technology, 2018; Journal of Magnetism and Magnetic Materials 2013, 2015, 2017, 2018, 2019-present; Intermetallics 2017; Materials Letters 2017; Surfaces and Coatings Technology 2016; Sensors and Actuators B 2016; Journal of Alloys and Compounds 2016-present; Physica Status Solidi A 2016; Journal of Physics D: Applied Physics 2007)
- **International Travel Grants**, VNU, Vietnam (2016-present)
- **Full Professor Fellowship**, Rayong Advanced Institute of Science and Technology, Thailand, 2015 (declined)
- **International Travel Grant**, IMS, Vietnam, 2015
- **International Travel Award**, USF, 2012
- **International Travel Awards**, Brain Korea 21 (2007, 2012)
- **Overseas Research Students (ORS) Award**, United Kingdom, 2003 - 2006
- **University of Bristol Postgraduate Research Fellowship**, United Kingdom, 2003 – 2006
- **PhD Research Scholarship from Germany**, 2003 (declined)
- **MS Fellowship**, Chungbuk National University, South Korea, 2001 – 2003
- **Finalist, The Loreal – UK Royal Institution Science Graduate of the Year Award**, 2006
- **Finalist, The UK Western Aerospace Centre (WAC) Prize**, 2004
- **Best Poster Award**, The International Conference on Magnetic Materials and Applications, South Korea, 2003
- **Excellent Publication Award**, ReCAMM, South Korea, 2003

- **Travel Award**, The Vietnam-Germany Conference on Physics and Engineering Materials, Ho Chi Minh, Vietnam, 1999

HONORS, DISTINCTIONS, AND PROFESSIONAL SERVICES

- **Managing Editor & Founding Member**, Journal of Science: Advanced Materials and Devices (Elsevier-VNU, SCIE journal, IF = **8.0**; 2016 - present) (*successfully established, managed, and developed the journal to achieve its top rank among ISI journals on materials science and technology*: <https://www.sciencedirect.com/journal/journal-of-science-advanced-materials-and-devices>)
- **Editor**, Journal of Electronic Materials (Springer, SCI journal, IF = **1.774**, 2018 - 2020)
- **Editorial Board Member**, Scientific Reports (Springer - Nature Research Publisher, IF = **4.996**, 2018-present)
- **Editor**, Applied Sciences (SCIE journal, IF = **2.838**, 2017 - present)
- **Editorial Board Member**, Journal of Science and Technology, Vietnam (2015-present)
- **Associate Editor**, Journal of Electronic Materials (Springer, SCI journal, IF = 1.798, 2015 - 2018)
- **Symposium Co-Chair**, [International Symposium on Frontier Materials, Healthcare and Nanotechnology](#), Phenikaa University, Hanoi, Vietnam, July 3, 2023
- **Symposium Chair**, 2D van der Waals Magnets for Practical Device Applications, The 67th Annual Conference on Magnetism and Magnetic Materials (MMM 2022), Hyatt Regency Minneapolis, October 31 to November 4, 2022
- **Workshop Chair**, The Workshop on Multifunctional Materials and Device Applications, October 17, 2019, Florida, USA
- **Workshop Chair**, The Workshop on Functional Magnetic Materials and Applications, August 12, 2019, Florida, USA
- **Symposium Chair**, The Hanoi International Symposium on Advanced Materials and Devices, January 10 - 12, 2019, Hanoi, Vietnam
- **Conference Chair**, [The 8th Energy Materials Nanotechnology \(EMN\) Fall Meeting](#), November 22 - 25, 2014, Orlando, USA (*successfully invited more than 250 leading experts to attend and deliver keynote and invited talks for this meeting. Received excellent feedback from all the participants*)
- **International Organizing Committee Chair**, [International Workshop on Advanced Materials and Nanotechnology \(IWAMN 2023\)](#), August 10-13, 2023, Thai Nguyen, Vietnam
- **International Organizing Committee**, The NanoFlorida International Conference, November 15-17, 2019, Florida, USA
- **International Organizing Committee**, The 19th International Conference on Fine Particle Magnetism (ICFPM), May 27-31, 2019, Gijon, Spain

- **International Organizing Committee**, The Joint MMM-Intermag Conference, January 14-18, 2019, Washington DC, USA
- **International Advisory Committee and Publication Editor**, The 5th International Conference of Asian Union of Magnetism Societies (IcAUMS), June 3-7 2018, Jeju, South Korea
- **International Advisory Committee**, The 3rd International Conference on Advances in Sensors, Actuators, Metering and Sensing, March 25 to 29, 2018, Rome, Italy
- **International Organizing Committee and Publication Chair**, The 4th International Symposium on Advanced Magnetic Materials and Applications (ISAMMA), December 10-13, 2017, Phu Quoc, Vietnam (*successfully invited more than 50 leading scientists worldwide in the field of magnetism to attend and deliver keynote and invited talks for this meeting*)
- **International Organizing Committee**, The Annual Conference on Magnetism and Magnetic Materials (MMM), November 6-10, 2017, Pittsburgh, Pennsylvania
- **International Organizing Committee**, The IEEE International Magnetism Conference, INTERMAG Europe, April 24-28, 2017, Dublin, Ireland
- **International Advisory Committee**, Advanced Nanotechnology in Engineering and Medical Science (ANEMS 2017) Conference, November 20 – 21, 2017, Langkawi Island, Malaysia
- **Symposium Co-organizer**, Phase Transitions in Functional Materials: from Fundamentals to Applications, XXVI International Materials Research Congress, August 20 - 25 2017, Cancún, México
- **International Advisory Committee and Publication Chair**, The International Workshop on Advanced Materials and Nanotechnology (IWAMN2016), November 3-5, 2016, Hanoi, Vietnam
- **International Advisory Committee and Publication Chair**, Joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference, November 2 - 4, 2015, Da Nang City, Vietnam
- **Co-organizer**, The Workshop “*Functional Magnetic Materials and Applications*,” Donostia International Conference on Nanoscale Magnetism and Applications (DICNMA), September 9 - 13, 2013, San Sebastián, Spain
- **Local Organizing Committee**, Nano-Bio Collaborative International Conference, March 22-24, 2012, Tampa, Florida, USA
- **International Advisory Committee**, EMN Spain Meeting: Energy Materials Nanotechnology, September 1 - 4, 2015, San Sebastian, Spain
- **International Advisory Committee**, Donostia International Conference on Nanoscale Magnetism and Applications (DICNMA), September 9 - 13, 2013, San Sebastián, Spain

- **Committee Member**, the Magnetic Materials Group, The Minerals Metals and Materials Society (TMS), 2011-present
- **Publication Editor**, The 68th Annual Conference on Magnetism and Magnetic Materials (MMM 2023), Hyatt Regency Dallas, October 30 to November 3, 2023
- **Publication Editor**, The 67th Annual Conference on Magnetism and Magnetic Materials (MMM 2022), Hyatt Regency Minneapolis, October 31 to November 4, 2022
- **Publication Editor**, The Joint MMM-Intermag Conference, January 14-18, 2019, Washington DC, USA
- **Lead Editor**, Encyclopedia of Materials: Electronics, Elsevier Publisher, 2023
- **Guest Editor**, Special issue "*Novel Nanomaterials and Sensing Platforms for Detection and Diagnosis of Coronaviruses*" for publication in Applied Sciences (ISI journal, IF = 2.47), 2021
- **Guest Editor**, Special issue "*Multicalorics*" for publication in Journal of Applied Physics (IF = 2.328), 2020
- **Lead Editor**, Special issue "*Advanced Magnetic Materials and Applications*" for publication in IEEE Transactions on Magnetics (IF = 1.5), papers selected from The 4th International Symposium on Advanced Magnetic Materials and Applications (ISAMMA), December 10-13, 2017, Phu Quoc, Vietnam
- **Guest Editor**, Special issue "*Functional Magnetic Nanomaterials in Nanomedicine*" for publication in Nanomaterials (IF = 3.55), 2017
- **Guest Editor**, Special issue "*Functional Nanomaterials and Nanotechnology*" for publication in Journal of Electronic Materials (IF = 1.789), papers selected from The International Workshop on Advanced Materials and Nanotechnology (IWAMN2016), November 3-5, 2016, Hanoi, Vietnam
- **Guest Editor**, Special issue "*Advanced Electronic Materials and Devices*" for publication in Journal of Electronic Materials (IF = 1.789), papers selected from The International Workshop on Nanoscience and Nanotechnology: Opportunities for Academia & High-Tech Industry, November 2 - 4, 2015, Da Nang City, Vietnam
- **Guest Editor**, Special Issue "*Functional Nanomaterials and Devices for Biomedical Engineering and Sensing Applications*" for publication in Sensors (IF = 2.033), papers selected from The 8th Energy Materials Nanotechnology (EMN) Fall Meeting, November 22–25, 2014, Orlando, USA
- **Guest Editor**, Special Issue "*Nanomaterials for Biomedical Applications and Environmental Monitoring*" for publication in Journal of Nanomaterials (IF = 1.758), Hindawi Publishing Corporation, 2015
- **Guest Editor**, Special Issue "*Advanced Magnetic Materials: Genetics, Mechanism, and Therapies*" for publication in Physics Research International, Hindawi Publishing Corporation, 2012

- **Judge**, “*The Sensors Challenge Competition*,” The 68th Annual Conference on Magnetism and Magnetic Materials (MMM 2023), Hyatt Regency Dallas, October 30 to November 3, 2023
- **Session Chair**, The International Conference on Materials for Advanced Technologies (ICMAT), June 26 to 30, 2023, Singapore
- **Session Chair**, The 2022 MMM-Intermag Conference, January 10-14, 2022, New Orleans, LA, USA
- **Session Chair**, The TMS 2021 Annual Meeting & Exhibition (online), March 14-18, 2021, Orlando, Florida, USA
- **Session Chair**, The 11th International Conference on Advanced Materials Research (ICAMR 2021, online), January 21-24, 2021, Singapore
- **Session Chair**, NanoFlorida International Conference, November 15-17, 2019, Florida, USA
- **Session Chair**, The Joint MMM-Intermag Conference, January 14-18, 2019, Washington DC, USA
- **Session Chair**, The Hanoi International Symposium on Advanced Materials and Devices, January 10 - 12, 2019, Hanoi, Vietnam
- **Session Chair**, The 5th International Conference of Asian Union of Magnetism Societies (ICAUMS 2018), June 3 – 7, Jeju, South Korea
- **Session Chair**, The 4th International Symposium on Advanced Magnetic Materials and Applications (ISAMMA), December 10-13, 2017, Phu Quoc, Vietnam
- **Session Chair**, The 8th International Conference and Exhibition on Biosensors and Bioelectronics, September 27-28, 2017, Chicago, Illinois, USA
- **Session Chair**, the plenary talks session, The International Workshop on Advanced Materials and Nanotechnology (IWAMN2016), November 3-5, 2016, Hanoi, Vietnam
- **Session Chair**, the invited talks session, The XXV International Materials Research Congress, August 14-19, 2016, Cancún, México
- **Session Chair**, the plenary talks session, The International Workshop on Advanced Materials and Devices, July 8-9, 2016, Hanoi, Vietnam
- **Session Chair**, the Session: “*Soft Magnetic Materials II*,” TMS 2016 Annual Meeting & Exhibition, February 14 – 18, 2016, Nashville, Tennessee, USA
- **Session Chair**, the plenary talks session, The joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference, November 2 - 4, 2015, Da Nang City, Vietnam
- **Session Chair**, the QG Session: “*Magnetoelastic Materials II*,” The 59th Annual Conference on Magnetism and Magnetic Materials, November 3-7, 2014, Hawaii, USA

- **Session Chair**, the BR Session: "*Soft Magnetic Thin Films I*," The 58th Annual Conference on Magnetism and Magnetic Materials, November 4-8, 2013, Denver, Colorado, USA
- **Session Chair**, the GG Session: "*Soft Magnetic Materials for Microwave Applications*," The 12th Joint MMM/Intermag Conference, January 14 to 28, 2013, Chicago, Illinois, USA
- **Session Chair**, the Session: "*Soft Magnetic Materials I*," The 19th International Conference on Magnetism, July 8-13, 2012, Busan, Korea
- **Session Chair**, Nano-Bio Collaborative International Conference, March 22-24, 2012, Tampa, Florida, USA
- **Session Chair**, the Session: "*Magnetocaloric Properties III*," The 56th Annual Conference on Magnetism and Magnetic Materials, October 30 to November 3, 2011, Scottsdale, Arizona, USA
- **Session Chair**, the Session: "*Magnetoresistance, Magnetoimpedance, and Hall Effect*," The 55th Annual Conference on Magnetism and Magnetic Materials, 14-18 November 2010, Atlanta, Georgia, USA
- **Session Chair**, the Session: "*Magnetic Nanoparticles and Their Applications*," The American Physical Society (APS) Meeting, March 16-20, 2009, Pittsburgh, PA, USA
- **Session Chair**, the Session: "*Multiferroics III: Bulk Oxides*," The 53rd Annual Conference on Magnetism and Magnetic Materials, November 10-14, 2008, Austin, Texas, USA
- **Session Chair**, the Session: "*Thin Films and Multilayers including Imaging and Dynamics*" and the "*Soft Magnetic Materials and Applications*," The International Symposium on Advanced Magnetic Materials and Applications, 28 May – 1 June 2007, Jeju, South Korea
- **Vice President**, Vietnam Magnetism Society (2017 - present)
- **International Advisory Committee**, Phenikaa Institute for Advanced Studies, Phenikaa University, Hanoi, Vietnam (2018 - present)
- **Organizer**, Physics Colloquium & Special Physics Seminars at USF (2012-present)
- **Coordinator**, The Global Education Program between USF and Vietnamese Universities (2011-present)
- **Member**, American Physical Society (2008 - present)
- **Member**, Materials Research Society (2013 - present)
- **Member**, IEEE Magnetism Society (2017 - present)
- **Membership Referee**, The World Academy of Science (TWAS), 2013
- **Reviewer**, Ta Quang Buu Award (2016, 2018)
- **Proposal Reviewer**, The National Research and Development Agency (ANID) of the Ministry of Science, Technology, Knowledge and Innovation of Chile, 2023
- **Proposal Reviewer**, The National Science Centre Poland, 2022

- **Proposal Reviewer**, The del Área de Ciencias y tecnologías de materiales, Spain (2022)
- **Proposal Reviewer**, The Science & Engineering Research Council (SERC), Singapore, 2020
- **Proposal Reviewer**, The National Foundation for Science and Technology Development (NAFOSTED), Vietnam (2018, 2020)
- **Proposal Reviewer**, The Netherlands Organisation for Scientific Research (2018)
- **Proposal Reviewer**, Swedish Foundation for Strategic Research (2017)
- **Proposal Reviewer**, German Science Foundation (2016, 2018)
- **Proposal Reviewer/Review Panel**, National Science Foundation - The Metals and Metallic Nanostructures Program (2016)
- **Proposal Reviewer**, National Science Foundation - Division of Materials Research NSF/DMR (2015)
- **Proposal Reviewer**, NASA Postdoctoral Program (NPP), USA (2015)
- **Proposal Reviewer**, Xi'an Jiaotong-Liverpool University, China (2015, 2016)
- **Nanotechnology Panel Reviewer**, CRDF Global-Urals Branch of the Russian Academy of Sciences Joint Basic Research Competition, USA (2014)
- **Research Grant Reviewer**, American Association for the Advancement of Science, USA (2014)
- **Physics Panel Reviewer**, CRDF Global-Urals Branch of the Russian Academy of Sciences Joint Basic Research Competition, USA (2013, 2017)
- **Research Grant Reviewer**, Engineering and Physical Sciences Research Council (EPSRC), United Kingdom (2011, 2017, 2018, 2020, 2021, 2022)
- **Research Grant Reviewer**, Kentucky Science and Engineering Foundation R&D Excellence Awards (2009, 2011, 2014)
- **eBook Proposal Reviewer**, Bentham Science Publishers, 2012
- **Book Chapter Reviewer**, Elsevier Publishers, 2013
- **Book Chapter Reviewer**, Bentham Science Publishers, 2012
- **International Adjudicator**, PhD dissertations, Andhra University, India (2012, 2013, 2017); Indian Institute of Science, Bangalore, India (2013, 2014); Jaypee University of Information Technology, India (2014, 2016); Thapar University, India (2015); VIT University, India (2016)
- **Technical Reviewer for > 100 ISI journals** (*some listed below*):
 - Nature
 - Nature Materials
 - Nature Physics
 - Nature Electronics
 - Nature Communications
 - Communications Physics
 - Progress in Materials Science

- Advanced Materials
- ACS Nano
- Advanced Functional Materials
- Advanced Electronic Materials
- Small
- Nanoscale
- Advanced Energy Materials
- ACS Applied Materials & Interfaces
- Applied Physics Letters (*also act as an adjudicator*)
- Physical Review B
- Nanotechnology
- Journal of Physics D: Applied Physics (*also act as an adjudicator*)
- Journal of Physics: Condensed Matter (*also act as an adjudicator*)
- Journal of Magnetism and Magnetic Materials (*also act as an adjudicator*)
- IEEE Transactions on Magnetics (*also act as an adjudicator*)
- IEEE Magnetics Letters (*also act as an adjudicator*)

▪ **Reviewer for International Conferences:**

- MMM 2023, October 30 to November 3, 2023, Dallas, USA
- MMM 2022, October 31 to November 4, 2022, Minnesota, USA
- MMM-Intermag 2022, Jan. 10 - 14, 2022, New Orleans, USA
- INTERMAG 2021 (online), 26-30 April 2021, France
- The Annual Conference on Magnetism and Magnetic Materials, November 02-06, 2020, Florida, USA (online)
- The Annual Conference on Magnetism and Magnetic Materials, November 04-08, 2019, Las Vegas, USA
- The 19th International Conference on Fine Particle Magnetism (ICFPM), May 27-31, 2019, Gijon, Spain
- The Joint MMM-Intermag Conference, January 14-18, 2019, Washington DC, USA
- The 21st International Conference on Magnetism (ICM2018), July 16-20, 2018, San Francisco, USA
- The Intermag Conference, April 23-27, 2018, Marina Bay Sands Convention Center, Singapore
- The 4th International Symposium on Advanced Magnetic Materials and Applications (ISAMMA), December 10-13, 2017, Phu Quoc, Vietnam
- The 62nd Annual Conference on Magnetism and Magnetic Materials (MMM), November 6-10, 2017, Pittsburgh, Pennsylvania, USA
- The IEEE International Magnetics Conference, INTERMAG Europe, April 24-28, 2017, Dublin, Ireland
- The 61st Annual Conference on Magnetism and Magnetic Materials (MMM), October 31 - November 4, 2016, New Orleans, USA

- The International Workshop on Advanced Materials and Nanotechnology (IWAMN2016), November 3-5, 2016, Hanoi, Vietnam
- The joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference, November 2 - 4, 2015, Da Nang City, Vietnam
- The 20th International Conference on Magnetism (ICM), July 5-10, 2015, Barcelona, Spain
- The IEEE International Magnetism Conference (INTERMAG), May 11-15, 2015, Beijing, China
- The 59th Annual Conference on Magnetism and Magnetic Materials (MMM), November 3-7, 2014, Hawaii, USA
- The Moscow International Symposium on Magnetism (MISM), June 29 - July 3, 2014, Moscow, Russia
- The 10th European Conference on Magnetic Sensors and Actuators (EMSA), July 6-9, 2014, Vienna, Austria
- The IEEE International Magnetism Conference, INTERMAG Europe 2014, May 4 - 8, 2014, Dresden, Germany
- The International Symposium on Frontiers of Materials Science (ISFMS), November 17-19, 2013, Hanoi, Vietnam
- The 58th Annual Conference on Magnetism and Magnetic Materials (MMM), November 4-8, 2013, Denver, Colorado, USA
- The Donostia International Conference on Nanoscale Magnetism and Applications (DICONMA), September 9 - 13, 2013, San Sebastián, Spain
- The 12th Joint MMM/Intermag Conference, January 14 to 28, 2013, Chicago, Illinois, USA
- The 19th International Conference on Magnetism (ICM), July 8-13, 2012, Busan, South Korea
- The 19th International Symposium on Metastable, Amorphous and Nanostructured Materials (ISMANAM), June 18-22, 2012, Moscow, Russia
- The International Magnetism Conference, INTERMAG, May 7-11, 2012, Vancouver, Canada
- The 56th Annual Conference on Magnetism and Magnetic Materials, October 30 to November 3, 2011, Scottsdale, Arizona, USA
- The Moscow International Symposium on Magnetism, August 21-25, 2011, Moscow, Russia
- The IEEE International Magnetism Conference, April 25-29, 2011, Taipei, Taiwan
- The 55th Annual Conference on Magnetism and Magnetic Materials, 14-18 November 2010, Atlanta, Georgia, USA
- The 11th Joint MMM-Intermag Conference, January 18-22, 2010, Washington, DC, USA
- The IEEE International Magnetism Conference, May 4-8, 2009, Sacramento, California, USA

- The 53rd Annual Conference on Magnetism and Magnetic Materials, November 10-14, 2008, Austin, Texas, USA
- The Asian Magnetics Conference, December 10-13, 2008, Busan, Korea
- The 52nd Conference on Magnetism and Magnetic Materials, November 5-9, 2007, Tampa, Florida, USA
- The International Symposium on Advanced Magnetic Materials and Applications (ISAMMA07), May 28 – June 1, 2007, Jeju, South Korea
- The Third Joint European Magnetic Symposia, June 26-30, 2006, San Sebastian, Spain
- The 50th Annual Conference on Magnetism and Magnetic Materials, San Jose, California, October 30 -November 3, 2005, USA

RESEARCH PROJECTS

- **Funded research projects at USF: (\$4,206,454.00 as PI and Co-PI)**
 - Department of Energy (DOE) Research Grant "*Complex magnetism and emergent phenomena in correlated electron materials and heterostructures*," United States: \$584,000 (2022-2025)
(Role: e-PI, University of South Florida)
 - USF Equipment Acquisition Grant "*Advanced Atomic/Magnetic Force Microscopy for Materials Research*" United States: \$217,000 (2022)
(Role: PI, University of South Florida)
 - USF Research Foundation Grant "*Real-Time Monitoring of COVID-19 Progress Using Magnetic Sensing and Machine Learning*" United States: \$25,000 (2020-2021)
(Role: PI, University of South Florida)
 - Department of Energy (DOE) Research Grant "*Complex magnetism and emergent phenomena in correlated electron materials*," United States: \$563,247 (2019-2022)
(Role: e-PI, University of South Florida)
 - Industrial Research Grant "*Low-Dimensional Magneto-Electro-Optic Materials for Next Generation Devices*" funded by the VICOSTONE USA: \$433,792 (2018-2021)
(Role: PI, University of South Florida)
 - USF Equipment Acquisition Grant "*Multifunctional Physical Property Measurement System for Advanced Materials Research*" United States: \$519,820 (2018-2019)
(Role: Co-PI, University of South Florida)
 - USF Equipment Acquisition Grant "*A New MBE Chamber for 2D Materials Growth*" United States: \$199,900 (2018-2019)
(Role: Co-PI, University of South Florida)
 - University of South Florida Nexus Initiative (UNI) Grant "*Novel Multicaloric Heterostructures for Advanced Spintronics Applications*" United States: \$13,500 (2018-2019) (Role: PI, University of South Florida)

- Department of Energy (DOE) Research Grant "*Complex magnetism and emergent phenomena in correlated electron oxide materials*," United States: \$445,000 (2016-2019)
(Role: e-PI, University of South Florida)
 - Army Research Office (ARO) Grant "*Roles of defects and anisotropies in spin caloric properties of complex oxides*," United States: \$387,000 (2015-2018)
(Role: e-PI, University of South Florida)
 - Florida Space Grant Consortium "*Surface and interface effects of magnetoelectric materials at high frequency for aerospace applications*" United States: \$4,900 (2017-2018) (Role: PI, University of South Florida)
 - Department of Energy (DOE) Research Grant "*Ground state magnetism and cooperative phenomena in correlated electron oxide materials*," United States: \$420,000 (2013-2016)
(Role: Co-PI, University of South Florida)
 - Florida Space Grant Consortium "*Confinement effects and magnetic interactions in one-dimensional magnetic nanostructures*," United States: \$4,950 (2015-2016)
(Role: PI, University of South Florida)
 - CAS Research Grant "*Upgrading a novel impedance-based probe technique for investigating dynamic magnetic and AC magneto-transport properties in new spintronic materials*," United States: \$1,500 (2013-2014)
(Role: PI, University of South Florida)
 - USF Faculty International Travel Grant, 2012, United States: \$2,500.00
(Role: PI, University of South Florida)
 - New Researcher Grant – USF Research Foundation "*Nanostructured multiple phase materials for energy-efficient refrigeration*," United States: \$18,730.65 (2011-2012)
(Role: PI, University of South Florida)
 - Department of Energy (DOE) Research Grant "*Magnetic frustration and cooperative phenomena in correlated electron oxide materials*," United States: \$405,000 (2010-2013)
(Role: Co-PI, University of South Florida)
- **Funded international joint-research projects: (\$707,575 as Co-PI or Collaborator)**
- Key National Research Grant "*Multifunctional Nanomaterials and Nanodevices for Biomedical Applications*" Vietnam: \$216,375 (2019-2021)
(Jointly with Dr. Vu Dinh Lam, Graduate University of Science and Technology (GUST), VAST, Vietnam)
 - National Foundation for Science and Technology Development (NAFOSTED) Grant "*Synthesis and Characterization of Functional Magnetic Nanoparticles for Biomedical Applications*" Vietnam: \$31,200 (2012-2014)
(Jointly with Dr. Ngo Thu Huong, Hanoi National University, Vietnam)

- Korea Research Foundation Grant "*Advanced Magnetocaloric Materials for Magnetic Refrigeration Applications*" Korea: \$300,000 (2011-2014)
(Jointly with Dr. Seong-Cho Yu, Chungbuk National University, South Korea)
- Engineering and Physical Sciences Research Council (EPSRC) Grant "*Magnetic microwire as an alternative to optical fibres for self-monitoring composites*", United Kingdom: \$160,000 (2008 – 2009)
(Jointly with Dr. Hua-Xin Peng, Bristol University, UK)

TEACHING EXPERIENCE

▪ Teaching courses:

"Advances in Pure and Applied Physics" for graduate students at USF (2008 – present):

- Nanomagnetism and Magnetic Nanoparticles
- Functional Nanomaterials for Biomedical Applications
- Giant magnetoimpedance materials: Fundamentals and Applications
- Introduction to Colossal Magnetoresistive Materials
- Magnetocaloric Effect and Magnetic Refrigeration Technology

"Lectures on Materials Physics" for undergraduate students at USF:

- Magnetic Properties of Materials (Fall, 2013)
- Nanobiomagnetism (Fall, 2013)
- Crystalline and Non-crystalline Materials (Fall, 2013)
- Ceramic Materials: Structures and Properties (Spring, 2011)
- Ceramic Materials: Processing and Applications (Spring, 2011)

"Undergraduate Research", "Directed Research" and "Dissertation: Doctoral" for students at USF:

- Dissertation: Doctoral (2017-present)
- Directed Research (2017-present)
- Sensor Technologies, Undergraduate research (Spring 2016; PHY4910.023S16)
- Magnetic Materials and Applications: Part I, Directed research (Spring 2016; PHY7910.023S16)
- Dissertation: Doctoral (Spring 2016; PHY7980.023S16)
- Magnetic Nanoparticles for Biomedical Applications, Undergraduate research (Summer 2016; PHY4910.007U16)
- High-frequency Magnetoimpedance Based Sensors, Undergraduate research (Summer 2016; PHY4910.023U16)
- Magnetic Materials and Applications: Part II, Directed research (Summer 2016; PHY7910.022U16)
- Dissertation: Doctoral (Summer 2016; PHY7980.022U16)
- Magnetic Materials and Applications: Part III, Directed research (Fall 2016; PHY7910.023F16)

- Dissertation: Doctoral (Fall 2016; PHY7980.023F16)
- Magnetic Nanomaterials and Biosensors (*Dissertation: Doctoral*) (Spring 2015; PHY 7980.016S15)
- Spintronic Materials and Applications (Part I) (Spring 2015; PHY 7910.022S15)
- Magnetic Nanomaterials and Biosensors (*Dissertation: Doctoral*) (Fall 2014; PHY 7980.016F14)
- Magnetic Materials: Experimental and Theoretical Aspects (Part III) (Fall 2014; PHY 7910.019F14)
- Magnetic Materials: Experimental and Theoretical Aspects (Part II) (Summer 2014; PHY 7910.023U14)
- Magnetic Materials: Experimental and Theoretical Aspects (Part I) (Spring 2014; PHY 7910.028S14)
- Magnetic Biosensing Technology III (Fall 2013; PHY 7910.028F13)
- Magnetic Biosensing Technology II (Summer 2013 028; PHY 6911.005C13)
- Magnetic Complex Oxides and Nanostructures (Spring 2013 028; PHY 7910.028S13)
- Magnetic Nanomaterials for Biomedical Applications (Spring 2013 028; PHY 7910.028S13)
- Magnetic Biosensing Technology I (Spring 2012 028; PHY 7910.030S12)
- GMI-based Gas and Chemical sensors (Spring 2012 028; PHY 7910.030S12)

MENTORING EXPERIENCE

(Successfully mentored **18 PhD**, **4 MS** and **16 BS students** and **6 postdocs**, as well as **14 REU students**, **9 PhD visiting students** and **5 research scholars**. *The first and only (to date) faculty at USF Physics received the Outstanding Graduate Faculty Mentor Award (HM) of the Year 2018*).

▪ Current postdocs and visiting scholars:

- Dr. Amit Chandra, 2020 – present

▪ Current students:

- Mr. K.Y. Hwang*, Ph.D. student, 2020-present, University of South Florida, USA
- Ms. Nivarthana WYAY Mudiyansele*, Ph.D. student, 2019-present, University of South Florida, USA
- Mr. Sunpun B. Attanayake, Ph.D. student, 2019-present, University of South Florida, USA
- Mr. Derick DeTellem, Ph.D. student, 2019-present, University of South Florida, USA
- Mr. C.M. Hung, Ph.D. student, 2018-present, University of South Florida, USA
- Mr. L.D. Khoa*, Ph.D. student, 2022-present, University of South Florida, USA
- Mr. A. Ojo, Ph.D. student, 2023-present, University of South Florida, USA
- Mr. P. Hewitt, Ph.D. student, 2023-present, University of South Florida, USA

- Mr. Dang Nguyen*, Undergraduate student, 2021-present, University of South Florida, USA
- Ms. Sarah Abdallah*, Undergraduate Research, 2021-present, University of South Florida, USA
- Mr. Alexander Prieto*, Undergraduate Research, 2022-present, University of South Florida, USA
- Mr. Trentin Spears*, Undergraduate Research, 2022-present, University of South Florida, USA
- Ms. Bui Hong Van*, Volunteering researcher, 2023-present, University of South Florida, USA

▪ **Former postdocs and students:**

- Ms. Yen Hai Thi Pham*, Ph.D. dissertation – 2023 ([link to the dissertation](#)), University of South Florida, USA (*She is now a joint postdoc at National Institute of Standards and Technology and George Mason University, USA*)
- Dr. V. Ortiz Jimenez*, Ph.D. dissertation – 2022 ([link to the dissertation](#)), University of South Florida, USA (*She is now a National Research Council (NRC) fellow and works at National Institute of Standards and Technology, USA*)
- Dr. R. Pokharel Madhogaria, Ph.D. dissertation – 2021 ([link to the dissertation](#)), University of South Florida, USA (*She is now a postdoc at the University of Tennessee – jointly with the Oak Ridge National Laboratory, USA*)
- Mr. K.Y. Hwang*, M.S. thesis – 2020 ([link to the thesis](#)), University of South Florida (*He continues as a PhD student in my group at USF*)
- N.T.M. Duc*, Ph.D. dissertation – 2020 ([link to the dissertation](#)), jointly with Prof. H.T. Ngo of University of Natural Sciences – VNU, Vietnam (*She is now a lecturer of Danang University of Education, Vietnam*)
- Dr. E. Clements, PhD dissertation - 2019 ([link to the dissertation](#)), University of South Florida, USA (*She is now a permanent staff at National Institute of Standards and Technology - NIST*)
- Dr. O. Thiabgoh*, PhD dissertation - 2018 ([link to the dissertation](#)), University of South Florida (*He is now an Assistant Professor of Ubon Ratchathani University, Thailand*)
- Dr. T. Eggers*, PhD dissertation – 2018 ([link to the dissertation](#)), University of South Florida (*She is now an adjunct faculty at University of South Florida*)
- Dr. V. Kalappattil, PhD dissertation - 2018 ([link to the dissertation](#)), University of South Florida (*He is now a senior scientist at Northeastern University*)
- Dr. L. Dao*, Ph.D. dissertation – 2018 ([link to the dissertation](#)), jointly with Prof. H.T. Ngo of University of Natural Sciences – VNU, Vietnam (*He is now a permanent researcher at Institute of Materials Science, Vietnam*)
- Dr. J. Sida*, Ph.D. dissertation – 2018 ([link to the dissertation](#)), jointly with Prof. J.F. Sun at HIT (*He is now a research scientist at HIT, China*)

- Dr. H.X. Shen*, Ph.D. dissertation – 2017 ([link to the dissertation](#)), jointly with Prof. J.F. Sun at HIT (*He is now an Associate Professor at HIT, China*)
- Dr. K. Stojak, PhD dissertation - 2016 ([link to the dissertation](#)), University of South Florida (*She is now an Assistant Professor at the Department of Physics, SUNY Brockport, USA*)
- Dr. H. Belliveau*, PhD dissertation - 2016 ([link to the dissertation](#)), University of South Florida (*She is now a Senior Systems Engineer at Lockheed Martin Missiles and Fire Control Division, Orlando, USA*)
- Dr. Z. Nemati Porshokouh, PhD dissertation - 2016 ([link to the dissertation](#)), University of South Florida (*She currently works at Bio company, USA*)
- Dr. J. Devkota*, PhD dissertation - 2015 ([link to the dissertation](#)), University of South Florida (*He is now a permanent scientist at National Energy Technology Laboratory, USA*)
- Dr. P. Lampen, PhD dissertation - 2015 ([link to the dissertation](#)), University of South Florida (*She currently works at an insurance company, USA*)
- Dr. N. Bingham, PhD dissertation - 2013 ([link to the dissertation](#)), University of South Florida (*He is now an Assistant Professor at the University of Main, USA*)
- Dr. A. Chaturvedi, PhD dissertation - 2011 ([link to the dissertation](#)), University of South Florida (*He now works in Thermo-Plasma Company, FL, USA*)
- Mr. B. Casas, MS thesis - 2015 ([link to the thesis](#)), University of South Florida (*He is now a postdoc researcher at MagLab, FL, USA*)
- Ms. K. Stojak, MS thesis - 2012 ([link to the thesis](#)), University of South Florida (*She is now an Assistant Professor at SUNY Brockport, USA*)
- Mr. Yasif Rahman*, B.S. honor thesis - 2022 ([link to the thesis](#)), University of South Florida (*He currently works at a company, USA*)
- Ms. Enya Silva*, Undergraduate student, 2019-2021, University of South Florida, USA (*He is now a PhD student at USF*)
- Mr. J. Cardarelli*, B.S. honor thesis - 2018 ([link to the thesis](#)), University of South Florida (*He obtained a PhD degree from Michigan State University, USA*)
- Ms. S. Beyley*, High School Research, 2017-2018, University of South Florida, USA
- Ms. D. Israel*, B.S. honor thesis - 2016 ([link to the thesis](#)), University of South Florida (*She is now a PhD student at UCF, USA*)
- Mr. R. Singh*, B.S. honor thesis - 2015 ([link to the thesis](#)), University of South Florida (*He obtained a PhD degree at USF medicine*)
- Mr. C. Witanachchi*, Undergraduate Research, 2016-2018, University of South Florida (*He currently works at a company, USA*)
- Mr. A. Galati*, Undergraduate Research, 2015-2016, University of South Florida (*He obtained a Ph.D. degree from New York University, USA*)
- Ms. A. Stephan*, Undergraduate Research, 2016, University of South Florida (*She now works in a company, USA*)

- Dr. B. Muchharla, Postdoctoral researcher, 2020 – 2021, University of South Florida (*He is now a postdoctoral researcher at Elizabeth City State University, USA*)
- Dr. E. Clements, Postdoctoral researcher, 2019 – 2020, University of South Florida (*She is now a permanent staff at NIST, USA*)
- Dr. V. Kalappattil, Postdoctoral researcher, 2018 – 2019, University of South Florida (*He is now a senior scientist at Northeastern University*)
- Dr. R. Das, Postdoctoral researcher, 2014 – 2018, University of South Florida (*He is now an Assistant Professor at Phenikaa University, Vietnam*)
- Dr. J. Alonso, Postdoctoral researcher, 2014 – 2016 (*funded by Basque government*) University of South Florida (*He is now an Associate Professor at the Universidad de Cantabria, Spain*)
- Dr. A. Khurshid, Postdoctoral researcher, 2011 – 2015, University of South Florida (*She is now an Assistant Professor at Sharjah University*)
- Ms. T. Tran*, Undergraduate research, 2012-2014, University of South Florida (*She is now a PhD student at USF Engineering, USA*)
- Dr. S. Chandra, Postdoctoral researcher, 2013-2014, University of South Florida (*He is now an Assistant Professor at Appalachian State University, USA*)
- Mr. J. Wingo, Undergraduate Research, 2011-2014, University of South Florida (*He received a MS degree from University of California – Irvine in 2016 and now works for Spectrum Scientific, Inc.*)
- Dr. A. Biswas, Postdoctoral researcher, 2011 – 2013, University of South Florida (*He now a permanent staff at Ames Laboratory, USA*)
- Mr. A. Ruiz, Undergraduate Research, 2011-2013, University of South Florida (*He obtained a PhD degree from the University of California – Berkeley*)
- Mr. N. Laurita, Undergraduate Research, 2009-2011, University of South Florida (*He obtained a PhD degree at Johns Hopkins University in 2017 and now works as an Institute for Quantum Information and Matter Postdoctoral Fellow at The California Institute of Technology, USA*)

▪ **Former visiting scholars, PhD and REU students:**

- Mr. Y. Wang (visiting PhD student, fellowship), November 15, 2019- November 15, 2020, Zhejiang University, China (*He is now a postdoc at ZU*)
- Dr. X. Moya, *Visiting Professor*, December 13, 2018, to January 6, 2019, Department of Materials Science & Metallurgy, University of Cambridge, UK (*He is now a Research Fellow at UC, UK*)
- Mr. F. Andrejka*, Visiting Ph.D. student (funded by Slovak government), January 1 – April 1, 2018 (*He is now a Research Scientist at Institute of Experimental Physics, Kosice, Slovakia*)
- Ms. N.T.M. Duc*, Visiting PhD student, July 7, 2017-January 9, 2018, Hanoi University of Science, Vietnam (*She is a PhD student at HUS*)

- Mr. S. Jiang*, Visiting Ph.D. student (funded by Chinese government), 12/2016-12/2017, Harbin Institute of Technology, China (*He is now a Research Scientist at HIT, China*)
- Ms. Addi Hornsey, REU student, June 1 – August 1, 2021, University of South Florida, USA
- Ms. Enya Silva*, REU student, June 1 – August 1, 2019, University of South Florida, USA
- Ms. Baylee Senator*, REU student, June 1 – August 1, 2019 (funded by NSF-USF Physics)
- Mr. Jack Poler*, REU student, June 1 – August 1, 2018 (funded by NSF-USF Physics)
- Ms. E. Fuller, REU student, June 1 – August 1, 2018 (funded by NSF-USF Physics)
- Ms. Claire Albrecht* REU student, June 1 – August 1, 2017 (*funded by NSF-USF Physics*), St. Lawrence University
- Ms. Caroline Collins, REU student, June 1 – August 1, 2017 (*funded by NSF-USF Physics*), Bob Jones University
- Dr. Javier Alonso, Research Fellow (*funded by Spanish government*) December 2014 – December 2016, Spain
- Ms. M. Lassell, REU student, June 1 – August 1, 2016 (*funded by NSF-USF Physics*), University of Scranton, USA
- Ms. D. Honstain*, REU student, June 1 – August 1, 2016 (*funded by NSF-USF Physics*), Highline College, Des Moines, WA, USA
- Dr. N. Rinaldi, Visiting PhD student, September-December 2015 (*funded by Spanish government*), University of Oviedo, Spain
- Dr. H.X. Shen (*), Visiting Ph.D. student (funded by Chinese government), 10/2014-10/2015, Harbin Institute of Technology, China (*He is now a research scientist at HIT, China*)
- Ms. E. Vila*, REU student, June 1 – August 1, 2015 (*funded by NSF-USF Physics*), Baker University, USA
- Ms. V. Ortiz Jimenez*, REU student, June 1 – August 1, 2015 (*funded by NSF-USF Physics*), University of Puerto Rico at Mayagüez
- Ms. D. Torres*, REU student, June 1 – August 1, 2015 (*funded by NSF-USF Physics*), Texas State University, USA
- Dr. A. Talaat*, Visiting PhD student, 03 – 06/2015 (*funded by Spanish government*), University of the Basque Country, Spain
- Mr. J. Cruz Vargas, Visiting M.S. student (*funded by Mexican government*), 03-06/2015-present, Instituto de Investigacion en Materials, Mexico
- Dr. X.L. Hou*, Visiting Scientist, 03/2014-03/2015 (*funded by Chinese government*), Shanghai University, China (*She is an Associate Professor of Engineering Materials at SU*)

- Mr. L. Dao*, Visiting PhD student, 07-12/2014 (*funded by Vietnamese government*), Hanoi University of Science, Vietnam (*He is a PhD student at HUS*)
- Ms. I. Berman*, REU student, June 1 – August 1, 2014 (*funded by NSF-USF Physics*), Beloit College, USA (*She is a PhD student at University of Colorado Boulder, USA*)
- Mr. L. Martinez, REU student, June 1 – August 1, 2014 (*funded by NSF-USF Physics*), University of Puerto Rico
- Dr. O. Iglesias, Visiting scientist, July 8 – August 7, 2013, Dpt. Fisica Fonamental, University of Barcelona, Spain (*He is an Associate Professor of Physics at UB*)
- Dr. P. Zhang*, Visiting PhD student, Jan. 20-Feb. 11, 2013, Chungbuk National University, South Korea
- Dr. F. Qin*, Visiting scientist, December 10-28, 2012, University of Bristol, United Kingdom (*He is now a Research Professor of Zhejiang University, China*)
- Mr. Y.Y. Yu*, Visiting researcher, October 1 – April. 30, 2013, LG, South Korea (*He is now a PhD student of Yonsei University*)
- Dr. D.T.M. Hue*, Visiting PhD student, July – October 2012 (*funded by Vietnamese government*), Hanoi University of Science and Technology, Vietnam (*She is a lecturer of HUST*)
- Dr. H.T. Ngo, Visiting scientist, June-August 2011, Hanoi National University, Vietnam (*She is an Associate Professor of Physics at HNU*)
- Dr. R. Caballero-Flores, Visiting scientist, July-October 2011, Universidad de Sevilla, Spain (*He is now a postdoctoral researcher at Lieu, France*)
- Ms. R. Sheldon, REU student, June-August 2011, College of Maryland, USA
- Dr. A.I. Figueroa, Visiting PhD student, April-July 2010, Universidad de Zaragoza, Spain (*She is now a Postdoctoral Researcher at Diamond Light Source, UK*)

▪ **Other advisory activities:**

- Dr. D.T.M. Hue*, PhD dissertation, Hanoi University of Science and Technology, Vietnam (2012 - 2015)
- Dr. S. Chandra, PhD dissertation, University of South Florida, USA (2009-2013)
- Dr. F. Qin*, PhD dissertation, Bristol University, UK (2007-2010)
- Dr. M. Morales, MS thesis, University of South Florida, USA (2007-2009)
- Mr. N.D. Tho*, BS thesis, Hanoi National University, Vietnam (2000 – 2001)

(*Major advisor, otherwise, equally co-supervised)

DISSERTATION/THESIS EXAMINATION COMMITTEES:

- Ms. Y.H.T. Pham, PhD dissertation, 2023 (*Single Major Professor*)
- Ms. V. Ortiz Jimenez, PhD dissertation, 2022 (*Single Major Professor*)
- Mr. K.Y. Hwang, MS thesis, 2020 (*Single Major Professor*)
- Mr. O. Thiabgoh, PhD dissertation, 2018 (*Single Major Professor*)

- Ms. H. Belliveau, PhD dissertation, 2016 (*Single Major Professor*)
- Ms. T. Eggers, PhD dissertation, 2018 (*Major Professor*)
- Mr. J. Devkota, PhD dissertation, 2015 (*Major Professor*)
- Ms. R. Pokharel Madhogaria, PhD dissertation, 2021 (*Equal Co-Major Professor*)
- Ms. E. Clements, PhD dissertation, 2019 (*Equal Co-Major Professor*)
- Mr. V. Kalappattil, PhD dissertation, 2018 (*Equal Co-Major Professor*)
- Ms. Z. Nemati Porshokouh, PhD dissertation, 2016 (*Equal Co-Major Professor*)
- Ms. K. Stojak, PhD dissertation, 2016 (*Equal Co-Major Professor*)
- Ms. P. Lampen, PhD dissertation, 2015 (*Equal Co-Major Professor*)
- Mr. N. Bingham, PhD dissertation, 2013 (*Co-Major Professor*)
- Mr. A. Chaturvedi, PhD dissertation, 2011 (*Co-Major Professor*)
- Mr. B. Casas, MS thesis, 2015 (*Equal Co-Major Professor*)
- Ms. K. Stojak, MS thesis, 2012 (*Co-Major Professor*)
- Ms. Yu Yan, PhD dissertation, 2022 (*Chair*)
- Ms. C. Kons, PhD dissertation, 2022 (*Committee Member*)
- Mr. M. Bonilla, PhD dissertation, 2020 (*Committee Member*)
- Mr. D. Mateo-Feliciano, PhD dissertation, 2018 (*Committee Member*)
- Mr. J. Gass, PhD dissertation, 2012 (*Committee Member*)
- Mr. T. Wangenstein, PhD dissertation, 2012 (*Committee Member*)
- Mr. Christopher Bauer, MS thesis, 2011 (*Committee Member*)
- Mr. Phan Anh, MS thesis, 2012 (*Committee Member*)
- Mr. S. Chandra, PhD dissertation, 2013 (*Committee Member*)
- Mr. G. Marcus MS thesis, 2014 (*Committee Member*)
- Ms. T. Eggers, MS thesis, 2014 (*Committee Member*)
- Ms. C. Kons, MS thesis, 2015 (*Committee Member*)
- Mr. Michael Schaefer, PhD dissertation, 2015 (*Committee Member*)
- Mr. Nam Le, PhD dissertation, 2016 (*Committee Member*)
- Mr. Hai Tran, PhD dissertation, 2016 (*Committee Member*)
- Mr. M. Hordagoda, PhD dissertation, 2017 (*Committee Member*)
- Mr. K. Bhattari, PhD dissertation, 2017 (*Committee Member*)
- Mr. C. Hettiarachchi, PhD dissertation, 2017 (*Committee Member*)
- Mr. D. Denmark, PhD dissertation, 2017 (*Committee Member*)
- Mr. S. Izadi, PhD dissertation, 2016 (*Chair*)
- Ms. Trang T. Nguyen, PhD dissertation, 2018, Ecole Normale Supérieure Paris Saclay, France (*International Committee Member*)
- Mr. K. Sakthiraj, PhD dissertation, 2018, Anna University, India (*International Adjudicator*)

- Ms. Gnana Praveena Nethala, PhD dissertation, 2017, Andhra University, India (*International Adjudicator*)
- Mr. A.V. Naga Vamsi, PhD dissertation, 2017, Andhra University, India (*International Adjudicator*)
- Mr. R. Kumar, PhD dissertation, 2016, Jaypee University of Information Technology, India (*International Adjudicator*)
- Mr. V. Naveen Kumar, PhD dissertation, 2016, VIT University, India (*International Adjudicator*)
- Mr. P. Puri, PhD dissertation, 2015, Thapar University, India (*International Adjudicator*)
- Mr. K. Ankush, PhD dissertation, 2014, Jaypee University of Information Technology, India (*International Adjudicator*)
- Mr. Kaustuv Manna, PhD dissertation, 2013, Indian Institute of Science, Bangalore, India (*International Adjudicator*)
- Mr. Chanchal Sow, PhD dissertation, 2013, Indian Institute of Science, Bangalore, India (*International Adjudicator*)
- Mr. Ramesh Singampalli, PhD dissertation, 2013, Andhra University, India (*International Adjudicator*)
- Mr. D. Tirupathi Swamy, PhD dissertation, 2012, Andhra University, India (*International Adjudicator*)
- Mr. Venkateswararao Alaparathi, PhD dissertation, 2012, Andhra University, India (*International Adjudicator*)
- Mr. K. Venkata Lakshmi Narayana, PhD dissertation, 2012, Andhra University, India (*International Adjudicator*)

STUDENT AND POSTDOC AWARDS:

- PhD student, Ms. Nivarthana WYY Mudiyansele, won a highly competitive travel grant to attend the 2023 IEEE Magnetics Society Summer School in Bari, Italy.
- PhD student, Ms. Valery Ortiz Jiménez, won *The Outstanding Dissertation Award of the Year 2022 from the American Physical Society Topical Group on Magnetism (GMAG)*: <https://engage.aps.org/gmag/honors/prizes-awards/outstanding-dissertation-in-magnetism-awards>
- PhD student, Mr. Sunpun B. Attanayake, won a highly competitive travel grant to attend the MMM conference, October 31 to November 4, 2022, Minnesota, USA.
- Undergraduate student, Dang Nguyen, won *The Best Poster Award* at The International Conference Nanobiotechnology, April 22-24, 2022, USA.
- Graduate student, Yen Pham, won a highly competitive travel grant to attend the MMM-Intermag Conference, Jan 10-14, 2022, USA.

- REU student, Addi Hornsey, won an NSF-USF travel grant for attending the APS March Meeting, 2022.
- Graduate student, Chang-Ming Hung, won *The Best Poster Award* at the Annual MMM Conference, November 4-8, 2019, Las Vegas, Nevada, USA.
- Graduate student, Valery Ortiz Jimenez, won a highly competitive Travel Award for attending the Annual MMM Conference, November 4-8, 2019, Las Vegas, Nevada, USA.
- Postdoc, Dr. Vijay Kalappattil, won *the Best Poster Award* at The Joint MMM-Intermag Conference, January 14-18, 2019, Washington DC, USA.
- Undergraduate student, Jason Cardarelli, won *the Best Oral Presentation Award* from the American Physical Society Meeting, Los Angeles, California, March 5-9, 2018.
- Graduate student, Eleanor Clements, won *the GMAG-APS Student Travel Award* to attend the American Physical Society Meeting, Los Angeles, California, March 5-9, 2018.
- Graduate student, Tatiana Eggers, won *NASA Florida Space Grant Consortium (FSGC) Award*, 2017.
- REU student, Megan Glassell, won *The Best Oral Presentation Award*, The APS March Meeting, March 13-17, 2017.
- Undergraduate student, Israel Deborah, won *The Best Oral Presentation Award*, The APS Conference for Undergraduate Women in Physics, 2016.
- REU student, Evelyn Vila, won *The Best Oral Presentation Award*, The APS March Meeting, March 13-18, 2016.
- Graduate student, Kristen Stojak, won *The Best Poster Award*, The 61st Annual Magnetism and Magnetic Materials (MMM) Conference, October 31 - November 4, 2016, New Orleans, Louisiana, USA.
- Graduate student, Eleanor Clements, won *a Travel Grant*, The IEEE Magnetics Society Summer School, Universidad Internacional Menendez Pelayo in Santander, Spain, June 19-23, 2017.
- Graduate student, V. Kalappattil, won *a Travel Grant* to attend the IEEE Magnetic Society Summer School, Tohoku, Japan, 2016.
- REU student, Megan Glassell, won *an USF-NSF travel award* to attend and present her work at the APS March Meeting 2017.
- REU students (Valery Ortiz Jimenez, David Torres, and Evelyn Vila) won *NSF-USF Travel Awards* to attend and present their research at the American Physical Society Meeting, Baltimore, MD, March 14-18, 2016.
- Ms. K. Stojak, *NASA Florida Space Grant Consortium (FSGC) Award*, 2015.
- Mr. B. Casas, *GMAG-APS Student Travel Award*, the American Physical Society Meeting, San Antonio, TX, March 2-6, 2015.
- Mr. J. Devkota, *EMN Fall Meeting Best Poster Award*, Orlando, Florida, USA, November 22-25, 2014; *IEEE Magnetics Society Summer School Travel Award*, Rio

- de Janeiro, Brazil, August 10-16, 2014; *GMAG-APS Student Travel Award*, The American Physical Society Meeting, Baltimore, Maryland, March 18-22, 2013.
- Dr. J. Alonso, *Best Poster Award*, The 59th Annual Conference on Magnetism and Magnetic Materials, Hawaii, USA, November 3-7, 2014.
 - Ms. K. Stojak, *59th Conference on Magnetism and Magnetic Materials (MMM) Travel Award*, Honolulu, Hawaii, USA, November 3 - 7, 2014; Ms. K. Stojak, *Best Poster Presentation Award*, The NanoFlorida Conference, USF, Sept. 2012.
 - Ms. I. Berman, *USF-REU Travel Award to the APS March Meeting*, San Antonio, Texas, March 2 – 6, 2015.
 - Mr. J. Wingo, *PhD Fellowship in Physics from University of California - Irvine*, 2014; *USF-REU Travel Award to the APS March Meeting*, Denver, Colorado, March 3 – 7, 2014.
 - Ms. T. Luong, one of the 10 New Faces of Civil Engineering in 2014 selected by the American Society of Civil Engineers (ASCE) and featured in ASCE news.
 - Mr. A. Ruiz, *Best Poster Presentation Award*, The NanoFlorida Conference, USF, Sept. 2012; *Full support to attend Summer School in Magnetism and Magnetic Materials*, National High Magnetic Field Laboratory, Tallahassee, FL (Jul. 2012); *The Prestigious Berkeley Chancellor's Fellowship* from University of California – Berkeley in 2013 and *The National Science Foundation (NSF) Graduate Research Fellowship* in 2014. [Featured in USF news](#) and [Tampa Bay TV news](#).
 - Mr. N. Bingham, *Travel Grant Award*, The 2nd Annual IEEE Magnetics Society Summer School (Sept 20-25, 2009), Nanjing, China; *Travel Grant Award*, 1st Centennial of Superconductivity: Trends on Nanoscale Superconductivity and Magnetism International Workshop (June 28-July 1, 2011), California, Colombia, USA; *Postdoctoral Fellowship of the Paul Scherrer Institute*, 2013, Switzerland; *National Research Council (NRC) Fellowship*, 2016.
 - Ms. P. Lampen, *NSF Travel Grant Award*, The 2011 IEEE Magnetics Society Summer School (May 22-28), New Orleans, LA, USA.
 - Mr. N. Laurita received the *PhD fellowships* from Johns Hopkins University and Carnegie Mellon University, 2011.
 - Mr. A. Chaturvedi, *Fred L & Helen M Tharp Endowed Scholarship Fund Graduate Award*, USF (2010, 2011); *Frank Duckwall fellowship -Applied Physics* – USF (2010); *USF Student Government Travel Award* (2009, 2010, 2011).

HOST AND ORGANIZER FOR PHYSICS COLLOQUIUM AND SPECIAL SEMINARS:

- Prof. Dr. Mathias Kläui, Institute of Physics, Johannes Gutenberg-University Mainz, Germany August 16-18, 2022
- Prof. Chris Leighton, Distinguished McKnight University Professor, University of Minnesota, November 21-23, 2019

- Prof. Vu Dinh Lam, Rector, Graduate University of Science and Technology (GUST), Vietnam Academy of Science and Technology (VAST), October 11-19, 2019
- Prof. Le Anh Tuan, Director of Nano Institute, Phenikaa University, October 11-19, 2019
- Dr. Xavier Moya, Department of Materials Science & Metallurgy, University of Cambridge, United Kingdom, December 13, 2018 to January 6, 2019
- Prof. Nguyen Hoang Luong, Center for Nano and Energy, Vietnam National University, Hanoi, Vietnam, September 19 to October 10, 2018
- Prof. John J. Neumeier Physics Department, Montana State University, Bozeman, Montana, April 12-13, 2018
- Dr. Gopi Balasubramanian, Max-Planck Institute of Biophysical Chemistry, Göttingen, Germany, December 1, 2017
- Dr. Nguyen Duc Giang, Oak Ridge National Laboratory, Oak Ridge, Tennessee, November 2, 2017
- Dr. Michael Osofsky, Naval Research Laboratory, October 24-26, 2017
- Prof. Ngoc Diep Lai, Quantum and Molecular Photonics Laboratory (LPQM) and Physics Department, Ecole Normale Supérieure de Cachan, February 5-9, 2017
- Prof. Sang-Wook Cheong, Department of Physics and Astronomy Rutgers, The State University of New Jersey, January 26-28, 2017
- Prof. Sara A. Majetich, Carnegie Mellon University, January 19-21, 2017
- Prof. Turgut Meydan, Wolfson Centre for Magnetism, School of Engineering, Cardiff University, Cardiff, UK, October 27-29, 2016
- Prof. A.K. Raychaudhuri, Unit for Nanoscience and Theme unit of Excellence in Nanodevices, S.N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata, India, June 2-4, 2016
- Dr. Davide Peddis, Institute of Structure of Matter, Rome, Italy, June 8 - 12, 2016
- Prof. Lionel Vayssieres, International Research Center for Renewable Energy, School of Energy & Power Engineering, Xi'an Jiaotong University, Xi'an 710049, PR China, April 21, 2016
- Prof. Katayun Barmak, Department of Applied Physics and Applied Mathematics, Columbia University, April 7-8, 2016
- Dr. Xavier Moya, Department of Materials Science & Metallurgy, University of Cambridge, United Kingdom, January 14-20, 2016.
- Prof. Aleksandr S. Kamzin, Ioffe Physico-Technical Institute of the Russian Academy of Sciences, July 29- July 2, 2015

- Dr. José Luis Sánchez Llamazares, Instituto Potosino de Investigacion Cientifica y Tecnologica, Mexico (May 1-10, 2015)
- Prof. Do Hung Manh, Institute of Materials Science, Vietnam (April 25-28, 2015)
- Prof. Tran Dai Lam, Graduate University of Science and Technology, Institute of Materials Science, Vietnam (April 25-28, 2015)
- Prof. Bethanie J. Hills Stadler, University of Minnesota, USA (February 26-27, 2015)
- Prof. Pedro Gorria, University of Oviedo, Spain (November 26 – 27, 2014)
- Prof. Dong-Hyun Kim, Chungbuk National University, South Korea (November 26 – 27, 2014)
- Dr. Ioanna Giouroudi, Vienna University of Technology, Austria (November 26 – 27, 2014)
- Prof. Tho Nguyen, The University of Georgia, USA (November 26 – 27, 2014)
- Prof. David Mandrus, The University of Tennessee, USA (September 11 – 13, 2014)
- Prof. Manuel Vázquez, Institute of Materials Science of Madrid, CSIC, Spain (November 8 – 12, 2013)
- Prof. Oscar Iglesias, Dpt. Fisica Fonamental, University of Barcelona, Spain (July 8 – August 7, 2013)
- Prof. Huynh Dang Chinh, Department of Chemistry, Hanoi University of Science and Technology, Vietnam (June 12, 2013)
- Dr. Binh Duong, NanoScience Technology Center, University of Central Florida, USA (June 4, 2013)
- Dr. Faxiang Qin, Advanced Composites Centre for Innovation and Science, University of Bristol, United Kingdom (December 10-28, 2012)
- Prof. Nguyen TK Thanh, Department of Physics & Astronomy, University College London, Gower Street, London, WC1E 6BT, United Kingdom (March 21-24, 2012)
- Prof. Arkady Zhukov, IKERBASQUE, Basque Foundation for Science, 48011 Bilbao, Spain (May 16-18, 2012)
- Prof. Nguyen Xuan Phuc, Institute of Materials Science, Vietnam Academy of Science and Technology, 18 Hoang Quoc Viet, Hanoi, Vietnam (September 19-21, 2012)
- Prof. Seong-Cho Yu, Department of Physics, Chungbuk National University, South Korea (October 7-10, 2012)

RESEARCH COLLABORATORS (*alphabetical order*):

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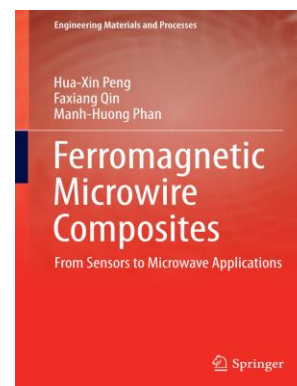
PATENTS:

- “*Novel Magneto-LC Resonance Technology for Real-Time Respiratory Motion Monitoring*,” (US 11,607,154 B2 - granted; [Link to Patent](#)) **M.H. Phan**, O. Thiabgoh, and T. Eggers.
- “*Real-Time Monitoring of Coronavirus Progress using Magnetic Sensing and Machine Learning*,” (US20210369137A1 - approved; [Link to Patent](#)) **M.H. Phan**, K.Y. Hwang, V. Ortiz Jimenez, B. Muchharla.
- “*A Magnetic Music Therapy for Covid-19 Patients*,” **M.H. Phan**, D. Nguyen, K.Y. Hwang, and Y. Rahman (US Patent, pending)
- “*Superparamagnetic polycrystalline nanoparticles for magnetic hyperthermia*,” R. Randall Lee, M.D. Nguyen, **M.H. Phan**, and S.B. Attanayake (US Patent, pending)

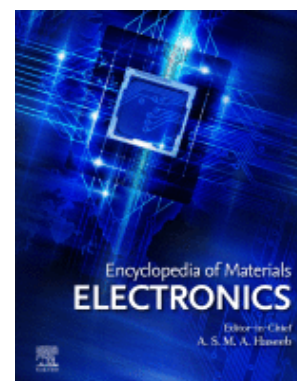
Publications by Manh-Huong Phan (M.H. Phan)

I. Books:

1. H.X. Peng, F. Qin, **M.H. Phan***, [Ferromagnetic Microwire Composites: From Sensors to Microwave Applications](#), published by Springer International Publishing - 2016, ISSN: 1619-0181 (200 pages).

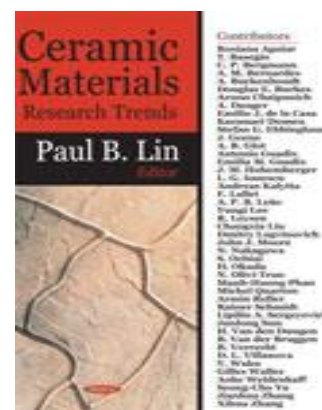


2. **M.H. Phan***, Section Editor for "*Magnetic, Spintronic, and Superconducting Materials*" in [Encyclopedia of Materials: Electronics](#), Elsevier Publisher - 2023, ISSN: 978-0-12-819735-6

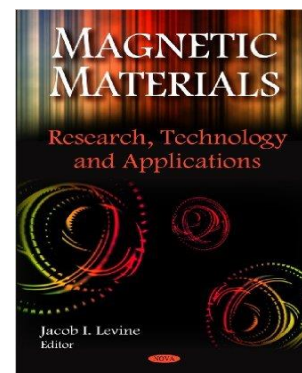


II. Book chapters:

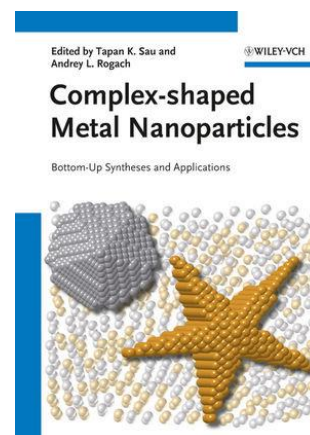
1. **M.H. Phan*** and S.C. Yu, [Magnetoresistance, Magnetoimpedance and Magnetocaloric Phenomena in Ferromagnetic Manganites](#), in **Ceramic Materials Research Trends**, published by Nova Science Publishers – 2007, ISBN: 1-60021-769-9, Chapter 2, pp. 43 - 76.



2. M.H. Phan*, [Recent Advances and Future Directions in Giant Magnetoimpedance Materials](#), in **Magnetic Materials: Research, Technology and Applications**, published by Nova Science Publishers – 2009, ISBN: 978-1-60692-145-6, Chapter 1, pp. 1 - 75.



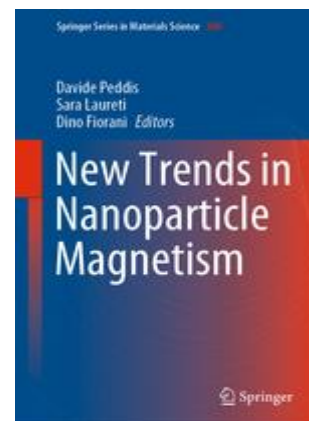
3. K. Stojak, H. Srikanth, P. Mukherjee, M.H. Phan* and N.T.K. Thanh, [Size- and Shape-Variant Magnetic Metal and Metal Oxide Nanoparticles: Synthesis and Properties](#), in **Complex-Shaped Metal Nanoparticles**, (2012) Ed Tapan K. Sau and Andrey L. Rogach. Wiley, Chapter 5, pp. 1-34.



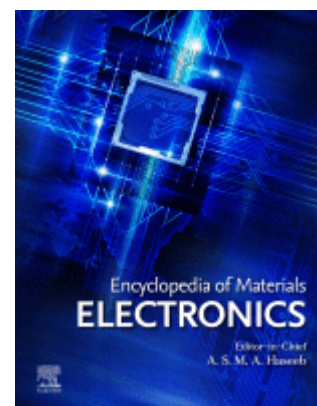
4. R. Singh (Undergraduate), J. Alonso, J. Devkota, and M.H. Phan*, [Soft Ferromagnetic Microwires with Excellent Inductive Heating Properties for Clinical Hyperthermia Applications](#), in **High Performance Soft Magnets**, (2017) Ed Arkady Zhukov, Springer International Publishing, Chapter 7, pp. 1-25.



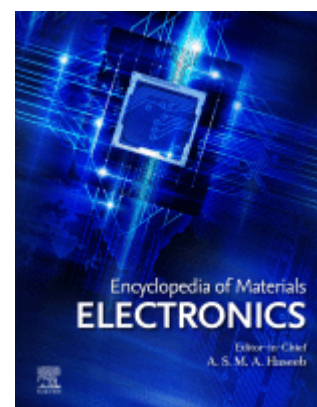
5. H. Khurshid, Z. Nemati, Ó. Iglesias, J. Alonso, **M.H. Phan**, and H. Srikanth, [Hollow Magnetic Nanoparticles](#), in New Trends in Nanoparticle Magnetism, 2021 Ed by Peddis, Davide, Laureti, Sara, Fiorani, Dino, Chapter 6, 137-158



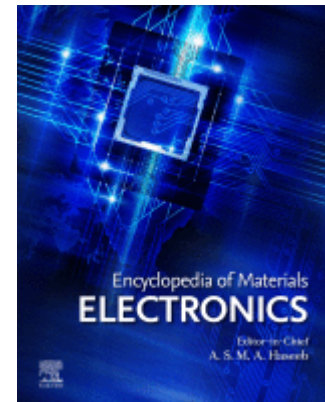
6. C.M. Hung, A. Chanda, H. Srikanth, **M.H. Phan***, [Spin Orbit Torque Based Devices: Concepts, Progress, and Perspectives](#), Encyclopedia of Materials: Electronics, Elsevier Publisher, 2023



7. D.P. Kozlenko, T.L. Phan, **M.H. Phan**, N.T. Dang, [Multifunctional Magnetic Oxides: Neutron Diffraction Studies](#), Encyclopedia of Materials: Electronics, Elsevier Publisher, 2023



8. **M.H. Phan***, [Introduction: New Research Trends in Magnetism and Magnetic Technologies](#), in Encyclopedia of Materials: Electronics, Elsevier Publisher, 2023



III. Review papers:

1. **M.H. Phan*** and S.C. Yu, Review of the Magnetocaloric Effect in Manganite Materials, *Journal of Magnetism and Magnetic Materials* - 2007, Vol. 308, pp. 325-340 (IF=3.046; C=1953 – Top 25 hottest articles in 2007 & [The most cited article of the year 2012 in this journal](#))
2. **M.H. Phan*** and H.X. Peng, Giant Magnetoimpedance Materials: Fundamentals and Applications, *Progress in Materials Science* – 2008, Vol. 53, pp. 323-420 (IF=44.216; C=1000 – Top 25 hottest articles in 2007 & [The top 10 most cited article in the 2008 - 2013](#))
3. L.A. Tuan and **M.H. Phan**, Advanced Magnetic Microwires as Sensing Elements for LC-Resonant-Type Magnetoimpedance Sensors: A Comprehensive Review, *Journal of Superconductivity and Novel Magnetism* – 2012, Vol. 25, pp. 181–195 (IF=1.142; C=7)
4. **M.H. Phan***, J. Alonso, H. Khurshid, P. Lampen-Kelley, S. Chandra, K. Stojak Repa, Z. Nemati, R. Das, Ò. Iglesias, and H. Srikanth, Exchange Bias Effects in Iron Oxide Based Nanoparticle Systems, *Nanomaterials* - 2016, Vol. 6, pp. 221 (IF=5.44; C=154) ([One of the most cited articles in the journal](#))
5. D.J. Denmark, X. Bustos-Perez, A. Swaine, **M.H. Phan**, S. Mohapatra, and S.S. Mohapatra Readiness of Magnetic Nanobiosensors for Point-of-Care Commercialization *Journal of Electronic Materials* - 2019, Vol. 48, pp. 4749-4761 (IF=1.676; C=28)
6. Shyam S. Mohapatra, **M.H. Phan**, et al.,
Advances in Translational Nanotechnology: Challenges and Opportunities
Applied Sciences - 2020, Vol. 10, pp. 4881 (18 pages) (IF=2.474; C=6)
7. G. Lavorato, R. Das, J.A. Masa, **M.H. Phan**, and H. Srikanth
Hybrid magnetic nanoparticles as efficient nanoheaters in biomedical applications
Nanoscale Advances - 2021, Vol. 3, pp. 867 (IF=7; C=48)
8. **M.H. Phan***, M.T. Trinh, T. Eggers, V. Kalappattil, L. Woods, and M. Terrones
A Perspective on Two-dimensional van der Waals Opto-Spin-Caloritronics

Applied Physics Letters - 2021, Vol. 119, pp. 250501 (**IF=3.971; C=12**). This article introduces a new research field named [Opto-Spin-Caloritronics](#).

9. V. Ortiz Jimenez, K.Y. Hwang, D. Nguyen, Y. Rahman, C. Albrecht, O. Thiabgoh, J. Devkota, B.D.A. Vinh, D.S. Lam, T. Eggers, and **M.H. Phan***
Magnetoeimpedance Biosensors and Real-Time Healthcare Monitors: Progress, Opportunities, and Challenges
Biosensors 2022, Vol. 15, pp. 217 (**IF=5.743; C=19**)

10. **M.H. Phan***, V. Kalappattil, V. Ortiz Jimenez, Y.T.H. Pham, N.W.Y.A.Y. Mudiyansele, D. Detellem, C.M. Hung, A. Chanda, and T. Eggers
Exchange Bias and Interface-related Effects in Two-dimensional van der Waals Magnetic Heterostructures: Open Questions and Perspectives
Journal of Alloys and Compounds 2023, Vol. 937, pp. 168375 (**IF=6.371; C=14**)

11. H.X. Shen, N.T.M. Duc, H. Belliveau, L. Luo, Y.F. Wang, J.F. Sun, F.X. Qin, and **M.H. Phan***,
Advanced magnetocaloric microwires: What does the future hold?
Vietnam Journal of Science, Technology and Engineering 2023, Vol. 65, pp. 14-24.

12. V.O. Jimenez, Y.T.H. Pham, D. Zhou, M.Z. Liu, V. Kalappattil, T. Eggers, K. Hoang, D.L. Duong, M. Terrones, and **M.H. Phan***, Transition Metal Dichalcogenides: Making Atomic-Level Magnetism Tunable with Light at Room Temperature, *Advanced Science* 2023, 2304792 (**IF=17.4; C=0**)

IV. Peer-reviewed journal papers:

(Note: *Leading & corresponding author = **246** (out of **342** ISI publications); **h-index** = **63**; total citations = **15,800**; Impact factor = **IF**; Citation = **C**; data collected on December 28, 2023 from [Google Scholar](#); Students and postdocs are italicized and bold-italicized, respectively.

Nature Nanotechnology (1); *Nature Communications* (2); *Advanced Materials* (1); *Advanced Functional Materials* (1); *Advanced Science* (3); *Advanced Electronic Materials* (2); *Nano Energy* (1); *Small* (3); *Materials Horizons* (2); *Nanoscale* (4); *ACS Applied Materials and Interfaces* (9); *Applied Physics Letters* (15); *Physical Review B* (20); *Journal of Applied Physics* (58))
(Published > 270 ISI papers since joining USF Physics in 2008)

1. H.M. Do, T.H.P. Le, D.T. Tran, T.N.A. Nguyen, I. Skorvanek, J. Kovac, P. Svec Jr, and **M.H. Phan***
Magnetic interaction effects in Fe₃O₄@CoFe₂O₄ core/shell nanoparticles
Journal of Science: Advanced Materials and Devices 2024;9:100658 (IF=8.0; C=0)
2. N.T. Dang, D.P. Kozlenko, O.N. Lis, S.E. Kichanov, E.V. Lukin, N.O. Golosova, B.N. Savenko, D.L. Duong, T.L. Phan, T.A. Tran, and **M.H. Phan***
High pressure – driven magnetic disorder and structural transformation in Fe₃GeTe₂:
Emergence for a magnetic quantum critical point
Advanced Science 2023;2206842 (IF=17.52; C=3)
3. X.Y. Ge, M. Chen, J. Tian, E. Silva, H. Yang, R.P. Madhogaria, **M.H. Phan**, et al., and S.Q. Ma
Metal-Organic Framework as a New Type of Magnetothermally-Trigged On-Demand Release Carrier
Small 2023;2306940 (IF=13.3; C=0)
4. A. Chanda, D. Rani, D. DeTellem, N. Alzahrani, D. A. Arena, S. Witanachchi, R. Chatterjee, **M.H. Phan**, and H. Srikanth
Large thermo-spin effects in Heusler alloy-based spin-gapless semiconductor thin films
ACS Applied Materials and Interfaces 2023;15:53697 (IF=9.5; C=0)
5. L.V. Lich, T.H. Nguyen, D.T.H. Hue, T.Q. Bui, T.G. Nguyen, V.H. Dinh, and **M.H. Phan**
The design of compositionally modulated lead-free ferroelectrics with large electromechanical response via high-throughput phase-field simulations and machine learning
Materials Research Bulletin 2023; 112433 (IF=5.6; C=0)
6. S.B. Attanayake, A. Chanda, T. Hulse, R. Das, **M.H. Phan***, and H. Srikanth
Competing Magnetic Interactions and Field-Induced Metamagnetic Transition in Highly Crystalline Phase-Tunable Iron Oxide Nanorods
Nanomaterials 2023;13:1340 (IF=5.7; C=2)

7. N. Schulz, G. Datt, A. Chanda, C.S. Ong, F. Songfrei, O. Eriksson, D. Voronine, T. Sarkar, V. Kamalakar, **M.H. Phan*** and H. Srikanth
Surface Termination-Enhanced Magnetism at Nickel Ferrite/2D Nanomaterial Interfaces: Implications for Spintronics
ACS Applied Nano Materials 2023;6:10402 (IF=6.14; C=0)
8. A. Chanda, J. Nag, A. Alam, K.G. Suresh, **M.H. Phan**, and H. Srikanth
Intrinsic Berry curvature driven anomalous Nernst thermopower in the semi-metallic Heusler alloy CoFeVSb
Physical Review B 2023;107:L220403 (IF=3.9; C=0)
9. I. Berman, J. Devkota, K.Y. Hwang, and **M.H. Phan***
A disposable soft magnetic ribbon-based sensor for corrosion monitoring
Applied Sciences 2023;13:6011 (IF=2.8; C=0)
10. B. Muchharla, R.P. Madhogaria, D. DeTellem, C. M. Hung, A. Chanda, A.T. Duong, M.T. Trinh, S. Witanachchi, and **M.H. Phan***
Intergranular spin-dependent tunnelling dominated magnetoresistance in helimagnetic manganese phosphide thin films
Nanomaterials 2023;13:1478 (IF=5.7; C=0)
11. C. Kons, K.L. Krycka, J. Robles, N. Ntallis, M. Pereiro, **M.H. Phan**, H. Srikanth, J.A. Borchers, and D.A. Arena
Influence of Hard/Soft Layer Ordering on Magnetization Reversal of Bimagnetic Nanoparticles: Implications for Biomedical/Theranostic Applications
ACS Applied Nano Materials 2023;13: 10986 (IF=6.14; C=0)
12. A. Chanda, C.M. Hung, A.T. Duong, S. Cho, H. Srikanth, and **M.H. Phan***
Magnetism and spin-dependent transport phenomena across Verwey and Morin transitions in iron oxide/Pt bilayers
Journal of Magnetism and Magnetic Materials 2023;568:170370 (IF=3.05; C=2)
13. P.Q. Thong, H.P. Thu, D.H. Manh, L.T.T. Huong, P.H. Nam, N.X. Phuc, J. Alonso, C. Gharagousloo, S. Sridhah, N.D. Tu, H.T.M. Nhung, N.T.K. Thanh, and **M.H. Phan***
Multifunctional Nanocarriers of Fe₃O₄@(PLA-PEG)/Cur for MRI, magnetic hyperthermia, and drug delivery
Nanomedicine 2023;17:1677 (IF = 6.096; C=0)
14. C.M. Hung, D.T.X. Dang, A. Chanda, D. Detellem, N. Alzahrani, N. Kapuruge, Yen T. H. Pham, M.Z. Liu, D. Zhou, H.R. Gutierrez, D.A. Arena, M. Terrones, S. Witanachchi, L.M. Woods, H. Srikanth, and **M.H. Phan***

Enhanced Magnetism and Anomalous Hall Transport through Two-dimensional Tungsten Disulphide Interfaces
Nanomaterials 2023;13:771 (IF = 5.7; C=1)

15. S. B. Attanayake, A. Chanda, R. Das, **M.H. Phan**, and H. Srikanth
 Effects of annealing temperature on the magnetic properties of highly crystalline biphasic iron oxide nanorods
AIP Advances 2023;13:025333 (IF = 2.123; C=0)

16. A. Chanda, D. DeTellem, Y.T.H. Pham, J.E. Shoup, A.T. Duong, R. Das, S.L. Cho, D.V. Voronine, M. Tuan Trinh, D.A. Arena, S. Witanachchi, H. Srikanth, and **M.H. Phan***
 Spin Seebeck effect in iron oxide thin films: Effects of phase transition, phase coexistence, and surface magnetism
ACS Applied Materials and Interfaces 2022;14:13468 (IF = 10.38; C=4)

17. D.P. Kozlenko, N.T. Dang, S.E. Kichanov, L.T.P. Thao, A.V. Rutkauskas, E. V. Lukin, B.N. Savenko, N. Tran, D.T. Khan, L.V. Truong-Son, L.H. Khiem, B.W. Lee, T.L. Phan, N.L. Phan, N. Truong-Tho, N.N. Hieu, T.A. Tran, and **M.H. Phan***
 High Pressure-Enhanced Magnetic Ordering and Magnetostructural Coupling in Geometrically Frustrated Spinel Mn_3O_4
Physical Review B 2022;105:094430 (IF = 3.908; C=2)

18. Y.F. Wang, N.T. My Duc, T.F. Feng, H. Wei, F.X. Qin, and **M.H. Phan***
 Competing ferromagnetic and antiferromagnetic interactions drive the magnetocaloric tunability in $Gd_{55}Co_{30}Ni_xAl_{15-x}$ microwires
Journal of Alloys and Compounds 2022;907:164328 (IF = 6.371; C=3)

19. A. Chanda, N. Schulz, C. Holzmann, J. Seyd, M. Albrecht, **M.H. Phan***, and H. Srikanth
 Scaling of the thermally induced sign inversion of longitudinal spin Seebeck effect in a compensated ferrimagnet: Role of magnetic anisotropy
Advanced Functional Materials 2022;32:2109170 (IF=19.924; C=6)

20. H.X. Shen, Lin Luo, H. Belliveau, D.W. Xing, J.S. Liu, S. Jiang, Y.F. Liu, L.Y. Zhang, Y.J. Huang, J.F. Sun, and **M.H. Phan***
 The Magnetocaloric behaviors of Gd-based Microwire Arrays with Different Curie Temperatures
Metals 2022;12:1417 (IF=2.351; C=2)

21. A. Chanda, D. Rani, J. Nag, A. Alam, K.G. Suresh, **M.H. Phan***, and H. Srikanth

- Emergence of asymmetric skew-scattering dominated anomalous Nernst effect in spin gapless semiconductors $\text{Co}_{1-x}\text{Fe}_x\text{CrGa}$
Physical Review B 2022;106:134416 (IF = 3.908; C=0)
22. L.V. Lich, T.G. Nguyen, V.H. Dinh, and **M.H. Phan**
 Theoretical studies on controlling chirality of helical polarization vortices in ferroelectric nanowires: Implications for Reconfigurable Electronic Devices
ACS Applied Nano Materials 2022;5:16509 (IF=6.140; C=0)
 23. D. Dang, R. Barik, **M.H. Phan**, and L. Woods
 Enhanced Magnetism in Heterostructures with Transition Metal Dichalcogenide Monolayers
The Journal of Physical Chemistry Letters 2022;13:8879 (IF=6.475; C=4)
 24. S. B. Attanayake, A. Chanda, R. Das, **M.H. Phan**, and H. Srikanth
 Emergent Magnetism and Exchange Bias Effect in Iron Oxide Nanocubes with Tunable Phase and Size
Journal of Physics: Condensed Matter 2022;34:495301 (IF=2.745; C=2)
 25. H.Z. Liu, M. Tuan Trinh, E.M. Clements, D. Sapkota, L. Li, Z. Romestan, S. Bhat, V. Mapara, A. Barua, S. Langelund Carrera, **M.H. Phan**, D. Arena, H. Srikanth, D. Mandrus, A.H. Romero, D. Karaiskaj
 Elastically induced magnetization at ultrafast time scales in a chiral helimagnet
Physical Review B 2022;106:035103 (IF = 3.908; C=2)
 26. N.H. Luong, T.T. Trung, T.T. Hong, N.H. Nam, **M.H. Phan**, P. Jenei, J.L. Lábár, and J. Gubicza
 Relating the magnetic coercivity to the ordered L1_0 FePd phase in annealed $\text{Fe}_x\text{Pd}_{100-x}$ nanoparticles
Applied Physics A 2022;118:1-11 (IF = 2.983; C=0)
 27. N. Ntallis, C. Kons, H. Srikanth, **M.H. Phan**, D.A. Arena, and M. Pereiro
 Macrospin model of an assembly of magnetically coupled core-shell nanoparticles
Physical Review B 2022;106:104402 (IF = 3.908; C=1)
 28. A. Chanda, C. Holzmann, N. Schulz, J. Seyd, M. Albrecht, **M.H. Phan**, and H. Srikanth
 Thermal generation of spin current and magnon propagation length in compensated ferrimagnetic $\text{Gd}_3\text{Fe}_5\text{O}_{12}$ thin films
IEEE Trans. Magn. Mater. 2022;58:1500505 (IF = 2.123; C=0)
 29. L. Luo, J.A. Law, H.X. Shen, Luis M. Moreno-Ramírez, V. Franco, S. Guo, N.T. M. Duc, J.F. Sun, and **M.H. Phan***
 Enhanced magnetocaloric properties of annealed melt-extracted $\text{Mn}_{1.26}\text{Fe}_{0.60}\text{P}_{0.48}\text{Si}_{0.52}$ microwires
Metals 2022;12:1536 (IF=2.351; C=2)

30. N. Schulz, A. Chanda, G. Datt, M. Venkata Kamalakara, T. Sarkar, **M.H. Phan**, and H. Srikanth
Proximity enhanced magnetism at NiFe₂O₄/Graphene Interface
AIP Advances 2022;12:035132 (IF = 2.123; C=1)
31. S. B. Attanayake, A. Chanda, R. Das, **M.H. Phan**, and H. Srikanth
Emergent Magnetic Properties of Biphasic Iron Oxide Nanorods
AIP Advances 2022;12:035136 (IF = 2.123; C=3)
32. H.A. Tam, N. Van Tuan, N.T. Ngoc, D. Van Hai, **M.H. Phan**, C.G. Kim, V.D. Lam, D.T.H. Giang
Tuning rotational magnetization for high frequency magnetoimpedance in micro-patterned triangle spiral magnetic systems
Journal of Science: Advanced Materials and Devices 2022:100514 (IF=7.38; C=0)
33. C.M. Hung, R.P. Madhugaria, B. Muchharla, A.T. Duong, R. Das, P.T. Huy, S.L. Cho, S. Witanachchi, H. Srikanth, and **M.H. Phan***
MnP nanorod films with desired magnetic, magnetocaloric and thermoelectric properties for a perspective magneto-thermo-electric cooling device
Physics Status Solidi A 2022;219:2100367 (IF=2.82; C=0)
34. V. Kalappattil, R. Das, **M.H. Phan**, H. Srikanth
Surface magnetic anisotropy-mediated spin Hall magnetoresistance and spin Seebeck effects in a YIG/Pt heterostructure
Journal of Magnetism and Magnetic Materials 2022;551:169173 (IF=3.05; C=2)
35. N. Rinaldi, P. Gorria, A.B. Fuertes, D. Blanco, L. Olivi, I. Puente Orench, L. Olivi, J. Herrero-Martin, J. Alonso, **M.H. Phan**, H. Srikanth, X. Marti, and J. A. Blanco
Entangled exchange-spring magnetic structure driven by surface magnetic symmetry-breaking in Cr₂O₃ nanoparticles
Journal of Materials Chemistry C 2022;10:1798 (IF=2.82; C=4)
36. V.O. Jimenez, Y.T. Hai Pham, M. Liu, F. Zhang, V. Kalappattil, B. Muchharla, T. Eggers, D.L. Duong, M. Terrones, and **M.H. Phan***
Light-controlled room temperature ferromagnetism in vanadium-doped tungsten disulfide semiconducting monolayers
Advanced Electronic Materials 2021;7:2100030 (IF=6.593; C=13)
37. R.P. Madhugaria, C.M. Hung, B. Muchharla, A.T. Duong, R. Das, P.T. Huy, S.L. Cho, S. Witanachchi, H. Srikanth, and **M.H. Phan***
Strain-modulated helimagnetism and magnetic phase diagram in highly crystalline MnP nanorod thin films
Physical Review B 2021;103:184423 (IF=3.772; C=6)

38. D.P. Kozlenko, N.T. Dang, *R.P. Madhogaria*, L.T.P. Thao, S.E. Kichanov, N. Tran, D.T. Khan, N. Truong-Tho, T.L. Phan, B.W. Lee, B.N. Savenko, A.V. Rutkauskas, L.H. Khiem, H.B. Nguyen, T. A. Tran, T. Kmječ, J. Kohout, V. Chlan, and **M.H. Phan***
Competing magnetic states in multiferroic BaYFeO₄: a high magnetic field study
Physical Review Materials 2021;5:044407 (IF=2.926; C=4)
39. H.M. Luong, M.T. Pham, T. Guin, *R.P. Madhogaria*, **M.H. Phan**, G.K. Larsen, and T.D. Nguyen
Sub-second and ppm-level optical sensing of hydrogen using templated control of nano-hydride geometry and composition
Nature Communications 2021;12:1-10 (IF=12.121; C=21)
40. Y.F. Wang, Y.Y. Yu, H. Belliveau, N.T.M. Duc, H.X. Shen, J. F. Sun, J.S. Liu, F.X. Qin, S.C. Yu, H. Srikanth, and **M.H. Phan***
Enhanced magnetocaloric performance in nanocrystalline/ amorphous Gd₃Ni/Gd₆₅Ni₃₅ composite microwires
Journal of Science: Advanced Materials and Devices 2021;6:587 (IF=5.4; C=2)
41. O. Thiabgoh, T. Eggers, H. Shen, S.D. Jiang, C. Albrecht, J. F. Sun, V.D. Lam, D.S. Lam, and **M.H. Phan***
Optimization of high-frequency magneto-impedance response in melt-extracted Co-rich amorphous microwires through novel multiple-step Joule heating
Journal of Science: Advanced Materials and Devices 2021;6:364 (IF=5.4; C=4)
42. K.Y. Hwang, V.O. Jimenez, B. Muchharla, T. Eggers, A.T. Le, V.D. Lam, and **M.H. Phan***
A Novel Magnetic Respiratory Sensor for Human Healthcare
Applied Sciences 2021;11:3585 (IF=2.47; C=5)
43. R.P. Madhogaria, N.S. Bingham, R. Das, **M.H. Phan***, and H. Srikanth
Competing magnetic interactions and emergent phase diagrams in double perovskite Y₂Ni_xCo_{1-x}MnO₆
Journal of Alloys and Compounds 2021;888:161624 (IF=4.65; C=6)
44. P. Lampen, R.P. Madhogaria, N.S. Bingham, **M.H. Phan***, P.M.S. Monteiro, N.-J. Steinke, A. Ionescu, C.H.W. Barnes, and H. Srikanth
Tablelike magnetocaloric effect and enhanced refrigerant capacity in EuO_{1-δ} thin films
Physics Review Materials 2021;5: 094404 (IF=2.926; C=3)
45. L.V. Lich, X. Hou, **M.H. Phan**, T.Q. Bui, J. Wang, T. Shimada, T. Kitamura, V.H. Dinh
Electrocaloric effect enhancement in compositionally graded ferroelectric thin films driven by needle to vortex domain structure transition
Journal of Physics D: Applied Physics 2021;54:255307 (IF=3.169; C=7)

46. **R. Das**, R. Prabhu, N. Venkataramani, S. Prasad, L. Li, **M.H. Phan***, V. Keppens, D. Mandrus, and H. Srikanth
Giant Low-field Magnetocaloric Effect and Refrigerant Capacity in Reduced Dimensionality EuTiO₃ Multiferroics
Journal of Alloys and Compounds 2021; 850,156819 (IF=4.65; C=13)
47. **R. Das**, **M.H. Phan**, and H. Srikanth
Role of magnetic anisotropy on the hyperthermia efficiency of spherical Fe_{3-x}Co_xO₄ ($x = 0 - 1$) nanoparticles
Applied Sciences 2021;11;930 (IF=2.47; C=18)
48. **R. Das**, N.T. Dang, V. Kalappattil, R.P. Madhogaria, D.P. Kozlenko, S.E. Kichanov, E.V. Lukin, A.V. Rutkauskas, T.P.T. Nguyen, L.T.P. Thao, N.S. Bingham, H. Srikanth, and **M.H. Phan***
Unravelling the nature of Fe-doping mediated inter- and intra-chain interactions in Ca₃Co₂O₆
Journal of Alloys and Compounds 2021;851,156897 (IF=4.65; C=5)
49. **R. Das**, J.A. Masa, V. Kalappattil, Z. Nemati, I. Rodrigo, E. Garaio, J. Ángel García, **M.H. Phan**, and H. Srikanth
Iron Oxide Nanorings and Nanotubes for Magnetic Hyperthermia: the Problem of Intraparticle Interactions
Nanomaterials 2021;11:1380 (IF=5; C=9)
50. **R. Das**, V. Kalappattil, **M.H. Phan**, and H. Srikanth
Magnetic anomalies associated with domain wall freezing and coupled electron hopping in magnetite nanorods
Journal of Magnetism and Magnetic Materials 2021;522:167564 (IF=3.046; C=4)
51. T.N. Pham, N.V. Cuong, N.X. Dinh, H.V. Tuan, V.N. Phan, N.T. Lan, M.H. Nam, T.D. Thanh, V.D. Lam, N.V. Quy, T.Q. Huy, **M.H. Phan**, and A.T. Le
Roles of Phase Purity and Crystallinity on Chloramphenicol Sensing Performance of CuCo₂O₄/CuFe₂O₄-based Electrochemical Nanosensors
Journal of The Electrochemical Society 2021;168:026506 (IF=3.721; C=18)
52. Y.T. Hai Pham, M. Liu, V.O. Jimenez, F. Zhang, V. Kalappattil, Mauricio Terrones, and **M.H. Phan***
Tunable Ferromagnetism and Thermally Induced Spin Flip in Vanadium-doped Tungsten Diselenide Monolayers at Room Temperature
Advanced Materials 2020;32:2003607 (IF=27.398; C=60)

53. F. Zhang, B.Y. Zheng, A. Sebastian, H. Olson, M.Z. Liu, K. Fujisawa, Y.T.H. Pham, V. Ortiz Jimenez, V. Kalappattil, T. Zhang, R. Pendurthi, Y. Lei, A. Laura Elias, Y. Wang, Patrick E. Hopkins, S. Das, V.H. Crespi, **M.H. Phan***, and M. Terrones
Monolayer Vanadium-doped Tungsten Disulfide: An Emerging Room-Temperature Diluted Magnetic Semiconductor
Advanced Science 2020;7:2001174 (IF=15.84; C=77)
54. V. Kalappattil, R. Geng, **R. Das**, H. Luong, M. Pham, T. Nguyen, A. Popescu, L. M. Woods H. Srikanth, and **M.H. Phan***
Giant Spin Seebeck effect through an Interface Organic Semiconductor
Materials Horizons 2020;7:1413 (IF=14.356; C=26)
55. V.O. Jimenez, V. Kalappattil, T. Eggers, M. Bonilla, S. Kolekar, P. T. Huy, M. Batzill, **M.H. Phan***
A highly sensitive magnetic sensor using a 2D van der Waals ferromagnetic material
Nature: Scientific Reports 2020;10:4789 (IF=4.011; C=21)
56. E.M. Clements, R. Das, G. Pokharel, **M.H. Phan***, A.D. Christianson, D. Mandrus, J.C. Prestigiacomo, M.S. Osofsky, and H. Srikanth
Robust cycloid crossover driven by anisotropy in the skyrmion host GaV₄S₈
Physical Review B 2020;101: 094425 (*Editor's choice*; IF=3.736; C=10)
57. A.G. Gamzatov, Y.S. Koshkid'ko, D. C. Freitas, E. Moshkina, L. Bezmaternykh, A.M. Aliev, S.-C. Yu, and **M.H. Phan***
Anisotropic Magnetocaloric Properties of The Ludwigite Compound Cu₂MnBO₅
Applied Physics Letters 2020;116: 232403 (IF=3.521; C=4)
58. Z. Nemati, M. Reza Zamani Kouhpanji, F. Zhou, R. Das, K. Makielski, J. Um, **M.H. Phan**, A. Muela, M.L. Fdez-Gubieda, R. R Franklin, Bethanie J. H. Stadler, J.F. Modiano, and J. Alonso
Isolation of Cancer-Derived Exosomes Using a Variety of Magnetic Nanostructures: From Fe₃O₄ Nanoparticles to Ni Nanowires
Nanomaterials 2020;10:1662 (IF=4.324; C=26)
59. L.T.H. Phong, D.H. Manh, N.X. Phuc, P.H. Nam, N.T.H. Le, N.T. Hieu, P.T. Phong, **M.H. Phan***, J. Kováč, I. Skorvanek
Oxidation-controlled magnetism and Verwey transition in Fe/Fe₃O₄ lamellae
Journal of Science: Advanced Materials and Devices 2020;5:263 (IF=5.4; C=3)
60. R.P. Madhogaria, N.T. Dang, R. Das, E.M. Clements, V. Kalappattil, N.S. Bingham, D.P. Kozlenko, **M. H. Phan***, H. Srikanth

Metamagnetism and kinetic arrest in a long-range ferromagnetically ordered multicaloric double perovskite Y_2CoMnO_6

Journal of Magnetism and Magnetic Materials 2020 ;507:166821 (IF=2.683; C=12)

61. C. Kons, **M.H. Phan**, H. Srikanth, D.A. Arena, Z.N. Porshokouh, J.A. Borchers, and K.L. Krycka

Investigating spin coupling across a three-dimensional interface in core/shell magnetic nanoparticles

Physical Review Materials 2020;4:034408 (IF=2.926; C=14)

62. G. Lavorato, **R. Das**, Y. Xing, J. Robles, F. Jochen Litterst, E. Baggio-Saitovitch, **M.H. Phan**, H. Srikanth

Origin and Shell-Driven Optimization of the Heating Power in Core/Shell Bimagnetic Nanoparticles

ACS Applied Nano Materials 2020;3:1755 (IF=7.5; C=44)

63. N. Thi My Duc, C.M. Hung, N.T. Huong & **M.H. Phan***

Magnetic Interactions and Magnetocaloric Effect in $(\text{La}_{0.5}\text{Pr}_{0.5})_{0.6}\text{Ba}_{0.4}\text{MnO}_3$: Effect of A-Site Co-doping

Journal of Electronic Materials 2020;49:2596 (IF=1.67; C=9)

64. H.M. Luong, M.T. Pham, R. Pokharel Madhogaria, **M.H. Phan**, G. Keefe Larsen, T.D. Nguyen
Bilayer plasmonic nano-lattices for tunable hydrogen sensing platform

Nano Energy 2020;71:104558 (IF=15.548; C=11)

65. R. Das, C. Witanachchi, Z. Nemati, V. Kalappattil, I. Rodrigo, J. Ángel García, E. Garaio, J. Alonso, Vu Dinh Lam, Anh-Tuan Le, **M.H. Phan**, and H. Srikanth

Magnetic Vortex and Hyperthermia Suppression in Multigrain Iron Oxide Nanorings

Applied Sciences 2020;10:787 (IF=2.217; C=14)

66. A.G. Gamzatov, A.B. Batdalov, A.M. Aliev, P.D.H. Yen, S.V. Gudina, V.N. Neverov, T.D. Thanh, N.T. Dung, S.-C. Yu, D.-H. Kim, and **M.H. Phan***

Determination of the magnetocaloric effect from thermophysical parameters and their relationships near magnetic phase transition in doped manganites

Journal of Magnetism and Magnetic Materials 2020 (IF=3.046; C=4)

67. G.C. Lavorato, A.A. Ruberta, Y. Xing, R. Das, J. Robles, F. Jochen Litterst, E.B. Saitovitch, **M.H. Phan**, H. Srikanth, C. Vericat, and M.H. Fonticellia

Shell-Mediated Control of the Surface Chemistry in Highly Stoichiometric Magnetite Nanoparticles

Nanoscale 2020;12:13626 (IF=6.97; C=13)

68. N.T.M. Duc, H.X. Shen, O. Thiabgoh, N.T. Huong, J.F. Sun, and **M.H. Phan***
Melt-extracted $\text{Gd}_{73.5}\text{Si}_{13}\text{B}_{13.5}/\text{GdB}_6$ ferromagnetic/antiferromagnetic microwires with excellent magnetocaloric properties
Journal of Alloys and Compounds 2020;818:153333 (IF=4.175; C=16)
69. P. Lampen, E. Clements, B. Casas, **M.H. Phan***, J. Marcin, I. Skorvanek, H.T. Yi, S.W. Cheong, and H. Srikanth
Impact of reduced dimensionality on the correlation length and magnetization dynamics of the spin chain cobaltite $\text{Ca}_3\text{Co}_2\text{O}_6$
Journal of Magnetism and Magnetic Materials 2020;493:165690 (IF=3.046; C=2)
70. H.X. Shen, L. Luo, Y. Bao, H.B. Yin, S. Jiang, L.Y. Zhang, Y.J. Huang, S.J. Feng, D. Xing, J.S. Liu, Z. Li, Y.F. Liu, J.F. Sun, and **M.H. Phan***
New DyHoCo medium entropy amorphous microwires of large magnetic entropy change
Journal of Alloys and Compounds 2020;837: 155431 (IF=4.175; C=12)
71. T.H.P. Le, H.N. Pham, T.P. Pham, J. Kováč, I. Skorvanek, **M.H. Phan**, X.P. Nguyen
High heating efficiency of interactive cobalt ferrite nanoparticles
Advances in Natural Sciences: Nanoscience and Nanotechnology 2020;11;045005 (IF=; C=2)
72. X. Moya, **M.H. Phan**, H. Srikanth, and F. Albertini
Multicalorics
Journal of Applied Physics 2020;128:240401 (IF=2.286; C=4)
73. R.P. Madhugaria, R. Das, N.T. Dang, E. Clements, V. Vijaysankar, D.P. Kozlenko, **M.H. Phan***, and H. Srikanth
Evidence of long-range ferromagnetic order and spin frustration effects in the double perovskite $\text{La}_2\text{CoMnO}_6$
Physical Review B 2019;99:104436 (IF=3.772; C=46)
74. D. Gandia, L. Gandarias, I. Rodrigo, J. Robles-García, R. Das, E. Garaio, J. Á. García, A. García Prieto, **M.H. Phan**, H. Srikanth, I. Orue, J. Alonso, A. Muela, and M.L. Fdez-Gubieda, Unlocking the potential of Magnetotactic Bacteria as Magnetic Hyperthermia agents
Small 2019; 1902626 (IF=10.856; C=95)
75. R. Geng, H.M. Luong, R. Das, K. Stojak, M.T. Pham, T.A. Duong, P.T. Huy, N.D. Lai, **M.H. Phan**, and T.D. Nguyen
Magnetically Tunable Organic Semiconductors with Superparamagnetic Nanoparticles
Materials Horizons 2019;6:1913 (IF=14.356; C=5)

76. P.M. Coelho, H.-P. Komsa, K. Lasek, **V. Kalappattil**, J. Karthikeyan, **M.H. Phan**, A. V Krasheninnikov, and M. Batzill
Room temperature ferromagnetic MoTe₂ by post-growth incorporation of vanadium impurities
Advanced Electronic Materials 2019; 1900044 (IF=4.193; C=58)
77. **R. Das**, J.A.Cardarelli, **M.H. Phan***, H. Srikanth
Magnetically tunable iron oxide nanotubes for multifunctional biomedical applications
Journal of Alloys and Compounds 2019;789:323 (IF=4.175; C=25)
78. N.T.M. Duc, H.X. Shen, E. Clements, O. Thiabgoh, J.L. Sanchez Llamazares, C.F. Sanchez-Valdes, N.T. Huong, J.F. Sun, H. Srikanth, and **M.H. Phan***
Enhanced refrigerant capacity in melt-extracted amorphous Gd₆₀Fe₂₀Al₂₀ microwires with high Curie temperature
Journal of Alloys and Compounds 2019;807:151694 (IF=4.175; C=27)
79. N. T. Dang, D. P. Kozlenko, N. Tran, B. W. Lee, T. L. Phan, **V. Kalappattil**, D. S. Yang, S. E. Kichanov, E.V. Lukin, B. N. Savenko, P. Czarnecki, T. A. Tran, V. L. Vo, T. P. T Le, T. K. Dinh, S. H. Jabarov and **M.H. Phan***
Structural, magnetic, and electronic properties of Ti-doped BaFeO_{3-δ} exhibiting colossal dielectric permittivity
Journal of Alloys and Compounds 2019;808:151760 (IF=4.175; C=16)
80. N.T.M. Duc, H.X. Shen, E. Clements, O. Thiabgoh, J.L. Sanchez Llamazares, C.F. Sanchez-Valdes, N.T. Huong, J. F. Sun, H. Srikanth, and **M.H. Phan***
Critical magnetic and magnetocaloric behaviors of amorphous melt-extracted Gd₅₀(Co_{69.25}Fe_{4.25}Si₁₃B_{13.5})₅₀ microwires
Intermetallics 2019;110:106479 (IF=3.14; C=18)
81. R. P. Madhogaria, **R. Das**, E. M. Clements, **V. Kalappattil**, N. S. Bingham, **M. H. Phan**, and H. Srikanth
Effect of antiphase boundaries on the magnetic properties of La₂CoMnO₆
AIP Advances 2019;9:035142 (IF=1.444; C=10)
82. **R. Das**, J. Robles, M. Glassell, **V. Kalappattil**, **M.H. Phan**, H. Srikanth
Magnetic anisotropy and switching behavior of exchange coupled Fe₃O₄/CoFe₂O₄ core/shell nanoparticles
Journal of Electronic Materials 2019;48:1461 (IF=1.491; C=6)
83. P.M. Coelho, K.N. Cong, M. Bonilla, S. Kolekar, **M.H. Phan**, J. Avila, Maria C. Asensio, I.I. Oleynik, and M. Batzill

Charge Density Wave State Suppresses Ferromagnetic Ordering in VSe₂ Monolayers
The Journal of Physical Chemistry C 2019;23:14089 (IF=4.484; C=138)

84. H.X. Shen, L. Luo, D. Xing, S. Jiang, J.S. Liu, Y.J. Huang, S. Guo, H.C. Sun, Y.F. Liu, J.F. Sun, **M.H. Phan***
The Magnetocaloric Composite Designed by Multi-Gd-Al-Co Microwires with Close Performances
Physica Status Solidi A 2019, 1900090 (IF=1.795; C=10)
85. M. Bonilla, S. Kolekar, Y. Ma, H. Coy Diaz, V. Kalappattil, R. Das, **M.H. Phan***, and M. Batzill*
Strong Room Temperature Ferromagnetism in VSe₂ Monolayers on van der Waals substrates
Nature Nanotechnology 2018;13:289 (IF=38.986; C=1175)
86. T. Eggers, D.S. Lam, O. Thiabgoh, J. Marcin, P. Švec, N.T. Huong, I. Škorvák, and **M.H. Phan***
Impact of the transverse magnetocrystalline anisotropy of a Co coating layer on the magnetoimpedance response of FeNi-rich nanocrystalline ribbon
Journal of Alloys and Compounds 2018;741:1105 (IF=3.779; C=21)
87. D. P. Kozlenko, N. T. Dang, N.O. Golosova, S. E. Kichanov, E. V. Lukin, H.-P. Liermann, K. V. Glazyrin, S. H. Jabarov, T.L. Phan, B. N. Savenko, P. Lampen-Kelley, E. Clements, H. Srikanth, and **M.H. Phan***
Pressure induced transformations of the magnetic order in the spin chain compound Ca₃Co₂O₆
Physical Review B 2018;98:134435 (IF=3.772; C=22)
88. S. D. Jiang, T. Eggers, O. Thiabgoh, D. W. Xing, W. B. Fang, J. F. Sun, H. Srikanth, and **M.H. Phan***
Enhancement of giant magneto-impedance in series Co-rich microwires for low field sensing applications
Journal of Electronic Materials 2018;47:2667 (IF=1.491; C=2)
89. E. Clements, R. Das, **M.H. Phan***, L. Li, V. Keppens, D. Mandrus, M. Osofsky, and H. Srikanth
Field-dependence of the Nonlinear Magnetic Response and Tricritical Point in the Monoaxial Chiral Helimagnet Cr_{1/3}NbS₂
Physical Review B 2018;97:214438 (IF=3.772; C=23)
90. O. Thiabgoh, T. Eggers, S.D. Jiang, J. S. Liu, and **M.H. Phan***
Condition monitoring and failure prediction of gear rotation with a contactless magnetoimpedance sensor
Journal of Electronic Materials 2018;48:4000 (IF=1.491; C=2)

91. Y. Bao, H.X. Shen, Y.J. Huang, D.X. Xing, H. Wang, J.S. Liu, H.C. Li, S. Jiang, J.F. Sun and **M.H. Phan***
Table-like magnetocaloric behavior and enhanced cooling efficiency of a bi-constituent Gd alloy wire-based composite
Journal of Alloys and Compounds 2018;764:789 (IF=3.779; C=17)
92. **R. Das**, V. Kalappattil, R. Geng, H. Luong, M. Pham, T. Nguyen, Tao Liu, Mingzhong Wu, **M.H. Phan***, and H. Srikanth
Enhanced room-temperature spin Seebeck effect in a YIG/C₆₀/Pt layered heterostructure
AIP Advances 2018;8:055906 (IF=1.444; C=11)
93. O. Thiabgoh, T. Eggers, V.O. Jimenez, S.D. Jiang, J.F. Sun, and **M.H. Phan***
Real-time monitoring of position and motion of a non-stationary object with a highly sensitive magnetic impedance sensor
Journal of Science: Advanced Materials and Devices 2018;3:122 (IF= 2.8; C=7)
94. Z. Nemati, J. Alonso, I. Rodrigo, **R. Das**, E. Garaio, J.A. Garcia, I. Orue, **M.H. Phan**, and H. Srikanth
Improving the Heating Efficiency of Iron Oxide Nanoparticles by Tuning Their Shape and Size
The Journal of Physical Chemistry C 2018;122, 2367 (IF=4.536; C=186)
95. P.T. Tho, E.M. Clements, D.H. Kim, N. Tran, M.S. Osofsky, **M.H. Phan**, T. L. Phan, and B. W. Lee
Crystal structure and magnetic properties of Ti-doped Bi_{0.84}La_{0.16}FeO₃ at morphotropic phase boundary
Journal of Alloys and Compounds 2018;741:59-64 (IF=3.779; C=14)
96. J. Robles, **R. Das**, M. Glassell, **M.H. Phan**, H. Srikanth
Exchange-coupled Fe₃O₄/CoFe₂O₄ nanoparticles for advanced magnetic hyperthermia
AIP Advances 2018;8:056719 (IF=1.444; C=48)
97. T.L.H. Pham, T.H. Le, L. Hoang, H.T. Le, T.A. Tran, V.Q. Nguyen, A. Javier, **M.H. Phan**, A.T. Pham
Magnetic iron oxide-carbon nanocomposites: Impacts of carbon coating on the adsorption and inductive heating responses
Journal of Alloys and Compounds 2018;739:139 (IF=3.779; C=36)
98. D.T.M. Hue, T. Dung, N. Nga, L. Thuy, N. Dung, T. Hoang, **M.H. Phan**, H.D. Chinh
Enhanced Photocatalytic Activity for Degradation of Organic Dyes Using CoFe₂O₄/BaTiO₃-Composite

Journal of Nanoscience and Nanotechnology 2018;18:7850 (IF=1.35; C=9)

99. O. Thiabgoh, T. Eggers, and **M.H. Phan***
A new contactless magneto-LC resonance technology for real-time respiratory motion monitoring
Sensors and Actuators A 2017;265:120 (IF=2.499; C=26)
100. V. Kalappattil, R. Das, **M.H. Phan***, and H. Srikanth
Roles of bulk and surface magnetic anisotropy on the longitudinal spin Seebeck effect of YIG/Pt
Nature: Scientific Reports 2017 (IF=5.578; C=22)
101. V. Kalappattil, R. Geng, S. H. Liang, R. C. Subedi, T. D. Nguyen, W. B. Zhao, X. G. Li, R. Das, D. Mukherjee, S. Chandra, H. Srikanth, and **M.H. Phan***
Role of the magnetic anisotropy in organic spin valves
Journal of Science: Advanced Materials and Devices 2017;2:378 (IF=3.78; C=3)
102. D.J. Denmark, R.H. Hyde, C.Gladney, **M.H. Phan**, K.S. Bisht, H. Srikanth, P. Mukherjee, and S. Witanachchia
Photopolymerization-based synthesis of iron oxide nanoparticle embedded PNIPAM nanogels for biomedical applications
Drug Delivery 2017;24:1317 (IF=4.843; C=19)
103. S.D. Jiang, T. Eggers, O. Thiabgoh, D.W. Xing, W. D. Fei, H. X. Shen, J. S. Liu, J.R. Zhang, W.B. Fang, J.F. Sun, H. Srikanth, and **M.H. Phan***
Relating surface roughness and magnetic domain structure to giant magneto-impedance of Co-rich melt-extracted microwires
Nature: Scientific Reports 2017;7: 46253 (IF=5.578; C=26)
104. Y.J. Ma, H. Coy Diaz, J. Avila, C. Chen, V. Kalappattil, R. Das, **M.H. Phan**, T. Cadez, Jose M. P. Carmelo, M.C. Asensio, and M. Batzill
Angle resolved photoemission spectroscopy reveals spin charge separation in metallic MoSe₂ grain boundary
Nature Communications 2017;8:14231 (IF=12.124; C=72)
105. S. Chandra, R. Das, V. Kalappattil, C. Harnegea, R. Nechache, **M.H. Phan***, F. Rosei, and H. Srikanth
Epitaxial Magnetite Nanorods with Enhanced Room Temperature Magnetic Anisotropy
Nanoscale 2017;9:7858 (IF=7.76; C=24)

106. E. Clements, R. Das, L. Li, Paula J. L. Kelley, **M.H. Phan***, V. Keppens, D. Mandrus, and H. Srikanth
Critical Behavior and Macroscopic Phase Diagram of the Monoaxial Chiral Helimagnet $\text{Cr}_{1/3}\text{NbS}_2$
Nature: Scientific Reports 2017;7:6545 (IF=5.578; C=56)
107. H.F. Belliveau, Y.Y. Yu, Y. Luo, F.X. Qin, H. Wang, H.X. Shen, J.F. Sun, S.C. Yu, H. Srikanth, and **M.H. Phan***
Improving mechanical and magnetocaloric responses of amorphous melt-extracted Gd-based microwires via nanocrystallization
Journal of Alloys and Compounds 2017;692:658 (IF=3.15; C=31)
108. T.H. Au, D.T. Trinh, Q.C. Tong, D.B. Do, D.P. Nguyen, **M.H. Phan**, and N.D. Lai
Direct laser writing of magneto-photonics sub-microstructures
Nanomaterials 2017;7:105 (IF=3.55; C=23)
109. Z.N. Porshokouh, S. M. Salili, J.A. Masa, A. Ataie, R. Das, **M.H. Phan**, and H. Srikanth
Superparamagnetic Iron Oxide Nanodiscs for Hyperthermia Therapy: Does Size Matter?
Journal of Alloys and Compounds 2017;714:709 (IF=3.1; C=60)
110. N. Rinaldi, P. Gorria, A.B. Fuertes, D. Blanco, L. Olivi, I. Puente Orench, J. Alonso, **M.H. Phan**, H. Srikanth, X. Marti, and J. A. Blanco
Disclosure of double exchange bias effect in chromium (III) oxide nanoparticles
IEEE Transactions on Magnetism 2017;53:2300204 (IF=1.277; C=4)
111. Y. Bao, H.X. Shen, D.W. Xing, S. Jiang, J.F. Sun, **M.H. Phan***
Enhanced Curie temperature and cooling efficiency in melt-extracted $\text{Gd}_{50}(\text{Co}_{69.25}\text{Fe}_{4.25}\text{Si}_{13}\text{B}_{13.5})_{50}$ microwires
Journal of Alloys and Compounds 2017;692:658 (IF=3.797; C=16)
112. Z. Nemati, R. Das, J. Alonso, E. Clements, **M.H. Phan**, and H. Srikanth
Iron oxide nanospheres and nanocubes for hyperthermia therapy: A comparative study
Journal of Electronic Materials 2017 (IF=1.491; C=28)
113. V. Kalappattil, R. Das, **M.H. Phan***, and H. Srikanth
Probing the temperature-dependent magnetic anisotropy and Longitudinal Spin Seebeck Effect in $\text{Y}_3\text{Fe}_5\text{O}_{12}$
AIP Advances 2017;7:055912 (IF=1.444; C=1)

114. Y.F. Wang, F.X. Qin, Y.H. Wang, H. Wang, **M.H. Phan**, H.X. Peng
Magnetocaloric Effect of Gd-based Microwires from Binary to Quaternary System
AIP Advances 2017;7:056422 (IF=1.444; C=10)
115. T. Eggers, O. Thiabgoh, S. D. Jiang, H.X. Shen, J.S. Liu, J.F. Sun, H. Srikanth, and **M.H. Phan***
Tailoring circular magnetic domain structure and high frequency magneto-impedance of melt-extracted $\text{Co}_{69.25}\text{Fe}_{4.25}\text{Si}_{13}\text{B}_{13.5}$ microwires through Nb doping
AIP Advances 2017;7:056643 (IF=1.444; C=7)
116. H.X. Shen, D.W. Xing, J.L. Sánchez Llamazares, C.F. Sánchez-Valdés, H. Belliveau, H. Wang, F.X. Qin, Y.F. Liu, J.F. Sun, H. Srikanth, and **M.H. Phan***
Enhanced refrigerant capacity in Gd-Al-Co microwires with a biphasic nanocrystalline/amorphous structure
Applied Physics Letters 2016;108: 092403 (IF=3.820; C=48)
117. A.T. Le, C.D. Giang, V.N. Phan, J. Alonso, J. Devkota, H. Srikanth, and **M.H. Phan***
Enhanced magnetic anisotropy and heating efficiency in multifunctional manganese ferrite/graphene oxide nanostructures
Nanotechnology 2016;27:155707 (IF=3.821; C=35)
118. Z. Nemati, J. Alonso, L. M. Martinez, H. Khurshid, E. Garaio, J.A. Garcia, **M.H. Phan**, and H. Srikanth
Enhanced magnetic hyperthermia in iron oxide nano-octopods: size and anisotropy effects
Journal of Physical Chemistry C 2016;120:8370 (IF=4.772; C=172)
119. J. Alonso, H. Khurshid, J. Devkota, Nawal K. Khadka, H. Srikanth, J.J. Pan, and **M.H. Phan***
Superparamagnetic Nanoparticles Encapsulated in Lipid Vesicles for Advanced Magnetic Hyperthermia and Biodetection
Journal of Applied Physics 2016;119:083904 (IF=2.201; C=31)
120. Z. Nemati, J. Alonso, H. Khurshid, **M.H. Phan**, and H. Srikanth
Core/shell iron/iron oxide nanoparticles: Are they promising for magnetic hyperthermia?
RSC Advances 2016;6:38697 (IF=3.7; C=67)
121. J.S. Liu, Z. Li, H.X. Shen, F.X. Qin, S. Jiang, Z.X. Du, **M.H. Phan**, and J.F. Sun
Composite electroplating to enhance the GMI output stability of melt-extracted wires
Materials and Design 2016;96:251 (IF=3.501; C=11)
122. X.L. Hou, Y. Tian, Y. Xue, C.Y. Liu, W.X. Xia, H. Xu, P. Lampen-Kelley, H. Srikanth, and **M.H. Phan***

- Formation of tree-like and vortex magnetic domains of nanocrystalline α -(Fe,Si) in La-Fe-Si ribbons during rapid solidification and subsequent annealing
Journal of Alloys and Compounds 2016;669:205 (IF=2.999; C=12)
123. D.J. Denmark, J. Bradley, D. Mukherjee, *Javier Alonso*, **M.H. Phan**, H. Srikanth, S. Witanachchi, and P. Mukherjee
Remote Triggering of Thermoresponsive PNIPAM by Iron Oxide Nanoparticles
RSC Advances 2016;6:5641 (IF=3.7; C=14)
 124. H.T. Tran, J. Devkota, T. Eggers, J. Wingo, W. Cai, I. Skorvanek, H. Srikanth, **M.H. Phan***
Anisotropic mechanical and giant magneto-impedance properties of Co-rich amorphous ribbons
Journal of Electronic Materials 2016;45:2278 (IF=1.798; C=3)
 125. D.S. Lam, J. Devkota, N.T. Huong, H. Srikanth, and **M.H. Phan***
Enhanced high-frequency magnetoresistance responses of melt-extracted Co-rich soft ferromagnetic microwires
Journal of Electronic Materials 2016; (IF=1.798;45:2395 C=6)
 126. T.A. Ho, **M.H. Phan**, V.D. Lam, T.L. Phan, and S.C. Yu
Influence of Ti doping on the critical behavior and magnetocaloric effect in disordered ferromagnets $\text{La}_{0.7}\text{Ba}_{0.3}\text{Mn}_{1-x}\text{Ti}_x\text{O}_3$
Journal of Electronic Materials 2016;45:2508 (IF=1.798; C=7)
 127. X.L. Hou, Y. Xue, N. Han, Q.Q. Lu, X.C. Wang, **M.H. Phan**, Y.B. Zhong
Nanocrystalline $\text{Ce}_{1-x}\text{La}_x\text{O}_{2-\delta}$ Solid Solutions Synthesized by Hydrolyzing and Oxidizing
Journal of Electronic Materials 2016;45:2559 (IF=1.798; C=6)
 128. D.K. Tung, D.H. Manh, L.T.H. Phong, P.H. Nam, D.N.H. Nam, N.T.N. Anh, H.T.T. Nong, **M.H. Phan**, and N.X. Phuc
Iron nanoparticles fabricated by high energy ball milling for magnetic hyperthermia
Journal of Electronic Materials 2016;45:2644 (IF=1.798; C=10)
 129. A.S. Kamzin, P. Lampen-Kelley, and **M.H. Phan**
Mossbauer and magnetic properties of the phase state of $\text{SrFe}_{12}\text{O}_{19}/\text{La}_{0.9}\text{Ca}_{0.1}\text{MnO}_3$
Physics of the Solid State 2016;58:793 (IF=0.821; C=4)
 130. X.L. Hou, N. Han, Y. Xue, Q.Q. Lu, H. Xu, **M.H. Phan**
Tunable magnetocaloric properties response in high-speed melt-spun La-Ce-Fe-Si ribbons
Journal of Electronic Materials 2016;45:4730 (IF=1.798; C=4)
 131. O. Thiabgoh, T. Eggers, H. Shen, A. Galati, J. Sida, J. F. Sun, H. Srikanth, and **M.H. Phan***

- Enhanced high-frequency GMI response of melt-extracted amorphous $\text{Co}_{69.25}\text{Fe}_{4.25}\text{Si}_{13}\text{B}_{13.5}$ microwires subject to Joule annealing
Journal of Science: Advanced Materials and Devices 2016;1:69 (IF=; C=22)
132. **Raja Das, Javier Alonso, Zohreh Nemati Porshokouh, Vijaysankar Kalappattil, David Torres, M.H. Phan***, Eneko Garayo, José Ángel García, J.Luis Sanchez Llamazares, and H. Srikanth
 Tunable High Aspect Ratio Iron Oxide Nanorods for Enhanced Hyperthermia
Journal of Physical Chemistry C 2016;120:10086 (IF=4.772; C=217)
 133. T. Eggers, A. Leary, M. McHenry, J. Martin, I. Skorvanek, H. Srikanth, and **M.H. Phan***
 Correlation between domain structure, surface anisotropy and high frequency magneto-impedance in Joule annealed CoFe-based melt-spun ribbons
Journal of Alloys and Compounds 2016;682:799 (IF=3.15; C=14)
 134. J. Monreal, T. Eggers, **M.H. Phan**
 Dielectric analysis of aqueous poly(L-glutamic acid) and poly-L-(glutamic acid₄, Tyrosine₁) solutions at high frequencies from capacitance measurements
Journal of Science: Advanced Materials and Devices 2016;1:521 (IF= 3.78; C=2)
 135. A. Talaat, **J. Alonso**, V. Zhukova, E. Garaio, J.A. Garcia, H. Srikanth, **M.H. Phan***, and A. Zhukov,
 Ferromagnetic glass-coated microwires with good heating properties for magnetic hyperthermia
Nature: Scientific Reports 2016;6:39300 (IF=5.578; C=63)
 136. **M.H. Phan*** and D. Mandrus
 Cooling achieved by rotating an anisotropic superconductor in a constant magnetic field: A new perspective
AIP Advances 2016;6:125022 (IF=1.444; C=1)
 137. **R. Das**, N. Rinaldi-Montes, **J. Alonso**, Z. Amghouz, P. Gorria, J.A. Blanco, **M.H. Phan**, and H. Srikanth
 Boosted hyperthermia therapy by combined AC magnetic and photothermal exposures in Ag/Fe₃O₄ nanoflowers
ACS Applied Materials and Interfaces 2016;8:25162 (IF=7.145; C=104)
 138. **H. Khurshid**, P. Lampen-Kelley, Òscar Iglesias, **J. Alonso**, **M.H. Phan***, M.L Saboungie, Chengjun Sun, and H. Srikanth
 Spin-glass-like freezing of inner and outer surface layers in hollow $\gamma\text{Fe}_2\text{O}_3$ nanoparticles
Nature Scientific Reports 2015;5:15054 (IF=5.578; C=106)

139. J. Devkota, G. Kokkinis, T. Berris, S. Cardoso, F. Cardoso, I. Giouroudi, and **M.H. Phan***
A novel approach for detection and qualification of magnetic nanobiomarkers using a spin valve GMR-integrated microfluidic biosensor
RSC Advances 2015;5:51169 (IF=3.7; C=32)
140. D. Mukherjee, M. Hordagoda, P. Lampen, **M.H. Phan**, H. Srikanth, S. Witanachchi, and P. Mukherjee
Simultaneous enhancements of polarization and magnetization in epitaxial Pb(Zr_{0.52}Ti_{0.48})O₃/La_{0.7}Sr_{0.3}MnO₃ multiferroic heterostructures enabled by ultrathin CoFe₂O₄ sandwich-layers
Physical Review B 2015;91:054419 (IF=3.772; C=31)
141. J. Devkota, M. Howell, P. Mukherjee, H. Srikanth, S. Mohapatra, and **M.H. Phan***
Magneto-reactance based detection of MnO nanoparticle-embedded Lewis lung carcinoma cancer cells
Journal of Applied Physics 2015;117: 17D123 (IF=2.201; C=14)
142. Z. Nemati, H. Khurshid, J. Alonso, **M.H. Phan**, P. Mukherjee, and H. Srikanth
From core/shell to hollow Fe/ γ -Fe₂O₃ nanoparticles: Evolution of the magnetic behavior
Nanotechnology 2015;26:405705 (IF=3.821; C=40)
143. X.L. Hou, P. Lampen, Y. Xue, C. Liu, H. Xu, N. Han, C. Ma, H. Srikanth, and **M.H. Phan***
Formation mechanisms of NaZn₁₃-type phase in giant magnetocaloric La-Fe-Si compounds during rapid solidification and annealing
Journal of Alloys and Compounds 2015;646:503 (IF=2.999; C=33)
144. L.T. Tu, L.V. Thiem, and **M.H. Phan***
Magnetization reversal and magnetic anisotropy in ordered CoNiP nanowire arrays: Effects of wire diameter
Sensors 2015;15:5687 (IF=2.04; C=20)
145. P. Lampen-Kelley, A.S. Kamzin, K.E. Romachevsky D.T.M. Hue, H. D. Chinh, H. Srikanth, and **M.H. Phan***
Mössbauer spectroscopy studies of phase evolution in SrFe₁₂O₁₉/La_{0.5}Ca_{0.5}MnO₃ composites
Journal of Alloys and Compounds 2015;636C:323 (IF=2.999; C=21)
146. H. Khurshid, Z. Nemati, J. Alonso, **M.H. Phan**, P. Mukherjee, M. L. Fdez-Gubieda, J. M. Barandiarán, and H. Srikanth
Anisotropy effect in magnetic hyperthermia: A comparison between spherical and cubic exchange-coupled FeO/Fe₃O₄ nanoparticles
Journal of Applied Physics 2015;117: 17A337 (IF=2.201; C=105)

147. **X.L. Hou**, C.Y. Liu, Y. Xue, H. Xu, N. Han, C.W. Ma, and **M.H. Phan***
Nucleation mechanism of NaZn₁₃-type and α -(Fe,Si) phases in La-Fe-Si alloys during rapid solidification
Nanoscale Research Letters 2015;10:143 (IF=2.481; C=17)
148. **H. Khurshid**, **J. Alonso**, V. Sankar, Z. Nemati, **M.H. Phan**, H. Srikanth, E. Garayo, J.A. García
FeCo nanowires with enhanced heating powers and controllable dimensions for magnetic hyperthermia
Journal of Applied Physics 2015;117: 17D113 (IF=2.201; C=98)
149. **S. Chandra**, **A. Biswas**, **M.H. Phan** and H. Srikanth
Impacts of nanostructuring and magnetic ordering of Nd³⁺ on the magnetic and magnetocaloric response in NdMnO₃
Journal of Magnetism and Magnetic Materials 2015;384:138 (IF=1.7; C=30)
150. **A. Biswas**, **S. Chandra**, S. Stefanoski, J.S. Blázquez, J.J. Ipus, A. Conde, **M.H. Phan**, V. Franco, G.S. Nolas, and H. Srikanth
Enhanced cryogenic magnetocaloric effect in Eu₈Ga₁₆Ge₃₀ clathrate nanocrystals
Journal of Applied Physics 2015;117:033903 (IF=2.201; C=13)
151. **K. Stojak Repa**, **D. Israel**, **J. Alonso**, **M.H. Phan***, E.M. Palmero, M. Vazquez, and H. Srikanth
Superparamagnetic Properties of Carbon Nanotubes Filled with NiFe₂O₄ Nanoparticles
Journal of Applied Physics 2015;117:17C723 (IF=2.201; C=24)
152. T. A. Ho, T. D. Thanh, T. O. Ho, **M.H. Phan**, T.L. Phan, and S. C. Yu
Magnetic properties and magnetocaloric effect in Fe-doped La_{0.6}Ca_{0.4}MnO₃ with short-range ferromagnetic order
Journal of Applied Physics 2015;117:17A724 (IF=2.201; C=13)
153. D.W. Xing, **H.X. Shen**, S.D. Jiang, J.S. Liu, **M.H. Phan**, H. Wang, F.X. Qin, D.M. Chen, Y.F. Liu, J.F. Sun
Magnetocaloric effect and critical behavior in melt-extracted Gd₆₀Co₁₅Al₂₅ microwires
Physica Status Solidi A 2015;212:1905 (IF=1.525; C=17)
154. T.L. Phan, N.H. Dan, T.D. Thanh, N.T. Mai, T.A. Ho, A.T. Le, **M.H. Phan**, and S. C. Yu
Magnetic properties and magnetocaloric effect in Fe_{90-x}Sn_xZr₁₀ alloy ribbons
Journal of the Korean Physical Physics 2015;66:1247 (IF=0.425; C=2)
155. T. A. Ho, D.T. Quach, T. D. Thanh, T. O. Ho, **M. H. Phan**, T. L. Phan and S. C. Yu
Magnetocaloric Effect and Critical Behavior in a Disordered Ferromagnet La_{0.7}Sr_{0.3}Mn_{0.9}Ti_{0.1}O₃
IEEE Transactions on Magnetism 2015;51:2501304 (IF=1.363; C=3)

156. T. V. Manh, T. A. Ho, T.D. Thanh, T. L. Phan, M. H. Phan, S.C. Yu
Critical Behavior and Magnetocaloric Effect in $\text{La}_2\text{NiMnO}_6$ Nanocrystals
IEEE Transactions on Magnetics 2015;51:2400304 (IF=1.363; C=3)
157. B. Duong, **H. Khurshid**, P. Gangopadhyay, J. Devkota, K. Stojak, H. Srikanth, L. Tetard, R. Norwood, N. Peyghambarian, J. Thomas, and **M.H. Phan***
Enhanced Magnetism in Highly Ordered Magnetite Nanoparticle-filled Nanohole Arrays
Small 2014;10:2840 (IF=7.823; C=44)
158. J. Devkota, M.T. Trang, K. Stojak, N.X. Phuc, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Synthesis, inductive heating, and magnetoimpedance based detection of multifunctional Fe_3O_4 nanoconjugates
Sensors and Actuators B - Chemical 2014;190:715 (IF=3.840; C=45)
159. P. Colosimo, A. Chen, J. Devkota, H. Srikanth, and **M.H. Phan***
Sensing RF and microwave energy with fiber Bragg grating heating via soft ferromagnetic glass-coated microwires
Sensors and Actuators A: Physical 2014;210:25 (IF=1.943; C=10)
160. J. Devkota, L. Trang, J. Liu, F. Qin, J. Sun, P. Mukherjee, H. Srikanth, and **M.H. Phan***
A soft ferromagnetic multiwire-based inductance coil sensor for sensing applications
Journal of Applied Physics 2014;116:234504 (IF=2.201; C=24)
161. P. Lampen, N.S. Bingham, **M.H. Phan***, S.W. Cheong, and H. Srikanth
Macroscopic phase diagram and magnetocaloric study of metamagnetic transitions in spin chain $\text{Ca}_3\text{Co}_2\text{O}_6$
Physical Review B 2014;89:144414 (IF=3.772; C=51)
162. **H. Khurshid**, **M.H. Phan***, P. Mukherjee, H. Srikanth
Tuning Exchange Bias in $\text{Fe}/\gamma\text{Fe}_2\text{O}_3$ Core-Shell Nanoparticles: Impacts of Interfacial Frozen and Surface Spins
Applied Physics Letters 2014;104:072407 (IF=3.820; C=49)
163. S. Chandra, N. A. Frey, **M.H. Phan**, S. Srinath, C. Wang, S. Sun, M. A. Garcia, and H. Srikanth
Exchange bias effect in $\text{Au-Fe}_3\text{O}_4$ Nanocomposites
Nanotechnology 2014;25:055702 (IF=3.672; C=47)
164. P. Lampen, **M.H. Phan***, K. Kovnir, P. Chai, M. Shatruk, and H. Srikanth
Heisenberg-like ferromagnetism in 3d-4f intermetallic $\text{La}_{0.75}\text{Pr}_{0.25}\text{Co}_2\text{P}_2$ with localized Co moments
Physical Review B 2014;90:174404 (IF=3.772; C=18)

165. J. Devkota, D. Mukherjee, A. Ruiz, S. Witanachchi, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Impact of amorphous and crystalline cobalt ferrite layers on the giant magneto-impedance response of a soft ferromagnetic amorphous ribbon
Journal of Applied Physics 2014;116:123912 (IF=2.201; C=12)
166. J. Devkota, J. Wingo, T. T. T. Mai, X. P. Nguyen, N. T. Huong, P. Mukherjee, H. Srikanth, and **M. H. Phan***
A highly sensitive magnetic biosensor for detection and quantification of anticancer drugs tagged to superparamagnetic nanoparticles
Journal of Applied Physics 2014;115:17B503 (IF=2.201; C=29)
167. D. Mukherjee, M. Hordagoda, P. Lampen, **M.H. Phan**, H. Srikanth, S. Witanachchi, and P. Mukherjee
Enhanced magnetism and ferroelectricity in epitaxial $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3/\text{CoFe}_2\text{O}_4/\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ multiferroic heterostructures grown using dual-laser ablation technique
Journal of Applied Physics 2014;115:17D707 (IF=2.201; C=9)
168. V. Zhukova, A. Talaat, M. Ipatov, Juan M. Blanco, **M.H. Phan**, and A. Zhukov
Effect of Annealing on Magnetic Properties and Giant Magnetoimpedance Effect of Amorphous Microwires
IEEE Transactions on Magnetism 2014;50:2005004 (IF=1.363; C=8)
169. J. Devkota, N.T. Huong, H. Srikanth, and **M.H. Phan***
Magneto-impedance Based Probe of Various Concentrations of Corrosive Chemicals
IEEE Transactions on Magnetism 2014;50:4004404 (IF=1.363; C=4)
170. R. Caballero-Flores, N.S. Bingham, **M.H. Phan***, M.A. Torija, C. Leighton, V. Franco, A. Conde, and H. Srikanth
Magnetocaloric effect and critical behavior in $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$: An analysis on the validity of Maxwell relation and nature of phase transitions
Journal of Physics - Condensed Matter 2014;26:286001 (IF=2.5; C=54)
171. J.S. Liu, F.X. Qin, D.M. Chen, H. Wang, H.X. Shen, D. Xing, **M.H. Phan**, and J.F. Sun,
Combined current-modulation annealing induced enhancement of GMI effect of Co-rich amorphous microwires
Journal of Applied Physics 2014;115:17A326 (IF=2.201; C=71)
172. M.T. Tung, L.T.T. Hang, L.A. Tuan, N.H. Nghi, **M.H. Phan***
Influence of electrodeposition parameters on the magnetic properties and magneto-impedance effect in electrodeposited Cu/CoP wires
Physica B – Condensed Matter 2014;442:16 (IF=1.135; C=11)

173. T. L. Phan, T. D. Thanh, T. A. Ho, T. V. Manh, Q. T. Tran, P. Lampen, **M.H. Phan**, S. C. Yu
An Effective Route to Control the Magnetic-phase Transition and Magnetocaloric Effect of $\text{La}_{0.7}\text{Cd}_{0.3}\text{MnO}_3$ Nanoparticles
IEEE Transactions on Magnetism 2014;50:2302604 (IF=1.363; C=9)
174. J. Devkota, P. Colosimo, A. Chen, V.S. Larin, H. Srikanth, and **M.H. Phan***
Tailoring magnetic and microwave absorption properties of glass-coated soft ferromagnetic amorphous microwires for microwave energy sensing
Journal of Applied Physics 2014;115:17A525 (IF=2.201; C=11)
175. **A. Biswas**, T. L. Phan, N. H. Dan, S. C. Yu, **M. H. Phan***, and H. Srikanth
Impacts of first-order phase transition and phase coexistence on the universal behavior of inverse magnetocaloric effect
Journal of Applied Physics 2014;115:17A907 (IF=2.201; C=6)
176. J. Devkota, A. Ruiz, F.X. Qin, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Soft ferromagnetic microribbons with enhanced GMI properties for high frequency sensor applications
Physics Express 2014;4:10 (IF=; C=1)
177. **H. Khurshida**, Z. N. Porshokouh, **M.H. Phan***, P. Mukherjee, and H. Srikanth
Impacts of surface spins and inter-particle interactions on the magnetism of hollow $\gamma\text{-Fe}_2\text{O}_3$ nanoparticles
Journal of Applied Physics 2014;115:17E131 (IF=2.201; C=11)
178. D.T.M. Hue, T.V. Manh, L.H. Anh, L.V. Hong, **M.H. Phan**, P.T. Huyen, and H.D. Chinh
Sol-gel synthesis, characterization, and magnetic properties of double-layered perovskite manganite $\text{La}_{1.25}\text{Sr}_{1.75}\text{Mn}_2\text{O}_7$
IEEE Transactions on Magnetism 2014;50:4004404 (IF=1.363; C=7)
179. **A. Biswas**, Y.Y. Yu, N.S. Bingham, H. Wang, F. Qin, J.F. Sun, S.C. Yu, V. Franco, H. Srikanth, and **M.H. Phan***
Impact of structural disorder on the magnetic ordering and magnetocaloric response of amorphous Gd-based microwires
Journal of Applied Physics 2014;115:17A318 (IF=2.201; C=12)
180. T.L. Phan, T. A. Ho, P. D. Thang, Q. T. Tran, T. D. Thanh, N. X. Phuc, **M.H. Phan**, B. T. Huy, S. C. Yu
Critical behavior of Y-doped $\text{Nd}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ manganites exhibiting the tricritical point and large magnetocaloric effect
Journal of Alloys and Compounds 2014;615:937 (IF=2.999; C=46)

181. A. Chaturvedi, A.T. Le, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Magneto-impedance effect in electrodeposited Cu/FeNi/Cu/FeNi multilayer wires
Sciencejet 2014;3:48 (IF=0; C=4)
182. T. L. Phan, T. D. Thanh, **M. H. Phan**, and S. C. Yu
Electron Spin Resonance Spectra of $\text{La}_{0.7}\text{Cd}_{0.3}(\text{Mn}, \text{Co})\text{O}_3$ perovskites
IEEE Transactions on Magnetism 2014;50:1000404 (IF=1.363; C=2)
183. T.L. Phan, P.T. Thanh, N.H. Dan, P. Zhang, T.D. Thanh, **M.H. Phan**, and S.C. Yu
Influence of Pr-doping on the magnetic properties and magnetocaloric effect of $\text{Ni}_{50-x}\text{Pr}_x\text{Mn}_{37}\text{Sn}_{13}$ alloys
Journal of Alloys and Compounds 2014; 615:S261 (IF=2.999; C=6)
184. F. Qin, H. Wang, H.X. Peng, N.S. Bingham, D.W. Xing, J.F. Sun, V. Franco, H. Srikanth, and **M.H. Phan***
Mechanical and magnetocaloric properties of Gd-based amorphous microwires fabricated by melt-extraction technique
Acta Materialia 2013;61:1284 (IF=4.226; C=120)
185. **Anis Biswas**, T-L Phan, N. H. Dan, P. Zhang, S. C. Yu, H. Srikanth, and **M. H. Phan***
The scaling and universality of conventional and inverse magnetocaloric effects in Heusler alloys
Applied Physics Letters 2013;103:162410 (IF=3.820; C=23)
186. N. A. Frey Huls, **M.H. Phan***, A. Kumar, S. Mohapatra, S. S. Mohapatra, P. Mukherjee, and H. Srikanth
Transverse susceptibility as a biosensor for detection of Au- Fe_3O_4 nanoparticle-embedded human embryonic kidney cells
Sensors 2013;13:8490 (IF=1.95; C=8)
187. P. Lampen, N. S. Bingham, **M.H. Phan***, H. Kim, M. Osofsky, A. Piqué, T.L. Phan, S.C. Yu, and H. Srikanth
Impact of reduced dimensionality on the magnetic and magnetocaloric response of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$
Applied Physics Letters 2013;102:062414 (IF=3.820; C=142)
188. **A. Biswas**, S. Chandra, T. Samanta, B. Ghosh, **M.H. Phan**, A. K. Raychaudhuri, I. Das, and H. Srikanth
Universality in the entropy change for the inverse magnetocaloric effect
Physical Review B 2013; 87:134420 (IF=3.772; C=65)

189. J. Devkota, A. Ruiz, C. Wang, S. Mohapatra, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Detection of low-concentration superparamagnetic nanoparticles using an integrated radio-frequency magnetic biosensor
Journal of Applied Physics 2013;113:104701 (IF=2.201; C=49)
190. H. Khurshid, S. Chandra, W. Li, G. C. Hadjipnays, P. Mukherjee, **M.H. Phan**, and H. Srikanth
Mechanism and Controlled Growth of Shape and Size Variant Core/Shell FeO/Fe₃O₄ Nanoparticles
Nanoscale 2013;5:7942 (IF=6.739; C=111)
191. A. Biswas, S. Chandra, T. Samanta, **M.H. Phan**, I. Das, and H. Srikanth
The universal behavior of inverse magnetocaloric effect in antiferromagnetic materials
Journal of Applied Physics 2013;113:17A902 (IF=2.201; C=49)
192. J. Devkota, A. Ruiz, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Magneto-resistance, magneto-reactance, magneto-impedance effects in single and multi-wire systems
Journal of Alloys and Compounds 2013;549:295 (IF=2.726; C=20)
193. D.T.M. Hue, P. Lampen, T.V. Manh, V.D. Viet, H.D. Chinh, H. Srikanth, and **M.H. Phan***
Synthesis, structure and magnetic properties of SrFe₁₂O₁₉/ La_{1-x}Ca_xMnO₃ hard/soft phase composites
Journal of Applied Physics 2013;114:123901 (IF=2.201; C=16)
194. P. Zhang, T.L. Phan, and S.C. Yu, T. D. Thanh, N. H. Dan, V. D. Lam, P. Lampen, H. Srikanth, and **M.H. Phan***
Influence of magnetic field on critical behavior near a first order transition in optimally doped manganites: The case of La_{1-x}Ca_xMnO₃ (0.2 ≤ x ≤ 0.4)
Journal of Magnetism and Magnetic Materials 2013; 348:146–153 (IF=1.7; C=91)
195. A. Ruiz, D. Mukherjee, J. Devkota, M. Hordagoda, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Enhanced giant magnetoimpedance effect in soft ferromagnetic amorphous ribbons with pulsed laser deposition of cobalt ferrite
Journal of Applied Physics 2013;113 (IF=2.201; C=22)
196. H. Khurshid, S. Chandra, W.F. Li, **M.H. Phan**, G. C. Hadjipanayis, P. Mukherjee, and H. Srikanth
Synthesis and magnetic properties of core/shell FeO/Fe₃O₄ nano-octopods
Journal of Applied Physics 2013;113 (IF=2.201; C=66)
197. J. Devkota, A. Ruiz, P. Mukherjee, H. Srikanth, and **M.H. Phan***

- Magneto-impedance biosensor with enhanced sensitivity for highly sensitive detection of Nanomag-D beads
IEEE Transactions on Magnetics 2013;49:4064 (IF=1.363; C=44)
198. N.H. Hong, A.T. Raghavender, O. Ciftja, **M.H. Phan**, K. Stojak, H. Srikanth, and Y.H. Zhang
 Ferrite nanoparticles for future heart diagnostics
Applied Physics A: Materials Science and Engineering 2013;112:323 (IF=1.545; C=12)
 199. N.S. Bingham, H. Wang, F. Qin, H.X. Peng, J.F. Sun, V. Franco, H. Srikantha, and **M.H. Phan***
 Excellent magnetocaloric properties of melt-extracted Gd-based amorphous microwires
Applied Physics Letters 2012;101:102407 (IF=3.820; C=97)
 200. N.S. Bingham, P. Lampen, **M.H. Phan***, H. Srikanth, T.D. Hoang, H.D. Chinh, C.L. Zhang, and S.W. Cheong
 Impact of nanostructuring on the magnetic and magnetocaloric properties of microscale phase-separated $\text{La}_{5/8-y}\text{Pr}_y\text{Ca}_{3/8}\text{MnO}_3$ manganites
Physical Review B 2012; 86:064420 (IF=3.772; C=57)
 201. H. Khurshid, W. Li, **M.H. Phan***, P. Mukherjee, H. Srikanth, and G.C. Hadjipanayis
 Surface spin disorder and exchange-bias in hollow maghemite nanoparticles
Applied Physics Letters 2012;101:022403 (IF=3.820; C=82)
 202. S. Chandra, H. Khurshid, W. Li, G. C. Hadjipnayis, **M.H. Phan**, and H. Srikanth
 Spin dynamics and criteria for onset of exchange bias in superspin glass $\text{Fe}/\gamma\text{-Fe}_2\text{O}_3$ core-shell nanoparticles
Physical Review B 2012;86:014426 (IF=3.772; C=78)
 203. S. Chandra, H. Khurshid, **M.H. Phan**, and H. Srikanth
 Asymmetric hysteresis loops and its dependence on magnetic anisotropy in exchange biased Co/CoO core-shell nanoparticles
Applied Physics Letters 2012;101:232405 (IF=3.820; C=53)
 204. T.L. Phan, P. Zhang, N. H. Dan, N. H. Yen, P. T. Thanh, T. D. Thanh, **M.H. Phan***, and S. C. Yu
 Coexistence of conventional and inverse magnetocaloric effects and critical behaviors in $\text{Ni}_{50}\text{Mn}_{50-x}\text{Sn}_x$ ($x = 13, 14$) alloy ribbons
Applied Physics Letters 2012;101: 202408 (IF=3.820; C=111)
 205. P. Lampen, Y. D. Zhang, T.L. Phan, P. Zhang, S.C. Yu, H. Srikanth, and **M.H. Phan***
 Magnetic phase transitions and magnetocaloric effect in $\text{La}_{0.7}\text{Ca}_{0.3}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ ($0 < x < 0.07$) manganites

- Journal of Applied Physics* 2012;112:113901 (IF=2.201; C=51)
206. S. Chandra, A. Biswas, B. Ghosh, V. Siruguri, A.K. Raychaudhuri, **M.H. Phan** and H. Srikanth
Evidence of a canted magnetic state in self-doped $\text{LaMnO}_{3+\delta}$ ($\delta \approx 0.04$): A magnetocaloric study
Journal of Physics: Condensed Matter 2012;24:366004 (IF=2.5; C=57)
 207. A. Biswas, S. Chandra, **M.H. Phan**, and H. Srikanth
Magnetocaloric Properties of Nanocrystalline LaMnO_3 : Enhancement of Refrigerant Capacity and Relative Cooling Power
Journal of Alloys and Compounds 2012;545:157 (IF=2.134; C=69)
 208. D. Mukherjee, N. Bingham, M. Hordagoda, **M.H. Phan**, H. Srikanth, P. Mukherjee, and S. Witanachchi
Influence of microstructure and interfacial strain on the magnetic properties of epitaxial $\text{Mn}_3\text{O}_4/\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ layered-composite thin films
Journal of Applied Physics 2012;112:083910 (IF=2.201; C=17)
 209. N.H. Tinh, N.V. Dung, N.H. Nghi, and **M.H. Phan***
Influence of Nb substitution for Fe on the magnetic and magneto-impedance properties of amorphous and annealed $\text{Fe}_{76.5-x}\text{Si}_{13.5}\text{B}_9\text{Cu}_1\text{Nb}_x$ ($x = 0-7$) ribbons
Physica B: Condensed Matter 2012;407:3790 (IF=0.908; C=3)
 210. A.T. Le, M.T. Tung, and **M.H. Phan**
A Study of Giant Magnetoimpedance Effect and Magnetic Response in Micro-patterned F/Ag/F Magnetic Ribbon Structures (F=Co-rich Amorphous Ribbon)
Journal of Superconductivity and Novel Magnetism 2011;25:1133 (IF=1.014; C=3)
 211. Y.D. Zhang, P. Lampen, T.L. Phan, S.C. Yu, H. Srikanth, and **M.H. Phan***
Tunable magnetocaloric effect near room temperature in $\text{La}_{0.7-x}\text{Pr}_x\text{Sr}_{0.3}\text{MnO}_3$ ($0.02 \leq x \leq 0.30$) manganites
Journal of Applied Physics 2012;111:063918 (IF=2.201; C=53)
 212. P. Lampen, A. Puri, **M.H. Phan***, and H. Srikanth,
Structure, magnetic, and magnetocaloric properties of amorphous and crystalline $\text{La}_{0.4}\text{Ca}_{0.6}\text{MnO}_{3+\delta}$ nanoparticles
Journal of Alloys and Compounds C 2012;94:512 (IF=2.134; C=69)
 213. F. X. Qin, H. X. Peng, **M.H. Phan**, L. V. Panina, M. Ipatov, A. Zhukov
Effects of wire properties on the field-tunable behaviour of continuous-microwire composites

- Sensors and Actuators A: Physical* 2012;178:118 (IF=1.74; C=26)
214. A. Chaturvedi, N. Laurita, P. Mukherjee, H. Srikanth, and **M.H. Phan***
Enhanced magnetoimpedance effect in Co-based amorphous ribbons coated with carbon nanotubes
Journal of Applied Physics 111; 07E507:2012 (IF=2.201; C=25)
 215. N.H. Hong, C.-K. Park, A. T. Raghavender, O. Ciftja, N.S. Bingham, **M.H. Phan**, and H. Srikanth
Room temperature ferromagnetism in monoclinic Mn-doped ZrO₂ thin films
Journal of Applied Physics 2012;111:07C302 (IF=2.201; C=53)
 216. N.S. Bingham, P. Lampen, T.L. Phan, **M.H. Phan***, S.C. Yu, and H. Srikanth
Magnetocaloric effect and refrigerant capacity in Sm_{1-x}Sr_xMnO₃ manganites
Journal of Applied Physics 2012;111:07D705 (IF=2.201; C=21)
 217. D. Mukherjee, N. Bingham, **M.H. Phan**, H. Srikanth, P. Mukherjee, and S. Witanachchi
Zig-zag Interface and Strain-influenced Ferromagnetism in Epitaxial Mn₃O₄/La_{0.7}Sr_{0.3}MnO₃ Thin Films grown on SrTiO₃ (100) substrates
Journal of Applied Physics 2012;111:07D730 (IF=2.201; C=19)
 218. S. Chandra, A.I. Figueroa, Barnali Ghosh, A. K. Raychaudhuri, **M.H. Phan***, and H. Srikanth
Fabrication and magnetic response probed by RF transverse susceptibility in La_{0.67}Ca_{0.33}MnO₃ nanowires
Physica B: Condensed Matter 2012;407:175 (IF=0.908; C=8)
 219. D.T.M. Hue, T.V. Dung, B.B. Huan, H.D. Chinh, and **M.H. Phan**
Sol-gel hydrothermal synthesis of strontium hexaferrite nanoparticles and the relation between their crystal structure and high coercivity properties
Adv. Nat. Sci.: Nanosci. Nanotechnol. 2012;3:025015 (IF=1.54; C=32)
 220. A. Chaturvedi, S. Stefanoski, **M.H. Phan***, George S. Nolas, and H. Srikanth
Table-like magnetocaloric effect and enhanced refrigerant capacity in Eu₈Ga₁₆Ge₃₀-EuO composite materials
Applied Physics Letters 2011;99:162513 (IF=3.820; C=127)
 221. **M.H. Phan***, V. Franco, A. Chaturvedi, S. Stefanoski, G.S. Nolas, and H. Srikanth
Origin of the magnetic anomaly and tunneling effect of europium on the magnetism in Eu₈Ga₁₆Ge₃₀ type-I clathrates
Physics Review B 2011; 84:054436 (IF=3.772; C=72)
 222. Ha M. Nguyen, Chih-Hao Lee, P.Y. Hsiao, and **M.H. Phan***
Exchange bias in magnetic nanoparticle capped with amorphous magnetic shell

- Journal of Applied Physics* 2011;110:043909 (IF=2.201; C=5)
223. T. Wangenstein, T. Dhakal, M. Merlak, S. Chandra, P. Mukherjee, **M.H. Phan***, H. Srikanth, and S. Witanachchi,
Growth of uniform ZnO nanoparticles by a microwave plasma process
Journal of Alloys and Compounds 2011;509:6859 (IF=2.134; C=13)
 224. N.A. Frey, N.S. Bingham, **M.H. Phan**, H. Srikanth, D.D. Stauffer, and C. Leighton
Transverse Susceptibility as a probe of the magnetocrystalline anisotropy driven phase transition in $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$
Physics Review B 2011;83:024406 (IF=3.772; C=29)
 225. A. Chaturvedi, N. Laurita, A. Leary, **M.H. Phan***, M.E. McHenry, and H. Srikanth
Giant magnetoimpedance and field sensitivity in amorphous and nanocrystalline $(\text{Co}_{1-x}\text{Fe}_x)_{89}\text{Zr}_7\text{B}_4$ ($x=0, 0.025, 0.05, 0.1$) ribbons
Journal of Applied Physics 2011;109:07B508 (IF=2.201; C=27)
 226. M.B. Morales, S. Pal, N.A. Frey, **M.H. Phan***, P. Mukherjee, and H. Srikanth
Origin of Magnetic Anomalies in the Liquid, Mixed and Frozen States of Ferrofluids
Physics Express 2011 (IF=1; C=1)
 227. N. Laurita, A. Chaturvedi, C. Bauer, P. Jayathilaka, Alex Leary, C. Miller, **M.H. Phan***, M.E. McHenry, and H. Srikanth
Enhanced giant magnetoimpedance effect and field sensitivity in Co-coated soft ferromagnetic amorphous ribbons
Journal of Applied Physics 2011;109:07C706 (IF=2.201; C=52)
 228. A.I. Figueroa, S. Chandra, **M.H. Phan**, H. Srikanth, C. M. Bonilla, L.M. García, F. Bartolomé, J. Bartolomé, and J. Herrero-Albillos
Magnetic switching and magnetic transitions in ErCo_2 probed by radio frequency transverse susceptibility
Journal of Applied Physics 2011;109:07E118 (IF=2.201; C=13)
 229. S. Chandra, A. I. Figueroa, B. Ghosh, **M.H. Phan***, H. Srikanth, and A.K. Raychaudhuri
Phase coexistence and magnetic anisotropy in polycrystalline and nanocrystalline $\text{LaMnO}_{3+\delta}$
Journal of Applied Physics 2011;109:07D720 (IF=2.201; C=6)
 230. F.X. Qin, H.X. Peng, V.V. Popov, and **M.H. Phan**
Giant magneto-impedance and stress-impedance effects of microwire composites for sensing applications
Solid State Communications 2011;151:293 (IF=1.979; C=13)
 231. D. Mukherjee, T. Dhakal, N. Bingham, **M.H. Phan**, H. Srikanth, P. Mukherjee, and S. Witanachchi

- Role of crystal orientation on the magnetic properties of CoFe_2O_4 thin films grown on Si (100) and Al_2O_3 (0001) substrates using pulsed laser deposition
Physica B: Condensed Matter 2011;406:2663 (IF=0.908; C=19)
232. **M.H. Phan***, N.S. Bingham, H. Srikanth, N.D. Hoang, H.D. Chinh, C.L. Zhang, S.W. Cheong
 Collapse of charge ordering and enhancement of magnetocaloric effect in nanostructured charge-ordered manganites
Applied Physics Letters 2010;97:242506 (IF=3.820; C=89)
233. **M.H. Phan***, V. Franco, N.S. Bingham, H. Srikanth, and N.H. Hur
 Tricritical point and critical exponents of $\text{La}_{0.7}\text{Ca}_{0.3-x}\text{Sr}_x\text{MnO}_3$ ($x = 0, 0.05, 0.1, 0.2, 0.25$) single crystals
Journal of Alloys and Compounds 2010;508:238 (IF=2.134; C=182)
234. **M.H. Phan***, B. Morales, N.S. Bingham, H. Srikanth, C.L. Zhang, and S.W. Cheong
 Phase coexistence and magnetocaloric effect in $(\text{La,Pr,Ca})\text{MnO}_3$
Physical Review B 2010;81:094413 (6 pages) (IF=3.772; C=97)
235. **M.H. Phan***, N. A. Frey, H. Srikanth M. Angst, B.C. Sales, and D. Mandrus
 Complex magnetic phases in LuFe_2O_4
Solid State Communications 2010;150:341 (IF=1.979; C=104)
236. **M.H. Phan***, V. Franco, A. Chaturvedi, S. Stefanoski, G.T. Woods, G.S. Nolas and H. Srikanth
 Magnetocaloric effect and refrigerant capacity in Sr-doped $\text{Eu}_8\text{Ga}_{16}\text{Ge}_{30}$ type-I clathrates
Journal of Applied Physics 2010;107:09A910 (3 pages) (IF=2.064; C=18)
237. A. Chaturvedi, T. Dhakal, A.-T. Le, **M.H. Phan***, S. Witanachchi, and H. Srikanth
 Critical length and giant magneto-impedance in $\text{Co}_{69}\text{Fe}_{4.5}\text{Ni}_{1.5}\text{Si}_{10}\text{B}_{15}$ amorphous ribbons
Materials Science and Engineering B 2010;172:146–150 (IF=1.55; C=26)
238. A. Chaturvedi, T. Dhakal, A.-T. Le, **M.H. Phan***, S. Witanachchi, and H. Srikanth
 Correlation between magnetic softness, sample surface and magneto-impedance in $\text{Co}_{69}\text{Fe}_{4.5}\text{X}_{1.5}\text{Si}_{10}\text{B}_{15}$ ($X = \text{Ni, Al, Cr}$) amorphous ribbons
Physica B: Condensed Matter 2010;405:2836-2839 (IF=0.908; C=20)
239. A.T. Le, N.Q. Hoa, D.G. Park, **M.H. Phan***, H. Srikanth, and S.C. Yu
 Enhancement of the giant magnetoimpedance effect and its magnetic response in ion-irradiated magnetic amorphous ribbons
Materials Science and Engineering B 2010;166:89 (IF=1.55; C=3)
240. F.X. Qin, H.X. Peng, **M.H. Phan**, L.V. Panina, M. Ipatov, V. Zhukova, A. Zhukov, and J. Gonzalez
 Exceptional EMI shielding properties of ferromagnetic microwires enabled polymer composites
Journal of Applied Physics 2010;108:044510 (IF=2.064; C=69)

241. Ha M. Nguyen, Pai-Yi Hsiao, and **M.H. Phan***
Monte Carlo study of a bilayer model for exchange bias using a magnetic glass exhibiting random magnetic anisotropy
Journal of Applied Physics 2010;107:09D706 (IF=2.064; C=11)
242. F.X. Qin, H.X. Peng, **M.H. Phan**, Jie Tang, L.V. Panina, M. Ipatov, V. Zhukova, A. Zhukov, and J. Gonzalez
Novel magnetic microwires-embedded composites for structural health monitoring applications
Journal of Applied Physics 2010;107:09A314 (IF=2.064; C=58)
243. V. Franco, A. Conde, P. Poddar, S. Srinath, **M.H. Phan**, and H. Srikanth
Field dependence of the magnetocaloric effect in core-shell nanoparticles
Journal of Applied Physics 2010;107:09A902 (IF=2.064; C=52)
244. T. Dhakal, D. Mukherjee, P. Mukherjee, **M.H. Phan**, H. Srikanth, and S. Witanachchi
Magnetic anisotropy and field switching in cobalt ferrite thin films deposited by pulsed laser
Journal of Applied Physics 2010;107:053914 (IF=2.064; C=105)
245. F.X. Qin, H.X. Peng, and **M.H. Phan**
Wire-length effect on GMI in $\text{Co}_{70.3}\text{Fe}_{3.7}\text{B}_{10}\text{Si}_{13}\text{Cr}_3$ amorphous glass-coated microwires
Materials Science and Engineering B 2010;167:129 (IF=1.55; C=31)
246. F.X. Qin, H.X. Peng, and **M.H. Phan**
Influence of varying metal-to-glass ratio on GMI effect in Co-based amorphous glass-coated microwires
Solid State Communications 2010;150:114 (IF=1.979; C=17)
247. S. Pal, S. Chandra, **M.H. Phan**, P. Mukherjee, and S. Hariharan
Carbon Nanostraws: Nanotubes Filled with Superparamagnetic Nanoparticles
Nanotechnology 2009;20:485604 (IF=3.310; C=57)
248. **M.H. Phan***, M.B. Morales, C.N. Chinnasamy, B. Latha, V.G. Harris, and H. Srikanth
Magnetocaloric effect in bulk and nanostructured $\text{Gd}_3\text{Fe}_5\text{O}_{12}$
Journal of Physics D: Applied Physics 2009;42:115007 (IF=2.104; C=71)
249. N.S. Bingham, **M.H. Phan***, H. Srikanth, M.A. Torija, and C. Leighton
Magnetocaloric effect and refrigerant capacity in charge-ordered manganites
Journal of Applied Physics 2009;106:023909 (IF=2.201; C=198)
250. **M.H. Phan***, N. A. Frey, and H. Srikanth M. Angst, B.C. Sales, and D. Mandrus
Magnetism and cluster glass dynamics in geometrically frustrated LuFe_2O_4
Journal of Applied Physics 2009;105:07E308 (IF=2.201; C=45)
251. N. A. Frey, **M.H. Phan**, S. Srinath, C. Wang, S. Sun, and H. Srikanth
Interparticle interactions in coupled $\text{Au-Fe}_3\text{O}_4$ nanoparticles
Journal of Applied Physics 2009;105:07B502 (IF=2.201; C=62)

252. M.B. Morales, **M.H. Phan***, N.A. Frey, S. Pal, and H. Srikanth
Carrier liquid freezing and particle blocking effects on the magnetic properties of Fe₃O₄-based ferrofluids
Journal of Applied Physics 2009;105:07B511 (IF=2.201; C=39)
253. H.X. Peng, F.X. Qin, **M.H. Phan**, J. Tang, L.V. Panina, M. Ipatov, V. Zhukova, A. Zhukov, and J. Gonzalez
Co-based magnetic microwire and field-tunable multifunctional macro-composites
Journal of Non-crystalline Solids 2009;355:1380-1386 (IF=1.449; C=85)
254. **M.H. Phan***, G.T. Woods, A. Chaturvedi, S. Stefanoski, G.S. Nolas, and H. Srikanth
Long-range ferromagnetism and giant magnetocaloric effect in type-VIII Eu₈Ga₁₆Ge₃₀ clathrates
Applied Physics Letters 2008;93:252505 (IF=3.726; C=106)
255. M.T. Tung, N.V. Dung, N.H. Nghi, **M.H. Phan***, and H.X. Peng
Influence of Fe doping and FeNi-layer thickness on the magnetic properties and GMI effect of electrodeposited Ni_{100-x}Fe_x/Cu (x = 0~95) wires
Journal of Physics D: Applied Physics 2008;41:105003 (IF=2.104; C=5)
256. N.D. Ha, **M.H. Phan***, C.G. Kim, and C.O. Kim
Novel nanostructure and magnetic properties of CoFeHfO films
Nanotechnology 2007;18:155705 (IF=3.310; C=74)
257. T.L. Phan, R. Vincent, N.X. Ngia, Y.Y. Song, **M.H. Phan**, and S.C. Yu
Electron spin resonance and Raman studies of Mn-doped ZnO ceramics
Journal of Applied Physics 2007;101:09H103 (IF=2.171; C=21)
258. T.L. Phan, R. Vincent, N.X. Ngia, S.C. Yu, and **M.H. Phan**
Spin dynamics in annealed Mn-doped ZnO ceramic materials
Solid State Communications 2007;144:134-137 (IF=1.535; C=12)
259. **M.H. Phan***, H.X. Peng, and M.R. Wisnom
Large enhancement of GMI effect in polymer composites containing Co-based ferromagnetic microwires
Journal of Magnetism and Magnetic Materials 2007;316:e253-e256 (IF=1.704; C=59)
260. **M.H. Phan***, H.X. Peng, S.C. Yu, N.V. Dung, and N.H. Nghi
Optimized GMI effect in electrodeposited CoP/Cu composite wires
Journal of Magnetism and Magnetic Materials 2007;316:244-247 (IF=1.704; C=27)
261. L.A. Tuan, **M.H. Phan**, C.O. Kim, H.B. Lee, and S.C. Yu
Very large magnetoimpedance in a glass-coated microwire LC-resonator
Physica B-Condensed Matter 2007;395:88-92 (IF=0.751; C=11)
262. L.A. Tuan, **M.H. Phan**, H.B. Lee, S.C. Yu, and C.O. Kim

- Influences of annealing and wire geometry on the giant magnetoimpedance effect in a glass-coated microwire LC-resonator
Journal of Physics D: Applied Physics 2007;40:4582-4585 (IF=2.2; C=11)
263. **M.H. Phan***, H.X. Peng, N.D. Tho, N. Chau, and S.C. Yu
 Manganese perovskites for room temperature magnetic refrigeration applications
Journal of Magnetism and Magnetic Materials 2007;316:e562-e565 (IF=1.704; C=34)
 264. **M.H. Phan*** and S.C. Yu
 Magnetocaloric manganites: Progress and Challenges (Invited Paper)
Physica Status Solidi A 2007;204:4091-4095 (IF=1.214; C=31)
 265. **M.H. Phan***, N.D. Ha, C.G. Kim, and C.O. Kim
 Nanostructure and excellent magnetic properties of $\text{Co}_{19.35}\text{Fe}_{53.28}\text{Hf}_{7.92}\text{O}_{19.35}$ films
Solid State Communications 2007;141:502-505 (IF=1.535; C=9)
 266. N.D. Ha, A.T. Le, **M.H. Phan**, H.B. Lee, and C.O. Kim
 High resistive Co-Fe-Hf-O magnetic thin films for high-frequency applications
Materials Science and Engineering B 2007;139:37-40 (IF=1.35; C=10)
 267. L.A. Tuan, N.D. Ha, **M.H. Phan***, and C.O. Kim
 Anomalous magnetoimpedance in Co-Fe-Al-O thin films
Physica Status Solidi B 2007;4:4392-4395 (IF=1.071; C=2)
 268. **M.H. Phan***, N.D. Ha, L.A. Tuan, C.O. Kim
 Influence of film thickness on the electrical and magnetic properties of Co-Fe-Al-O films
Physica Status Solidi C 2007;4:4589-4592 (IF=1.071; C=2)
 269. L.A. Tuan, **M.H. Phan***, N.D. Ha, C.O. Kim, and S.C. Yu
 Longitudinal and transverse incremental permeability of $\text{Co}_{19.35}\text{Fe}_{53.28}\text{Hf}_{7.92}\text{O}_{19.35}$ films
Physica Status Solidi B 2007;204:4117-4120 (IF=1.071; C=0)
 270. L.A. Tuan, N.D. Ha, **M.H. Phan***, C.O. Kim, and S.C. Yu
 Influence of film thickness on the soft magnetic properties of sputtered Co-Fe-Hf-O films
Physica Status Solidi C 2007;4:4569-4572 (IF=1.071; C=1)
 271. N.D. Ha, L.A. Tuan, **M.H. Phan***, and S.C. Yu
 Ultrasoft magnetic properties of Co-Fe-Hf-O nanocomposite films
Physica Status Solidi A 2007;204:4125-4128 (IF=1.214; C=4)
 272. T.L. Phan, S.G. Min, **M.H. Phan**, S.C. Yu, and N. Chau
 ESR study of $\text{La}_{1-x}\text{Pb}_x\text{MnO}_3$ ($0.1 \leq x \leq 0.5$) perovskites
Physica Status Solidi (b) 2007;244:1109-1117 (IF=1.071; C=12)
 273. N.D. Ha, **M.H. Phan***, and C.O. Kim
 Influence of rapid annealing and substrate temperature on the magnetic properties of Co-Fe-V films

- Journal of Applied Physics* 2006;99:08F105, 1~3 (IF=2.316; C=6)
274. N.D. Ha, K.E. Lee, **M.H. Phan**, and C.O. Kim
High frequency characteristics of Co-Fe-V-Al-O-Nb thin films
Journal of Magnetism and Magnetic Materials 2006;304:e189-e191 (IF=1.212; C=2)
 275. T.L. Phan, **M.H. Phan**, N.D. Ha, C.O. Kim, and S.C. Yu
Electrical and magnetic properties of Co-Fe-Al-O thin films
Journal of Magnetism and Magnetic Materials 2006;304:e201-e203 (IF=1.212; C=1)
 276. **M.H. Phan***, H.X. Peng, M.R. Wisnom, S.C. Yu, and N. Chau
Effect of annealing on the microstructure and magnetic properties of Fe-based nanocomposite materials
Composites: Part A 2006;37:191-195 (IF=1.875; C=45)
 277. **M.H. Phan***, H.X. Peng, M.R. Wisnom, S.C. Yu, C.G. Kim, and N.H. Nghi
Effect of annealing temperature on permeability and giant magnetoimpedance of Fe-based amorphous ribbon
Sensors and Actuators A-Physical 2006;129:62-65 (IF=1.434; C=33)
 278. **M.H. Phan***, H.X. Peng, S.C. Yu, and M. Vazquez
Optimized giant magnetoimpedance effect in amorphous and nanocrystalline materials
Journal of Applied Physics 2006;99:08C505 (IF=2.316; C=93)
 279. **M.H. Phan***, H.X. Peng, N.D. Tho, D.T. Hanh, and N. Chau
Large magnetocaloric effect in $\text{Pr}_{1-x}\text{Pb}_x\text{MnO}_3$ ($0 < x < 0.5$) perovskites
Journal of Applied Physics 2006;99:08Q108 (IF=2.316; C=5)
 280. T.L. Phan, **M.H. Phan**, and S.C. Yu
Spin dynamics, electrical and magnetic properties of $(\text{La}_{0.5}\text{Pr}_{0.5})_{0.7}\text{Pb}_{0.3}\text{Mn}_{1-x}\text{Cu}_x\text{O}_3$ ($x = 0, 0.02$)
Physica B-Condensed Matter 2006;371: 317-322 (IF=0.872; C=18)
 281. H.N. Nhat, H.D. Chinh, and **M.H. Phan***
The resistivity of grain boundary of K-doped ruthenates in percolative conduction regime
Solid State Communications 2006;139:456-459 (IF=1.556; C=4)
 282. **M.H. Phan***, H.X. Peng, M.R. Wisnom, S.C. Yu, C.G. Kim, and M. Vázquez
Neutron irradiation effect on permeability and magnetoimpedance of amorphous and nanocrystalline magnetic materials
Physical Review B, 2005;71:134423 (IF=3.185; C=9)
 283. **M.H. Phan***, H.X. Peng, M.R. Wisnom, and S.C. Yu
Giant magnetoimpedance effect in ultrasoft FeAlSiBCuNb nanocomposites for sensor applications
Journal of Applied Physics 2005;98:014316-7 (IF=2.498; C=53)
 284. **M.H. Phan***, H.X. Peng, M.R. Wisnom, S.C. Yu, and N. Chau

- Valve behavior of the giant magnetoimpedance in field-annealed $\text{Co}_{70}\text{Fe}_5\text{Si}_{15}\text{Nb}_{2.2}\text{Cu}_{0.8}\text{B}_7$ amorphous ribbon
Journal of Applied Physics 2005;97: 10M108 (IF=2.498; C=12)
285. **M.H. Phan***, S.C. Yu, and N.H. Hur
 Excellent magnetocaloric properties of $\text{La}_{0.7}\text{Ca}_{0.3-x}\text{Sr}_x\text{MnO}_3$ ($0.05 \leq x \leq 0.25$) single crystals
Applied Physics Letters 2005;86:072504-072506 (IF=4.127; C=207)
286. **M.H. Phan***, N.D. Tho, N. Chau, S.C. Yu, and M. Kurisu
 Large magnetic entropy change above 300 K in a colossal magnetoresistive material $\text{La}_{0.7}\text{Sr}_{0.3}\text{Mn}_{0.98}\text{Ni}_{0.02}\text{O}_3$
Journal of Applied Physics 2005;97:3215-3218 (IF=2.498; C=53)
287. **M.H. Phan***, H.X. Peng, S.C. Yu, N.D. Tho, and N. Chau
 Large magnetic entropy change in Cu-doped manganites
Journal of Magnetism and Magnetic Materials 2005;285: 199-203 (IF=0.985; C=72)
288. **M.H. Phan***, H.X. Peng, and S.C. Yu
 Large magnetocaloric effect in single crystal $\text{Pr}_{0.63}\text{Sr}_{0.37}\text{MnO}_3$
Journal of Applied Physics 2005;97:10M306 (IF=2.498; C=84)
289. **M.H. Phan***, H.X. Peng, S.C. Yu, and N. H. Hur
 Large magnetic entropy change above 300 K in a $\text{La}_{0.7}\text{Ca}_{0.2}\text{Sr}_{0.1}\text{MnO}_3$ single crystal
Journal of Magnetism and Magnetic Materials 2005;290-291: 665-668 (IF=0.985; C=12)
290. N.D. Ha, N.T. Thanh, H.B. Kim, E. Gan' shina, and **M.H. Phan***
 Near-surface magnetic properties of CoFeAlO thin films
Solid State Communications 2005;135:721-724 (IF=1.489; C=8)
291. N.D. Ha, H.B. Kim, Gan'Shina, **M.H. Phan***, C.G. Kim, and C.O. Kim
 Observation of reversed hysteresis loops and negative coercivity in CoFeAlO thin films
Journal of Magnetism and Magnetic Materials 2005;295:126-131 (IF=0.985; C=3)
292. N.V. Khiem, N.X. Phuc, T.L. Phan, S.C. Yu, and **M.H. Phan**
 Spin dynamics and magnetic frustration effects in $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0 < x \leq 0.5$) compounds
Journal of Applied Physics 2005;97:10A509 (IF=2.498; C=2)
293. T.L. Phan, **M.H. Phan**, N.X. Phuc, and S.C. Yu
 Magnetic frustration effects in Fe-doped cobalt oxides
Journal of Magnetism and Magnetic Materials 2005;290-291:1005-1008 (IF=0.985; C=2)
294. T.L. Phan, S.C. Yu, N.V. Khiem, **M.H. Phan**, J.R. Rhee, and N.X. Phuc
 Electronic and magnetic phase diagram of $\text{La}_{0.5}\text{Sr}_{0.5}\text{Co}_{1-x}\text{Fe}_x\text{O}_3$ perovskites
Journal of Applied Physics 2005;97: 10A508 (IF=2.498; C=5)
295. **M.H. Phan***, H.X. Peng, M.R. Wisnom, S.C. Yu, and N. Chau
 Enhanced GMI effect in a $\text{Co}_{70}\text{Fe}_5\text{Si}_{15}\text{B}_{10}$ due to Cu and Nb substitution for B

- Physics Status Solidi A* 2004;201:1558-1562 (IF=0.86; C=43)
296. **M.H. Phan***, S.C. Yu, N.H. Hur, and Y.H. Jeong
Large magnetocaloric effect in a $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ single crystal
Journal of Applied Physics 2004;96:1154-1158 (IF=2.255; C=158)
 297. **M.H. Phan***, T.L. Phan, S.C. Yu, and N. Chau
Large magnetocaloric effect in $\text{La}_{0.845}\text{Sr}_{0.155}\text{Mn}_{1-x}\text{M}_x\text{O}_3$ (M=Mn, Cu, Co) perovskites
Physica Status Solidi (b) 2004;241:1744-1747 (IF=0.982; C=48)
 298. **M.H. Phan***, T.L. Phan, S.C. Yu, and S.H. Park
Large magnetic entropy change above 300 K in manganites
Journal of the Korean Physical Society 2004;45:664-667 (IF=1.383; C=12)
 299. **M.H. Phan***, S.C. Yu, Y.M. Moon, and N.H. Hur
Magnetic characteristics of La-deficient manganate single crystals
Journal of Magnetism and Magnetic Materials 2004;272-276: e503-e505 (IF=1.031; C=3)
 300. **M.H. Phan***, V.T. Phan, S.C. Yu, J.R. Rhee, and N.H. Hur
Large magnetic entropy change in a $\text{La}_{0.8}\text{Ca}_{0.2}\text{MnO}_3$ single crystal
Journal of Magnetism and Magnetic Materials 2004;272-276: 2337-2339 (IF=1.031; C=28)
 301. **M.H. Phan***, T.L. Phan, T.N. Huynh, S.C. Yu, J.R. Rhee, N. Khiem, and N.X. Phuc
Spin dynamics and spin-glass state in Fe-doped cobaltates
Journal of Applied Physics 2004;95:7531-7533 (IF=2.255; C=25)
 302. T.L. Phan, **M.H. Phan**, S.C. Yu, N.V. Khiem, and N.X. Phuc
Study of spin dynamics, spin glass and spin cluster behaviors in $\text{La}_{0.5}\text{Sr}_{0.5}(\text{Fe}_x\text{Co}_{1-x})\text{O}_3$ ($x=0, 0.1$)
Journal of Magnetism and Magnetic Materials 2004;279-280:325-327 (IF=1.031; C=8)
 303. T.L. Phan, **M.H. Phan**, and S.C. Yu
A new band in Cr^{3+} -doped MgAl_2O_4 natural spinel at room temperature
Physica Status Solidi (b) 2004;241:434-438 (IF=0.982; C=25)
 304. T. L. Phan, **M.H. Phan**, M.H. Nam, T. K. Anh, and S.C. Yu
Luminescent properties of Eu-doped Y_2O_3 nanophosphors
Physica Status Solidi A 2004;201:2170-2174 (IF=0.86; C=43)
 305. T.L. Phan, **M.H. Phan**, Thomas P J Han, and S.C. Yu
Photoluminescence properties of Cr^{3+} -doped MgAl_2O_4 natural spinel
Journal of the Korean Physical Society 2004;45:63-66 (IF=1.383; C=4)
 306. T.L. Phan, V.P. Pham, and S.C. Yu, **M.H. Phan**, and Y.S. Chung
Influence of glycine nitrate on luminescence efficiency of $\text{Y}_2\text{O}_3\text{:Eu}$ nanophosphors
Journal of the Korean Physical Society 2004;45:709-712 (IF=1.383; C=8)

307. T.L. Phan, **M.H. Phan**, S.C. Yu, N.V. Khiem, and N.X. Phuc
Magnetic and transport properties of $\text{La}_{0.5}\text{Sr}_{0.5}(\text{Fe}_x\text{Co}_{1-x})\text{O}_3$ ($0 \leq x \leq 0.2$) perovskites
Physica Status Solidi (b) 2004;241:1573-11576 (IF=0.982; C=1)
308. **M.H. Phan***, S.C. Yu, C.G. Kim, and M. Vázquez
Origin of asymmetrical magnetoimpedance in Co-based amorphous microwires due to dc bias-current
Applied Physics Letters 2003;83:2871-2873 (IF=4.049; C=51)
309. **M.H. Phan***, Y.S. Kim, N.X. Chien, S.C. Yu, H. Lee, and N. Chau
Giant magnetoimpedance effect in amorphous $\text{Co}_{70}\text{Fe}_5\text{Si}_{15}\text{B}_{10}$ and $\text{Co}_{70}\text{Fe}_5\text{Si}_{15}\text{Nb}_{2.2}\text{Cu}_{0.8}\text{B}_7$ ribbons
Japanese Journal of Applied Physics 2003;42:5571-5574 (IF=1.171; C=26)
310. Y.S. Kim, **M.H. Phan***, S.C. Yu, K.S. Kim, H. Lee, B.G. Ki, and Y.H. Kang
Annealing and neutron irradiation effects on the permeability in $\text{Fe}_{86}\text{Zr}_7\text{B}_6\text{Cu}_1$ alloy
Physica B –Condensed Matter 2003;327:311-314 (IF=0.908; C=7)
311. **M.H. Phan***, S.B. Tian, S.C. Yu, and A.N. Ulyanov
Magnetic and magnetocaloric properties of $\text{La}_{0.7}\text{Ca}_{0.3-x}\text{Ba}_x\text{MnO}_3$ compounds
Journal of Magnetism and Magnetic Materials 2003;256:306-310 (IF=0.91; C=174)
312. **M.H. Phan***, S.B. Tian, D.Q. Hoang, S.C. Yu, and A.N. Ulyanov
Large magnetic entropy change above 300 K in CMR materials
Journal of Magnetism and Magnetic Materials 2003;258-259:309-311 (IF=0.91; C=91)
313. **M.H. Phan***, S.C. Yu, and N.H. Hur
Magnetic and magnetocaloric properties of $(\text{La}_{1-x})_{0.8}\text{Ca}_{0.2}\text{MnO}_3$ ($x = 0.05, 0.20$) single crystals
Journal of Magnetism and Magnetic Materials 2003;262:407-411 (IF=0.91; C=69)
314. S.B. Tian, **M.H. Phan***, S.C. Yu, and N.H. Hur
Magnetocaloric effect in a $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ single crystal
Physica B–Condensed Matter 2003;327:221-224 (IF=0.908; C=158)
315. **M.H. Phan***, Yu, A.N. Ulyanov, and H.K. Lachowick
Large magnetocaloric effect in perovskite manganite materials: magnetic entropy change above 300 K
Materials Science 2003;21:133-139 (IF=0.154; C=2)
316. **M.H. Phan***, V. Srinivas, S.C. Yu, and N.H. Hur
Magnetic frustration effects in LaCaMnO_3 single crystals
Journal of Applied Physics 2003;93:8200-8202 (IF=2.171; C=22)
317. **M.H. Phan***, N.N. Chau, S.K. Oh, and S.C. Yu
Structure and magnetic properties of $\text{Gd}_4(\text{Mn}_{0.05}\text{Sb}_{0.95})_3$ alloy
Physica B–Condensed Matter 2003;327:307-310 (IF=0.908; C=10)

318. D.S. Yang, A.N.Ulyanov, **M.H. Phan**, I. Kim, J.S. Kim, N. Chau, and S.C. Yu
EXAFS and EPR study of $\text{La}_{0.6}\text{Sr}_{0.2}(\text{Ca,Ba})_{0.2}\text{MnO}_3$ lanthanum manganites
Physica B–Condensed Matter 2003;327:183-186 (IF=0.908; C=7)
319. **M.H. Phan***, S.C. Yu, J.S. Chung, J.S. Kim, and Y.M. Kim
Magnetic characteristics and frequency dependence of permeability in Fe-B-N thin films
Journal of Applied Physics 2003;93:9913-9915 (IF=2.171; C=4)
320. N.H. Luong, N. Chau, **M.H. Phan**, D.L. Minh, and M. Kurisu
On the magnetic and magnetocaloric properties of perovskite $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$
Journal of Magnetism and Magnetic Materials 2002;242-245:760-762 (IF=0.91; C=22)

Manuscripts under review & preparation:

321. R. Das, L. Li, V. Keppens, D. Mandrus, Hung T. Diep, H. Srikanth, and **M.H. Phan***
Emergent multiphase transitions, cluster dynamics, and complex phase diagram in multicaloric EuTiO_3
Physical Review B (under consideration)
322. S.D. Jiang, T. Eggers, O. Thiabgoh, C. Albrecht (REU student), J.S. Liu, H. Wang, Z. Li, D.W. Xing, W.D. Fei, W.B. Fang, J.F. Sun, and **M.H. Phan***
Design of Core-Shell Structured Magnetic Microwires with Desirable Properties for Multifunctional Applications
Acta Materialia (under consideration)
323. V. Kalappattil, R. Das, X. Moya, H. Srikanth, and **M.H. Phan***
Giant reversible laser-induced resistive switching effect near room temperature in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{BaTiO}_3$ heterostructure films
Nanomaterials (under consideration)
324. V. Kalappattil, R. Das, H. Luong, M. Pham, T. Nguyen, **M.H. Phan***, and H. Srikanth
Spin Seebeck effect in $\text{CoFe}_2\text{O}_4/\text{Pt}$ and $\text{CoFe}_2\text{O}_4/\text{C}_{60}/\text{Pt}$ heterostructures
Applied Physics Letters (under consideration)
325. V. Kalappattil, R. Das, X. Moya, H. Srikanth, and **M.H. Phan***
Giant strain-induced magnetic anisotropy in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{BaTiO}_3$ heterostructures
Physical Review B (under consideration)
326. V.O. Jimenez, Y.T.H. Pham, T. Eggers, V. Kalappattil, etc., and **M.H. Phan***
Controlling Two-Dimensional van der Waals Magnetism with Light
ACS Nano (Review paper, under consideration)
327. R. Das, V. Kalappattil, N. Rinaldi-Montes, P. Gorria, **M.H. Phan**, and H. Srikanth

Exchange bias and role of effective anisotropy in highly disordered Au-Co/CoO nanoflowers
Journal of Alloys and Compounds (submitted)

328. B. Muchharla, V.O. Jimenez, Y.T. Hai Pham, R.P. Madhogaria, C.M. Hung, V. Kalappattil, T. Eggers, M.T. Trinh, S. Witanachchi, H. Srikanth, and **M.H. Phan***
Novel Charge-Spin-Thermal Related Transport Phenomena in Two-dimensional van der Waals Materials and Heterostructures
Advanced Materials (Review paper, under consideration)
329. D. DeTellem, N. WYAY Mudiyansele, R.P. Madhogaria, S. Witanachchi, and **M.H. Phan***
Enhanced Ferromagnetic Interaction at MnP/Fe Interface: A Bloch Law Based Study for Temperature and Magnetic Field Evolution of Magnetization
Applied Sciences (submitted)
330. A. Chanda, C. Holzmann, M. Albrecht, E.R. Rosenberg, C.A. Ross, **M.H. Phan**, and H. Srikanth
Controlling magnonic spin current through magnetic anisotropy and Gilbert damping
ACS Nano (under review)
331. N. Kapuruge, T. Alba, K. Lasek, N. Schulz, F.A. Nugera, V.O. Jimenez, R. Hyde, J.J. Pan, H. Srikanth, **M.H. Phan**, and H.R. Gutiérrez
Room-Temperature Ferromagnetism in Hybrid 2D Magnetic Metamaterials
Advanced Materials (under review)
332. J.S. Liu, F. Wang, M.F. Huang, Y. Zhang, C.L. Wang, Z. Li, H.X. Shen, and **M.H. Phan**
Effect of AC current annealing on the microstructure, magnetism and magnetoimpedance of CoFeSiBNb₃ microfibers
Journal of Magnetism and Magnetic Materials (submitted)
333. **M.H. Phan***
New Research Trends in Electrically Tunable 2D van der Waals Magnetic Materials
Progress in Materials Science (Invited review article, accepted after revision)
334. N. Schulz, G. Pantano, D. DeTellem, A. Chanda, E.M. Clements, M. McGuire, A. Markou, C. Felser, D.A. Arena, J. Gayles, **M.H. Phan**, and H. Srikanth
Manipulation of Magnetism and Weyl Points by Temperature-Dependent Tetragonal Distortion in Weyl Semimetal Co₂MnGa
Advanced Materials (under review)
335. A. Chanda, C. Holzmann, N. Schulz, D. Stein, M. Albrecht, **M.H. Phan**, and H. Srikanth
Thermally generated magnonic spin current in a polycrystalline Gd₃Fe₅O₁₂ film: Do grain boundaries matter?

Applied Physics Letters (under review)

336. D. Nguyen, P.K. Huynh, V.D.A. Bui, K.Y. Hwang, N. Jain, C. Nguyen, L.H.N. Minh, L.V. Truong, N.T. Xuan, N.H. Dinh, L.T. Dung, T.Q. Le, and **M.H. Phan***
Real-Time Magnetic Tracking and Diagnosis of COVID-19 via Machine Learning
Nature Biomedical Engineering (submitted)
337. L. Luo, H.X. Shen, L.Y. Zhang, Y.J. Huang, J.F. Sun, and **M.H. Phan***
Giant magnetocaloric effect and hysteresis loss in $\text{Mn}_x\text{Fe}_{2-x}\text{P}_{0.5}\text{Si}_{0.5}$ ($x = 0.7\text{-}1.2$) microwires at ambient temperatures
Journal of Science: Advanced Materials and Devices (under review)
338. S. B. Attanayake, A. Chanda, R. Das, **M.H. Phan**, and H. Srikanth
Tailoring magnetic and hyperthermia properties of biphasic iron oxide nanocubes through post-annealing
Journal of Alloys and Compounds (under review)
339. R. Kashikar, D. Detellem, P.S. Ghosh, Y.X. Xu, S.Q. Ma, S. Witanachchi, **M.H. Phan**, S. Lisenkov, and I. Ponomareva
Coupling of structure and magnetism to spin splitting in hybrid organic-inorganic perovskites
Advanced Functional Materials (under review)
340. D. Zhou, Y.T.H. Pham, D.T.X. Dang, D. Sanchez, et al., L.M. Woods, **M.H. Phan***, and M. Terrones
Vanadium-Doped Molybdenum Disulfide Monolayers with Tunable Electronic and Magnetic Properties: Do Vanadium-Vacancy Pairs Matter?
ACS Nano (under review)
341. L.V. Lich, B.H. Vu, D.T.H. Hue, D.T.H. Giang, T. Shimada, V.H. Dinh, and **M.H. Phan**
Low-eld energy storage enhancement in ferroelectric/paraelectric $\text{PbTiO}_3/\text{SrTiO}_3$ nanocomposites near antiferroelectric-ferroelectric transition region
Journal of Science: Advanced Materials and Devices (accepted)

Scientific Presentations

(Selected from over 500 presentations; students and postdocs are italicized and bold-italicized, respectively)

A. Plenary/Keynote/Invited talks at major international conferences:

1. *"A Translational Approach to NanoBiomagnetism,"* (**Plenary Talk**) The Global Nanobiotechnology Consortium Conference, University of South Florida, February 2-4, 2024
2. *"New Trends in Two-dimensional van der Waals Magnetism,"* (**Invited talk**) The 68th Annual Conference on Magnetism and Magnetic Materials (MMM 2023), Hyatt Regency Dallas, October 30 to November 3, 2023
3. *"Towards Engineering Atomic Defects in Two-dimensional van der Waals Magnetic Semiconductors for Next-Generation Nanodevices,"* (**Plenary Talk**) The 2nd International Workshop on Applications of Nuclear Analytical Techniques in Materials Science, Nha Trang city, Vietnam, August 16-18, 2023
4. *"Opportunities in Nano-Biomagnetism: From Hyperthermia Therapy to Drug Delivery and Healthcare Monitoring,"* (**Plenary Talk**) The 4th International Workshop on Advanced Materials and Devices (IWAMD), Thai Nguyen, Vietnam August 10-13, 2023
5. *"New Research Trends in Nanomagnetism,"* (**Invited talk**) International Symposium on Frontier Materials, Healthcare and Nanotechnology, Phenikaa University, Hanoi, Vietnam, July 3, 2023
6. *"Controlling Spin Current Through Two-dimensional Magnetic Interfaces: A New Perspective for Opto-spin-caloritronics,"* (**Invited talk**) The International Conference on Materials for Advanced Technologies (ICMAT), Singapore, June 26 - 30, 2023
7. *"Optically Controllable Spin Current through 2D van der Waals Magnetic Semiconductor Interfaces,"* (**Invited talk**) The 12th international workshop on Spin Caloritronics XII, Tsukuba, Japan, May 22-25, 2023
8. *"New Opportunities and Challenges in Nanomagnetism,"* (**Plenary talk**) INTERNATIONAL SUMMIT ON MAGNETISM AND MAGNETIC MATERIALS (ISMMM2023) - Webseminar, JUNE 12, 2023
9. *"Exchange Bias and Interface-Related Effects in Two-dimensional van der Waals Magnetic Heterostructures: Open Questions and Perspectives,"* (**Plenary talk**) The International Conference on Quantum Materials and Technologies – ICQMT2022, Milas-Bodrum, October 16-22, 2022
10. *"Going Beyond Magnetic Real-Time Tracking of Coronavirus Progress,"* (**Keynote talk**) Sensors Research eConference 2022 (online), November 21-22, 2022
11. *"Two-Dimensional Quantum Magnets: What does the Future hold?"* (**Keynote talk**) The Vietnamese Academic Network in Japan (online), December 4-5, 2021
12. *"Controlling Two-Dimensional Magnetism with Light,"* (**Plenary talk**) The Global Summit and Expo on Magnetism and Magnetic Materials (online), September 20-22, 2021

13. *"A Novel Magnetic Respiratory Sensor for Real-Time Tracking of Coronavirus Progress,"* (Invited talk) INTERMAG 2021 (online), 26-30 April 2021, France
14. *"Atomically Thin van der Waals Magnetic Semiconductors Could Revolutionize Spintronics and Quantum Computing,"* (Keynote talk) The 11th International Conference on Advanced Materials Research (ICAMR 2021, online), January 21-24, 2021, Singapore
15. *"Real-Time Tracking of Coronavirus Progress: A New Approach Utilizing Magnetic Sensor and Machine Learning,"* (Invited talk) TMS 2021 Annual Meeting & Exhibition (online), March 14-18, 2021, Orlando, Florida, USA
16. *"Tunable Room-Temperature Ferromagnetism and Emergent Phenomena in Atomically Thin Transition Metal Dichalcogenide Semiconductors,"* (Invited talk) The Annual Conference on Magnetism and Magnetic Materials (online), Palm Beach, Florida November 2-6, 2020
17. *"Emerging Two-Dimensional Magnets: Opportunities and Challenges,"* (Invited talk) Magnetism 2020, February 11-12, 2020
18. *"Two-Dimensional Magnetic van der Waals Materials: What Does The Future Hold?,"* (Invited talk) The 17th Czech and Slovak Conference on Magnetism, June 3-7, 2019
19. *"Emergent ferromagnetism at the single layer limit,"* (Invited talk) The 2019 Florida-America Vacuum Society (FL-AVS) Symposium, March 11-12, 2019
20. *"Two-dimensional Magnetism for Advanced Spintronics and Quantum Computing"* (Keynote talk) The Vietnam-Korea International Symposium on Applied Physics, January 13-15, 2019, Hanoi, Vietnam
21. *"Room Temperature Ferromagnetism and Exchange Bias Effect in Transition Metal Dichalcogenide Monolayers,"* (Invited talk) The 5th International Conference of Asian Union of Magnetism Societies (IcAUMS 2018), June 3 – 7, Jeju, South Korea
22. *"Functional Magnetic Nanomaterials: What does the Future hold?"* (Invited talk) The International Workshop on Frontier Materials and Nanotechnology, August 9, 2018, Hanoi, Vietnam
23. *"Two-Dimensional Magnetic van der Waals Materials: What does the Future hold?"* (Keynote talk) The International Conference on Condensed Matter and Material Science, June 20 - 21, 2018, Kuala Lumpur, Malaysia
24. *"Emergent Two-Dimensional Magnetic van der Waals Materials: New Opportunities and Current Challenges,"* (Invited talk) The American Vacuum Society – Florida Chapter Meeting, May 7-8, 2018, Orlando, USA
25. *"Cooling Technology Based on Magnetic Materials: What Does the Future Hold?"* (Keynote talk) The Magnetism Summit, February 8-9, 2018, Orlando, Florida, USA
26. *"Novel Magnetic Nanomaterials for Advanced Hyperthermia and Biodetection,"* (Plenary talk) The Nanobio Collaborative International Conference, January 19-20, 2018, Tampa, Florida, USA
27. *"Room Temperature Ferromagnetism in Monolayer Transition Metal Dichalcogenides: A New Discovery for van der Waals Spintronics Applications,"* (Invited talk) The 4th International

- Symposium on Advanced Magnetic Materials and Applications (ISAMMA), December 10-13, 2017, Phu Quoc, Vietnam
28. *"Recent Developments in Magnetic Impedance Biosensors and Related Medical Devices,"* (Keynote talk) The 8th International Conference and Exhibition on Biosensors and Bioelectronics, September 27-28, 2017, Chicago, Illinois, USA
 29. *"Recent Developments in Gd Alloy Microwires for Energy-Efficient Magnetic Refrigeration,"* (Invited talk) The 2017 MRS Spring Meeting and Exhibit, April 17-21, 2017, Phoenix, Arizona, USA
 30. *"Functional magnetic nanoparticles for hyperthermia-based cancer therapy,"* (Plenary talk) The International Workshop on Advanced Materials and Nanotechnology 2016 (IWAMN 2016), November 3-5, 2016, Hanoi, Vietnam
 31. *"Reduced dimensionality effects in magnetocaloric materials,"* (Invited talk) The XXV International Materials Research Congress, August 14-19, 2016, Cancún, México
 32. *"Novel Magnetic Nanoparticles in Nanomedicine,"* (Plenary talk) The International Workshop on Advanced Materials and Devices, July 8-9, 2016, Hanoi, Vietnam
 33. *"Roles of interface and surface spins in exchange-coupled magnetic nanostructures,"* (Invited talk) The American Physical Society (APS) March Meeting, March 14-18, 2016, Baltimore, MD, USA
 34. *"Current trends in giant magnetoimpedance materials research" in "Advanced Magnetic Materials: An FMD Symposium in Honor of Michael E. McHenry,"* (Invited talk) TMS 2016 Annual Meeting & Exhibition, February 14 – 18, 2016, Nashville, Tennessee, USA
 35. *"A novel biosensing platform for detection of magnetically labelled cancer cells and biomolecules,"* (Plenary talk) Joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference, November 2 - 4, 2015, Da Nang City, Vietnam
 36. *"Tunable Exchange Bias in Magnetic Nanostructures for Spintronics,"* (Invited talk) The Magnetically Stimulated Soft Materials Conference, May 11- 12, 2015, Georgia, USA
 37. *"Advanced Magnetoimpedance Based Biosensing Using Functionalized Nanoparticles,"* (Invited talk) The 59th Annual Conference on Magnetism and Magnetic Materials, November 3-7, 2014, Hawaii, USA
 38. *"Magneto-impedance Based Detection of Magnetic Biomarkers: Opportunities and Challenges,"* (Invited talk) The Energy Materials Nanotechnology (EMN) Fall Meeting , December 7 – 10, 2013, Orlando, Florida, USA
 39. *"Magnetocaloric Effect in Magnetic Nanostructures,"* (Invited talk) Symposium on Current Trends in Magnetic Refrigeration, XXII International Materials Research Congress, August 11-15, 2013, Cancun, Mexico
 40. *"Nanostructured Magnetocaloric Materials for Energy-efficient Refrigeration: Current Research and Future Directions,"* (Invited talk) The Materials Research Society (MRS) Meeting, April 1-5, 2013, Moscone West, San Francisco, USA
 41. *"Novel Clathrate-based Composite Materials for Energy-efficient Refrigeration,"* (Invited talk) The 19th International Conference on Magnetism (ICM), July 8-13, 2012, Busan, Korea

42. *"Nanostructured Multiphase Materials for Energy-efficient Refrigeration,"* (Invited talk) The 2nd International Workshop on Functional Materials, July 16, 2012, Cheongju, South Korea
43. *"Recent Advances and Future Research Directions in Giant Magneto-impedance Materials,"* (Invited talk) The International Symposium on Advanced Electromagnetics, April 16-19, 2012, Paris, France
44. *"Advanced Nanocomposite Materials for Functional Magnetic Refrigeration,"* (Invited talk) The 34th International Conference and Exposition on Advanced Ceramics and Composites (ICACC), January 2012, Daytona Beach, Orlando, Florida, USA (with Dr. H. Srikanth)
45. *"Magnetocaloric Effect in Oxide Nanostructures,"* (Invited talk) Symposium on Magnetic Materials for Energy Applications, February 27 to March 3, 2011, San Diego, California, USA
46. *"Magnetism in complex oxides probed by transverse susceptibility and magnetocaloric effect,"* (Invited talk) The American Physical Society (APS) meeting, March 15 - 19, 2010, Portland, OR, USA (with Dr. H. Srikanth)
47. *"Ferromagnetic Microwire-based Composites for Structural Health Self-Monitoring Applications,"* (Invited talk) The International Workshop on Functional and Nanostructured Materials, August 31 - September 6, 2008, Ukraine (with Dr. H.X. Peng)
48. *"Magnetocaloric Manganites: Progress and Challenges,"* (Invited talk) The International Symposium on Advanced Magnetic Materials and Applications (ISAMMA07), 28 May – 1 June 2007, Jeju, South Korea

B. Invited lectures at universities and institutions:

1. *"Opportunities in Nanobiomagnetism and Healthcare Monitoring"* The Special Seminar, Moffitt Cancer Center, Tampa, Florida, January 17, 2024
2. *"New Research Trends in Two-dimensional van der Waals Magnetism"* The Physics Colloquium, The University of Cantabria in Santander, Spain, November 28, 2023
3. *"Opportunities in Nanobiomagnetism and Healthcare Monitoring"* The Physics Colloquium, The University of Basque Country, November 30, 2023
4. *"Opportunities in Nanobiomagnetism and Healthcare Monitoring"* The Physics Colloquium, Department of Physics, University of Central Florida, October 27, 2023
5. *"Opportunities in Nanobiomagnetism and Healthcare Monitoring"* The Physics Colloquium, Department of Physics, University of Maine, October 13, 2023
6. *"2D van der Waals Magnetic Semiconductors: Opportunities, Challenges, and Future Directions,"* PARTNERSHIP FOR HIGHER EDUCATION REFORM – PHER, April 21, 2023
7. *"Can a magnet find and kill coronavirus?"* Department of Physics, University of South Florida, July 2, 2021
8. *"Two-dimensional van der Waals Magnets: Opportunities and Challenges,"* The Physics Colloquium, University of Georgia - Athens, February 11, 2021
9. Online Public Lecture, *"[Tips for Writing and Publishing a Scientific Paper](#),"* iVMnet, September 27, 2020 (>1.2k views)

10. *"Two-dimensional Magnetism: New Discoveries, Opportunities and Challenges,"* The Condensed Matter Physics Seminar, University of Florida, October 7, 2019
11. *"Magnetic Nanomaterials in Human Healthcare: Opportunities and Challenges,"* Department of Physics, University of Central Florida, March 10, 2019
12. *"Could Tiny Magnets Lead to Important Biomedical and HealthCare Applications,"* Department of Physics, University of South Florida, August 31, 2018
13. *"Tips for Writing and Publishing a Scientific Paper?,"* University of Science and Technology of Hanoi, July 23, 2018, Hanoi, Vietnam ([Popular Lecture link](#))
14. *"Tips for Writing and Publishing a Scientific Paper?"* Duy Tan University, July 2, 2018, Da Nang, Vietnam
15. *"Functional Magnetic Nanomaterials: What does the Future hold?"* Department of Physics, Chungbuk National University, June 8, 2018, Cheongju, South Korea
16. *"Applications of Magnetic Nanomaterials in Nanobomedicine,"* Department of Mechanical Engineering, University of Connecticut, March 30, 2018
17. *"Functional Magnetic Nanomaterials: What does the Future hold?"* Department of Pharmacy, University of South Florida, February 7, 2018
18. *"Magnetic Nanomaterials in Nanobiomedicine,"* Department of Physics, Ecole Normale Supérieure Paris Saclay, Jan 24, 2018. Paris, France
19. *"The beauty of magnetic nanoparticles,"* Department of Physics, University of South Florida, October 3, 2017
20. *"Novel Nanomaterials: from Advanced Hyperthermia to Ultrasensitive Biodetection"* Hanoi National University, Vietnam, July 21, 2016
21. *"Magnetic Nanoparticles for Biomedical Applications"* Vinh University, Vietnam, July 13, 2016
22. *"Magnetic Nanoparticles in Nanobiomedicine"* Institute of Materials Science, Vietnam, July 11, 2016
23. *"Nanomagnetism in Biomedical Applications"* Ho Chi Minh National University, Vietnam, June 28, 2016
24. *"Magnetocaloric Materials for Energy-Efficient Magnetic Refrigeration,"* Materials Science and Technology Division Seminar, Oak Ridge National Laboratory, February 18, 2016
25. *"A Novel Magnetoimpedance-Based Biosensing Platform for Detection of Magnetically Labeled Cancer Cells and Biomolecules,"* Department of Materials Science and Engineering Special Seminar, The University of Tennessee, Knoxville, February 17, 2016
26. *"Magnetocaloric Effect: from Refrigeration to Physics of Complex Oxides,"* Physics Colloquium, Wayne State University, February 18, 2010