

Manh-Huong Phan

Full Professor

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Professional Preparation

2000 B.S. (Solid State Physics) Vietnam National University - Hanoi, Vietnam

2003 M.S. (Applied Physics) Chungbuk National University, South Korea

2006 Ph.D. (Engineering Physics) Bristol University, United Kingdom

Appointments

2019-present Full Professor, Physics Dept., University of South Florida, USA

2015-2019 Associate Professor, Physics Dept., University of South Florida, USA

2010-15 Assistant Professor (*Research*), Physics Dept., University of South Florida, USA

2008-10 Research Associate, Physics Dept., University of South Florida, USA

2006-07 Postdoctoral Fellow, ACCIS, Bristol University, UK

Publications (*selected from a total of > 350 publications*) h-index: **63** from [Google Scholar](#)

Five relevant papers:

1. 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** **16**, 2304792 (2023)
2. 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** **32**, 2003607 (2020)
3. 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** **7**, 2001174 (2020)
4. 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** **7**, 1413 (2020)
5. M. Bonilla, S. Kolekar, Y.J. Ma, H. Coy Diaz, V. Kalappattil, R. Das, T. Eggers, H.R. Gutierrez, M.H. Phan, and M. Batzill. Strong Room Temperature Ferromagnetism in VSe₂ Monolayers on van der Waals substrates. **Nature Nanotechnology** **13**, 289 (2018)

Five other papers:

1. M.H. Phan and H.X. Peng. Giant Magnetoimpedance Materials: Fundamentals and Applications. **Progress in Materials Science** **53**, 323 (2008)
2. M.H. Phan and S.C. Yu. Review of the Magnetocaloric Effect in Manganite Materials. **Journal of Magnetism and Magnetic Materials** **308**, 325 (2007)
3. M.H. Phan, M.T. Trinh, T. Eggers, V. Kalappattil, Ken-ichi Uchida, L.M. Woods, and M. Terrones. A Perspective on Two-dimensional van der Waals Opto-Spin-Caloritronics. **Applied Physics Letters** **119**, 250501 (2021)
4. 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** **265**, 120 (2017)
5. 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, and M.H. Phan. Enhanced refrigerant capacity in Gd-Al-Co microwires with a biphasic nanocrystalline/amorphous structure. **Applied Physics Letters** **108**, 092403 (2016)

Synergistic Activities, Distinctions, and Selected Achievements

1. **Recipient**, The Honorary Doctoral Degree Award, Vietnam National University - Hanoi, 2021
2. **Recipient**, The Outstanding Research Achievement Awards (2017, 2019, 2021), USF
3. **Recipient**, The Outstanding Graduate Faculty Mentor Award – HM (2018), USF
4. **Medalist**, The Development Cause of Vietnam National University - Hanoi, Vietnam, 2018
5. **Featured** in the list of the World's Top 1% Scientists in the field of Physics and Materials Science (2020 – present)
6. **Managing Editor & Founding Member**, *Journal of Science: Advanced Materials and Devices*, Elsevier-VNU Publishers (IF = 8.0, 2016-present)
7. **Editor**, *Journal of Electronic Materials*, Springer Publishers (IF = 1.7, 2018-2020)
8. **Editor**, *Applied Sciences*, MDPI Publishers (IF = 2.5, 2018-present)
9. **Editorial Board Member**, *Scientific Reports*, Nature Publishing Group (IF = 4.1, 2018-present)
10. **Funded grants**, over \$4,5M received as PI and co-PI

Supervision:

Current postdoctoral scholars: Dr. V. Mishra (2024 – present), Dr. R. Chowdhury (2024 – present)

Current graduate students: Mr. S.B. Attanayake (PhD), Ms. N. WYA Yapa Mudiyansele* (PhD), Mr. K.Y. Hwang* (PhD), Mr. D. DeTellem (PhD), Mr. K.D. Le (PhD), Mr. A. Ojo (PhD), Mr. P. Hewitt (PhD), Mr. D. Brown* (PhD), Mr. R.G.H. Shankaregowda (PhD).

Current undergraduate students:

Students graduated: Dr. Y. Pham* (Ph.D. dissertation, 2023), Dr. V.O. Jimenez* (Ph.D. dissertation, 2022), Dr. R. Pokharel Madhogaria (Ph.D. dissertation, 2021), Mr. K.Y. Hwang* (MS thesis, 2020), Dr. N.T.M. Duc* (Ph.D. dissertation, 2020), Dr. E. Clements (Ph.D. dissertation, 2019), Dr. O. Thiabgoh* (Ph.D. dissertation, 2018); Dr. T. Eggers* (Ph.D. dissertation, 2018); Dr. V. Kalappattil (Ph.D. dissertation, 2018); Mr. D.S. Lam* (Ph.D. dissertation, 2018); Dr. S. Jiang* (Ph.D. dissertation, 2018); Dr. H. Belliveau* (Ph.D. dissertation, 2016); Dr. Z.N. Porshokouh (Ph.D. dissertation, 2016); Dr. K. Stojak (Ph.D. dissertation, 2016); Dr. P. Lampen (Ph.D. dissertation, 2015); Dr. J. Devkota* (Ph.D. dissertation, 2015); Dr. N. Bingham (Ph.D. dissertation, 2013); Dr. A. Chaturvedi (Ph.D. dissertation, 2011); Dr. H.X. Shen (Ph.D. dissertation, 2017, jointly with Prof. J.F. Sun at HIT); Mr. D. Nguyen (2021-2023), Mr. Y. Rahman (B.S. honor thesis, 2022), Ms. S. Abdallah (2021-2022), Ms. E. Silva (2019-2021), Mr. C. Witanachchi* (2018), Ms. S. Beyley* (High school student, 2018); Mr. J. Cardarelli* (B.S. honor thesis, 2018); Ms. I. Deborah* (B.S. honor thesis, 2016); Mr. Brian Casas (M.S. thesis, 2015); Mr. R. Singh* (B.S. honor thesis, 2015), Ms. K. Stojak (M.S. thesis, 2013); Ms. A. Stephan* (B.S., 2016); Mr. A. Galati* (B.S., 2016); Mr. J. Wingo (B.S., 2014); Mr. R.A. Ruiz (B.S., 2013); Ms. T. Tran* (B.S. research, 2012-2013), Mr. N. Laurita (B.S., June 2011)

Former postdoctoral & visiting researchers: Dr. A. Chandra (2020-2023); Dr. B. Muchharla (2020-2021); Dr. V. Kalappattil (5/2018 – 9/2019); Dr. R. Das (3/2014-5/2018); Mr. F. Andrejka*, Visiting Ph.D. student (01 – 04, 2018); Ms. N.T.M. Duc*, Visiting Ph.D. student (09/2017-03/2018); Dr. J. Alonso (12/2014-12/2016); Ms. N. Rinaldi, Visiting PhD student, (09-12/2015); Mr. H.X. Shen*, Visiting Ph.D. student (10/2014-10/2015); Dr. H. Khurshid (11/2011-05/2015), Dr. A. Biswas (11/2011–11/2013); Dr. S. Chandra (11/2013 – 06/2014); Dr. A. Talaat*, Visiting Ph.D. student (03-06/2015); Mr. J. Cruz Vargas, Visiting M.S. student (03-06/2015); Dr. X.L. Hou*, Visiting Scientist, (03/01, 2014–03/30, 2015); Mr. L. Dao*, Visiting Ph.D. student (07/01–12/30, 2014); Dr. P. Zhang*, Visiting Ph.D. student (01/ 20 – 02/11, 2013); Mr. Y.Y. Yu*, Visiting researcher (10/01 – 04/30, 2013); Dr. F.X. Qin*, Visiting scientist (12/10-28, 2012); Dr. D.T.M. Hue, Visiting Ph.D. student (07/04 – 10/03, 2012); Dr. N.T.T. Huong, Visiting scientist (06-08, 2011); Dr. R. Caballero-Flores, Visiting scientist (07/01–09/30, 2011); Dr. A.I. Figueroa, Visiting Ph.D. student (04-07, 2010)

REU students: Mr. J. Poler* (06/01-08/01, 2018); Ms. E. Fuller (06/01-08/01, 2018); Ms. C. Albrecht* (06/01-08/04, 2017), Ms. C. Collins (06/01-08/04, 2017), Ms. M. Lassell (06/01-08/04, 2016), Ms. D. Honstain* (06/01- 08/04, 2016), Ms. V.O. Jimenez* (06/01-08/04, 2015), Ms. E. Vila* (06/01-08/04, 2015), Mr. D. Torres (06/01- 08/04, 2015), Ms. I. Berman* (06/01-08/04, 2014), Mr. L. Martinez (06/01-08/04, 2014), Mr. J. Wingo (06/01–08/02, 2013); Ms. R. Sheldon (06/01 – 08/05, 2011).

(*Corresponding author or major supervisor)