Hanh Kieu Thi Ta, PhD student

Researcher

[1] Department of Magnetic and Biomedical Materials, Faculty of Materials Science,
University of Science, Vietnam National University, Ho Chi Minh City (VNUHCM)
[2] Center for Innovative Materials and Architectures (INOMAR),
Vietnam National University, Ho Chi Minh City (VNUHCM)
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Education

Ph.D student, Materials Science

University of Science, Ho Chi Minh City, VietNam.

Advisor: Assoc. Prof. Dr. Thang Bach Phan

M.S, Optics Physics

University of Science, Ho Chi Minh City, VietNam.

Advisor: Prof. Chi Huu Nguyen; Dr. Vinh Cao Tran

BSc, Applied Physics

University of Science, Ho Chi Minh City, VietNam

Advisor: Prof. Den Van Nguyen

Experience

Researcher **01/2005 – 6/2007**

Laboratory of Advanced Materials, University of Science, Vietnam National University, Ho Chi Minh City, Vietnam

Researcher **7/2007 – 4/2013**

Department of Magnetic and Biomedical Materials, Faculty of Materials Science, University of Science, Vietnam National University, Ho Chi Minh City, Vietnam

Researcher **5/2013 – present**

Deputy Head – Department of Magnetic and Biomedical Materials, Faculty of Materials Science, University of Science, Vietnam National University, Ho Chi Minh City, Vietnam

Visiting Scholar **6/2016 – 8/2016**

Department of nano-Physics, College of Bionano Technology, Gachon University, South Korea

Advisor: Assoc.Prof. Heongkyu Ju

Teaching

Materials synthesis method and materials characterization; The method for the synthesis of materials 2; Material characterization 2; Specialize experiment 3,5; Materials Synthesis Laboratory; Fabricating biomedical materials 1,2.

Faculty of Materials Science, University of Science - Vietnam National University in HoChiMinh city, Vietnam (VNU-HCM).

Visiting lecturer

Materials synthesis method and materials characterization

Faculty of Biology - Biotechnology , University of Science - Vietnam National University in HoChiMinh city, Vietnam (VNU-HCM).

Visiting lecturer

General Physics 1

University of Technican Education, HoChiMinh city, Vietnam

Current Research

1. Thermoelectric thin films materials
2. Physical properties and mechanisms of multifunctional artificial oxide system for emerging non volatile semiconductor memories (ReRAM): SrTiO3, ZnO, TiO2, CrOx, WOx…
3. Memristive Biosensor
4. Magnetic materials

Research projects

1. Research on manufacturing thin film transparent p-type semiconductor, *Senior researchers,* Vietnam National University in HoChiMinh City (VNUHCM), 2008-2009.

2. Research on manufacturing thin heat shield flexible film, *Senior researchers,* Vietnam National University in HoChiMinh City (VNUHCM), 2010-2011

3. Electrical conduction and resistance switching mechanisms of nanostructural Cr-doped SrTiO3 and ZnO, TiO_2 thin films applied in Electronic Memory Device, *Senior researchers*, The National Foundation for Science and Technology Development – Vietnam (NAFOSTED), 2010-2012.

4. Studying on ZnO Oxide Thin Films applied in Memory Devices, *Senior researchers,* Vietnam National University in HoChiMinh City, 2011.

5. Initially, constructed the process of application magnetic nanoparticles Fe_3O_4@SiO_2 to remove lympho T cell, *Principal investigator* , Department of Science and Engineering, Ho Chi Minh City, Vietnam, 2013-2015.

6. Investigating Electrical conduction and reversible resistance switching mechanisms of Transition Metal Oxides WO_x for fabricating Random Access Memory, *Senior researchers,* Vietnam National University in HoChiMinh City (Key project VNU-B), 2013-2015.

7. Electrical conduction and resistance switching mechanisms of Chromium oxide thin film, *Senior researchers,* The National Foundation for Science and Technology Development – Vietnam (NAFOSTED), 2013-2015.

8. Synthesis of SiO_2-SnO_2 glass-ceramic doped Er^{3+} ion by sol-gel applied in fabricating near-infrared lasers, *Senior researchers,* The National Foundation for Science and Technology Development – Vietnam (NAFOSTED), 2013-2015.

9. Synthesis of magnetic nanoparticle iron oxide Fe_3O_4 coated SiO_2 with functionalized surface for early detection of metastasis breast cancer cell, *Senior researchers,* Bilateral Research VNUHCM – JAIST (Japan), 2014-2015.

10. Fabrication and studied ferroelectric properties of ferromagnetic material and $BaTiO_3$ - $CoFe_2O_4$, *Senior researchers,* Vietnam National University in HoChiMinh City, 2014-2015

11. Study on fabrication of Memristive –Biosensor applied in biomedical analysis, *Senior researchers,* Bilateral Research, VNUHCM – VAST, 2015-2017.

12. Investigating of effects of In and Ga co-doping on thermoelectric properties of ZnO thin films for thermoelectric applications, *Senior researchers,* The National Foundation for Science and Technology Development – Vietnam (NAFOSTED), 2016-2018.

International Publications (SCI)

1. Kim Ngoc Pham, Trung Do Nguyen, **Thi Kieu Hanh Ta**, Khanh Linh Dao Thuy, Van Hieu Le, Duy Phong Pham, Cao Vinh Tran, Derrick Mott, Shinya Maenosono, Sang Sub Kim, Jaichan Lee, Duc Thang Pham and Bach Thang Phan**,** *An influence of bottom electrode material on electrical conduction and resistance switching of TiO_x thin films*, Eur. Phys. J. Appl. Phys. 64, 30102 (**2013**).
2. Kim Ngoc Pham, Trung Do Nguyen, Thi Bang Tam Dao, **Thi Kieu Hanh Ta**, Vinh Cao Tran, Van Hieu Nguyen, Sang Sub Kim, Shinya Maenosono and Bach Thang Phan**,** *Different Directions of Switching of Chromium*

Oxide Thin Films, Journal of Electronic Materials, **43**, 7, 2747-2753 (**2014**).

3. Duy Phong Pham, Bach Thang Phan, Van Dung Hoang, Huu Truong Nguyen, **Thi Kieu Hanh Ta**, Shinya Maenosono and Cao Vinh Tran, *Control of preferred (222) crystalline orientation of sputtered ITO thin films,* Thin Solid films*,* **570**, 16-19 (**2014**).

4. Cao Thi My Dung, Tran Thi Nhu Hoa, **Ta Thi Kieu Hanh**, Tran Cao Vinh, Le Van Hieu, Phan Bach Thang, *Relaxor behaviour in 0.5$BaTiO_3$ – 0.5$CoFe_2O_4$ composite materials*, Journal of Magnetics, 20 (4), 353 (**2015**).

5. **Thi Kieu Hanh Ta**, Bang Tam Thi Dao, Kim Ngoc Pham, Dai Lam Tran and Bach Thang Phan, *Understanding electrical conductions in WO_3 thin films applied for resistive random access memory*, Journal of Electronic Materials, 45,5, 2423 (**2016**).

6. Ngoc Kim Pham, **Kieu Hanh Thi Ta**, Thi Lien Thuong Nguyen, Vinh Cao Tran, and Bach Thang Phan, *Surface mapping of resistive switching CrO_x thin films*, Advances in Materials Physics and Chemistry, Non ISI, DOI: 10.4236/ampc.2016.63003, Vol 3, 3, March (**2016**).

7. **Thi Kieu Hanh Ta**, Minh-Thuong Trinh, Nguyen Viet Long, Thi Thanh My Nguyen, Thi Lien Thuong Nguyen, Cao Vinh Tran, Bach Thang Phan, Derrick Mott, Shinya Maenosono, Hieu Tran-Van and Van Hieu Le, *Synthesis and Surface Functionalization of Anti-T-Cell Antibody Coupled Fe_3O_4-SiO_2-GPS-CDI Core-Shell Nanoparticles For Potential Applications in Bone Marrow Transplantation*, Colloids and Surfaces A: Physicochemical and Engineering Aspects, 54, 376 (**2016**).

8. Hong Nhat Nguyen Tran, Huu Truong Nguyen, Yi-ren Liu, Masoud Aminzare, Thanh Tuan Anh Pham, Cao Vinh Tran, Sunglae Cho, Deniz P. Wong, Kuei-Hsien Chen, Tosawat Seetawan, Ngoc Kim Pham, **Hanh Kieu Thi Ta** and Bach Thang Phan**,** *Thermoelectric properties of Indium and Gallium dually-doped ZnO thin films,* ACS Appl. Mater. Interfaces*,* 8 (49), 33916–33923 (**2016**).

9. Ngoc Kim Pham, **Kieu Hanh Thi Ta,** Vinh Cao Tran, Van Hieu Le, Bao Thu Le Nguyen, HeongKyu Ju, Tosawat Seetawan and Bach Thang Phan**,** *Effect of post–annealing processes on filamentary–based resistive switching mechanism of chromium oxide thin films,* Journal of Electronic Materials, Accepted (**2017**).

10. **Thi Kieu Hanh Ta**, Thi Nhu Hoa Tran, Quang Minh Nhat Tran, Duy Phong Pham, Kim Ngoc Pham, Thi Thanh Cao, Yong Soo Kim, Dai Lam Tran, Heongkyu Ju, and Bach Thang Phan**,** *Surface Functionalization of WO_3 Thin Films with (3-aminopropyl)triethoxysilane and succinic anhydride applied in memristor biosensor,* Under review (**2017**).