Cirriculum Vitae

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Dr. Natthapong Wongdamnern

Position Lecturer

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Date of Birth

Religion Buddhism

Education

Certification	**Institute**	**Year**
B.Sc. (Physics)	Silpakorn University	2005
M.Sc. (Materials Science)	Chiangmai University	2008
Visiting Scholar	Virginia Polytechnic Institute and State University, USA	2009
Ph.D. (Materials Science)	Chiangmai University	2011

Experience

Period	**Company**	**Position**

Field of interest and skill:

- **Smart Materials and Devices**
- **Electronic Ceramics and Ferroelectrics**
- **Crystal Chemistry and Physics**
- **Structure-Property Relations**
- **Dielectric and Electromechanical Properties of Materials**
- **Piezoelectricity and Electrostriction**
- **Instrumentations and Measurements of Dielectric and Electromechanical Properties**
- **Energy Harvesting,**
- **Thermoelectricity**

Research:

INTERNATIONAL PUBLICATIONS

- R. Yimnirun, S. Wongsaenmai, R. Wongmaneerung, N. Wongdamnern, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, " Stress- and Temperature-Dependent Scaling Behavior of Dynamic Hysteresis in Soft PZT Bulk Ceramics", *Physica Scripta*, T129, pp 184-189

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- R. Yimnirun, N. Wongdamnern, N. Triamnak, M. Unruan, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, "Stress-Dependent Scaling Behavior of Sub-Coercive Field Dynamic Ferroelectric Hysteresis in $Pb(Zn_{1/3}Nb_{2/3})O_3$-Modified $Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramic", *Journal of Applied Physics*, 103 (8), pp 086105-1-3 (2008).

- N. Wongdamnern, N. Triamnak, A. Ngamjarurojana, Y. Laosiritaworn, S. Ananta, and R. Yimnirun, "Comparative Studies of Dynamic Hysteresis Responses in Hard and Soft PZT Ceramics", *Ceramics International*, 34(4), pp 731-734 (2008).

- R. Yimnirun, N. Wongdamnern, N. Triamnak, M. Unruan, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, "Stress-Dependent Scaling Behavior of Sub-Coercive Field Dynamic Ferroelectric Hysteresis in $0.4Pb(Zn_{1/3}Nb_{2/3})O_3$-$0.6Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramic", *Journal of Physics: Condensed Matter*, 20, pp 415202 (2008).

- R. Yimnirun, N. Wongdamnern, N. Triamnak, T. Sareein, M. Unruan, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, "Power-law Scaling of Sub-Coercive Field Dynamic Ferroelectric Hysteresis in $0.3Pb(Zn_{1/3}Nb_{2/3})O_3$-$0.7Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramic", *Journal of Physics D: Applied Physics*, 41, pp 205415 (2008).

- R. Yimnirun, N. Wongdamnern, N. Triamnak, M. Unruan, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, "Stress-Dependent Scaling Behavior of Sub-Coercive Field Dynamic Ferroelectric Hysteresis in $0.5Pb(Zn_{1/3}Nb_{2/3})O_3$-$0.5Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramic", *Journal of Applied Physics*, 104, pp 104103-1-4 (2008).

- N. Wongdamnern, A. Ngamjarurojana, Y. Laosiritaworn, S. Ananta, and R. Yimnirun, "Dynamic Ferroelectric Hysteresis Scaling in $BaTiO_3$ Single Crystals", *Journal of Applied Physics*, 105, pp 044109 (2009).

- N. Wongdamnern, N. Triamnak, A. Ngamjarurojana, S. Ananta, Y. Laosiritaworn, and R. Yimnirun, "Stress-Dependent Scaling Behavior of Sub-Coercive Field Dynamic Hysteresis in $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ Ceramic Systems", *Ferroelectrics*, 384, pp 1-9 (2009).

- Y. L. Wang, X. Y. Wang, L. Z. Chu, Z. C. Deng, B. T. Liu, and G. S. Fu, N. Wongdamnern, T. Sareein, and R. Yimnirun, "Simulation of hysteresis loops for polycrystalline ferroelectrics by an extensive Landau-type model", *Physics Letters A*, 373, pp 4282-4286 (2009).

- N. Wongdamnern, N. Triamnak, M. Unruan, A. Ngamjarurojana, S. Ananta, Y. Laosiritaworn, and R. Yimnirun, "Sub-Coercive Field Dynamic Hysteresis in Morphotropic phase Boundary Composition of $Pb(Zn_{1/3}Nb_{2/3})O_3$-$Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramic and Its Scaling Behavior", *Physics Letters A*, 374, pp 391-395 (2010).

- N. Wongdamnern, J. Tangsritragul, A. Ngamjarurojana, S. Ananta, Y. Laosiritaworn, and R. Yimnirun, "Hysteresis Scaling Relations in Polycrystalline $BaTiO_3$ Bulk Ceramics", *Materials Chemistry and Physics*, 124, pp 281-286, (2010).

- Deepam Maurya, Natthapong Wongdamnern, Rattikorn Yimnirun, and Shashank Priya,

"Dielectric and ferroelectric response of compositionally graded bilayer and trilayer composites of $BaTiO_3$ and $0.975BaTiO_3–0.025Ba(Cu_{1/3}Nb_{2/3})O_3$", *Journal of Applied Physics*, 108, pp 124111 (2010).

- K. Kanchiang, R. Yimnirun, N. Wongdamnern, A. Ngamjarurojana, and Y. Laosiritaworn, "Harmonic Analysis of Dynamic Hysteresis Response of $BaTiO_3$ Bulk Ceramics", *Ferroelectrics*, 401 (1), pp 123-128 (2010).

- Wimalin Laosiritaworn, Natthapong Wongdamnern, Rattikorn Yimnirun, and Yongyut Laosiritaworn, "Concurrent Artificial Neural Network Modeling of Single-Crystal and Bulk-Ceramics Ferroelectric-Hysteresis: An Application to Barium Titanate", Ferroelectrics, 414 (1, pp 90-96 (2011).

- R. Yimnirun, S. Wongsaenmai, R. Wongmaneerung, M. Unruan, N. Wongdamnern, A. Ngamjarurojana, Y. Laosiritaworn, and S. Ananta, "Temperature- and Stress-Dependent Scaling of Ferroelectric Hysteresis in Soft and Hard PZT Bulk Ceramics", *Proceedings of Materials Science and Technology (MS&T) 2007: International Symposium on Dielectric Materials: Design, Preparation and Applications*, pp 155-166 (2007).

- N. Wongdamnern, S. Ananta, Y. Laosiritaworn, and R. Yimnirun, "Stress-Dependent Scaling Behavior of Dynamic Hysteresis in Hard Lead Zirconate Titanate Ceramic", *(ICMAT-2007)*.

- N. Wongdamnern, A. Ngamjarurojana, S. Ananta, Y. Laosiritaworn, R. Yimnirun, "Scaling Behavior of Dynamic Hysteresis in Hard PZT Bulk Ceramics Under Influence of Compressive Stress", *Advanced Materials Research* 55-57, pp 281-284 (2008).

- Natthapong Wongdamnern, Athipong Ngamjarurojana, Supon Ananta,Yongyut Laosiritaworn and Rattikorn Yimnirun "Dynamic Hysteresis Scaling in $BaTiO_3$ Bulk Ceramics", *Keys Engineering Materials*, 421-422, pp 399-402 (2010).

International Presentation and Proceedings

- R. Yimnirun, S. Wongsaenmai, R. Wongmaneerung, N. Wongdamnern, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, " Stress- and Temperature-Dependent Scaling Behavior of Dynamic Hysteresis in Soft PZT Bulk Ceramics", *ISFM-2007*, Hangzhou, China (May 2007).

- R. Yimnirun, S. Wongsaenmai, R. Wongmaneerung, M. Unruan, N. Wongdamnern, A. Ngamjarurojana, Y. Laosiritaworn, and S. Ananta, "Temperature- and Stress-Dependent Scaling of Ferroelectric Hysteresis in Soft and Hard PZT Bulk Ceramics", *MS&T 2007*, Detroit, USA (September 2007).

- Natthapong Wongdamnern, Athipong Ngamjarurojana, Supon Ananta,Yongyut Laosiritaworn and Rattikorn Yimnirun, "Dynamic Hysteresis Scaling in $BaTiO_3$ Bulk Ceramics" AMEC-6, Tsukuba, Japan (October 2008).

- Natthapong Wongdamnern, Deepam Maurya, Rattikorn Yimnirun, and Shashank Priya, "Dynamic Hysteresis Behaviors in Ferroelectric Materials and Their Scaling Relations", *2nd Annual Meeting of Center for Intelligent Material Systems and Structures (CIMSS)*, Roanoke, Virginia, USA (March 2010).
- Natthapong Wongdamnern, Deepam Maurya, Rattikorn Yimnirun, and Shashank Priya, "Dynamic Hysteresis Behaviors of Ferroelectric Materials and Their Scaling Relations", *Center for Intelligent Material Systems and Structures (CIMSS) Seminar*, Roanoke, Virginia, USA (April 2010).
- Natthapong Wongdamnern, Deepam Maurya, Rattikorn Yimnirun, and Shashank Priya, "Scaling Relation in Compositionally Graded Multilayer Ceramics", *Center for Intelligent Material Systems and Structures (CIMSS) Seminar*, Roanoke, Virginia, USA (November 2010).
- Natthapong Wongdamnern, "Dynamic Hysteresis Scaling Behaviors in Ferroelectric Materials", *Department Seminar*, Faculty of Science, Chiang Mai University, Thailand (May 2011).
- N. Wongdamnern, N. Triamnak, A. Ngamjarurojana, Y. Laosiritaworn, S. Ananta, and R. Yimnirun, "Comparative Studies of Dynamic Hysteresis Responses in Hard and Soft PZT Ceramics", *AMEC-5*, Bangkok, Thailand (December 2006).
- N. Wongdamnern, S. Ananta, Y. Laosiritaworn, and R. Yimnirun, "Stress-Dependent Scaling Behavior of Dynamic Hysteresis in Hard Lead Zirconate Titanate Ceramic", *ICMAT-2007*, Singapore (July 2007).