

ข้อมูลประวัติคณะผู้วิจัย

ประวัติส่วนตัว

ชื่อ-สกุล นราธิป วิทยากร

ตำแหน่งปัจจุบัน ผู้ช่วยศาสตราจารย์

ประวัติการศึกษา

ชื่อย่อปริญญา	สาขา	สถาบันที่จบ	ปีที่จบ
วท.บ	วัสดุศาสตร์	มหาวิทยาลัยเชียงใหม่	2542
วท.ม	วัสดุศาสตร์	มหาวิทยาลัยเชียงใหม่	2544
วท.ด	วัสดุศาสตร์	มหาวิทยาลัยเชียงใหม่	2548

สาขาวิจัยที่มีความชำนาญพิเศษ (แตกต่างจากวุฒิการศึกษา)

Electroceraic synthesis, Crystal Chemistry, Piezoelectric and Dielectric Materials

รางวัลด้านวิชาการ/ด้านวิจัย/งานสร้างสรรค์ (ด้านศิลปะ หรืออื่นๆ) ที่ได้รับ

ปี พ.ศ.	ชื่อรางวัล	สถาบันที่ให้
2550	รางวัลนักวิจัยรุ่นใหม่ดีเด่น จาก ปี 2550	สำนักงานกองทุนสนับสนุนการวิจัย - สำนักงานคณะกรรมการอุดมศึกษา (สกว.- สกอ.)
2551	รางวัลนักวิทยาศาสตร์รุ่นใหม่ (วัสดุศาสตร์)	มูลนิธิส่งเสริมวิทยาศาสตร์และเทคโนโลยีในพระบรมราชูปถัมภ์

ทุนการศึกษาและทุนวิจัยที่เคยได้รับ

ปี พ.ศ.	ทุนการศึกษาและทุนวิจัย	สถาบันที่ให้

ผลงานวิจัย/งานสร้างสรรค์

ผลงานวิจัยตีพิมพ์เผยแพร่ (ระดับนานาชาติย้อนหลัง 3 ปี)

- 1 Muangjai Unruan, **Naratip Vittayakorn**, Rewadee Wongmaneerung, Anurak Prasatkhetragarna, Supon Ananta and Rattikorn Yimnirun “Fabrication and Electrical Properties of $\text{Pb}(\text{Co}_{1/3}\text{Nb}_{2/3})\text{O}_3$ Ceramics” *Ceramics International*, Volume 35, Issue 1, January 2009, Pages 169-172; Impact Factor 2006 = 1.128
- 2 W. Qu, X. Tan, **N. Vittayakorn**, S. Wirunchit and M. F. Besser “High temperature phases in the $0.98\text{PbZrO}_3-0.02\text{Pb}(\text{Ni}_{1/3}\text{Nb}_{2/3})\text{O}_3$ ceramic” *Journal of Applied Physics*; Vol.105, Page 014106 (2009); Impact factor = 2.316
- 3 Manoon Sutapun, Chien-Chih Huang David P. Cann and **Naratip Vittayakorn** “Phase transitional behavior and dielectric properties of lead free $(\text{K}_{0.5}\text{Na}_{0.5})\text{NbO}_3 - \text{Bi}(\text{Zn}_{0.5}\text{Ti}_{0.5})\text{O}_3$ ceramics” *Journal of Alloy and Compound.* ; Vol. 479 Page 462-466 (2009); Impact Factor 2007:1.455
- 4 Nopsiri Chaiyo, Anucha Ruangphanit, Rangson Muanghlua, Surasak Niemcharoen, Atchara Sangseub, Saowanee Taopen, Sunanta Leelapattana, Wanwilai C. Vittayakorn, **Naratip Vittayakorn** “Synthesis and Morphology Evolution of Lead-Free Piezoelectric $\text{K}_{1/2}\text{Na}_{1/2}\text{NbO}_3$ Powder at Low Temperature” *Ferroelectrics*, Volume 383, Issue 1 2009 , pages 8 – 14; Impact Factor: 0.427
- 5 Rangson Muanghlua; Surasak Niemcharoen; Wanwilai C. Vittayakorn; Nattapong Tungsitvisetkul; Pimjan Chinwaro; Anucha Ruangphanit; Nopsiri Chaiyo; **Naratip Vittayakorn** “Preparation and Properties of Lead Free Bismuth Sodium Titanate-Bismuth Zinc Titanate Ceramics” *Ferroelectrics*, Volume 383, Issue 1 2009 , pages 1 – 7; Impact Factor: 0.427
- 6 Theerachai Bongkarn; Nalinee Phungjitt; **Naratip Vittayakorn** “Effect of Firing Temperatures on Phase Formation and Microstructure of $\text{Ba}(\text{Zr}_{0.3}\text{Ti}_{0.7})\text{O}_3$ Ceramics Prepared via Mixed Oxide Method” *Ferroelectrics*, Volume 383, Issue 1 2009 , pages 65 – 72; Impact Factor: 0.427
- 7 Wanwilai C. Vittayakorn and **Naratip Vittayakorn** “Hysteresis Response of Lead Zirconate—Lead Nickel Niobate Ferroelectric Ceramic Under Compressive Stress” *Ferroelectrics*, Volume 382, Issue 1 2009 , pages 1– 6; Impact Factor: 0.427

- 8 **Naratip Vittayakorn**; Wanwimon Banlue “Synthesis, Ferroelectric Phase Stabilization, Phase Transition and Thermal Properties in $(1-x)\text{PbZrO}_3-x\text{Pb}(\text{Zn}_{1/3}\text{Nb}_{2/3})\text{O}_3$ Solid Solution” *Ferroelectrics*, Volume 382, Issue 1 2009 , pages 110– 114; Impact Factor: 0.427
- 9 Manoon Sutapun; **Naratip Vittayakorn** “Phase Transition and Dielectric Properties of Lead Free $(\text{K}_{0.5}\text{Na}_{0.5})\text{NbO}_3$ - $\text{Bi}(\text{Zn}_{0.5}\text{Ti}_{0.5})\text{O}_3$ Piezoelectric Ceramics” *Ferroelectrics*, Volume 382, Issue 1 2009 , pages 115– 121; Impact Factor: 0.427
- 10 Wanwimon Banlue; **Naratip Vittayakorn** “Effect of $\text{Pb}(\text{Zn}_{1/3}\text{Nb}_{2/3})\text{O}_3$ Additions on Phase Structure, Ferroelectric and Dielectric Properties of PbZrO_3 Ceramics” *Ferroelectrics*, Volume 382, Issue 1 2009 , pages 122– 126; Impact Factor: 0.427
- 11 Supamas Wirunchit; **Naratip Vittayakorn** “Crossover from Antiferroelectric to Normal Ferroelectric Behavior in Lead Zirconate—Lead Nickel Niobate Ceramics Prepared by the Reaction Sintering Process” *Ferroelectrics*, Volume 382, Issue 1 2009 , pages 135– 140; Impact Factor: 0.427
- 12 Supamas Wirunchit; Rangson Muanghlua; Surasak Niemcharoen; Wanwilai C. Vittayakorn; Pitak Laoratanakul; **Naratip Vittayakorn** “Preparation of Lead Zirconate-Lead Nickel Niobate Ceramics by the Reaction Sintering Process” *Ferroelectrics*, Volume 380, Issue 1 2009 , pages 14– 19; Impact Factor: 0.427
- 13 G. Rujijanagul; **N. Vittayakorn**; S. Nabunmee “Effect of Annealing Time on Electrical and Mechanical Properties of $0.7(\text{Pb}(\text{Zr}_{1/2}\text{Ti}_{1/2})\text{O}_3) - 0.3(\text{Pb}(\text{Zn}_{1/2}\text{Nb}_{2/3})\text{O}_3)$ Ceramics” *Ferroelectrics*, Volume 384, Issue 1 2009 , pages 68 – 72; Impact Factor: 0.427
- 14 Chien-Chih Huang **Naratip Vittayakorn** and David P. Cann “Structure and ferroelectric properties of $\text{Bi}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3$ - $(\text{Bi}_{1/2}\text{K}_{1/2})\text{TiO}_3$ perovskite solid solutions” *IEEE Transactions on Ultrasonic, Ferroelectrics, and Frequency Control* 56(7) art. No 5116856 pp 1304-1308 2009 , Impact Factor: 2.16
- 15 Chien-Chih Huang, **Naratip Vittayakorn**, Anulak Prasatkhetragn B. J. Gibbons and David P. Cann “Phase transitions and dielectric properties in $\text{Bi}(\text{Zn}_{1/2}\text{Ti}_{1/2})\text{O}_3$ - $(\text{Na}_{1-y}\text{Li}_y)\text{NbO}_3$ perovskite solid solutions” *Japanese Journal of Applied Physics* 48(3) pp. 460-466 2009 Impact Factor: 1.22

- 16 B. Boonchom, M. Thongkam, S. Kongtaweelert and **N. Vittayakorn** “A simple route to synthesis new binary cobalt iron cyclotetraphosphate $\text{CoFeP}_4\text{O}_{12}$ using aqueous and acetone media” *Journal of Alloys and compounds* 486 pp. 689–692 2009 Impact Factor 1.455
- 17 **Naratip Vittayakorn**, Piyanut Charoonsuk, Panisara Kasiansin, Supamas Wirunchit and Banjong Boonchom “Dielectric properties and phase transitions behaviors in $(1-x)\text{PbZrO}_3$ - $x\text{Pb}(\text{Mg}_{1/2}\text{W}_{1/2})\text{O}_3$ ceramics” *Journal of applied Physics* 106(6) pp. 064104-6 2009 Impact factor = 2.316
- 18 Nopsiri Chaiyo, Banjong Boonchom and **Naratip Vittayakorn** “Solid-state reaction synthesis of sodium niobate (NaNbO_3) powder at low temperature” *Journal of Materials Science* 45(6) pp.1443-1447 2009 Impact factor = 1.855
- 19 Usa Sukkha, Wanwimon Banlue, Banjong Boonchom and **Naratip Vittayakorn** “Antiferroelectric-ferroelectric phase transition in lead zinc niobate modified lead zirconate ceramics: Crystal studies, Raman spectroscopy, Thermal expansion and electrical properties” *Applied Physics A: Material Sciences and Processing* 100(2) pp.551-559 2010 Impact factor = 1.76
- 20 Manoon Sutapun, Rangson Muanghlua, Surasak Niemcharoen, Banjong **Boonchom** and **Naratip Vittayakorn** “Phase transition behaviour and electrical properties of lead – free $(\text{K}_{0.5}\text{Na}_{0.5})\text{NbO}_3 - \text{LiNbO}_3 - \text{LiSbO}_3$ piezoelectric ceramics” *Current Applied Physics* 11(3) pp.434-437 2011 Impact factor = 1.74
- 21 Banjong Boonchom and **Naratip Vittayakorn** “Floral-like microarchitectures of cobalt iron cyclotetraphosphate obtained by solid state synthesis” *Powder Technology* 198(1) pp.25-28 2010 Impact factor = 1.887
- 22 Banjong Boonchom and **Naratip Vittayakorn** “Synthesis and ferromagnetic property of new binary copper iron pyrophosphate CuFeP_2O_7 ” *Materials Letters* 64(3) pp.275-277 2010 Impact factor = 2.117
- 23 Banjong Boonchom, Montree Thongkam, Samart Kongtaweelert and **Naratip Vittayakorn** “Flower-like microparticles and novel superparamagnetic properties of new binary $\text{Co}_{1/2}\text{Fe}_{1/2}(\text{H}_2\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$ obtained by a rapid solid state route at ambient temperature” *Materials Research Bulletin* 44(12) pp.2206-2210 2010 Impact factor = 2.145

- 24 Prapapim Phetnoi, Surasak Niemcharoen, Rangson Muanghlua, Manoon Sutapun and **Naratip Vittayakorn** “Electrical properties of bismuth potassium titanate-strontium titanate ferroelectric ceramics” ECTI-CON 2010 - The 2010 ECTI International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology , art. no. 5491563 pp. 962-965 2010
- 25 Banjong Boonchom and **Naratip Vittayakorn** “Dehydration behavior of synthetic $\text{Al}_{0.5}\text{Fe}_{0.5}\text{PO}_4 \cdot 2.5\text{H}_2\text{O}$ ” *Journal of Chemical and Engineering Data* 55(9) pp.3307-3311 2010 Impact factor = 2.089
- 26 Piyanut Charoonsuk, Supamas Wirunchit, Rangson Muanghlua, Surasak Niemcharoen, Banjong Boonchom and **Naratip Vittayakorn** “The phase evolution with temperature in $0.94\text{PbZrO}_3\text{-}0.06\text{Pb}(\text{Mg}_{1/2}\text{W}_{1/2})\text{O}_3$ antiferroelectric ceramic” *Journal of Alloys and Compounds* 506(1) pp.313-316 2010 Impact factor = 2.134
- 27 Boonchom, B., Baitahe, R., Joungmunkong, Z., **Vittayakorn, N.** “Grass blade-like microparticle $\text{MnPO}_4 \cdot \text{H}_2\text{O}$ prepared by a simple precipitation at room temperature” *Powder Technology* 203(2) pp.310-314 2010 Impact factor = 1.887
- 28 Phungjitt, N., Panya, P., **Vittayakorn, N.**, Bongkarn, T. “Use of the combustion technique for the preparation of $\text{Ba}(\text{Ti}_{0.70}\text{Zr}_{0.30})\text{O}_3$ ceramics” *Ferroelectrics* 403(1) pp.142-149 2010 Impact factor = 0.511
- 29 Boonchom, B., Danvirutai, C., **Vittayakorn, N.** “A simple synthesis and characterization of binary $\text{Co}_{0.5}\text{Fe}_{0.5}(\text{H}_2\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$ and its final decomposition product $\text{CoFeP}_4\text{O}_{12}$ ” *Solid State Sciences* 13(1) pp.77-81 2011 Impact factor = 1.828
- 30 Chaiyo, N., Muanghlua, R., Niemcharoen, S., Boonchom, B., **Vittayakorn, N.** “Solution combustion synthesis and characterization of lead-free piezoelectric sodium niobate (NaNbO_3) powders” *Journal of Alloys and Compounds* 509(5) pp. 2445-2449 2011 Impact factor = 2.134
- 31 **Vittayakorn, N.**, Boonchom, B. “Effect of BiAlO_3 modification on the stability of antiferroelectric phase in PbZrO_3 ceramics prepared by conventional solid state reaction” *Journal of Alloys and Compounds* 509(5) pp.2304-2310 2011 Impact factor = 2.134

- 32 Boonchom, B., **Vittayakorn, N.** “Soft synthesis route and characterization of superparamagnetic $\text{Mn}_{1/2}\text{Fe}_{1/2}(\text{H}_2\text{PO}_4)_2 \cdot 2\text{H}_2\text{O}$ and its decomposed product” *Industrial and Engineering Chemistry Research* 50(4) pp.2021-2030, 2011 Impact factor = 2.071
- 33 Chaiyo, N., Ruangphanit, A., Muanghlua, R., Niemcharoen, S., Boonchom, B., **Vittayakorn, N.** “Synthesis of potassium niobate (KNbO_3) nano-powder by a modified solid-state reaction” *Journal of Materials Science*, 46(6) pp. 1585-1590, 2011 Impact factor = 1.855
- 34 Muanghlua, R., Niemcharoen, S., Sutapun, M., Boonchom, B., **Vittayakorn, N.** “Phase transition behaviour and electrical properties of lead-free $(\text{K}_{0.5}\text{Na}_{0.5})\text{NbO}_3$ - LiNbO_3 - LiSbO_3 piezoelectric ceramics” *Current Applied Physics*, 11(3) pp. 434-437, 2011 Impact factor = 1.74
- 35 Sukkha, U., Muanghlua, R., Niemcharoen, S., Boonchom, B., **Vittayakorn, N.** “Effect of $\text{Pb}(\text{Y}_{1/2}\text{Nb}_{1/2})\text{O}_3$ additions on thermal and electrical properties of PbZrO_3 ceramics” *Ferroelectrics*, 416(1) pp. 8-15, 2011 Impact factor = 2.134
- 36 Chaiyo, N., Ruangphanit, A., Boonchom, B., **Vittayakorn, N.** “Facile synthesis of lead-free piezoelectric sodium niobate (NaNbO_3) Powders via the solution combustion method” *Ferroelectrics*, 415(1) pp. 75-82, 2011 Impact factor = 0.511
- 37 Sukkha, U., Muanghlua, R., Niemcharoen, S., Boonchom, B., **Vittayakorn, N.** “Influence of $\text{Pb}(\text{In}_{1/2}\text{Nb}_{1/2})\text{O}_3$ on the Phase Transitions, Electrical, and Thermal Properties of a PbZrO_3 Ceramic” *Journal of The American Ceramic Society* 94(10) pp.3397–3404 2011 Impact factor = 2.167
- 38 Chaiyo, N., Muanghlua, R., Niemcharoen, S., Boonchom, B., Seeharaj, P., **Vittayakorn, N.** “Non-isothermal kinetics of the thermal decomposition of sodium oxalate $\text{Na}_2\text{C}_2\text{O}_4$ ” *Journal of Thermal Analysis and Calorimetry* 107(3) pp.1023-1029 2011 Impact factor = 1.752
- 39 Baitahe, R., **Vittayakorn, N.**, Boonchom, B. “Study on thermal transformation of $\text{CuHPO}_4 \cdot \text{H}_2\text{O}$ obtained by acetone-mediated synthesis at ambient temperature” *Journal of The Thermal Analysis and Calorimetry* DOI 10.1007/s10973-011-1832-y 2011 Impact factor = 1.752
- 40 Kolodiazhnyi, T., Sakurai, H., **Vittayakorn, N.** “Spin-flop driven magneto-dielectric effect in $\text{Co}_4\text{Nb}_2\text{O}_9$ ” *Applied Physics Letters* 99 (13), art. no. 132906, 2011 Impact factor = 3.82

- 41 Boonchom, B., **Vittayakorn, N.** “Simple fabrication of polyhedral grain-like microparticle $\text{Cu}_{0.5}\text{Zn}_{0.5}\text{HPO}_4 \cdot \text{H}_2\text{O}$ and porous structure CuZnP_2O_7 ” *Ceramics International* 38(1) pp. 411-415 2011 Impact factor = 1.471
- 42 Sukkha, U., Muanghlua, R., Niemcharoen, S., Boonchom, B., Vittayakorn, W., **Vittayakorn, N.** “.Effect of Pb ($\text{Yb}_{1/2}\text{Nb}_{1/2}$) O_3 on phase transition and thermal and electrical properties of PZ-PYbN solid solution on PZ-rich side” *Journal of Materials Science* 47(3) pp.1452-1459 2012 Impact factor = 1.855
- 43 Wongpisutpaisan, N., Ruangphanit, A., **Vittayakorn, N.**, Pecharapa, W. “Cu-doped TiO_2 nanopowder synthesized by sonochemical process” 2012 International Conference on Enabling Science and Nanotechnology, ESciNano 2012 - Proceedings , art. no. 6149671 2012
- 44 Sutapun, M., Boonchom, B., **Vittayakorn, N.** “Sonochemical synthesis of $\text{Zn}_3(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}$ and $\text{Zn}_3(\text{PO}_4)_2$ powders” *Advanced Materials Research* 506 pp. 94-97 2012 Impact factor = 1.752
- 45 Sukkha, U., Vittayakorn, W., Muanghlua, R., Niemcharoen, S., Boonchom, B., **Vittayakorn, N.** “Phase Transition Behavior of the $(1-x)\text{PbZrO}_3$ - $x\text{Ba}(\text{Al}_{1/2}\text{Nb}_{1/2})\text{O}_3$ Solid Solution” *Journal of the American Ceramic Society* (Article in Press)
- 46 Nawani, C., Boonchom, B., Prachayawarakorn, J., Vittayakorn, W.C., **Vittayakorn, N.** “Synthesis and phase evolution of electrospun antiferroelectric lead zirconate (PbZrO_3) nanofibers” *Materials Science and Engineering B: Solid-State Materials for Advanced Technology* 177 (13) pp.1009-1016 2012 Impact factor = 1.56