Rattikorn Yimnirun, Ph.D.

Professor of Materials Science

School of Energy Science and Engineering,
Vidyasirimedhi Institute of Science and Technology,
Wang Chan Valley, Rayong 21210 Thailand
Phone: (6689) 755-7597
E-mail: rattikorn.yimnirun@vistec.ac.th

Education

Ph.D. in Materials Science and Engineering (Ceramics Science) (1995-2001)
The Pennsylvania State University, University Park, USA
Thesis: Direct and Converse Measurements of Electrostriction in Low Permittivity Dielectrics
Advisor: Prof. Dr. Robert E. Newnham
Committee Members: Profs. L. Eric Cross, Kenji Uchino, David J. Green and Qiming Zhang

M.S. in Physics (1994-1995)
The University of Tennessee, Knoxville, USA

M.Sc. in Physics (Solid State Physics) (1991-1993)
Chiang Mai University, Chiang Mai, Thailand
Thesis: Effects of Porosity on Electrical Properties of Barium Titanate Ceramics
Advisor: Prof. Dr. Tawee Tunkasiri

B.Sc. in Physics (Second-Class Honor) (1987-1991)
Khon Kaen University, Khon Kaen, Thailand
Thesis: Transversely Excited N_2 laser and High Power CO_2 Lasers
Advisor: Asst. Prof. Pipat Chokesuwattanasakula

Research Interest

Smart and Intelligent Materials and Devices, Electronic Ceramics and Ferroelectrics, Crystal Chemistry and Physics, Structure- Property Relations, Dielectric and Electromechanical Properties of Materials, Piezoelectricity, Ferroelectricity and Electrostriction, Instrumentations and Measurements of Dielectric, Piezoelectric, Ferroelectric and Electromechanical Properties, Applications of Synchrotron Techniques for Materials Characterizations

Work Experience

Professor of Materials Science (2017-Present)
Vidyasirimedhi Institute of Science and Technology Technology, Thailand

Associate Professor of Materials Science (2009-2017)
School of Physics, Institute of Science, Suranaree University of Technology, Thailand

Associate Professor of Materials Science (2008-2009)
Department of Physics and Materials Science, Chiang Mai University, Thailand

Assistant Professor of Materials Science (2004-2008)
Department of Physics, Faculty of Science, Chiang Mai University, Thailand

Lecturer of Materials Science (2001-2004)
Department of Physics, Faculty of Science, Chiang Mai University, Thailand

Administrative Experience

- **Dean of School of Energy Science and Engineering (2017-Present)**
  Vidyasirimedhi Institute of Science and Technology Technology, Thailand
- **Head of Research Department (2009-2015)**
  Institute of Science, Suranaree University of Technology, Thailand
- **Acting Head (2011-2017)**
  School of Physics, Institute of Science, Suranaree University of Technology, Thailand
- **Member of Academic Senate (2010-2017)**
  Suranaree University of Technology, Thailand
- **Other Academic and Executive Committees (2009-2017)**
  Suranaree University of Technology, Thailand

Professional Activities

- IEEE-UFFC Ferroelectrics Committee Member
- Asian Ferroelectrics Association (AFA) Executive Board Member
- Executive Board Member for several professional and scientific societies
- International Advisory Committee for several international and national conferences
- Organizing Committee for several international and national conferences
- Plenary/Keynote/Invited Speaker at several international and national conferences
- Session Chair and Co-Chair at several international and national conferences
- Guest Editor, Editor, Editorial Board for several internaional and national journals
- Regular Referee for more than 60 international and national journals

Award and Honors

- Outstanding Young Researcher Award from Chiang Mai University (CMU) (2009)
- Outstanding Mid-Career Researcher Award from Thailand Research Fund (TRF) (2008)
- Outstanding Research Award from the Thailand Research Fund (TRF) (2007)
- Outstanding Young Researcher Award from the Thailand Research Fund (TRF) (2005)
- Thailand Research Fund Research Scholar (2004-2010)
- Distinguished Alumni of the Development and Promotion in Science and Technology Talented Student Program (DPST) (2005)
- Recipient of the Development and Promotion in Science and Technology Talented Student Program (DPST) from Thai Government (1984-2001)
- Outstanding Graduate Student Award from Chiang Mai University, Thailand (1993)
- The Best Graduate Student Poster Award at the 100th Annual American Ceramics Society Meeting, Cincinnati, OH (1998)
- The Chung Soo Yoo Award for the Best Graduate Student Poster Presentation at the 56th Annual Pittsburgh Diffraction Conference, Pittsburgh, PA (1998)
- The Graduate Student Traveling Support Awards for IEEE Conference on Electrical Insulation and Dielectric Phenomena (CEIDP) Annual Meeting (1998-1999)

Teaching Experience

Courses Taught (with excellent teaching evaluation (>4.2/5.0)) include

-*Materials Science and Engineering Courses*: Ferroelectric Materials, Properties of Materials, Fabrication of Materials, Electroceramics, Applications of Electromaterials, Advanced Funtional Materials

-*Graduate and Undergraduate Physics Courses*: Physics I&II, Mechanics, Electrodymanics, Statistical Mechamics, X-Ray Absorption Spectroscopy and Applications

-*Graduate Applied Physics Courses*: Applied Electrodymanics, Quantum Physics

Publications

Authors and co-authors of more than 360 articles in international and national refereed journals, and more than 200 presentations in various international conferences and meetings.

The list of key research areas and statistics are as follows (as of August 9, 2017),
Over all number of publications of 360 in SCOPUS Database with h-index = 24 and citation = 2551 (Google Scholar Database: h-index = 28, citation = 3472) (ISI Web of Science Database: h-index = 22, citation = 2224).

Key Research Areas:

Dielectric, Piezoelectric, Ferroelectric Properties of Functional Materials (121 Articles)
Synthesis and Characterization of Functional Materials (70 Articles)
Uniaxial Stress Dependent Dielectric and Ferroelectric Properties (42 Articles)
Applications of Synchrotron Techniques for Materials Characterization (32 Articles)
Scaling Behavior in Functional Materials (19 Articles)
Modeling and Computational Materials Physics (31 Articles)
Electrostriction (8 Articles)
Others (Publications in International Proceedings and National Journals) (65 Publications)

List of Research Publications

Dielectric, Piezoelectric, Ferroelectric Properties of Functional Materials (121 Articles)

1. Jaiban, P., Watcharapasorn, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Effects of donor and acceptor doping on dielectric and ferroelectric properties of $Ba_{0.7}Ca_{0.3}TiO_3$ lead-free ceramics, *Journal of Alloys and Compounds*, DOI: 10.1016/j.jallcom.2016.10.274 (2016).
2. Prasatkhetragarn, A., Ngamjarurojana, A., **Yimnirun, R.**, Relaxor-like behavior and ferroelectric evolution in $(1-x)[0.5BZT-0.5PT]-(x)BKT$ ternary system, *Integrated Ferroelectrics*, Vol 175 (1), pp. 81-86 (2016).
3. Sareein, T., Albutt, N., Unruan, M., Funsueb, N., Ngamjarurojana, A., **Yimnirun, R.**, Effect of hybrid doping on dielectric behavior of barium titanate ceramics, *Integrated Ferroelectrics*, Vol 175 (1), pp. 96-101 (2016).
4. Wattanasarn, H., Photankham, W., Seetawan, T., **Yimnirun, R.**, Thanachayanont, C., Petnoi, N., Pojprapai, S., Dielectric and ferroelectric properties modification of $0.7Pb(Mg_{1/3}Nb_{2/3})O_3$-$0.3Pb(Zr_{0.52}Ti_{0.48})O_3$ ceramics by $Ba(Zn_{1/3}Nb_{2/3})O_3$, *Materials Research Bulletin*, Vol 76, pp. 292-299 (2016).
5. Wongmaneerung, R., Tipakontitikul, R., Jantaratana, P., Bootchanont, A., Jutimoosik, J., **Yimnirun, R.**, Ananta, S., Structure and phase formation behavior and dielectric and magnetic properties of lead iron tantalate-lead zirconate titanate multiferroic ceramics, *Materials Research Bulletin*, Vol 75, pp. 91-99 (2016).
6. Jaita, P., Jarupoom, P., **Yimnirun, R.**, Rujijanagul, G., Cann, D.P., Phase transition and tolerance factor relationship of lead-free $(Bi_{0.5}K_{0.5})TiO_3$-$Bi(Mg_{0.5}Ti_{0.5})O_3$ piezoelectric ceramics, *Ceramics International*, Vol 42 (14), pp 15940-15949 (2016).
7. Chaipanich, A., Zeng, H.R., Li, G.R., Yin, Q.R., **Yimnirun, R.**, Jaitanong, N., Piezoelectric Force Microscope Investigation and Ferroelectric Hysteresis Behavior of High Volume Piezoelectric Ceramic in 0-3 Lead Zirconate Titanate-Cement Composites, *Ferroelectrics*, Vol 492 (1), pp. 54-58 (2016).
8. Pisitpipathsin, N., Sratta, Y., Unruan, S., Promsawat, M., Marungsri, B., **Yimnirun, R.**, Rattanachan, S., Pojprapai, S., Effect of Temperature on Ferroelectric and Piezoelectric Behaviour of Mn-Doped 0.75BF-0.25BT Multiferroic Ceramics, *Ferroelectrics*, Vol 489 (1), pp. 110-117 (2015).
9. Kasian, P., Thongbai, P., Yamwong, T., Rujirawat, S., **Yimnirun, R.**, Maensiri, S., The DC bias voltage effect and non-linear dielectric properties of titanate nanotubes, *Journal of Nanoscience and Nanotechnology*, Vol 15 (11), pp. 9197-9202 (2015).
10. Jaiban, P., Namsar, O., Jiansirisomboon, S., Watcharapasorn, A., **Yimnirun, R.**, Electrical Properties of La-Doped $Ba_{0.7}Ca_{0.3}TiO_3$ Lead-Free Ceramics, *Ferroelectrics*, Vol 487 (1), pp. 86-93 (2015).
11. Jarupoom, P., Jaita, P., **Yimnirun, R.**, Rujijanagul, G., Cann, D.P., Enhanced piezoelectric properties near the morphotropic phase boundary in lead-free $(1-x)(Bi_{0.5}K_{0.5})TiO_3$-$xBi(Ni_{0.5}Ti_{0.5})O_3$ ceramics, *Current Applied Physics*, Vol 15 (11), pp. 1521-1528 (2015).
12. Wattanasarn, H., Photankham, W., Seetawan, T., **Yimnirun, R.**, Thanachayanont, C., Effect of $Ba(Zn_{1/3}Nb_{2/3})O_3$ modification on structure and ferroelectric properties of $0.6Pb(Mg_{1/3}Nb_{2/3})O_3$-$0.4Pb(Zr_{0.52}Ti_{0.48})O_3$ ceramics, *Ceramics International*, Vol 41 (7), pp. 8367-8376 (2015).
13. Wattanasarn, H., Photankham, W., Inthachai, S., Seetawan, T., **Yimnirun, R.**, Thanachayanont, C., MPB Phase Transition and Microstructure of (1-X)PMN- x PZT Activated by 0.05BZN Ceramics, *Integrated Ferroelectrics*, Vol 165 (1), pp. 19-28 (2015).

14. Prasatkhetragarn, A., Triamnak, N., **Yimnirun, R.**, Cann, D.P., Morphotropic phase boundary of $0.875Pb(Zr_xTi_{1-X})O_3$–$0.125Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics, *Ferroelectrics*, Vol 470 (1), pp. 280-286 (2014).
15. N. Jaitanong, **R. Yimnirun**, H.R. Zeng, G.R. Li, Q.R. Yin, A. Chaipanich, Piezoelectric properties of cement based/PVDF/PZT composites, *Materials Letters*, Vol. 130, pp. 146-149 (2014).
16. Sareein, T., Unruan, M., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Dielectric relaxation time behavior of B-site hybrid-doped $BaTiO_3$ ceramics, *Ferroelectrics*, Vol. 458, pp. 56-63 (2014).
17. Jaiban, P., Jiansirisomboon, S., Watcharapasorn, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Diffuse dielectric behavior of $(Bi_{0.5}Na_{0.5})Zr_{1-x}Ti_xO_3$ lead-free ceramics, *Ferroelectrics*, Vol. 458, pp. 174-180 (2014).
18. Rianyoi, R., Potong, R., **Yimnirun, R.**, Chaipanich, A., Effect of barium titanate particle size on electrical properties of 0-3 barium titanate-portland cement composites, *Integrated Ferroelectrics*, Vol. 150, pp. 147-154 (2014).
19. Wongsaenmai, S., Maensiri, S., **Yimnirun, R.**, Effects of manganese addition on phase formation behavior and dielectric properties of $((K_{0.5}Na_{0.5})_{0.935}Li_{0.065})NbO_3$ ceramics, *Key Engineering Materials*, Vol 608, pp. 206-211 (2014).
20. Rianyoi, R., Potong, R., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Chaipanich, A., Acoustic and electrical properties of 1-3 connectivity bismuth sodium titanate-Portland cement composites, *Materials Research Bulletin*, Vol 60, pp. 353-358 (2014).
21. Ketsuwan, P., Prasatkhetragarn, A., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Dielectric aging of Cr-doped PZT ceramics, *Integrated Ferroelectrics*, Vol. 149, pp. 67-74 (2013).
22. Sratta, Y., Chandarak, S., Unruan, M., Kantha, P., Marungsri, B., **Yimnirun, R.**, Pojprapai, S., Effect of temperature on ferroelectric properties of bismuth ferrite-barium titanate, *Integrated Ferroelectrics*, Vol. 148, pp. 67-72 (2013).
23. Potong, R., Rianyoi, R., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Chaipanich, A., Effect of particle size on dielectric properties and hysteresis behavior of 0-3 barium zirconate titanate-portland cement composites, *Integrated Ferroelectrics*, Vol. 148, pp. 131-137 (2013).
24. Jaiban, P., Jiansirisomboon, S., Watcharapasorn, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Thermal expansion behavior of $(Bi_{0.5}Na_{0.5})Zr_{1-x}Ti_xO_3$ ceramics, *Integrated Ferroelectrics*, Vol. 148, pp. 124-130 (2013).
25. Jaitanong, N., Vittayakorn, W.C., Zeng, H.R., Yin, Q.R., **Yimnirun, R.**, Chaipanich, A., Piezoelectric properties and domain configurations of PZT ceramic with NiO addition, *Integrated Ferroelectrics*, Vol. 149, pp. 95-101 (2013).
26. Rianyoi, R., Potong, R., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Chaipanich, A., Electromechanical coupling coefficient of 1-3 connectivity barium titanate-portland cement composites, *Integrated Ferroelectrics*, Vol. 148, pp. 138-144 (2013).
27. Phuetthonglang, A., Marungsri, B., Oonsivilai, A., Kantha, P., **Yimnirun, R.**, Pojprapai, S., Effect of heat treatment on aging degradation of the piezoelectric properties of lead zirconate titanate, *Integrated Ferroelectrics*, Vol. 149, pp. 75-82 (2013).
28. Triamnak, N., **Yimnirun, R.**, Pokorny, J., Cann, D.P., Relaxor characteristics of the phase transformation in $(1-X)BaTiO_3$-$xBi(Zn_{1/2}Ti_{1/2})O_3$ perovskite ceramics, *Journal of the American Ceramic Society*, Vol. 96, pp. 3176-3182 (2013).

29. Wongmaneerung, R., Ngamjarurojana, A., **Yimnirun, R.**, Ananta, S., Thermal expansion and polarization behavior in lead Titanate/ Zinc Oxide nanocomposite ceramics, *Key Engineering Materials*, Vol. 547, pp. 107-113 (2013).
30. Srisombat, L., Ananta, S., Singhana, B., Lee, T.R., **Yimnirun, R.**, Chemical investigation of Fe^{3+}/Nb^{5+}-doped barium titanate ceramics, *Ceramics International*, Vol. 39, pp. S591-S594 (2013).
31. Prasatkhetragarn, A., Arthan, A., Jantaratana, P., Vittayakorn, N., Yotburut, B., **Yimnirun, R.**, Ferroelectromagnetic characteristic of Na-doped $0.75BiFeO_3$-$0.25BaTiO_3$ multiferroic ceramics, *Ceramics International*, Vol. 39, pp. S245-S248 (2013).
32. Prasatkhetragarn, A., Muangkonkad, P., Aommongkol, P., Jantaratana, P., Vittayakorn, N., **Yimnirun, R.**, Investigation on ferromagnetic and ferroelectric properties of (La,K)-doped $BiFeO_3$-$BaTiO_3$ solid solution, *Ceramics International*, Vol. 39, pp. S249-S252 (2013).
33. Jaiban, P., Jiansirisomboon, S., Watcharapasorn, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., High- and low-field dielectric responses and ferroelectric properties of $(Bi_{0.5}Na_{0.5})Zr_{1-x}Ti_xO_3$ ceramics, *Ceramics International*, Vol. 39, pp. S81-S85 (2013).
34. Prasatkhetragarn, A., Jantaratana, P., Vittayakorn, N., Yotburut, B., **Yimnirun, R.**, Ferroelectric and ferromagnetic properties of K-doped $0.7BiFeO_3$-$0.3BaTiO_3$ multiferroic ceramics, *Ferroelectrics*, Vol. 451, pp.109-115 (2013).
35. Ketsuwan, P., Prasatkhetragarn, A., Ngamjarurojana, A., Ananta, S., **Yimnirun, R**. Aging behavior of (Cr,Nb)-doped PZT ceramics, *Ferroelectrics*, Vol. 452, pp. 13-21 (2013).
36. Rianyoi, R., Potong, R., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Chaipanich, A., Acoustic, dielectric and piezoelectric properties of 1-3 connectivity barium titanate-portland cement composites, *Ferroelectrics*, Vol. 452, pp. 76-83 (2013).
37. Potong, R., Rianyoi, R., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Chaipanich, A., Acoustic and piezoelectric properties of 0-3 barium zirconate titanate-portland cement composites-effects of BZT content and particle size, *Ferroelectrics*, Vol. 455, pp. 69-76 (2013).
38. Jaitanong, N., Zeng, H.R., Li, G.R., Yin, Q.R., **Yimnirun, R.**, Chaipanich, A., Investigations on morphology and domain configurations in 0-3 lead magnesium niobate titanate-portland cement composites by SEM and PFM, *Ferroelectrics*, Vol. 455, pp. 111-116 (2013).
39. Pojprapai, S., Luo, Z., **Yimnirun, R.**, Frequency effect on electrical fatigue behaviour of lead zirconate titanate ceramics, *Electronics Letters*, Vol. 48, pp. 1062-1064 (2012).
40. Unruan, M., Prasatkhetragarn, A., Laosiritaworn, Y., Ananta, S., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A., Measurement of thermal strain and total polarization estimation of lead zirconate titanate-lead zinc niobate ceramics, *Journal of Materials Science*, Vol. 47, pp.5801-5805 (2012).
41. Hunpratub, S., Thongbai, P., Yamwong, T., **Yimnirun, R.**, Maensiri, S., Effects of Mn doping on the dielectric relaxations and dielectric response in multiferroic $BiFeO_3$ Ceramics, *Journal of Superconductivity and Novel Magnetism*, Vol. 25, pp. 1619-1622 (2012).
42. Prasatkhetragarn, A., Kaowphong, S., **Yimnirun, R.**, Synthesis, structural and electrical properties of double perovskite Sr_2NiMoO_6 ceramics, *Applied Physics A: Materials Science and Processing*, Vol. 107, pp. 117-121 (2012).
43. Wongsaenmai, S., Kanchiang, K., Chandarak, S., Laosiritaworn, Y., Rujirawat, S., **Yimnirun, R.**, Crystal structure and ferroelectric properties of Mn-doped $((Ka_{0.5}Na_{0.5})_{0.935}Li_{0.065})NbO_3$ lead-free ceramics, *Current Applied Physics*, Vol. 12 pp. 418-421 (2012).

44. Sareein, T., Hu, W., Tan, X., **Yimnirun, R.**, The morphotropic phase boundary in the $(1-x)PbZrO_3$-$x[0.3Bi(Zn_{1/2}Ti_{1/2})O_3$-$0.7PbTiO_3]$ perovskite solid solution, *Journal of Materials Science*, Vol. 47, pp. 1774-1779 (2012).
45. Wongsaenmai, S., Ananta, S., **Yimnirun, R.**, Effect of Li addition on phase formation behavior and electrical properties of $(K_{0.5}Na_{0.5})NbO_3$ lead free ceramics, *Ceramics International*, Vol. 38, pp. 147-152 (2012).
46. Potong, R., Rianyoi, R., Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Ferroelectric hysteresis behavior and dielectric properties of 1-3 lead zirconate titanate-cement composites, *Ceramics International*, Vol. 38, pp. S267-S270 (2012).
47. Chaipanich, A., Potong, R., Rianyoi, R., Jareansuk, L., Jaitanong, N., **Yimnirun, R.**, Dielectric and ferroelectric hysteresis properties of 1-3 lead magnesium niobate-lead titanate ceramic/Portland cement composites, *Ceramics International*, Vol. 38, pp. S255-S258 (2012).
48. Jarupoom, P., Patterson, E., Gibbons, B., Rujijanagul, G., **Yimnirun, R.**, Cann, D., Lead-free ternary perovskite compounds with large electromechanical strains, *Applied Physics Letters*, Vol. 99 (2011).
49. Murali, S., Prasertpalichat, S., Huang, C.C., Cann, D., **Yimnirun, R.**, Conley, J.F., Conductivity measurement of ZnO nanowires using the powder-solution- composite technique, *Journal of the Electrochemical Society*, Vol. 158, pp. G211-G216 (2011).
50. Rianyoi, R., Potong, R., Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Dielectric, ferroelectric and piezoelectric properties of 0-3 barium titanate-Portland cement composites, *Applied Physics A: Materials Science and Processing*, Vol. 104, pp.661-666 (2011).
51. Dechakupt, T., Tangsritrakul, J., Ketsuwan, P., **Yimnirun, R.**, Microstructure and electrical properties of niobium doped barium titanate ceramics, *Ferroelectrics*, Vol. 415, pp. 141-148 (2011).
52. Prasatkhetragarn, A., Saenarpa, R., Yotburut, B., Ketsuwan, P., Sareein, T., Ananta, S., **Yimnirun, R.**, Investigations on morphology and ferroelectric properties of $NaNbO_3$-$PbTiO_3$ composite ceramics, *Ferroelectrics*, Vol. 416, pp. 40-46 (2011).
53. Laoratanakul, P., **Yimnirun, R.**, Wongsaenmai, S., Phase formation and dielectric properties of bismuth sodium titanate-potassium sodium niobate ceramics, *Current Applied Physics*, Vol. 11, pp. S161-S166 (2011).
54. Chaipanich, A., Jaitanong, N., **Yimnirun, R.**, Effect of carbon addition on the ferroelectric hysteresis properties of lead zirconate-titanate ceramic-cement composites, *Ceramics International*, Vol. 37, pp. 1181-1184 (2011).
55. Srisombat, L.-O., Ananta, S., Randall Lee, T., **Yimnirun, R.**, Chemical changes of PNN ceramics induced by ion bombardment and characterized by X-ray photoelectron spectroscopy, *Current Applied Physics*, Vol. 11, pp. S82-S85 (2011).
56. Sareein, T., Baipaywad, P., Chaiammad, W., Ngamjarurojana, A., Ananta, S., Tan, X., **Yimnirun, R.**, Dielectric aging behavior in A-site hybrid-doped $BaTiO_3$ ceramics, *Current Applied Physics*, Vol. 11, pp. S90-S94 (2011).
57. Rianyoi, R., Potong, R., Jaitanong, N., **Yimnirun, R.**, Ngamjarurojana, A., Chaipanich, A., Dielectric and ferroelectric properties of 1-3 barium titanate-Portland cement composites, *Current Applied Physics*, Vol. 11, pp. S48-S51 (2011).

58. Srisombat, L., Wongmaneerung, R., **Yimnirun, R.**, Ananta, S., Surface characterisation of the corundum-route lead magnesium niobate ferroelectric ceramics, *Advanced Materials Research*, Vol. 194-196, pp. 2046-2049 (2011).
59. Wongmaneerung, R., Choopan, S., **Yimnirun, R.**, Ananta, S., Dielectric properties of $PbTiO_3$/ZnO ceramic nanocomposites obtained by solid-state reaction method, *Journal of Alloys and Compounds*, Vol. 509, pp. 3547-3552 (2011).
60. Chandarak, S., Ngamjarurojana, A., Srilomsak, S., Laoratanakul, P., Rujirawat, S., **Yimnirun, R.**, Dielectric properties of $BaTiO_3$-Modified $BiFeO_3$ ceramics, *Ferroelectrics*, Vol. 410, pp. 75-81 (2011).
61. Unruan, M., Prasatkhetragarn, A., **Yimnirun, R.**, Guo, R., Bhalla, A., Estimation of total polarization and thermal expansion behavior in PZT-PCN ceramics, *Integrated Ferroelectrics*, Vol. 131, pp. 140-146 (2011).
62. Pattanaboonmee, N., Ramasamy, P., **Yimnirun, R.**, Manyum, P., A comparative study on pure, l-arginine and glycine doped ammonium dihydrogen orthophosphate single crystals grown by slow solvent evaporation and temperature-gradient method, *Journal of Crystal Growth*, Vol. 314, pp. 196-201 (2011).
63. Putjuso, T., Manyum, P., **Yimnirun, R.**, Yamwong, T., Thongbai, P., Maensiri, S., Giant dielectric behavior of solution-growth CuO ceramics subjected to dc bias voltage and uniaxial compressive stress, *Solid State Sciences*, Vol. 13, pp. 158-162 (2011).
64. Srisombat, L.-O., Ngamjarurojana, A., **Yimnirun, R.**, Ananta, S., Surface characterization of PZN ceramics prepared by a columbite B-site precursor, *Ferroelectrics*, Vol. 405, pp. 76-81 (2010).
65. Potong, R., Rianyoi, R., Jareansuk, L., Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Effect of particle size on dielectric and ferroelectric properties of 0-3 lead magnesium niobate titanate-portland cement composites, *Ferroelectrics*, Vol. 405, pp. 98-104 (2010).
66. Jaitanong, N., Vittayakorn, W.C., **Yimnirun, R.**, Chaipanich, A., Ferroelectric hysteresis behavior of 0-3 PMNT-cement composites, *Ferroelectrics*, Vol. 405, pp.105-110 (2010).
67. Chandarak, S., Ngamjarurojana, A., Pojprapai, S., Srilomsak, S., Rujirawat, S., **Yimnirun, R.**, Effects of mn and Cu doping on electrical properties of $0.75BiFeO_3$-$0.25BaTiO_3$ ceramics, *Integrated Ferroelectrics*, Vol. 114, pp. 100-107 (2010).
68. Dechakupt, T., Tangsritrakul, J., Unruan, M., Ketsuwan, P., Srisombat, L., Ananta, S., **Yimnirun, R.**, Electrical and aging properties of doped barium titanate ceramics, *Ferroelectrics*, Vol. 403, pp. 97-103 (2010).
69. Unruan, M., Prasatkhetragarn, A., Laosiritaworn, Y., Ananta, S., Khamman, O., **Yimnirun, R.**, Guo, R., Bhalla, A., Thermal expansion behavior and estimated total polarizations of lead zirconate titanate-lead nickel niobate ceramics, *Materials Letters*, Vol. 64, pp. 1960-1963 (2010).
70. Putjuso, T., Manyum, P., **Yimnirun, R.**, Yamwong, T., Maensiri, S., Fabrication of nanocrystalline CuO powder and giant dielectric properties of its ceramic, *INEC- 2010 3rd International Nanoelectronics Conference Proceedings*, pp. 1102-1103 (2010).
71. Hunpratub, S., **Yimnirun, R.**, Maensiri, S., Effect of Mn doping on magnetic properties of $BiFeO_3$ nanopowders, *INEC-2010 3rd International Nanoelectronics Conference Proceedings*, pp. 1104-1105 (2010).

72. Jaitanong, N., Zeng, H.R., Li, G.R., Yin, Q.R., Vittayakorn, W.C., **Yimnirun, R.**, Chaipanich, A., Interfacial morphology and domain configurations in 0-3 PZT-Portland cement composites, *Applied Surface Science*, Vol. 256, pp. 3245-3248 (2010).
73. Srisombat, L., Khamman, O., **Yimnirun, R.**, Ananta, S., Lee, T.R., XPS characterization of perovskite relaxor PNN ceramics prepared by corundum precursor method, *Key Engineering Materials*, Vol. 421-422, pp. 415-418 (2010).
74. Ketsuwan, P., Prasatkhetragarn, A., Ananta, S., Huang, C.-C., Cann, D.P., **Yimnirun, R.**, Dielectric properties of $Bi_{0.2}K_{0.8}(Zn_{0.1}Ti_{0.1})Ta_{0.8}O_3$ ceramics, *Key Engineering Materials*, Vol. 421-422, pp. 255-258 (2010).
75. Ketsuwan, P., Prasatkhetragarn, A., Ananta, S., Huang, C.-C., Cann, D.P., **Yimnirun, R.**, Dielectric and ferroelectric properties of (Cr,Nb)-doped lead zirconate titanate ceramics, *Key Engineering Materials*, Vol. 421-422, pp. 385-388 (2010).
76. Jaitanong, N., Rianyoi, R., Potong, R., **Yimnirun, R.**, Chaipanich, A., Effects of PZT content and particle size on ferroelectric hysteresis behavior of 0-3 lead zirconate titanate - Portland cement composites, *Integrated Ferroelectrics*, Vol. 107, pp. 43-52 (2009).
77. Prasatkhetragarn, A., Ketsuwan, P., Unruan, M., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Cann, D.P., Effects of sintering conditions on phase formation and dielectric properties of $0.8Pb(Zr_{1/2}Ti_{1/2})O_3$ -$0.2Pb(Co_{1/3}Nb_{2/3})O_3$ ceramics, *Ferroelectrics*, Vol. 382, pp. 100-109 (2009).
78. Tangsritrakul, J., Unruan, M., Ketsuwan, P., Triamnak, N., Rujirawat, S., Dechakupt, T., Anata, S., **Yimnirun, R.**, Effects of iron addition on electrical properties and aging behavior of barium titanate ceramics, *Ferroelectrics*, Vol. 383, pp. 166-173 (2009).
79. Prasertpalichatr, S., Unruan, M., Sareein, T., Tangsritrakul, J., Dechakupta, T., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Physical properties and electrical aging effects in Fe^{3+}/Nb^{5+} hybrid-doped barium titanate ceramics, *Ferroelectrics*, Vol. 384, pp. 146-152 (2009).
80. Ketsuwan, P., Prasatkhetragarn, A., Triamnuk, N., Huang, C.C., Ngamjarurojana, A., Ananta, S., Cann, D.P., **Yimnirun, R.**, Electrical conductivity and dielectric and ferroelectric properties of chromium doped lead zirconate titanate ceramic, *Ferroelectrics*, Vol. 382, pp.49-55 (2009).
81. Ketsuwan, P., Prasatkhetragarn, A., Triamnuk, N., Huang, C.C., Ngamjarurojana, A., Ananta, S., Cann, D.P., **Yimnirun, R.**, Effects of niobium doping on dielectric and ferroelectric properties of chromium modified lead zirconate titanate ceramics, *Ferroelectrics*, Vol. 380, pp. 183-189 (2009).
82. Prasatkhetragarn, A., Ketsuwan, P., Unruan, M., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Cann, D.P., Effects of Zr/Ti ratio on phase formation and dielectric properties of $0.8Pb(Zr_xTi_{1-X}O_3$-$0.2Pb(Co_{1/3}Nb_{2/3})O_3$ ceramics, *Ferroelectrics*, Vol. 380, pp. 122-129 (2009).
83. Prasatkhetragarn, A., Ketsuwan, P., Maensiri, S., **Yimnirun, R.,** Huang, C.-C., Cann, D.P., Structure and electrical properties of double perovskite $Sr(Ni_{1/2}Mo_{1/2})O_3$ ceramics, *Journal of Applied Physics*, Vol. 106 (2009).
84. Chaipanich, A., Jaitanong, N., **Yimnirun, R.**, Ferroelectric hysteresis behavior in 0-3 pzt-cement composites: Effects of frequency and electric field, *Ferroelectrics Letters Section*, Vol. 36, pp. 59-66 (2009)..
85. Prasatkhetragarn, A., Ketsuwan, P., Ananta, S., **Yimnirun, R.**, Cann, D.P., Phase formation, microstructure, and dielectric properties of (1- x)PZT-(x)PCN ceramics, *Materials Letters*, Vol. 63, pp. 1281-1284 (2009).

86. Khamman, O., Tan, X., Ananta, S., **Yimnirun, R.**, Ferroelectric properties of $(1-X)Bi(Zn_{1/2}Ti_{1/2})O_3$-$xPbZrO_3$ ceramics, *Journal of Materials Science*, Vol 44, pp. 4321-4325 (2009).
87. Anurak Prasatkhetragarn, Athipong Ngamjarurojana, Yongyut Laosiritaworn, Supon Ananta, **Rattikorn Yimnirun**, and David Cann, Effects of Zr/Ti ratio on phase formation and electrical properties of $0.8Pb(Zr_{1/2}Ti_{1/2})O_3$-$0.2Pb(Co_{1/3}Nb_{2/3})O_3$ ceramics, *Current Applied Physics*, Vol 9, pp 802-806 (2009).
88. S. Wongsaenmai, S. Ananta, and **R. Yimnirun**, Effects of Addition of BT on Structural Phase Formation and Electrical Properties of Relaxor Ferroelectric $Pb(In_{0.5}Nb_{0.5})_{(1-x)}Ti_{(x)}O_3$ ceramics, *J. Alloys and Compounds,* Vol 474, pp 241-245 (2009).
89. R. Wongmaneerung, **R. Yimnirun**, and S. Ananta, Effect of two-stage sintering on phase formation, microstructure and dielectric properties of perovskite PMN ceramics derived from a corundum $Mg_4Nb_2O_9$ precursor, *Materials Chemistry and Physics*, Vol. 114, pp 569-575 (2009).
90. O. Khamman, X. Tan, S. Ananta, and **R. Yimnirun**, The morphotropic phase boundary and electrical properties of $(1-x)Pb(Zn_{1/2}W_{1/2})O_3-xPb(Zr_{0.5}Ti_{0.5})O_3$ ceramics, *J. Materials Science*, Vol 44, pp 1868-1872 (2009).
91. Sitchai Hunpratub, Prasit Thongbai, Teerapon Yamwong, **Rattikorn Yimnirun**, and Santi Maensiri, Dielectric relaxations and giant dielectric response in multiferroic $BiFeO_3$ ceramics, *Applied Physics Letters*, Vol 94, pp. 062904 (2009).
92. **Yimnirun, R.**, Dielectric properties of lead magnesium niobate-lead titanate ceramics prepared by mixed-oxide method, *International Journal of Modern Physics B*, Vol. 23, pp.403-410 (2009).
93. Ketsuwan, P., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Electrical properties of Nb-Doped $Pb(Zr_{0.52}Ti_{0.48})O_3$ ceramics, *International Journal of Modern Physics B*, Vol. 23, pp.105-111 (2009).
94. A. Ngamjarurojana, S. Ananta, **R. Yimnirun**, Effect of Al_2O_3 Addition on Dielectric, Piezoelectric and Ferroelectric Properties of $0.2Pb(Zn_{1/3}Nb_{2/3})O_3-0.8Pb(Zr_{1/2}Ti_{1/2})O_3$ Ceramics *Advanced Materials Research*, Vol 55-57, 89-92 (2008).
95. S. Wongsaenmai, **R. Yimnirun,** S. Ananta, R. Guo, and, A. Bhalla, Thermal Expansion Measurement in the Relaxor Ferroelectric PIN-PT System *Materials Letters*, Vol 62, pp 352-356 (2008).
96. Anurak Prasatkhetragarn, Naratip Vittayakorn, Supon Ananta, **Rattikorn Yimnirun** and David P. Cann, Synthesis, dielectric and ferroelectric properties of ceramics in the $(1-x)Pb(Zr_{1/2}Ti_{1/2})O_3-(x)Pb(Co_{1/3}Nb_{2/3})O_3$ system *Japan Journal of Applied Physics*, Vol 47(2), pp 998-1002 (2008).
97. Supattra Wongsaenmai, Xiaoli Tan, Supon Ananta, and **Rattikorn Yimnirun**, Dielectric and Ferroelectric Properties of Fine Grains $Pb(In_{1/2}Nb_{1/2})O_3-PbTiO_3$ Ceramics *Journal of Alloys and Compounds*, Vol 454, pp 331-339 (2008).
98. Supattra Wongsaenmai, Supon Ananta, Xiaoli Tan, **Rattikorn Yimnirun**, Dielectric and Ferroelectric Properties of Lead Indium Niobate Ceramic Prepared by Wolframite Method *Ceramics International,* Vol 34(4), pp 723-726 (2008).
99. A. Ngamjarurojana, S. Ural, S.H. Park, S. Ananta, **R. Yimnirun**, and K. Uchino, Piezoelectric Properties of Low Temperature Sintering in $Pb(Zr,Ti)O_3$ - $Pb(Zn,Ni)_{1/3}Nb_{2/3}O_3$ Ceramics for Piezoelectric Transformer Applications *Ceramics International,* Vol 34(4), pp 705-708 (2008).
100. Prasit Thongbai, Santi Maensiri, Teerapon Yamwong, and **Rattikorn Yimnirun** Giant dielectric properties of $CaCu_3Ti_4O_{12}$/(Li, Ti)-doped NiO composites subjected to post-sintering annealing and compressive stress, *J. Applied Physics*, Vol 103, pp 114107-1-6 (2008).

101. R. Wongmaneerung, **R. Yimnirun,** S. Ananta, A. Bhalla, and R. Guo, Thermal Expansion Measurement in the PMN-PT Ceramic Systems *J. Alloys and Compounds,* Vol 461, pp 565-569 (2008).

102. P. Ketsuwan, S. Ananta, Y. Laosiritaworn, **R. Yimnirun**, David P. Cann, Impedance and Dielectric Properties of Nb-Doped $Pb(Zr_{0.52}Ti_{0.48})O_3$ Ceramics *Advanced Materials Research*, Vol 55-57, pp 129-132 (2008).

103. A. Ngamjarurojana, S. Ananta, **R. Yimnirun**, Effect of Al_2O_3 Addition on Dielectric, Piezoelectric and Ferroelectric Properties of $0.2Pb(Zn_{1/3}Nb_{2/3})O_3–0.8Pb(Zr_{1/2}\ Ti_{1/2})O_3$ Ceramics *Advanced Materials Research,* Vol 55-57, pp 89-92 (2008).

104. S. Prasertpalichatr, M. Unruan, S. Rujirawat, S. Limpijumnong, **R. Yimnirun**, Dielectric and Ferroelectric Aging Effect of Fe^{3+}/Nb^{5+} Hybrid-Doped Barium Titanate Ceramics *Advanced Materials Research*, Vol 55-57, 233-236 (2008)

105. A. Prasatkhetragarn, S. Ananta, **R. Yimnirun**, David P. Cann, Effect of Temperature Treatment on Dielectric Properties of $0.8Pb(Zr_{1/2}Ti_{1/2})O_3 - 0.2Pb(Co_{1/3}Nb_{2/3})O_3$ Ceramics *Advanced Materials Research*, Vol 55-57, 109-112 (2008).

106. J. Tangsritrakul, M. Unruan, S Rujirawat, S. Limpijumnong, **R. Yimnirun**, Effects of Manganese Addition on Electrical Properties of Barium Titanate Ceramics *Advanced Materials Research*, Vol 55-57, 97-100 (2008).

107. S. Wongsaenmai, A. Bhalla, R. Guo, S. Ananta, and **R. Yimnirun**, Effect of Addition BT on Relaxor Behavior of PIN-PT Ceramics *Integrated Ferroelectrics,* Vol 91, pp 142-152 (2007).

108. S. Wongsaenmai, A. Bhalla, X. Tan, S. Ananta, and **R. Yimnirun**, Dielectric Properties and Relaxor Behavior of PIN-Based System *Ferroelectrics Letters,* Vol 34, pp 36-45 (2007).

109. W. Chaisan, **R. Yimnirun**, S. Ananta and D.P. Cann, Dielectric and Ferroelectric Properties of Ceramics in PZT-BT System, *Materials Chemistry and Physics*, Vol 104, 99 113-118 (2007).

110. R. Wongmaneerung, X. Tan, R.W. McCullum, S. Ananta, and **R. Yimnirun**, Cation-, dipole-, and spin-order in $Pb(Fe_{2/3}W_{1/3})O_3$-based magnetoelectric multiferroic compounds" *Applied Physics Letters,* Vol 90, 242905 (2007).

111. S. Wongsaenmai, W. Qu, S. Ananta, **R. Yimnirun**, and X. Tan, Effect of Ba-substitution on the structure and properties of $Pb_{0.8}Ba_{0.2}In_{0.5}Nb_{0.5}O_3$ ceramics, *Applied Physics A,* Vol 88, pp 757-761 (2007).

112. P. Ketsuwan, A., Ngamjarurojana, Y. Laosiritaworn, S. Ananta, and **R. Yimnirun**, Effect of Sintering Temperature on Phase Formation, Dielectric, Piezoelectric, and Ferroelectric Properties of Nb-doped $Pb(Zr_{0.52}Ti_{0.48})O_3$ Ceramics *Ferroelectrics,* Vol 358, pp 35-41 (2007)

113. Supattra Wongsaenmai, Yongyut Laosiritaworn, Supon Ananta and **Rattikorn Yimnirun**, Improving Ferroelectric Properties of $Pb(Zr_{0.44}Ti_{0.56})O_3$ Ceramics by $Pb(Mg_{1/3}Nb_{2/3})O_3$ Addition, *Materials Science and Engineering B*, Vol 128(1-3), pp 83-88 (2006).

114. **Rattikorn Yimnirun**, Rungnapa Tipakontitikul and Supon Ananta, Effect of Sintering Temperature on Densification and Dielectric Properties of $Pb(Zr_{0.44}Ti_{0.56})O_3$ Ceramics, *International Journal of Modern Physics B*, Vol 20(16), pp 2415-2424 (2006).

115. W. Chaisan, **R. Yimnirun**, S. Ananta and D.P. Cann, Phase Development and Dielectric Properties of $(1-x)Pb(Zr_{0.52}Ti_{0.48})O_3–xBaTiO_3$ ceramics , *Materials Science and Engineering B,* Vol 132, pp 300-306 (2006).

116. R. Wongmaneerung, **R. Yimnirun**, S. Ananta, R. Guo, and A.S. Bhalla, Polarization Behavior in the Two Stage Sintered Lead Titanate Ceramics *Ferroelectric Letters*, Vol 33(5-6), pp 137-146 (2006).
117. W. Chaisan, **R. Yimnirun**, S. Ananta and D.P. Cann, The Effects of The Spinodal Microstructure on The Electrical Properties of TiO_2-SnO_2 Ceramics, *Journal of Solid State Chemistry,* Vol 178, pp 613-620 (2005).
118. **R. Yimnirun**, S. Ananta and P. Laoratanakul, Dielectric and Ferroelectric Properties of Lead Magnesium Niobate-Lead Zirconate Titanate Ceramics Prepared by Mixed-Oxide Method, *Journal of The European Ceramic Society,* Vol 25(13), 3225-3233 (2005).
119. S. Sangyuenyongpipat, T. Vilaithong, L.D. Yu, **R. Yimnirun**, P. Singjai, and I.G. Brown, Development of *In-Situ* Atomic Force Microscopy for Study of Ion Beam Interaction with Biological Cell Surface, *Solid State Phenomena,* Vol 107, pp 47-50 (2005).
120. W. Chaisan, **R. Yimnirun**, S. Ananta and D.P. Cann, Dielectric properties of solid solutions in the lead zirconate titanate-barium titanate system prepared by a modified mixed-oxide method , *Materials Letters,* Vol 59(28), pp 3732-3737 (2005).
121. **R. Yimnirun**, S. Ananta and P. Laoratanakul, Effects of $Pb(Mg_{1/3}Nb_{2/3})O_3$ Mixed-Oxide Modification on Dielectric Properties of $Pb(Zr_{0.52}Ti_{0.48})O_3$ Ceramics, *Materials Science and Engineering B*, Vol 112, pp 79-86 (2004).

Synthesis and Characterization of Functional Materials (70 Articles)

1. Nilmoung, S., Sinprachim, T., Kotutha, I., Kidkhunthod, P., **Yimnirun, R.**, Rujirawat, S., Maensiri, S., Electrospun carbon/$CuFe_2O_4$ composite nanofibers with improved electrochemical energy storage performance, *Journal of Alloys and Compounds*, Vol 688, pp. 1131-1140 (2016).
2. Nilmoung, S., Kidkhunthod, P., Pinitsoontorn, S., Rujirawat, S., **Yimnirun, R.**, Maensiri, S., Fabrication, structure, and magnetic properties of electrospun carbon/cobalt ferrite (C/$CoFe_2O_4$) composite nanofibers, *Applied Physics A: Materials Science and Processing*, Vol 119 (1), pp. 141-154 (2015).
3. R. Wongmaneerung, J. Padchasri, R. Tipakontitikul, T.H. Loan, P. Jantaratana, **R. Yimnirun**, S. Ananta, Phase formation, dielectric and magnetic properties of bismuth ferrite–lead magnesium niobate multiferroic composites, *Journal of Alloys and Compounds*, Vol. 608, pp. 1-7 (2014).
4. Wongsaenmai, S., **Yimnirun, R.**, Laoratanakul, P., Effects of dopants on phase formation and microstructure of bismuth sodium titanate-potassium sodium niobate ceramics, Ferroelectrics, Vol. 458, pp. 214-220 (2014).
5. Baji, A., Mai, Y.-W., **Yimnirun, R.**, Unruan, S., Electrospun barium titanate/cobalt ferrite composite fibers with improved magnetoelectric performance, *RSC Advances*, Vol 4 (98), pp. 55217-55223 (2014).
6. K. Noipa, S. Rujirawat, **R. Yimnirun**, V. Promarak, S. Maensiri, Synthesis, structural, optical and magnetic properties of Cu-doped ZnO nanorods prepared by a simple direct thermal decomposition route, *Applied Physics A*, 10.1007/s00339-014-8475-3 (2014).
7. Wongmaneerung, R., Jantaratana, P., **Yimnirun, R.**, Ananta, S., Phase formation, microstructure and magnetic properties of $(1-x)BiFeO_3$-$x(0.9Pb(Mg_{1/3}Nb_{2/3})O_3$-$0.1PbTiO_3)$ system, *Ceramics International*, Vol. 40, pp. 2299-2304 (2014).

8. P. Kasian, T. Yamwong, P. Thongbai, S. Rujirawat, **R. Yimnirun**, S. Maensiri, Co-doped titanate nanotubes: Synthesis, characterization, and properties, *Japanese Journal of Applied Physics*, Vol 53, 06JG12 (2014).
9. Uthaisar, C., Kantha, P., **Yimnirun, R.**, Pojprapai, S., Effect of sintering temperature of lead-free $(K_{0.50}Na_{0.46}Li_{0.04}Nb_{(0.96-x)}Sb_{0.04}Ta_xO_3$ ceramics on piezoelectric properties, *Integrated Ferroelectrics*, Vol. 148, pp. 114-120 (2013).
10. Prasatkhetragarn, A., **Yimnirun, R.**, Phase formation, electrical properties and morphotropic phase boundary of $0.95Pb(Zr_xTi_{1-x})O_3$-$0.05Pb(Mn_{1/3}Nb_{2/3})O_3$ ceramics, *Ceramics International*, Vol. 39, pp. S91-S95 (2013).
11. Pakawanit, P., Amonpattaratkit, P., **Yimnirun, R.**, Ananta, S., Synthesis and characterization of $Zn_3Nb_2O_8$ nanopowders via a rapid vibro-milling technique, *Ferroelectrics Letters Section*, Vol. 40, pp. 85-93 (2013).
12. Wongmaneerung, R., Jantaratana, P., **Yimnirun, R.**, Ananta, S., Phase formation and magnetic properties of bismuth ferrite-lead titanate multiferroic composites, *Journal of Superconductivity and Novel Magnetism*, Vol.26, pp. 371-379 (2013).
13. Niamsee, K., **Yimnirun, R.**, Ananta, S., Khamman, O, Fabrication and characterization of lead nickel niobate-lead zirconate titanate ceramics by using two-stage sintering technique, *Ferroelectrics*, Vol. 455, pp. 163-168 (2013).
14. Prasatkhetragarn, A., Yotburut, B., Triamnak, N., **Yimnirun, R.**, Cann, D.P., Synthesis and electrical properties of lead free $(Bi_{0.5}K_{0.5})TiO_3$-$BaTiO_3$-$Bi(Zn_{0.5}Ti_{0.5})O_3$ ceramics, *Ceramics International*, Vol. 38, pp. 827-830 (2012).
15. Khamman, O., **Yimnirun, R.**, Sirikulrat, N., Ananta, S., Phase formation and transitions in the lead nickel niobate-lead zirconate titanate system, *Ceramics International*, Vol. 38, pp. S17-S20 (2012).
16. Potong, R., Rianyoi, R., Jareansuk, L., Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Effect of particle size on dielectric and ferroelectric properties of 0-3 lead magnesium niobate titanate-portland cement composites, *Ferroelectrics*, Vol. 405, pp. 98-104 (2010).
17. Wongmaneerung, R., Choopan, S., **Yimnirun, R.**, Ananta, S., Effects of ZnO nanowhiskers addition on microstructure and dielectric properties of lead titanate ceramics, *Ferroelectrics*, Vol. 403, pp. 150-157 (2010).
18. Prasatkhetragarn, A., Ketsuwan, P., Ananta, S., **Yimnirun, R.**, Effects of vibro-milling time on phase formation and particle size of $Zn_3Nb_2O_8$ nanopowders, *Materials Letters*, Vol. 64, pp. 1113-1116 (2010).
19. Ngamjarurojana, A., **Yimnirun, R.**, Ananta, S., Effect of vibro- milling time on phase formation and particle size of $ZnNbO_6$ nano-powders, *Key Engineering Materials*, Vol. 421-422, pp. 550-553 (2010).
20. Vittayakorn, W.C., **Yimnirun, R.**, Ananta, S., Composition, structure and properties of PZT-BT ceramics prepared by two-stage sintering, Key Engineering Materials, Vol. 421-422, pp. 436-439 (2010).
21. Tangsritrakul, J., **Yimnirun, R.**, Effects of manganese addition on phase formation, and microstructure of barium titanate ceramics, *Chiang Mai Journal of Science*, Vol. 37 pp. 165-169 (2010).
22. Sareein, T., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Effect of Sb_2O_5 addition on phase formation and characterization of $(Bi_{1/2}Na_{1/2})TiO_3$-$(K_{1/2}Na_{1/2})NbO_3$ ceramics, *Ferroelectrics*, Vol. 382, pp. 173-183 (2009).

23. Chandarak, S., Unruan, M., Sareein, T., Ngamjarurojana, A., Maensiri, S., Laoratanakul, P., Ananta, S., **Yimnirun, R.**, Fabrication and characterization of $(1-x)BiFeO_3$-$xBaTiO_3$ ceramics prepared by a solid state reaction method, *Journal of Magnetics*, Vol. 14, pp. 120-123 (2009).
24. Wongmaneerung, R., **Yimnirun, R.**, Ananta, S., Fabrication and characterization of perovskite ferroelectric PMN/PT ceramic nanocomposites, *Journal of Materials Science*, Vol. 44, pp. 5428-5440 (2009).
25. Anurak Prasatkhetragarn, Piyachon Ketsuwan, Supon Ananta, **Rattikorn Yimnirun**, and David Cann, Phase Formation, Microstructure and Dielectric Properties of $(1-x)Pb(Zr_{1/2}Ti_{1/2})O_3–xPb(Co_{1/3}Nb_{2/3})O_3$ Ceramics, *Materials Letters,* 63, pp 1281-1284 (2009).
26. R. Wongmaneerung, **R. Yimnirun**, and S. Ananta, Effect of Magnasium Niobate Precursors on Phase Formation, Microstructure and Dielectric Properties of Perovskite Lead Magnesium Niobate Ceramics, *J. Alloys and Compounds*, Vol 477, pp 805-810 (2009).
27. R. Wongmaneerung, A. Rujiwatra, **R. Yimnirun**, and S. Ananta, Fabrication and Dielectric Properties of Self-reinforced Lead Titanate Nanocomposites, *J. Alloys and Compounds,* Vol 475, pp 473-478 (2009).
28. R. Wongmaneerung, P. Singjai, **R. Yimnirun** and S. Ananta, Effects of SiC nanofibers Addition on Microstructure and Dielectric Properties of Lead Titanate Ceramics, *J. Alloys and Compounds,* Vol 475, pp 456-462 (2009).
29. Wongmaneerung, R., Srisombat, L., **Yimnirun, R.**, Ananta, S., Potential of nanocomposite technique for fabrication of smart ceramics, *Chiang Mai Journal of Science*, Vol.36, pp 179-187 (2009).
30. Chaisan, W., **Yimnirun, R.**, Ananta, S., Preparation and characterization of ceramic nanocomposites in the PZT-BT system, *Ceramics International*, Vol. 35, pp. 121-124 (2009).
31. Chaisan, W., **Yimnirun, R.**, Ananta, S., Effect of vibro-milling time on phase formation and particle size of barium titanate nanopowders, *Ceramics International*, Vol.35, pp. 173-176 (2009).
32. R. Wongmaneerung, **R. Yimnirun**, S. Ananta, Processing and Properties of $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ Based Ceramics, *Current Applied Physics*, Vol 9, pp 268-273 (2009).
33. Khamman, O., Laosiritaworn, Y., **Yimnirun, R.**, Ananta, S., Effect of vibro-milling time and calcination condition on phase formation and particle size of nickel niobate nanopowders, *Ceramics International*, Vol 35, pp.177-180 (2009).
34. Wongmaneerung, R., Rittidech, A., Khamman, O., **Yimnirun, R.**, Ananta, S., Processing and properties of $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$-based ceramics, *Ceramics International*, Vol 35, pp.125-129 (2009).
35. Srisombat, L., Khamman, O., **Yimnirun, R.**, Ananta, S. S., Lee, T. R., Phase and chemical characterization of perovskite nickel niobate ceramics fabricated via a precursor method, *Chiang Mai Journal of Science*, Vol 36, pp. 69-76 (2009).
36. Unruan, M., Vittayakorn, N., Wongmaneerung, R., Prasatkhetragarn, A., Ananta, S., **Yimnirun, R.**, Fabrication and electrical properties of $Pb(Co_{1/3}Nb_{2/3})O_3$ ceramics, *Ceramics International*, Vol 35, pp.169-172 (2009).
37. Ananta, S., **Yimnirun, R.**, Khamman, O., Effect of nickel niobate B-site precursors on phase formation, microstructure and dielectric properties of perovskite PNN ceramics, *Functional Materials Letters*, Vol 1, pp.229-233 (2008).
38. Wongmaneerung, R., Khamman, O., **Yimnirun, R.**, Ananta, S., The fabrication of lead titanate ceramics by a two-stage sintering technique, *Journal of Electroceramics*, Vol 21, pp.798-801 (2008).

39. N. Vittayakorn, S. Wirunchit, S. Traisak, **R. Yimnirun**, G. Rujijanagul, Development of Perovskite and Phase Transition in Lead Cobalt Niobate Modified Lead Zirconate Titanate System, *Current Applied Physics,* Vol 8, pp 128-133 (2008).
40. Orawan Khamman, Rewadee Wongmaneerung, Wanwilai Chaisan, **Rattikorn Yimnirun** and Supon Ananta, Preparation of perovskite nanopowders by vibro-milling technique, *Journal of Alloys and Compounds,* Vol 456, pp 492-497 (2008).
41. O. Khamman, **R. Yimnirun**, and S. Ananta, Effect of vibro-milling time on phase formation and particle size of nickel niobate nanopowders, *Materials Science and Engineering B*, Vol 150(1), pp 12-17 (2008).
42. R. Wongmaneerung, O. Khamman, **R. Yimnirun** and S. Ananta, Potential of Vibro-Milling in Nanopowders Production, *Ceramics International,* Vol 34(4), pp 813-817 (2008).
43. Orawan Khamman, **Rattikorn Yimnirun**, Supon Ananta, Effect of Niobate B-Site Precursor of Phase Formation of PNN Powders, *J. Alloys and Compounds*, Vol 465, pp522-526 (2008).
44. Muangjai Unruan, Naratip Vittayakorn, Rewadee Wongmaneeruang, Anurak Prasatkhetragarn, Supon Ananta and **Rattikorn Yimnirun**, Synthesis and Properties of $Pb(Co_{1/3}Nb_{2/3})O_3$ Ceramics, *J. Alloys and Compounds*, Vol 466, pp 264-267 (2008).
45. C. Silawongsawat, T. Sareein, A. Ngamjarurojana, P. Laoratanakul, S. Maensiri**, R. Yimnirun**, S. Ananta, Effect of Calcination Conditions on Phase Formation and Characterization of $BiFeO_3$ Powders Synthesized By a Solid-State Reaction, *Advanced Materials Research*, Vol 55-57, pp.237-240 (2008).
46. S. Chandarak, T. Sareein, A. Ngamjarurojana, S. Maensiri, P. Laoratanakul, S. Ananta, **R. Yimnirun**, "Effect of Calcination Conditions on Phase Formation and Characterization of $BiFeO_3$-$BaTiO_3$ Powders Synthesized By a Solid-State Reaction, *Advanced Materials Research* **55-57**, 241-244 (2008).
47. O. Khamman, **R. Yimnirun** and S. Ananta, Effect of calcination conditions on phase formation and particle size of nickel niobate powders synthesized by solid-state reaction, *Materials Letters,* Vol 61(3), pp 639-643 (2007).
48. R. Wongmaneerung, **R. Yimnirun** and S. Ananta, Effects of Sintering Condition on Phase Formation, Microstructure and Dielectric Properties of Lead Titanate Ceramics, *Applied Physics A*, Vol 86(2), pp 249-255 (2007).
49. A. Pisitausorn, **R. Yimnirun**, W. Schulle, and, S. Ananta, The Influence of Crystalline Phase Addition on the Mechanical Properties of Dental Ceramic Materials. Part 2.2: Alumina-Metal Oxide-based Nanocomposite Materials Reinforced Ceramics, *International Ceramic Review*, Vol 56(1), pp 4-8 (2007).
50. S. Wongsaenmai, **R. Yimnirun** and S. Ananta, Effects of Calcination Conditions on Phase Formation and Particle Size of Indium Niobate Powders Synthesized by the Solid-State Reaction, *Materials Letters,* Vol 61, pp 2426-2429 (2007).
51. O. Khamman, **R. Yimnirun** and S. Ananta, Phase and Morphology Evolution of corundum-type $Ni_4Nb_2O_9$ powders synthesized by solid-state reaction, *Materials Letters,* Vol 61, pp 2565-2570 (2007).
52. W. Chaisan, **R. Yimnirun**, S. Ananta, Two-Stage Sintering of Barium Titanate and Resulting Characteristics, *Ferroelectrics,* Vol 346, pp 84-92 (2007).
53. O. Khamman, **R. Yimnirun** and S. Ananta, Effect of Vibro-Milling Time on Phase Formation and Particle Size of Lead Zirconate Nanopowders, *Materials Letters*, Vol 61, pp 2822-2826 (2007).

54. S. Wongsaenmai, **R. Yimnirun** and S. Ananta, Influence of Calcination Conditions on Phase Formation and Particle Size of Indium Niobate Powders Synthesized by the Solid-State Reaction, *Journal of Materials Science,* Vol 42, pp 3754-3760 (2007).
55. P. Singjai, K. Wongwigkarn, Y. Laosiritaworn, **R. Yimnirun**, S. Maensiri, Carbon encapsulated nickel nanoparticles synthesized by a modified alcohol catalytic chemical vapor deposition method, *Current Applied Physics,* Vol 7, pp 662-666 (2007).
56. A. Prasatkhetragarn, **R. Yimnirun** and S. Ananta, Effect of calcination conditions on phase formation and particle size of $Zn_3Nb_2O_8$ powders synthesized by solid-state reaction, *Materials Letters*, Vol 61, pp 3873-3877 (2007).
57. W. Chaisan, O. Khamman, **R. Yimnirun** and S. Ananta, Effects of Calcination Conditions on Phase and Morphology Evolution of Lead Zirconate Powders Synthesized by Solid-State Reaction, *Journal of Materials Science,* Vol 42, pp 4627-4629 (2007).
58. **Rattikorn Yimnirun**, Xiaoli Tan, Supon Ananta, and Supattra Wongsaenmai, Preparation of Fine-Grain Lead Indium Niobate Ceramics with Wolframite Precursor Method and Resulting Electrical Properties, *Applied Physics A*, Vol 88, pp 323-328 (2007)
59. O. Khamman, T. Sarakonsri, A. Rujiwatra, Y. Laosiritaworn, **R. Yimnirun**, and S. Ananta. Effects of Milling Time and Calcination Condition on Phase Formation and Particle Size of Lead Zirconate Nanopowders Prepared by Vibro-milling, *Journal of Materials Science*, Vol 42, pp 8438-8446 (2007).
60. O. Khamman, **R. Yimnirun**, and S. Ananta, Effect of calcination conditions on phase formation and particle size of lead nickel niobate powders synthesized by using $Ni_4Nb_2O_9$ precursor, *Materials Letters,* Vol 61, pp 4466-4470 (2007).
61. O. Khamman, **R. Yimnirun** and S. Ananta, Effect of Vibro-Milling Time and Calcination n Phase Formation and Particle Size of Lead Zirconate Nanopowders, *Ferroelectrics,* Vol 356, pp 209-214 (2007).
62. A. Prasatkhetragarn, **R. Yimnirun** and S. Ananta, Effects of Calcination Conditions on Phase Formation of Zirconium Titanate Powders Synthesized by the Solid-State Reaction, *Ferroelectrics,* Vol 356, pp 203-208 (2007).
63. W. Chaisan, O. Khamman**, R. Yimnirun**, S. Ananta, Two-Stage Solid-State Reaction of Lead Zirconate Titanate Powders, *Ferroelectrics,* Vol 356, pp 242-246 (2007).
64. R. Wongmaneerung, **R. Yimnirun** and S. Ananta, Effects of Vibro-Milling Time on Phase Formation and Particle Size of Lead Titanate Nanopowders, *Materials Letters,* Vol 60(12), pp 1447-1452 (2006).
65. R. Tipakontitikul, S. Ananta, and **R. Yimnirun**, Formation and Transitions in Lead Zirconate Titanate-Lead Magnesium Niobate System, *Current Applied Physics*, Vol 6(3), pp 307-311 (2006).
66. R. Wongmaneerung, T. Sarnkonsri, **R. Yimnirun** and S. Ananta, Effects of milling method and calcination condition on phase and morphology characteristics of $Mg_4Nb_2O_9$ powders, *Materials Science and Engineering B*, Vol 130(1-3), pp 246-253 (2006).
67. R. Wongmaneerung, **R. Yimnirun** and S. Ananta, Effects of Milling Time and Calcination Condition on Phase Formation and Particle Size of Lead Titanate Nanopowders Prepared by Vibro-milling, *Materials Letters*, Vol 60, pp 2666-2671 (2006).
68. R. Wongmaneerung, T. Sarnkonsri, **R. Yimnirun** and S. Ananta, Effects of magnesium niobate precursor and calcination condition on phase formation and morphology of lead magnesium niobate powders, *Materials Science and Engineering B,* Vol 132, pp 292-299 (2006).

69. A. Ngamjarurojana, O. Khamman, **R. Yimnirun** and S. Ananta, Effect of Calcination Conditions on Phase Formation and Particle Size of Zinc Niobate Powders Synthesized by Solid-State Reaction, *Materials Letters*, Vol 60, pp 2867-2872 (2006).
70. A. Pisitausorn, W. Schulle, S. Ananta, and **R. Yimnirun**, The Influence of Crystalline Phase Addition on the Mechanical Properties of Dental Ceramic Materials. Part 2.1: Alumina-Metal Oxide-based Nanocomposite Materials Reinforced Ceramics, *International Ceramic Review*, Vol 55(6), pp 423-425 (2006).

Uniaxial Stress Dependent Dielectric and Ferroelectric Properties (42 Articles)

1. Wongsaenmai, S., Unruan, M., **Yimnirun, R.**, Dielectric properties of $(Ka_{0.5}Na_{0.5})_{0.93}Li_{0.07}NbO_3$ ceramics under compressive stress, *Ferroelectrics Letters Section*, Vol. 40, pp. 71-76 (2013).
2. Unruan, M., Sareein, T., Chandarak, S., Hunpratub, S., Thongbai, P., Maensiri, S., **Yimnirun, R.**, Aging and stress-dependent dielectric properties of multiferroic bismuth ferrite ceramics, *Materials Letters*, Vol. 70, pp. 185-188 (2012).
3. Unruan, M., Monnor, T., **Yimnirun, R.**, Khamman, O., Vittayakorn, W., Ananta, S., Wongmaneerung, R., Dielectric properties of complex perovskite pzbt-pmnt ceramic under compressive stress, *Modern Physics Letter B*, Vol. 25, pp. 2391-2398 (2011).
4. Wongsaenmai, S., Ananta, S., Unruan, M., **Yimnirun, R.**, Effects of uniaxial stress on dielectric properties of lithium modified potassium sodium niobate ceramics, *Physica B: Condensed Matter*, Vol. 406, pp. 2862-2864 (2011).
5. Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Effect of compressive stress on the ferroelectric hysteresis behavior in 0-3 PMN-PT/cement composites, *Ferroelectrics Letters Section*, Vol. 38, pp.11-17 (2011).
6. Maurya, D., Wongdamnern, N., **Yimnirun, R.**, Priya, S., 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*, Vol. 108 (2010).
7. Unruan, M., Ananta, S., Laosiritaworn, Y., Ngamjarurojana, A., Guo, R., Bhalla, A., **Yimnirun, R.**, Effects of parallel and perpendicular compressive stresses on the dielectric and ferroelectric properties of soft PZT ceramics, *Ferroelectrics*, Vol. 400, pp. 144-154 (2010).
8. Unruan, M., Prasatkhetragarn, A., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., Guo, R., Bhalla, A., **Yimnirun, R.**, Dielectric and ferroelectric properties of $pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Ni_{1/3}Nb_{2/3})O_3$ ceramics under perpendicular compressive stress, *Integrated Ferroelectrics*, Vol. 114, pp. 25-34 (2010).
9. Sreesattabud, T., Unruan, M., Watcharapasorn, A., Jiansirisomboon, S., **Yimnirun, R.**, Stress-dependent dielectric and ferroelectric properties of sol-gel-derived PZT/WO_3 ceramics, *Physica Scripta T*, Vol. T139 (2010).
10. Chaipanich, A., Jaitanong, N., **Yimnirun, R.**, Effect of compressive stress on the ferroelectric hysteresis behavior in 0-3 PZT-cement composites, *Materials Letters*, Vol. 64, pp. 562-564 (2010).
11. Unruan, M., Wongsaenmai, S., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., Guo, R., Bhalla, A., **Yimnirun, R.**, Changes in ferroelectric properties of lead indium niobate-lead titanate ceramics under compressive stress applied perpendicular to an electric field, *Physics Letters, Section A: General, Atomic and Solid State Physics*, Vol. 374, pp. 1147-1153 (2010).

12. Unruan, M., Sareein, T., Prasatketrakarn, A., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Ferroelectric properties of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ ceramics under compressive stress applied perpendicular to electric field, *Key Engineering Materials*, Vol. 421-422, pp. 411-414 (2010).
13. Sareein, T., Unruan, M., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Effects of compressive stress on dielectric properties of lead-free $(Bi_{1/2}Na_{1/2})TiO_3$-$(K_{1/2}\ Na_{1/2})NbO_3$ ceramic systems, *Key Engineering Materials*, Vol. 421-422, pp. 54-57 (2010).
14. Tangsritrakul, J., Unruan, M., Ketsuwan, P., Triamnak, N., Rujirawat, S., Dechakupt, T., Ananta, S., **Yimnirun, R.**, Effects of iron additio on aging behavior of barium titanate ceramics under compressive stress, *Key Engineering Materials*, Vol. 421-422, pp. 251-254 (2010).
15. Prasertpalichat, S., Unruan, M., Sareein, T., Tangsritrakul, J., Ngamjarurojana, A., Ananta, S., **Yimnirun, R.**, Effect of compressive stress on ferroelectric aging behavior of hybrid-doped Fe^{3+}/ Nb^{5+} $BaTiO_3$ ceramics, *Key Engineering Materials*, Vol. 421-422, pp. 259-262 (2010).
16. Jaitanong, N., **Yimnirun, R.**, Chaipanich, A., Effect of uniaxial stress on dielectric properties of 0-3 PZT-Portland cement composite, *Ferroelectrics*, Vol. 384, pp. 174-181 (2009).
17. Unruan, M., Prasatkhetragarn, A., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Dielectric properties of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ ceramics under compressive stress applied perpendicular to electric field, *Ferroelectrics*, Vol. 384, pp. 84-92 (2009).
18. Unruan, M., Prasatkhetragarn, A., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Changes in dielectric properties of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Co_{1/3}Nb_{2/3})O_3$ ceramics under compressive stress applied parallel and perpendicular to electric field, *Ferroelectrics*, Vol. 383, pp. 174-182 (2009).
19. Muangjai Unruan, Anurak Prasatkhetragarn, Athipon Ngamjarurojana, Yongyut Laosiritaworn, Supon Ananta, and **Rattikorn Yimnirun**, "Dielectric and ferroelectric properties of lead zirconate titanate-lead nickel niobate ceramics under compressive stress" *J. Applied Physics,* 105, pp 084111-1-5 (2009).
20. T. Sareein, M. Unruan, A. Ngamjarurojana, S. Jiansirisomboon, A. Watcharapasorn, and **R. Yimnirun**, "Influences of Compressive Stress and Aging on Dielectric Properties of Sodium Bismuth Titanate Ceramics" *Physics Letters A,* 373, pp 1583-1587 (2009).
21. **R. Yimnirun**, S. Wongsaenmai, S. Ananta, N. Triamnak, Dielectric Properties of PIN-PT Ceramics Under Compressive Stress, *Current Applied Physics*, Vol 9, pp 422-425 (2009).
22. **Rattikorn Yimnirun**, Narit Triamnak, Muangjai Unruan, Athipong Ngamjarurojana, Yongyut Laosiritaworn, and Supon Ananta, Ferroelectric Properties of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ Ceramics Under Compressive Stress, *Current Applied Physics*, Vol 9, pp 249-252 (2009).
23. Triamnak, N., Wongsaenmai, S., Ananta, S., **Yimnirun, R.**, Effects of compressive stress on the dielectric properties of PIN-PT ceramics, *Ceramics International*, Vol 35, pp 191-194 (2009).
24. **Yimnirun, R.**, Triamnak, N., Unruan, M., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., Stress-dependent ferroelectric properties of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ ceramic systems, Ceramics International, Vol 35, pp 185-189 (2009).
25. M. Unruan, S. Wongsaenmai, Y. Laosiritaworn, S. Ananta, and **R. Yimnirun**, Changes in Dielectric Properties of $Pb(In_{1/2}Nb_{1/2})O_3$-$PbTiO_3$ Ceramics Under Compressive Stress Applied Parallel and Perpendicular to Electric Field, *J. Phys. D: Appl. Phys.,* Vol 41, pp 541-545 (2008).
26. Muangjai Unruan, Anurak Prasatkhetragarn, Yongyut Laosiritaworn, Supon Ananta, and **Rattikorn Yimnirun**, Dielectric Properties of PZT-PCN Ceramics Under Compressive Stress, *Physica Scripta,* Vol 77, pp 571-574 (2008).

27. **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, *J. Applied. Physics,* Vol 103 (8), pp 086105-1-3 (2008).
28. Muangjai Unruan, Athipong Ngamjarurojana, Yongyut Laosiritaworn, Supon Ananta, and **Rattikorn Yimnirun**, Influences of Perpendicular Compressive Stress on Ferroelectric Properties of Electrostrictive and Piezoelectric $Pb(Mg_{1/3}Nb_{2/3})O_3$-$PbTiO_3$ Ceramics, *J. Applied Physics.* Vol 104, pp 034101 (2008).
29. M. Unruan, R. Wongmaneerung, Y. Laosiritaworn, S. Ananta, **R. Yimnirun**, Changes in Ferroelectric Properties of 0.7PMN–0.3PT Ceramics with Compressive Stress, *Advanced Materials Research*, Vol 55-57, pp 277-280 (2008).
30. M. Unruan, R. Wongmaneerung, A. Ngamjarurojana, S. Ananta, Y. Laosiritaworn, and **R. Yimnirun,** Changes of Ferroelectric Properties of Lead Magnsium Niobate-Lead Titanate Ceramics Under Compressive Stress, *J. Applied Physics.* Vol 104, pp 064107 (2008)
31. **R. Yimnirun**, S. Ananta, and S. Chamunglap, Dielectric Properties of (1-x)PZT-xBT Ceramics Under Uniaxial Compressive Pre-Stress, *Materials Chemistry and Physics*, Vol 102(2-3), pp 165-170 (2007).
32. Prasit Thongbai, Chivalrat Masingboon, Santi Maensir, T. Yamwong, S. Wongsaenmai, and **R. Yimnirun**, Giant dielectric behavior of $CaCu_3Ti_4O_{12}$ subjected to post-sintering annealing and uniaxial stress, *J. Phys.: Condensed Matter,* Vol 19, pp 236208-1-10 (2007).
33. **R. Yimnirun,** A. Ngamjarurojana, Y. Laosiritaworn, Supon Ananta, and Narit Triamnak, Dielectric Properties of PZT-PZN Ceramics Under Compressive Stress, *Ferroelectrics,* Vol 355, pp 257-263 (2007)
34. W. Chaisan, **R. Yimnirun**, S. Ananta, Effects of Compressice Stress of Ferroelectric Properties of BT Ceramics, *Physica Scripta*, Vol T129, pp 205-208 (2007)
35. **R. Yimnirun**, N. Triamnak, M. Unruan, S. Wongsaenmai, A. Ngamjarurojana, Y. Laosiritaworn, and S. Ananta, Dielectric and Ferroelectric Properties of Complex Perovskite Ceramics Under Compressive Stress, *Journal of Materials Science and Engineering*, Vol 25(6) pp 831-836 (2007).
36. **Rattikorn Yimnirun**, Yongyut Laosiritaworn, and Supattra Wongsaenmai, Effects of Uniaxial Compressive Pre-Stress on Ferroelectric Properties of Soft PZT Ceramic, *Journal of Physics D: Applied Physics*, Vol 39, pp 759-764 (2006).
37. **R. Yimnirun**, S. Ananta, A. Ngamjarurojana, and S. Wongsaenmai, Effects of Uniaxial Stress on Dielectric Properties of Ferroelectric Ceramics, *Current Applied Physics,* Vol 6(3), pp 520-524 (2006).
38. **R. Yimnirun**, Change in Dielectric Properties of Normal and Relaxor Ferroelectric Ceramic Composites in BT-PZT and PMN-PZT Systems by Uniaxial Compressive Stress, *Ferroelectrics,* Vol 331, pp 9-18 (2006).
39. **Rattikorn Yimnirun**, Muangjai Unruan, Yongyut Laosiritaworn, and Supon Ananta, Change of Dielectric Properties of Ceramics in Lead Magnesium Niobate-Lead Titanate System With Compressive Stress, *J. Physics D: Applied Physics*, Vol 39, pp 3097-3102 (2006).
40. **Rattikorn Yimnirun**, Contributions of Domain-Related Phenomena on Dielectric Constant of Lead-Based Ferroelectric Ceramics Under Uniaxial Compressive Pre-Stress, *International Journal of Modern Physics B*, Vol 20(23), pp 3409-3417 (2006).

41. **R. Yimnirun**, S. Ananta, A. Ngamjarurojana, and S. Wongsaenmai, Uniaxial Stress Dependence of Ferroelectric Properties of xPMN-(1-x)PZT Ceramic Systems, *Applied Physics A: Materials Science & Processing*, Vol 81(6), pp 1227-1231 (2005).
42. **R. Yimnirun**, S. Ananta, E. Meechoowas and S. Wongsaenmai, Effect of Uniaxial Stress on Dielectric Properties of Lead Magnesium Niobate-Lead Zirconate Titanate Ceramics, *Journal of Physics D: Applied Physics,* Vol 36, pp 1615-1619 (2003).

Applications of Synchrotron Techniques for Materials Characterization (32 Articles)

1. Iamprasertkun, P., Krittayavathananon, A., Seubsai, A., Chanlek, N., Kidkhunthod, P., Sangthong, W., Maensiri, S., **Yimnirun, R**., Nilmoung, S., Pannopard, P., Ittisanronnachai, S., Kongpatpanich, K., Limtrakul, J., Sawangphruk, M., Charge storage mechanisms of manganese oxide nanosheets and N-doped reduced graphene oxide aerogel for high-performance asymmetric supercapacitors, *Scientific Reports*, Vol 6, pp. 37560 (2016).
2. Unruan, S., Unruan, M., Nuilek, K., Maensiri, S., **Yimnirun, R.**, On the application of synchrotron X-Ray absorption spectroscopy technique for characterization of mixed SnO-TiO_2 powders, *Integrated Ferroelectrics*, Vol 175 (1), pp. 87-95 (2016).
3. Bootchanont, A., Rujirawat, S., **Yimnirun, R.**, Guo, R., Bhalla, A., Local structure study of phase transition behavior in Ba(Ti,Sn)O_3 perovskite by X-ray absorption fine structure, *Ceramics International*, Vol 42(7), pp 8151-8154 (2016).
4. Kanchiang, K., Bootchanont, A., Witthayarat, J., Pramchu, S., Thanasuthipitak, P., **Yimnirun, R.**, X-ray absorption spectroscopy and density functional analysis of the $Fe3+$ distribution profile on Al sites in a chrysoberyl crystal, $BeAl_2O_4:Fe^{3+}$, *Journal of Applied Crystallography*, Vol 49, pp. 385-388 (2016).
5. Manh, D.H., Tung, D.K., Phong, L.T.H., Phuc, N.X., Phong, P.T., Jutimoosik, J., **Yimnirun, R.**, Complementary Studies of Phase Formation During Fabrication of $Fe_{0.65}Co_{0.35}$ Nanoparticles by Mechanical Alloying, *Journal of Electronic Materials*, Vol 45(5), pp. 2501-2507 (2016).
6. Kempet, W., Marungsri, B., **Yimnirun, R.**, Klysubun, W., Fangsuwannarak, T., Rattanachan, S., Pisitpipathsin, N., Promsawat, M., Pojprapai, S., Polarization Switching of PZT under Electrical Field via in-situ Synchrotron X-ray Absorption Spectroscopy, *Ferroelectrics*, Vol 492 (1), pp. 35-42 (2016).
7. Jutimoosik, J., **Yimnirun, R.**, Setzer, A., Esquinazi, P., Stahn, J., Paul, A., Recovery and nonrecovery of the untrained state in an exchange-coupled system, *Physical Review B - Condensed Matter and Materials Physics*, Vol 91 (22), art. no. 224428 (2015).
8. Unruan, S., Unruan, M., Monnor, T., Priya, S., **Yimnirun, R.**, Local Structure Investigation in Multiferroic $BiFeO_3$-$BaTiO_3$ Ceramics by XAS Technique and Their Relevant Properties, *Journal of the American Ceramic Society*, Vol 98 (10), pp. 3291-3298 (2015).
9. Unruan, S., Srilomsak, S., Priya, S., Jantaratana, P., Rujirawat, S., **Yimnirun, R.**, Local structure investigation and properties of Mn-doped $BiFeO_3$-$BaTiO_3$ ceramics, *Ceramics International*, Vol 41 (3), pp. 4087-4092 (2015).
10. Atipong Bootchanont, Jaru Jutimoosik, Sujittra Chandarak, Muangjai Unruan, Pinit Kidkhunthod, Wantana Klysubun, Saroj Rujirawat, **Rattikorn Yimnirun**, Ruyan Guo, Amar Bhalla, Synchrotron X-ray absorption spectroscopy study of local structure transformation behavior in perovskite Ba(Ti,Zr)O_3 system, *Journal of Alloys and Compounds*, Vol 616, pp 430-435 (2014).

11. Ziegler, P., Paul, N., Müller-Buschbaum, P., Wiedemann, B., Kreuzpaintner, W., Jutimoosik, J., **Yimnirun, R.**, Setzer, A., Esquinazi, P., Böni, P., Paul, A., Self-organization of Fe clusters on mesoporous TiO_2 templates, *Journal of Applied Crystallography*, Vol 47 (6), pp. 1921-1930 (2014).
12. Natthapong Wongdamnern, Kanokwan Kanchiang, Athipong Ngamjarurojana, Supon Ananta, Yongyut Laosiritaworn, Anek Charoenphakdee, Shashaank Gupta, Shashank Priya, and **Rattikorn Yimnirun**, Crystal-structure dependent domain-switching behavior in $BaTiO_3$ ceramic, *Smart Materials and Structures*, Vol 23(8), 085022 (2014).
13. Kanchiang, K., Pramchu, S., Wongsaenmai, S., **Yimnirun, R.**, Laosiritaworn, Y., X-ray absorption spectroscopy analysis of the effect of MnO_2 doping on local structure of $((K_{0.5}Na_{0.5})_{0.935}Li_{0.065})NbO_3$ ceramics, *Integrated Ferroelectrics*, Vol 155 (1), pp. 106-110 (2014).
14. Tangwatanakul, W., Sirisathitkul, C., Muensit, N., Monnor, T., **Yimnirun, R.**, Synchrotron XANES spectra of superparamagnetic iron oxides synthesized by ultrasonic-assisted co-precipitation, *Applied Mechanics and Materials,* Vol. 481, pp. 36-39 (2014).
15. Jutimoosik, J., Hunpratub, S., Maensiri, S., Rujirawat, S., **Yimnirun, R.**, On preferred Mn site in multiferroic $BiFeO_3$: A view by synchrotron x-ray absorption near edge structure spectroscopy, *Journal of Applied Physics*, Vol 116 (10), art. no. 104105 (2014).
16. Atipong Bootchanont, Narit Triamnak, Saroj Rujirawat, **Rattikorn Yimnirun**, David P. Cann, Ruyan Guo, Amar Bhalla, Local structure and evolution of relaxor behavior in $BaTiO_3$–$Bi(Zn_{0.5}Ti_{0.5})O_3$ ceramics, *Ceramics International*, Vol 40(9), pp 14555-14562 (2014).
17. Amitesh Paul, Christoph Reitinger, Carmine Autieri, Biplab Sanyal,Wolfgang Kreuzpaintner, Jaru Jutimoosik, **Rattikorn Yimnirun**, Francis Bern,Pablo Esquinazi, Panagiotis Korelis and Peter Böni, Exotic exchange bias at epitaxial ferroelectric-ferromagnetic interfaces, *Applied Physics Letters*, Vol 105, pp 022409 (2014).
18. Kempet, W., Marungsri, B., **Yimnirun, R.**, Klysubun, W., Pojprapai, S., Investigation of the unit cell distortion in PZT ceramic via in-situ XAS technique, *Ferroelectrics*, Vol 453 (1), pp. 106-112 (2013).
19. Kanchiang, K., Pramchu, S., **Yimnirun, R.**, Pakawanit, P., Ananta, S., Laosiritaworn, Y., Probing local structure of pyrochlore lead zinc niobate with synchrotron x-ray absorption spectroscopy technique, *Journal of Applied Physics*, Vol. 114 (2013).
20. Zillner, E., Paul, A., Jutimoosik, J., Chandarak, S., Monnor, T., Rujirawat, S., **Yimnirun, R.**, Lin, X.Z., Ennaoui, A., Dittrich, T., Lux-Steiner, M., Lattice positions of Sn in Cu_2ZnSnS_4 nanoparticles and thin films studied by synchrotron X-ray absorption near edge structure analysis, *Applied Physics Letters*, Vol. 102, (2013).
21. Bootchanont, A., Jutimoosik, J., Chandarak, S., Unruan, M., Rujirawat, S., **Yimnirun, R.**, Guo, R., Bhalla, A., Investigation of local structure in $BaTiO_3$-$BaZrO_3$ system by synchrotron X-ray absorption spectroscopy, *Ceramics International*, Vol. 39, pp. S579-S582 (2013).
22. Paul, A., Paul, N., Jutimoosik, J., **Yimnirun, R.**, Rujirawat, S., Höpfner, B., Lauermann, I., Lux-Steiner, M., Mattauch, S., Böni, P., Change in interface magnetism of an exchange-coupled system due to the presence of nonmagnetic spacers, *Physical Review B - Condensed Matter and Materials Physics*, Vol. 87 (2013).
23. Kanchiang, K., Siriprapa, P., **Yimnirun, R.**, Jiansirisomboon, S., Laosiritaworn, Y., X-ray absorption spectroscopy identification of Mn-doped $Bi_{3.25}La_{0.75}Ti_3O_{12}$ ceramics, *Ferroelectrics*, Vol. 454, pp. 1-6 (2013).

24. Chandarak, S., Unruan, M., Prasatkhetragarn, A., **Yimnirun, R.**, Structural investigation of PZT-PNN and PZT-PZN probed by synchrotron X-ray absorption spectroscopy, *Ferroelectrics*, Vol. 455, pp. 117-122 (2013).
25. Chandarak, S., Jutimoosik, J., Bootchanont, A., Unruan, M., Jantaratana, P., Priya, S., Srilomsak, S., Rujirawat, S., **Yimnirun, R.**, Local structure of magnetoelectric $BiFeO_3$-$BaTiO_3$ ceramics probed by synchrotron X-Ray absorption spectroscopy, *Journal of Superconductivity and Novel Magnetism*, Vol. 26, pp. 455-461 (2013).
26. Harnwunggmoung, A., Kurosaki, K., Kosuga, A., Ishimaru, M., Plirdpring, T., **Yimnirun, R.**, Jutimoosik, J., Rujirawat, S., Ohishi, Y., Muta, H., Yamanaka, S., Enhancement of thermoelectric properties of $CoSb_3$-based skutterudites by double filling of Tl and In, *Journal of Applied Physics*, Vol. 112 (2012).
27. Tancharakorn, S., Tanthanuch, W., Kamonsutthipaijit, N., Wongprachanukul, N., Sophon, M., Chaichuay, S., Uthaisar, C., **Yimnirun, R.**, The first microbeam synchrotron X-ray fluorescence beamline at the Siam Photon Laboratory, *Journal of Synchrotron Radiation*, Vol. 19, pp. 536-540 (2012).
28. Paul, A., Paul, N., Trautmann, C., Mattauch, S., Jutimoosik, J., **Yimnirun, R.**, Rujirawat, S., Höpfner, B., Lauermann, I., Lux-Steiner, M., Böni, P., Direct manipulation of the uncompensated antiferromagnetic spins in exchange coupled system by GeV ion irradiation, *Applied Physics Letters*, Vol. 100 (2012).
29. Sirisathitkul, C., Chokprasombat, K., Harding, P., Chandarak, S., **Yimnirun, R.**, Synchrotron X-ray absorption spectroscopy study of self-assembled nanoparticles synthesized from $Fe(acac)_3$ and $Pt(acac)_2$, *Journal of Nanomaterials*, (2012).
30. Chandarak, S., Jutimoosik, J., Pojprapai, S., Srilomsak, S., Rujirawat, S., **Yimnirun, R.**, Monnor, T., Synchrotron X-ray absorption study of Cu and Mn doped $BiFeO_3$-$BaTiO_3$ multiferroic ceramics, *Ferroelectrics*, Vol. 422, pp. 23-29 (2011).
31. Ngamjarurojana, A., Srisombat, L.-O., **Yimnirun, R.**, Ananta, S., Extended X-ray absorption fine structure and X-ray diffraction studies of Mn-doped PZN-PZT ceramics, *Ferroelectrics*, Vol. 405, pp. 50-56 (2010).
32. **Yimnirun, R.**, Tangsritrakul, J., Rujirawat, S., Limpijumnong, S., Identification of Mn site in $BaTiO_3$ by synchrotron X-ray absorption spectroscopy measurements, *Ferroelectrics*, Vol. 381, pp. 130-143 (2009).

Scaling Behavior in Functional Materials (19 Articles)

1. Jaitanong, N., Wongdamnern, N., **Yimnirun, R.**, Chaipanich, A., Stress-Dependent Scaling Behavior of Ferroelectric Hysteresis Loop in 0-3 PZT-Cement Composites, *Ferroelectrics*, Vol 487 (1), pp. 26-33 (2015).
2. Wongdamnern, N., Maurya, D., Zhou, Y., Sanghadasa, M., **Yimnirun, R.**, Priya, S., Complex permittivity scaling of functionally graded composites, *Materials Research Express*, Vol 1 (1), art. no. 016305 (2014).
3. Wongdamnern, N., Tangsritragul, J., Ngamjarurojana, A., Ananta, S., Laosiritaworn, Y., **Yimnirun, R.**, Hysteresis scaling relations in polycrystalline $BaTiO_3$ bulk ceramics, *Materials Chemistry and Physics*, Vol. 124, pp. 281-286 (2010).

4. Wongdamnern, N., Ngamjarurojana, A., Ananta, S., Laosiritaworn, Y., **Yimnirun, R.**, Dynamic hysteresis scaling in $BaTiO_3$ bulk ceramics, *Key Engineering Materials*, Vol. 421-422, pp. 399-402 (2010).
5. Wongdamnern, N., Triamnak, N., Unruan, M., Kanchiang, K., Ngamjarurojana, A., Ananta, S., Laosiritaworn, Y., **Yimnirun, R.**, Sub-coercive field dynamic hysteresis in morphotropic phase boundary composition of $Pb(Zr_{1/2}Ti_{1/2})O_3$-$Pb(Zn_{1/3}Nb_{2/3})O_3$ ceramic and its scaling behavior, *Physics Letters, Section A: General, Atomic and Solid State Physics*, Vol. 374, pp. 391-395 (2010).
6. Wongdamnern, N., Triamnak, N., Ngamjarurojana, A., Ananta, S., Laosiritaworn, Y., **Yimnirun, R.**, 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*, Vol. 384, pp. 1-9 (2009).
7. Wongdamnern, N., Ngamjarurojana, A., Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Dynamic ferroelectric hysteresis scaling of $BaTiO_3$ single crystals, *Journal of Applied Physics*, Vol 105, pp. 44109 (2009).
8. **Yimnirun, R.**, Wongdamnern, N., Triamnak, N., Unruan, M., Ngamjarurojana, A., Ananta, S., Laosiritaworn, Y., Stress dependence and scaling of subcoercive field dynamic hysteresis in $0.5Pb(Zr_{1/2}Ti_{1/2})O_3$-$0.5Pb(Zn_{1/3}Nb_{2/3})O_3$ ceramic, *Journal of Applied Physics*, Vol 104, pp 104103 (2008).
9. 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,* Vol 34(4), pp 731-734 (2008).
10. 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 and Temperature, *Advanced Materials Research*, Vol 55-57, pp 281-284 (2008)
11. **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, *J. Physics: Condensed Matters.*, Vol 20, pp 415202 (2008).
12. **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, *J. Physics D: Applied. Physics,* Vol 41, pp 205415 (2008).
13. **R. Yimnirun**, R. Wongmaneerung, S. Wongsaenmai, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, Temperature Scaling of Dynamic Hysteresis in Soft Lead Zirconate Titanate Bulk Ceramic, *Applied Physics Letters*, Vol 90(11), pp 112906 (2007).
14. **R. Yimnirun**, R. Wongmaneerung, S. Wongsaenmai, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, Dynamic Hysteresis and Scaling Behavior of Hard Lead Zirconate Titanate Bulk Ceramic, *Applied Physics Letters*, Vol 90(11), pp 112908 (2007).
15. **R. Yimnirun**, R. Wongmaneerung, S. Wongsaenmai, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, Temperature Scaling of Dynamic Hysteresis in Hard Lead Zirconate Titanate Bulk Ceramic, *Applied Physics A*, Vol 89, pp 737-741 (2007).
16. **R. Yimnirun**, Y. Laosiritaworn, S. Ananta, and S. Wongsaenmai, Scaling Behavior of Dynamic Ferroelectric Hysteresis in Soft PZT Ceramics: Stress Dependence, *Ferroelectrics*, Vol 358, pp 3-11 (2007).

17. **R. Yimnirun**, S. Wongsaenmai, R. Wongmaneerung, N. Wongdamnern, A. Ngamjarurojana, S. Ananta, and Y. Laosiritaworn, Stress- and Temperature-Dependent Scaling Behavior of Dynamic Hysteres-is in Soft PZT Bulk Ceramics, *Physica Scripta*, Vol T129, pp 184-189 (2007).
18. **Rattikorn Yimnirun**, Yongyut Laosiritaworn, Supattra Wongsaenmai and Supon Ananta, Scaling Behavior of Dynamic Hysteresis in Soft PZT Bulk Ceramics, *Applied Physics Letters,* Vol 89(16), pp 162901-3 (2006).
19. **Rattikorn Yimnirun**, Supattra Wongsaenmai, Supon Ananta, and Yongyut Laosiritaworn, Stress-Dependent Scaling Behavior of Dynamic Hysteresis in Bulk Soft Ferroelectric Ceramics, *Applied Physics Letters*, Vol 89(24), pp 242901-3 (2006).

Modeling and Computational Materials Physics (31 Articles)

1. Monnor, T., Kanchiang, K., **Yimnirun, R.**, Laosiritaworn, Y., Modeling and characterization of hysteresis loops with Preisach hysteron weight modification, *Integrated Ferroelectrics*, Vol 175 (1), pp. 33-43 (2016).
2. Laosiritaworn, W., **Yimnirun, R.**, Laosiritaworn, Y., The knowledge-based modeling of ferroelectric hysteresis area: An application to forming (1- x) PZT- (x) PZN hysteresis database, *Integrated Ferroelectrics*, Vol 166 (1), pp. 65-73 (2015).
3. Thongon, A., Choopun, S., **Yimnirun, R.**, Laosiritaworn, Y., 3D simulations on surface growth via chemical vapour deposition: Kinetic Monte Carlo investigation, *Integrated Ferroelectrics*, Vol 155 (1), pp. 100-105 (2014).
4. Monnor, T., Kanchiang, K., **Yimnirun, R.**, Laosiritaworn, Y., Preisach modeling on temperature dependent mean-field ising-hysteresis, *Ferroelectrics*, Vol. 459, pp. 128-133 (2014).
5. Srinoi, S., **Yimnirun, R.**, Laosiritaworn, Y., Effects of oxygen vacancy on ferroelectric hysteresis under external electric and stress fields, *Ferroelectrics*, Vol 470 (1), pp. 35-42 (2014).
6. Kanchiang, K., **Yimnirun, R.**, Laosiritaworn, Y., The stochastic extraction of critical temperature in uniaxial anisotropic magnetic films: A finite size scaling analysis on harmonic order parameters, *Integrated Ferroelectrics*, Vol. 148, pp. 110-115 (2013).
7. Monnor, T., Laosiritaworn, Y., **Yimnirun, R.**, Towards a better understanding of relationship between preisach densities and polarization reversals on hysteresis characteristic, *Advances in Condensed Matter Physics* (2013).
8. Laosiritaworn, Y., Kanchiang, K., **Yimnirun, R.**, Finite size scaling of hysteresis behavior: Monte carlo simulation on DIFFOUR model, *Ferroelectrics*, Vol. 425, pp. 72-81 (2011).
9. Laosiritaworn, Y., Kanchiang, K., **Yimnirun, R.**, Monte Carlo investigation of critical properties of ferroelectric films: The DIFFOUR Hamiltonian framework, *Ferroelectrics*, Vol. 420, pp.37-43 (2011).
10. Laosiritaworn, W., Wongsaenmai, S., **Yimnirun, R.**, Laosiritaworn, Y., Artificial-Neural-Network modeling of the compressive uniaxial stress dependence of ferroelectric hysteresis: An application to soft lead zirconate titanate ceramics, *International Journal of Physical Sciences*, Vol. 6, pp. 5996-6002 (2011).
11. Thongon, A., Choopun, S., **Yimnirun, R.**, Ananta, S., Laosiritaworn, Y., Monte carlo simulations of powder size reduction during mechanical milling process: An application to MgO, *Ferroelectrics*, Vol. 414, pp. 127-132 (2011).

12. Kanchiang, K., **Yimnirun, R.**, Ananta, S., Laosiritaworn, Y., The fourier analysis of ferromagnetic hysteresis properties in two dimensional ising model, *Ferroelectrics*, Vol. 414, pp. 133-139 (2011).
13. Laosiritaworn, W., Wongdamnern, N., **Yimnirun, R.**, Laosiritaworn, Y., Concurrent artificial neural network modeling of single-crystal and bulk-ceramics ferroelectric-hysteresis: An application to barium titanate, *Ferroelectrics*, Vol. 414, pp. 90-96 (2011).
14. Srinoi, S., Kanchiang, K., Laosiritaworn, W., **Yimnirun, R.**, Laosiritaworn, Y., Ferroic hysteresis modeling, *Integrated Ferroelectrics*, Vol. 131, pp. 202-218 (2011).
15. Laosiritaworn, W., Ngamjarurojana, A., **Yimnirun, R.**, Laosiritaworn, Y., Modeling of ferroelectric hysteresis area of hard lead zirconate titanate ceramics: Artificial Neural Network approach, *Ferroelectrics*, Vol. 401, pp. 233-238 (2010).
16. Laosiritaworn, Y., Kanchiang, K., Ngamjarurojana, A., **Yimnirun, R.**, Guo, R., Bhalla, A.S., The debye dielectric behavior of mixed normal and relaxor-ferroelectrics: Monte Carlo investigation, *Ferroelectrics*, Vol. 401, pp. 239-245 (2010).
17. Punya, A., **Yimnirun, R.**, Laoratanakul, P., Laosiritaworn, Y., Frequency dependence of the Ising hysteresis phase diagram: Mean field analysis, *Physica B: Condensed Matter*, Vol. 405, pp. 3482-3488 (2010).
18. Laosiritaworn, Y., Ananta, S., **Yimnirun, R.**, Monte carlo investigation of ferromagnetic properties under compressive stress, *Chiang Mai Journal of Science*, Vol. 37, pp. 252-259 (2010).
19. Sucharitakul, S., Prasertpalichatr, S., **Yimnirun, R.**, Laosiritaworn, Y., Pinched hysteresis scaling in hybrid-doped $BaTiO_3$, *Key Engineering Materials*, Vol. 421-422, pp. 263-266 (2010).
20. Laosiritaworn, Y., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Stress dependence of dielectric properties in relaxor ferroelectrics: Monte Carlo investigation, *Key Engineering Materials*, Vol. 421-422, pp. 227-230 (2010).
21. Laosiritaworn, W., **Yimnirun, R.**, Laosiritaworn, Y., Artificial neural network modeling of ferroelectric hysteresis: an application to soft lead zirconate titanate ceramics, *Key Engineering Materials*, Vol. 421-422, pp. 432-435 (2010).
22. Sucharitakul, S., **Yimnirun, R.**, Laosiritaworn, Y., Acceptor-doped ferroelectric modeling via Monte Carlo simulation, *Key Engineering Materials*, Vol. 421-422, pp. 231-234 (2010).
23. Kanchiang, K., **Yimnirun, R.**, Wongdamnern, N., Ngamjarurojana, A., Laosiritaworn, Y., Harmonic analysis of dynamic hysteresis response of $BaTiO_3$ bulk ceramics, *Ferroelectrics*, Vol. 401, pp. 123-128 (2010).
24. Laosiritaworn, Y., Kanchiang, K., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Monte carlo simulations of relaxor ferroelectric dielectric permittivity in films structure, *Ferroelectrics*, Vol. 380, pp. 169-176 (2009).
25. Laosiritaworn, Y., Kanchiang, K., **Yimnirun, R.**, Guo, R., Bhalla, A.S., Monte Carlo investigation of mixed normal and relaxor ferroelectrics, *Ferroelectrics*, Vol. 382, pp. 28-35 (2009).
26. Wang, Y.-L., Wang, X.-Y., Chu, L.-Z., Deng, Z.-C., Liang, W.-H., Liu, B.-T., Fu, G.-S., Wongdamnern, N., Sareein, T., **Yimnirun, R.**, Simulation of hysteresis loops for polycrystalline ferroelectrics by an extensive Landau-type model, *Physics Letters, Section A: General, Atomic and Solid State Physics*, Vol. 373, pp. 4282-4286 (2009).
27. Laosiritaworn, Y., Punya, A., Ananta, S., **Yimnirun, R.**, Mean-field analysis of the ising hysteresis relaxation time, *Chiang Mai Journal of Science*, Vol. 36, pp. 263-275 (2009).

28. Laosiritaworn, Y., Ananta, S., Poulter, J., **Yimnirun, R.,** Monte Carlo investigation of hysteresis properties in ferroelectric thin-films under the effect of uniaxial stresses, Ceramics International, Vol35, pp 181-184 (2009).
29. W. Laosiritaworn, O. Khamman, S. Ananta, **R. Yimnirun** and Y. Laosiritaworn, Artificial Neural Network Modeling of Ceramics Powder Preparation: application to $NiNb_2O_6$, *Ceramics International,* Vol 34(4), pp 809-812 (2008).
30. Yongyut Laosiritaworn, Supon Ananta**,** and **Rattikorn Yimnirun**, Effects of Temperature Gradient of Magnetic Properties of Ising Thin-Film, *Physical Review B,* Vol 75, pp 054417 (2007).
31. Y. Laosiritaworn, **R. Yimnirun**, and J. Poulter, The Effect of Uniaxial to Spin Reorientation Transition in Magnetic Thin-Films: Monte Carlo Investigation, *Current Applied Physics*, Vol 6(3), pp 469-473 (2006).

Electrostriction (8 Articles)

1. **Rattikorn Yimnirun**, V. Sundar, and Robert E. Newnham, "Electrostriction", *Chapter 26 in CRC Electrical Engineering Handbook: Electronics, Power Electronics, Optoelectronics, Microwaves, Electromagnetics, and Radar* (3rd Edition). Richard C. Dorf Ed. CRC Press: Taylor & Francis Group (Boca Raton, FL) (2006).
2. **Rattikorn Yimnirun**, Paul Moses, Richard J. Meyer, and Robert E. Newnham, Dynamic Compressometer for Converse Electrostriction Measurements, *Rev. Sci. Instrum.*, Vol 74, pp 3429-3432 (2003).
3. **Rattikorn Yimnirun**, Paul Moses, Richard J. Meyer, and Robert E. Newnham, A Single-Beam Interferometer With Sub-angstrom Displacement Resolution and Its Application to Electrostriction Measurement, *Meas. Sci. Technol.*, Vol 14, pp 766-772 (2003).
4. **Rattikorn Yimnirun**, Paul Moses, Richard J. Meyer, and Robert E. Newnham, Electrostrictive Strains in Low Permittivity Dielectrics, *J. Electroceram.*, Vol 8, pp 87-98 (2002).
5. **Rattikorn Yimnirun**, Sylvie M-L Eury, V Sundar, Paul J. Moses, Sei-Joo Jang, and Robert E. Newnham, Electrostriction Measurement on Low Permittivity Ceramics and Polymers, *Journal of European Ceramics Society*, Vol 19(6-7), pp 1269-1273 (1999).
6. Sylvie M-L Eury, **Rattikorn Yimnirun**, V Sundar, Paul J. Moses, Sei-Joo Jang, and Robert E. Newnham, Converse Electrostriction Effect in Polymers and Composites, *Materials Chemistry and Physics*, Vol 61, pp18-23 (1999).
7. V. Sundar, **R. Yimnirun**, B. G. Aitken, and R. E. Newnham, Structure-Property Relationships in Electrostriction Response of Low Permittivity Silicate Glasses, *Materials Research Bulletin*, Vol 33(9), pp. 1307-1314 (1998).
8. R. E. Newnham, V Sundar, **R. Yimnirun**, J. Su, and Q. M. Zhang, Electrostriction-Nonlinear Electromechanical Coupling in Solid Dielectrics, *Journal of Physical Chemistry B*, Vol 101(48), pp. 10141-50 (1997).

Others (Publications in International Proceedings and National Journals) (65 Publications)

A. Publications in International Conference Proceedings

1. V. Sundar, **R. Yimnirun**, N. Kim, and R.E. Newnham "The Effect of Doping and Grain size on Electrostriction in PZT", *The Proceeding of IEEE-International Symposium on the Applications of Ferroelectrics (IEEE-ISAF'96)*, pp 935-938, Rutgers University, NJ (1996)

2. R.E. Newnham, V Sundar, **R. Yimnirun**, J. Su, and Q.M. Zhang "Electrostriction in Dielectric Materials", Advances in Dielectric Ceramic Materials, *Ceramic Transaction* Volume 88, K.M. Nair and A.S. Bhalla, ed., pp. 15-39 (1998)
3. V. Sundar, **R. Yimnirun**, and R. E. Newnham, "The Role of Polarization Mechanisms in Electrostrictive Effects for Low Permittivity Glasses and Ceramics", *The Proceeding of the IV Ceramic Congress by Turkish Ceramic Society*, pp. 597-602 (1998)
4. **Rattikorn Yimnirun**, Sylvie M-L Eury, V Sundar, Paul J. Moses, Sei-Joo Jang, and Robert E. Newnham, "Electrostriction Measurement on Low Permittivity Dielectric Materials", *1998 Annual Report Conference on Electrical Insulation and Dielectric Phenomena (IEEE-CEIDP 98)*, pp. 240-243 (1998)
5. **Rattikorn Yimnirun**, Sylvie M-L Eury, V Sundar, Paul J. Moses, and Robert E. Newnham "Compressometer Based Method for Measuring Converse Electrostriction in Polymers" , *1999 Annual Report Conference on Electrical Insulation and Dielectric Phenomena (IEEE-CEIDP 99)*, pp 338-341 (1999)
6. S. Uttiya, **R. Yimnirun** and S. Ananta, "Influences of Sintering Conditions on Grain Size and Microstructural Development of $BaTiO_3$ Ceramics," *Journal of the Electron Microscopy Society of Thailand* 2002, 16(1), pp. 138-139.
7. W. Koonteeya, **R. Yimnirun** and S. Ananta, "Sintering Condition Dependence of Microstructural Development in $BaZrO_3$ Ceramics," *Journal of the Electron Microscopy Society of Thailand* 2002, 16(1), pp. 140-141.
8. K. Choopinit, **R. Yimnirun** and S. Ananta, "Influences of Calcination Heating/Cooling Rates on Phase Formation Behavior and Morphology of $PbNb_2O_6$ Powders," *Journal of the Electron Microscopy Society of Thailand* 2002, 16(1), pp. 149-150.
9. S. Eitssayeam, **R. Yimnirun** and S. Ananta, "Effects of Calcination Conditions on Morphology of $FeNbO_4$ Powders," *Journal of the Electron Microscopy Society of Thailand* 2002, 16(1), pp. 161-162.
10. S. Wongsaenmai, S. Ananta and **R. Yimnirun**, "Microstructural Study of Ceramics in Lead Magnesium Niobate-Lead Zirconate Titanate System," *Journal of the Electron Microscopy Society of Thailand* 2003, 18 (suppl.), pp. 119-120.
11. A. Ngamjarurojana, S. Wongsaenmai, R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Hysteresis Properties of Lead Zirconate Titanate Ceramic Under Uniaxial compressive Pre-Stress," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology,* 2004, pp 156-157
12. S. Wongsaenmai, A. Ngamjarurojana, R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Hysteresis Properties of 0.1PMN-0.9PZT Ceramic Under Different Poling Fields," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology*, 2004, pp 150-152
13. R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Effect of Sintering Conditions on Densification and Dielectric Properties of PZT Ceramics," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology*, 2004, pp 134-136

14. S. Chamunglap, S. Ananta and **R. Yimnirun**, "Uniaxial Stress Dependence of Dielectric Properties of PZT and 0.95PZT-0.05BT Ceramics," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology*, 2004, pp 143-145
15. R. Wongmaneerung, **R. Yimnirun** and S. Ananta, "Synthesis and Characterizations of Lead Titanate Nano-Sized Powders via a Rapid Vibro-milling," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology*, 2004, pp 252-254
16. A. Pisit-anusorn, S. Ananta, **R. Yimnirun** and S. Thiansem, "Fabrication and Characterization of Dental Porcelain Nanocomposite from Thailand's Raw Materials," *Proceeding of the International Conference on Smart Materials: Smart/Intelligent Materials and Nanotechnology*, 2004, pp 546-548
17. **Rattikorn Yimnirun**, Supattra Wongsaenmai, Yongyut Laosiritaworn and Supon Ananta, "Uniaxial Stress Dependence and Scaling Behavior of Dynamic Hysteresis Responses in Soft PZT Ceramics" *Proceedings of the 15th IEEE International Symposium on Applications of Ferroelectrics* (ISAF-2006), pp 37-40 (2007)
18. Rewadee Wongmaneerung, **Rattikorn Yimnirun**, Supon Ananta, Ryan Guo and Amar Bhalla, "Effect of Sintering Temperature on Thermal Expansion and Dielectric Properties of $PbTiO_3$ Ceramics Prepared under Various Sintering conditions" *Proceedings of the 15th IEEE International Symposium on Applications of Ferroelectrics* (ISAF-2006), pp 65-68 (2007)
19. Supattra Wongsaenmai, Xiaoli Tan, Supon Ananta, and **Rattikorn Yimnirun**, "Dielectric and Ferroelectric Properties of $Pb_{0.8}Ba_{0.2}[(In_{1/2}Nb_{1/2})_{1-x}Ti_x]O_3$ Ceramics" *Proceedings of the 15th IEEE International Symposium on Applications of Ferroelectrics* (ISAF-2006), pp 69-72 (2007)
20. **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)
21. O. Khamman, **R. Yimnirun**, and S. Ananta, "A Two-Stage Solid State Reaction of Lead Nickel Niobate Powders" *Proceedings of Materials Science and Technology (MS&T) 2007: International Symposium on Dielectric Materials: Design, Preparation and Applications*, pp 249-259 (2007)
22. P. Ketsuwan, Y. Laosiritaworn, S. Ananta, **R. Yimnirun**, and D. P. Cann, "Effect of Nb-Doping on Electrical Properties of $Pb(Zr_{0.52}Ti_{0.48})O_3$ Ceramics" *Proceedings of Materials Science and Technology (MS&T) 2007: International Symposium on Dielectric Materials: Design, Preparation and Applications*, pp 269-277 (2007)
23. Muangjai Unruan, Anurak Prasatkhetragarn, Yongyut Laosiritaworn, Supon Ananta, and **Rattikorn Yimnirun**, "Effects of Compressive Stress on Dielectric Properties of PZT-PCN Ceramics" (ICMAT-2007)
24. N. Wongdamnern, S. Ananta, Y. Laosiritaworn, and **R. Yimnirun**, "Stress-Dependent Scaling Behavior of Dynamic Hysteresis in Hard Lead Zirconate Titanate Ceramic" (ICMAT-2007)
25. R. Wongmaneerung, **R. Yimnirun,** S. Ananta, A. Bhalla, and R. Guo, "Thermal Expansion Measurement in the 0.9PMN-0.1PT Ceramics" (ICMAT-2007).

B. Publications in National Journals and National Conference Proceedings

26. S. Wongsaenmai, S. Ananta, E. Meechoowas and **R. Yimnirun**, "Uniaxial Stress Dependence of Dielectric Properties of Poled Ceramics in Lead Magnesium Niobate–Lead Zirconate Titanate System," *Chiang Mai Journal of Science*, 2003, 30(2), 81-93.
27. S. Wongsaenmai, S. Ananta and **R. Yimnirun**, "Effects of Uniaxial Stress on Dielectric Properties of Ceramics in PMN-PZT System," *Songkhanakarin Journal of Science and Technology*, 2003, 25(5), 629-636.
28. S. Wongsaenmai, S. Ananta and **R. Yimnirun**, "Effects of Uniaxial Stresson Dielectric Properties of Lead Zirconate Titanate Ceramics," *Suranaree Journal of Science and Technology*, 2003, 10, 206-209.
29. S. Wongsaenmai, S. Ananta and **R. Yimnirun**, "Effects of Uniaxial Stresson Dielectric Properties of Unpoled Ceramics in PMN-PZT System", *Journal of Science Khon Kaen University*, 2003, 31(2), 73-84.
30. **R. Yimnirun**, S. Ananta and S. Wongsaenmai, "Uniaxial Stress Dependence of Dielectric Properties of Poled Ceramics in Lead Magnesium Niobate-Lead Zirconate Titanate System," *Chiang Mai Journal of Science*, 2003, 30(2), 81-93.
31. S. Wongsaenmai, P. Moonrat, T. Silawongsawat, S. Ananta and **R. Yimnirun**, "Study of Hysteresis Properties of Lead Zirconate Titanate (PZT) Ceramic by Sawyer-Tower Circuit," *Naresuan University Journal*, 2003, 11(3), 21-27.
32. **R. Yimnirun**, E. Meechoowas, S. Ananta and T. Tunkasiri, "MechanicalProperties of *x*PMN-(*1-x*)PZT Ceramic Systems," *Chiang Mai University Journal*, 2004, 3(2), 147-154.
33. **R. Yimnirun**, S. Ananta and P. Laoratanakul, "Ferroelectric Properties of *x*PZN-(*1-x*)PMN Ceramics," *Chiang Mai University Journal*, 2004, 3(1), 53-58.
34. **R. Yimnirun**, E. Meechoowas, S. Ananta and T. Tunkasiri, "DielectricProperties of PZT-PMN Ceramics," *Songkhanakarin Journal of Science and Technology*, 2004, 26(4), 529-536.
35. S. Wongsaenmai, S. Ananta and **R. Yimnirun**, "Dielectric Properties of Unpoled Lead Magnesium Niobate-Lead Zirconate Titanate Ceramics Under Uniaxial Stress," *Chiang Mai Journal of Science*, 2004, 31(1), 11-15.
36. S. Chamunglap, S. Ananta and **R. Yimnirun**, "Effect of Uniaxial Stress on Dielectric Properties of PZT, BT and 0.55PZT-0.45BT Ceramics," *Naresuan University Science Journal*, 2004, 1(2), 15-21.
37. A. Ngamjarurojana, S. Wongsaenmai, R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Effect of Uniaxial Stress on Hysteresis Properties of 0.1PMN-0.9PZT Ceramic," *Chiang Mai University Journal*, 2005, 4(2), 129-135.
38. A. Ngamjarurojana, S. Wongsaenmai, O. Khamman, S. Ananta and **R. Yimnirun**, "Hysteresis Properties of Lead Zirconate Titanate Ceramic Under Uniaxial Compressive Pre-Stress," *Chiang Mai Journal of Science*, 2005, 32(3), 355-359.
39. S. Wongsaenmai, A. Ngamjarurojana, R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Hysteresis Properties of 0.1PMN-0.9PZT Ceramic Under Different Poling Fields," *Chiang Mai Journal of Science*, 2005, 32(3), 351-354.
40. R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Effect of Sintering Conditions on Densification and Dielectric Properties of PZT Ceramics," *Chiang Mai Journal of Science*, 2005, 32(3), 323-329.

41. S. Chamunglap, S. Ananta and **R. Yimnirun**, "Uniaxial Stress Dependence of Dielectric Properties of PZT and 0.95PZT-0.05BT Ceramics," *Chiang Mai Journal of Science*, 2005, 32(3), 337-342.
42. R. Wongmaneerung, **R. Yimnirun** and S. Ananta, "Synthesis and Characterizations of Lead Titanate Nano-Sized Powders via a Rapid Vibro-milling," *Chiang Mai Journal of Science*, 2005, 32(3), 399-404.
43. A. Pisit-anusorn, S. Ananta, **R. Yimnirun** and S. Thiansem, "Fabrication and Characterization of Dental Porcelain Nanocomposite from Thailand's Raw Materials," *Chiang Mai Journal of Science*, 2005, 32(3), 549-553.
44. O. Khamman, **R. Yimnirun**, Y. Laosiritaworn, and S. Ananta, "Preparation and Characterization of Nickel Niobate ($NiNb_2O_6$) Nanopowder" *Chiang Mai University Journal*, 2005, 4(1), 35-39.
45. A. Ngnamjarurojana, Y. Laosiritaworn, S. Ananta, and **R. Yimnirun**, "Synthesis and Characterization of Zinc Niobate Nanopowder via a Vibro-Milling Method" *Chiang Mai University Journal*, 2005, 4(1), 47-52.
46. R. Wongmaneerung, Y. Laosiritaworn, **R. Yimnirun** and S. Ananta, "A Mixed Oxide Synthetic Route to $Mg_4Nb_2O_9$ Nanopowders in a Corundum-Like Phase," *Chiang Mai University Journal*, 2005, 4(1), 41-46.
47. P. Sompet, S. Ananta, **R. Yimnirun** and Y. Laosiritaworn, "The Effect of Nano Defects to Ising Hysteresis I Ultran-Thin-Film," *Chiang Mai University Journal*, 2005, 4(1), 163-168.
48. R. Wongmaneerung, S. Ananta, **R. Yimnirun** and Y. Laosiritaworn, "Monte Carlo Simulation of Nano-Powder from Mechanical Milling," *Chiang Mai University Journal*, 2005, 4(1), 169-175.
49. W. Chaisarn, S. Ananta, **R. Yimnirun** and Y. Laosiritaworn, "Modeling of Nano-Structure Via a Spinodal Decomposition: An Extended Range Monte Carlo Investigation," *Chiang Mai University Journal*, 2005, 4(1), 177-183.
50. S. Wongsaenmai, A. Ngamjarurojana, S. Ananta, **R. Yimnirun** and Y. Laosiritaworn, "The Effect of Uniaxial Stress to Spin Reversal in Ferromagnetic Nano-Thickness Films: Monte Carlo Investigation," *Chiang Mai University Journal*, 2005, 4(1), 185-192.
51. **R. Yimnirun**, "Roles of Nano-Domains on Uniaxial Stress Dependence of Dielectric Properties of Ferroelectric Ceramics", *Chiang Mai University Journal*, 2006; 5(2), 143-152.
52. S. Wongsaenmai, A. Ngamjarurojana, R. Tipakontitikul, S. Ananta and **R. Yimnirun**, "Effect of Poling Conditions on Hysteresis Properties of Lead Magnesium Niobate-Lead Zirconate Titanate Ceramics," *Naresuan University Science Journal*, 2006; 2(2), 131-138.
53. R. Wongmaneerung, P. Ketsuwan, **R. Yimnirun** and S. Ananta, "Preparation of pyrochlore-free lead magnesium niobate powders from $Mg_4Nb_2O_9$ precursor," *KMITL Science Journal*, 2006, 6(1), 98-105
54. O. Khamman, **R. Yimnirun** and S. Ananta, "Effects of calcinations temperature on phase and morphology evolution of nickel niobate powders," *KMITL Science Journal*, 2006, 6(1), 55-62.
55. W. Chaisan, **R. Yimnirun** and S. Ananta, "Synthesis, dielectric and ferroelectric characteristics of barium titanate ceramics prepared by a solid-state reaction," *KMITL Science Journal*, 2006, 6(1), 140-148.

56. A. Prasartkhetrakarn, **R. Yimnirun** and S. Ananta, "Preparation of zirconium titanate nanopowders for microwave dielectric applications," *Thai Journal of Physics SERIES 2*, 2007, 44-47.
57. O. Khamman, **R. Yimnirun** and S. Ananta, "Preparation of nickel niobate nanopowders," *Thai Journal of Physics SERIES 3*, 2008, 44-47.
58. T. Tunkasiri, A. Srijum, G. Rujijanagul, S. Ananta, and **R. Yimnirun**, "Properties of PMN-PT", *The 19th Congress on Science and Technology of Thailand*, Songkhla, Thailand (1993)
59. T. Tunkasiri, P. Arkornsakul, S. Chaisupan, C. Saelee, and **R. Yimnirun**, "Effects of Porosity on Electrical Properties of Dysprosium-Doped $BaTiO_3$ Ceramics", *The 20th Congress on Science and Technology of Thailand*, Bangkok, Thailand (1994)
60. Supattra Wongsanmai, Pisun Moonrat, Theerapong Silawongsawat, and **Rattikorn Yimnirun**, "Study of Hysteresis Properties of Ferroelectric Ceramic Lead Zirconate Titanate (PZT) by Sawyer-Tower Circuit, *The 28th Congress on Science and Technology of Thailand*, Bangkok, Thailand (2002) pp 16
61. Supattra Wongsanmai, Supon Ananta, and **Rattikorn Yimnirun,** "Effect of Uniaxial Stress on Dielectric Properties of Lead Zirconate Titanate - Lead Magnesium Niobate Ceramics", *The 29th Congress on Science and Technology of Thailand*, Khon Kaen, Thailand (2003) pp 198
62. R. Wongmaneerung, **R. Yimnirun**, S. Ananta, Effect of Milling Time on Phase Formation and Particle Size of Lead Titanate Powders Synthesized by the Solid-State Reaction. The Third Thailand Materials Science and Technology Conference, 10-11 Aug. 2004, Bangkok pp. 229-231.
63. S. Wongsaenmai, A. Ngamjarurojana, S. Ananta, **R. Yimnirun**, Compositions and Hysteresis Property Relationships in Lead Zirconate Titanate-Lead Magnesium Niobate Ceramics. The Third Thailand Materials Science and Technology Conference, 10-11 Aug. 2004, Bangkok, pp. 248-250.
64. S. Chamunglap, S. Ananta, **R. Yimnirun**, Effects of Uniaxial Stress on Dielectric Properties of 0.95PZT-0.05BT Ceramics. The Third Thailand Materials Science and Technology Conference, 10-11 Aug. 2004, Bangkok, pp. 260-261.
65. **R. Yimnirun**, "Roles of Nano-Domains on Uniaxial Stress Dependence of Dielectric Properties of Ferroelectric Ceramics", Proceedings of Chiang Mai University's Academic Days, Dec 8-11, 2005 (2006).