



CURRICULUM VITAE

Name	Miss Viruntachar Kruefu
Date of birth	July 9, 1980
Education background	B.Sc. (Physics), Kasetsart University , 2003. M.S. (Materials Science), Chiang Mai University, 2005 Ph.D. (Nanoscience and Nanotechnology), Chiang Mai University, 2010
Scholarship	Scholarship from the National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology, 2008-2010.
Experience	Short-term researcher for study of hetrojunction solar cell devices using pure ZnO and Nb-doped ZnO at Prof. David Carroll's research group, Center for Nanotechnology and Molecular Materials, Wake Forest University, USA, during November, 2008 to December, 2009.

Publication and presentation**Journal article**

1. **Kruefu, V.**, Peterson, E., Khantha, C., Siriwong, C., Phanichphant, S. and Carroll, D.L., Flame-made niobium doped zinc oxide nanoparticles in bulk heterojunction solar cells, *Appl. Phys. Lett.*, 2010, **97**, 053302. .
2. **Kruefu, V.**, Khantha, C., Peterson, E., Carroll, D.L. and Phanichphant, S., Enhancement of the Efficiency of Polymer Solar Cells by Blending Nb/ZnO Nanoparticles into Poly(3-hexylthiophene):[6,6]-phenyl C61-butyric Acid Methyl Ester, *Mol. Cryst. Liq. Cryst.*, 2011, **538**, 15–19.
3. Khantha, C., **Kruefu, V.**, Siriwong, C., Carroll, D.L., and Phanichphant, S., Improvement of Poly(3-Phenylthiophene)-Based Bulk Heterojunction Organic Solar Cells, *Mol. Cryst. Liq. Cryst.*, 2011, **538**, 143–148.
4. **Kruefu, V.**, Liewhiran, C., Wisitsoraat, A., Phanichphant, S., Selectivity of flame-spray-made Nb/ZnO thick films towards NO₂ gas, in press
5. **Kruefu, V.**, Liewhiran, C., Khantha, C., Phanichphant, S., Flame-made Nb-doped Zinc Oxide Nanoparticles for Application in Polymer Solar Cells, *Proceedings of the 2010 5th IEEE International Conference on Nano/Micro Engineered and Molecular Systems*, Xiamen University, Xiamen, CHINA 2010, 65–69.

Conference papers/Presentations

1. **Kruefu, V.**, Peterson, E., Khantha, C., Kielbasa, J., Phanichphant, S., Carroll, D.L., Flame-made niobium doped zinc oxide nanoparticles in bulk heterojunction solar cells, Poster presentation, Nanoconference Celebrating five year of exploration at the Wake Forest University for Nanotechnology and Molecular Science Materials, Winston-Salem, NC, USA, October 19, 2009.
2. **Kruefu, V.**, Liewhiran, C., Khantha, C., Phanichphant, S., Flame-made Nb-doped Zinc Oxide Nanoparticles for Application in Polymer Solar Cells, Oral presentation, The 5th IEEE International Conference on Nano/Micro Engineered and Molecular System (IEEE-NEMS), Xiamen University, Xiamen, CHINA, January 20–23, 2010.
3. **Kruefu, V.**, Khantha, C., Peterson, E., Carroll, D.L. and Phanichphant, S., Enhancement of the Efficiency of Polymer Solar Cells by Blending Nb/ZnO Nanoparticles into Poly(3-hexylthiophene):[6,6]-phenyl C61-butyric Acid Methyl Ester, Oral presentation, Korea-Japan Forum 2010 on Organic Materials for Electronics and Photonics (KJF2010), Kitakyushu, JAPAN , 22–25 August, 2010.
4. **Kruefu, V.**, Siriwong, C., Wisitsoraat, A., Liewhiran, C., and Phanichphant, S., Response enhancement of flame-spray-made Nb/ZnO

thick film-based NO₂ sensor, Poster presentation, Nanosensors for Industrial Application (NANOSENS 2010), Vienna, AUSTRIA, 2–3 December 2010.

5. Khantha, C., **Kruefu, V.**, Coffin, R.C., Phanichphant, S., Carroll, D.L., Improvement of Poly(3-Phenylthiophene)-Based Bulk Heterojunction Organic Solar Cells, Poster presentation Korea-Japan Forum 2010 on Organic Materials for Electronics and Photonics (KJF2010), Kitakyushu, JAPAN , 22–25 August, 2010.
6. **Kruefu, V.**, Khantha, C., Sriwichai, S., Phanichphant, S., Flame-made niobium doped zinc oxide nanoparticles in bulk heterojunction solar cell, Oral presentation, 1st Chiang Mai-Kyoto Symposium on Materials Science and Technology, Chiang Mai University, Chiang Mai, THAILAND, December 2–4, 2010.