

Faculty of Science.....

Department of Physics.....

Curriculum Title M.Sc.(Physics), Ph.D.(Physics).....

Curriculum Description (briefly introduce an overview of the curriculum offered)

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Type of Program

- Regular Program (Monday- Friday)
- Regular Program (Monday- Friday) and International Program
- Special Program (Saturday-Sunday)

1) Dissertation Themes (provide the areas of research for thesis)

1. Student misconceptions in physics
2. Instructional media and active learning approaches to promote students' learning in physics
3. Evaluation methods (i.e. model analysis, normalized gain) in physics education research

2) Dissertation Themes (provide the areas of research for thesis)

1. Integrated predictive modelling code study of fusion tokamak plasma
2. L-H transition and ITB investigation of fusion plasma
3. Applications of plasma gasification in agriculture, medical and energy production

Prospective students (provide the background and previous education of the student who wants to study e.g.

Master of Science (Physics)

Eligibility

1. Earned a Bachelor of Science degree in physics or a field related to physics with GPA above 3.00 from full scale 4.00
2. Directly contacted with one of physics faculty in advance to be the applicant's advisor in doing research.

English proficiency requirement

1. TOEFL (paper based) 500
2. TOEFL (Institutional Testing Program) 525
3. IELTS 5.5

Doctor of Philosophy (Physics)

Eligibility

1. Earned a Master of Science degree in physics with GPA above 3.25 from full scale 4.00 or earned a Bachelor of Science degree in physics with GPA above 3.50 from full scale 4.00.
2. Directly contacted with one of physics faculty in advance to be the applicant's advisor in doing research.

English proficiency requirement

1. TOEFL (paper based) 520
2. TOEFL (Institutional Testing Program) 550
3. IELTS 6.0

Prospective advisors... (provide the names of the potential advisors as well as their CV/research of interest. If possible, also provide e-mail addresses and other means to contact the prospective advisors.)

- 1 Assoc. Prof. Dr. TEPARKSORN PENG PAN
- 2 Dr. PRUET KALASUWAN
- 3 Assoc. Prof. Dr. TRIPOB BHONGSUWAN
- 4 Asst.Prof.Dr.Helmut Durrast
- 5 Assoc. Prof. Dr. SAWASDEE YORDKAYHUN
- 6 Asst. Prof. Dr. KAMHAENG WATTANASEN
- 7 Assoc. Prof. Dr. THAWAT CHITTRAKARN
- 8 Dr. SUKSAWAT SIRIJARUKUL

- 9 Assoc. Prof. Dr. NANTAKAN MUENSIT
- 10 Asst. Prof. Dr. CHATCHAI PUTSON
- 11 Asst. Prof. Dr. PAPHAVEE VAN DOMMELEN
- 12 Dr. CHALONGRAT DAENGNGAM
- 13 Assoc. Prof. Dr. YUTTHANA TIRAWANICHAKUL
- 14 Dr. BOONYARIT CHATTHONG
- 15 Asst. Prof. Dr. SUTTIDA RAKKAPAO
- 16 Assoc. Prof. Dr. PANOTE THAVARUNGKUL
- 17 Asst. Prof. Dr. CHITTANON BURANACHAI
- 18 Asst. Prof. Dr. CHUTINTORN PUNWONG
- 19 Dr. SUREERAT HOMHUAN
- 20 Asst. Prof. Dr. KRISADA RAWIRASWATTANA

Contact Information (provide the person who is in charged for the curriculum as well as his/her

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ผลงานทางวิชาการ

- 1) A. Ritboon, C. Daengngam and T. Pengpan, “Photon wave function formalism for analysis of Mach-Zehnder interferometer and sum-frequency generation”, 2016; Annals of Physics 371, pp.53-66.
- 2) A. Thatribud and T. Pengpan, “Electronic structure calculations of delafossite Cu-based transparent conducting oxides CuMO_2 (M=B, Al, Ga, In) by quasi-particle self-consistent GW approximation and Tran-Blaha's modified Becke-Johnson exchange potential”, 2014; Physical Review B90, Article number 115150.
- 3) A. Thatribud, T. Tungsurat and T. Pengpan, “First-principles study on electronic and optical properties of transparent conducting oxide CuBO_2 ”, 2014; Computational Materials Science 81, pp.601-606.
- 4) T. Pengpan and A. Boonthummo, "First-principles calculations of magnetism of substitutional transition impurities in binary iron-selenium system”, 2012; Technical Digest of Frontiers in Electronic Materials: A Collection of Extended Abstracts of the Nature Materials, June 17th to 20th 2012, Aachen, Germany edited by J. Heber, D. Schlom, Y. Tokura, R. Waser, M. Wuttig (Wiley-VCH, Weinheim, 2012), pp.480-481.
- 5) A. Thatribud, T. Tungsurat and T. Pengpan, "Accurate band gaps of transparent conducting oxides with a semilocal exchange-correlation potential”, 2012; Technical Digest of Frontiers in Electronic Materials: A Collection of Extended Abstracts of the Nature Materials, June 17th to 20th 2012, Aachen, Germany edited by J. Heber, D.Schlom, Y. Tokura, R. Waser, M. Wuttig (Wiley-VCH, Weinheim, 2012), pp.486-487.

2. **Dr. PRUET KALASUWAN**

Ph.D. (Physics), University of Bristol, U.K., 2555

ผลงานทางวิชาการ

- 1) A. Kesorn, P. Kalasuwan, A. Sinsarp, W. Sukkabot, S. Suwanna, “Effects of square electric field pulses with random fluctuation on state dynamics of InAs/GaAs double quantum dots”, 2016; Integrated Ferroelectrics, pp.220-235.
- 2) X.-Q. Zhou, P. Kalasuwan, T.C. Ralph and J.L. O'brien, “Calculating unknown eigenvalues with a quantum algorithm”, 2013; Nature Photonics, pp.223-228.

3. **Assoc. Prof. Dr. TRIPOB BHONGSUWAN**

Ph.D. (Applied Geophysics), Luleå University of Technology, Sweden, 2543

ผลงานทางวิชาการ

- 1) S. Singsoopho, T. Bhongsuwan and S.-Å. Elming, “Palaeocurrent direction estimated in Mesozoic redbeds of the Khorat Plateau, Lao PDR, Indochina Block using anisotropy of magnetic susceptibility”, 2015; Journal of Asian Earth Sciences, volume 106, pp.1-18.
- 2) T. Bhongsuwan and S.A. Ausui, “A high natural radiation area in Khao-Than hot spring, Southern Thailand”, 2015; Radiation Protection Dosimetry, 1–5, volume 167, Issue 1-3, pp.284-288.
- 3) S. Singsoopho, T. Bhongsuwan and S.-Å. Elming, “Tectonic evaluation of the Indochina Block during Jurassic-Cretaceous from palaeomagnetic results of Mesozoic redbeds in central and southern Lao PDR”, 2014; Journal of Asian Earth Science, 92: 18-35.
- 4) M. Krmar, K. Wattanavatee, D. Radnovi, J. Slivka, T. Bhongsuwan, M.V. Frontasyeva and S.S. Pavlov, “Airborne radionuclides in mosses collected at different latitudes”, 2013; Journal of Environmental Radioactivity, pp.45-48.

4. **Asst.Prof.Dr.Helmut Dürrast**

Ph.D. (Natural Science), University of Gottingen, Germany, 2540

ผลงานทางวิชาการ

- 1) Siegesmund, S. and Dürrast, H. 2013. Physical and mechanical properties of rocks. In: Siegesmund, S. and Snethlage, R. (eds) Stone in Architecture, Intensively revised 5th Edition, Springer-Verlag Berlin Heidelberg, 97-224.
- 2) Dürrast, H. 2013. Core-log Integration for a fractured reservoir. PGCE 2013, Petroleum Geoscience Conference and Exhibition, 18–19 March 2013, Kuala Lumpur, Malaysia. pp. 359–360.
- 3) P. Klinmanee and H. Dürrast, “Geophysical logging for groundwater investigations in Southern Thailand”, 2012; Songklanakarin Journal of Science and Technology 34(4), pp.433-444.
- 4) S. Jonjana, W. Lohawijarn and H. Dürrast, “Geological structure and origin of the Kaochaison hot spring in Phattalung, Southern Thailand”, 2012; Songklanakarin Journal of Science and Technology 34 (2), pp.231-239.

5. **Assoc. Prof. Dr. SAWASDEE YORDKAYHUN**

Ph.D. (Geophysics), Uppsala University, Sweden, 2551

ผลงานทางวิชาการ

- 1) S. Yordkayhun, P. Sreesuwan, K. Wattanasen, “Characterization of Khlong Marui fault zone using seismic reflection and shear-wave velocity profiles: Case study in Khiriratnikhom District, Surat Thani Province, Southern Thailand”, 2016; Chiang Mai Journal of Science, pp. 1279-1291.
- 2) S. Yordkayhun, C. Sujitapan and T. Chalermyanont, “Shear wave velocity mapping of Hat Yai district, southern Thailand: Implication for seismic site classification”, 2015; Journal of Geophysics and Engineering, vol 12, Issue 1, pp.57-69.

- 3) S. Yordkayhun, C. Sujitapan and T. Chalermyanont, “Joint analysis of shear wave velocity from SH-wave refraction and MASW techniques for SPT-N estimation”, 2014; Songklanakarin Journal of Science and Technology, vol 36, Issue 3, pp.333-334.
- 4) K. Saetang, S. Yordkayhun and K. Wattanasen, “Detection of hidden faults beneath Khlong Marui fault zone using seismic reflection and 2-D electrical imaging”, 2014; ScienceAsia, vol 40, Issue 6, pp.436-443.
- 5) S. Yordkayhun and J. Na Suwan, “A university-developed seismic source for shallow seismic surveys”, 2012; Journal of Applied Geophysics, vol 82, pp.110-118.

6. Asst. Prof. Dr. KAMHAENG WATTANASEN

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ผลงานทางวิชาการ

- 1) S. Yordkayhun, P. Sreesuwan, K. Wattanasen, “Characterization of Khlong Marui fault zone using seismic reflection and shear-wave velocity profiles: Case study in Khiriratnikhom District, Surat Thani Province, Southern Thailand”, 2016; Chiang Mai Journal of Science, pp. 1279-1291.
- 2) K. Saetang, S. Yordkayhun and K. Wattanasen, “Detection of hidden faults beneath Khlong Marui fault zone using seismic reflection and 2-D electrical imaging”, 2014; ScienceAsia; Saetang, pp.436-443.
- 3) Sommai, T., Wattanasen, K. and Yodkayhun, S. 2012. Application of geophysical methods for characterizing a selected solid waste disposal site in Songkhla province. In: Paper presented at the 6th International conference on Applied Geophysics, Felix River Kwai Resort, Kanchanaburi, Thailand, 15-17 November 2012, pp.31-35.

กลุ่มวิชาฟิสิกส์นิวเคลียร์

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Ph.D. (Nuclear Physics), Kent State University, U.S.A., 2528

ผลงานทางวิชาการ

- 1) T. Chittrakarn, Y. Tirawanichakul and S.Sirijarukul, “Plasma induced graft polymerization of hydrophilic monomer on polysulfone gas separation membrane surfaces”, 2016; Surface & Coatings Technology, 296:157-163.
- 2) C. Yuenyao, Y. Tirawanichkul, S. Sirijarukul and T. Chittrakarn, “Polysulfone Gas Separation Membrane: Effect of Evaporation Time on Morphology and Mechanical Strength”, 2015; Siam Physics Congress 2015 (SPC2015), Krabi, Thailand, 20-22 May 2015.
- 3) S. Ruangdit and T. Chittrakarn, “Postharvest longevity of Longkong fruits by waxing with Chitosan solution and incorporated with gamma irradiation”, 2015; Siam Physics Congress 2015 (SPC2015), Krabi, Thailand, 20-22 May 2015.
- 4) P. Maichan and T. Chittrakarn, “Determination of Arsenic in Soil, Vegetables and Hair Samples in KhoaRonNa-Suangchan subdistrict area , Amphoe Ronpibul, Nakorn Si Thammarat Province, by

Neutron Activation Analysis Technique”, 2015; Siam Physics Congress 2015 (SPC2015), Krabi, Thailand, 20-22 May 2015.

5) S. Konruang, S. Sirijarukul, P. Wanichapichart, L. Yu and T. Chittrakarn, “Ultraviolet ray treatment of polysulfone membranes on the O₂/N₂ and CO₂/CH₄ separation performance”, 2015; Journal of Applied Polymer Science, Vol.132. Issue 25, July5 2015.

6) C. Yuenyao, Y. Tirawanichkul and T. Chittrakarn, “Symmetric polysulfone gas separation membranes treated by low pressure DC glow discharge plasmas”, 2015; Journal of Applied Polymer Science, Vol.132, Issue 24, June 20 2015.

7) S. Konruang, T. Chittrakarn and S. Sirijarukul, “Surface Modification of Asymmetric Polysulfone Membrane by UV Irradiation”, 2014; Jurnal Teknologi (Sciences and Engineering), vol 70, Issue 2, pp.55-60.

8) S. Madlee¹, T. Chittrakarn¹, D. Ruffolo and A. Sáiz, “Calibration of Bare Counter to Neutron Monitor Count Ratio Using Monte Carlo Simulation”, 2013; The 1st COSPAR Symposium, Bangkok, Thailand, 11-15 November 2013.

9) C. Yuenyao, T. Chittrakarn, Y. Tirawanichkul, P. Saeung and W. Taweepreda, “The Effects of Argon and Oxygen Plasma on the Surface Morphology of Polysulfone Membrane”, 2012; Thai Journal of Physics, Series 8, pp.41-44.

10) C. Yuenyao, T. Chittrakarn, W. Taweepreda, P. Saeung, and Y. Tirawanichkul, “Surface Modification of Asymmetric Polysulfone/Polyethylene Glycol (PSF/PEG) Membrane by DC Glow Discharge Plasma”, 2012; Intl. conf. on Membrane Science and Technology, MST2012: Sustainable Energy and Environment, Bangkok, Thailand, 22 – 24 August 2012.

11) S. Wunsri, P. Kaewtubtim, T. Chittrakarn and S. Kongsang, “Device for Optimal Harvesting of Longkong and Oil Palm Fruit using of Physics Technique”, 2012; 2nd Benjamit National Academic Conference : Knowledge Integration for Sustainable Development, The University of North Bangkok, 29 May 2012.

12) C. Yuenyao, T. Chittrakarn, W. Taweepreda, P. Saeung, and Y. Tirawanichkul, “Surface Modification of Asymmetric Polysulfone/Polyethylene Glycol (PSF/PEG) Membrane by DC Glow Discharge Plasma”, 2012; Intl. conf. on Membrane Science and Technology, MST2012: Sustainable Energy and Environment, Bangkok, Thailand, 22-23 August 2012.

8. Dr. SUKSAWAT SIRIJARUKUL

Ph.D. (Materials), University of Montpellier 2, France, 2550

ผลงานทางวิชาการ

1) T. Chittrakarn, Y. Tirawanichkul and S.Sirijarukul, “Plasma induced graft polymerization of hydrophilic monomer on polysulfone gas separation membrane surfaces”, 2016; Surface & Coatings Technology, 296:157-163.

2) S. Konruang, S. Sirijarukul, P. Wanichapichart, L. Yu and T. Chittrakarn, “Ultraviolet-ray treatment of polysulfone membranes on the O₂/N₂ and CO₂/CH₄ separation performance”, 2015; Journal of Applied Polymer Science, vol 132, Issue 25, Article number 42074.

3) S. Konruang, T. Chittrakarn and S. Sirijarukul, "Surface modification of asymmetric polysulfone membrane by UV irradiation", 2014; Jurnal Teknologi (Sciences and Engineering), vol 70, Issue 2, pp.55-60.

กลุ่มวิชาวัสดุฉลาดและนาโนเทคโนโลยี

9. Assoc. Prof. Dr. NANTAKAN MUENSIT

Ph.D. (Materials Physics), Macquarie University, Australia, 2541

ผลงานทางวิชาการ

- 1) D. Jaah, C. Putson, and N. Muensit, "Deformation on segment-structure of electrostrictive polyurethane/polyaniline blends", 2015; Polymer (United Kingdom), vol 61, pp.123-130.
- 2) B. Jaleh, N. Gavar, P. Fakhri, N. Muensit, and S.M. Taheri, "Characteristics of PVDF membranes irradiated by electron beam", 2015; Membranes, vol 5, Issue 1, pp.1-10.
- 3) K. Koyvanich, P. Smithmaitrie, and N. Muensit, "Perspective microscale piezoelectric harvester for converting flow energy in water way", 2015; Advanced Materials Letters, vol 6, Issue 6, pp.538-543.
- 4) W. Tangwatanakul, C. Sirisathitkul, N. Muensit, T. Monnor, and R. Yimnirun, "Synchrotron XANES spectra of superparamagnetic iron oxides synthesized by ultrasonic-assisted co-precipitation", 2014; Applied Mechanics and Materials, vol 481, pp.36-39.
- 5) D. Jaah, C. Putson, and N. Muensit, "Electrostriction of natural rubber latex/carbon black Nanocomposites", 2014; Advanced Materials Research, vol 844, pp.259-262.
- 6) C. Putson, D. Jaah, and N. Muensit, "Compliant natural rubber latex electrodes for electrostrictive polyurethane actuation", 2014; Advanced Materials Research, vol 844, pp.433-436.
- 7) D. Jaah, C. Putson, and N. Muensit, "Contribution of electrostriction in polyurethane/polyaniline blends", 2014; Advanced Materials Research, vol 1025-1026, pp.697-702.
- 8) P. van Dommelen, and N. Muensit, "Modulation intersubband absorption and the hot electron mechanism in heterostructure of $Al_1-yIn_yN/Ga_{1-x}In_xN$ ", 2014; Chinese Journal of Physics, pp.1-9.
- 9) N. Tohluabaji, and N. Muensit, "Piezoelectric polyvinylidene fluoride thin film as monitoring sensor", 2013; BMEiCON 2013 - 6th Biomedical Engineering International Conference
- 10) P. Sukwisute, K. Koyvanitch, C. Putson, and N. Muensit, "Electrostrictive energy conversion of polyurethane with different hard segment aggregations", 2013; Advances in Materials Science and Engineering, vol 2013(2013), Article ID 318185, 8 pages.
- 11) P. Amornpitoksuk, S. Suwanboon, S. Sangkanu, A. Sukhoom, and N. Muensit, "Morphology, photocatalytic and antibacterial activities of radial spherical ZnO nanorods controlled with a diblock copolymer", 2012; Superlattices and Microstructures, vol 51, Issue 1, pp.103-113.
- 12) P. Amornpitoksuk, S. Suwanboon, S. Sangkanu, A. Sukhoom, N. Muensit, and J. Baltrusaitis, "Synthesis, characterization, photocatalytic and antibacterial activities of Ag-doped ZnO powders modified with a diblock copolymer", 2012; Powder Technology, vol 219, pp.158-164.
- 13) P. Bomlai, N. Muensit, and S.J. Milne, "Structural and electrical properties of $(1-x)(Na_{0.465}K_{0.465}Li_{0.07})NbO_3-xCaTiO_3$ lead-free piezoelectric ceramics with high Curie temperature", 2012; Procedia Engineering (32), pp.814-820.

- 14) P. Smithmaitrie, P. Suybangdum, P. Laoratanakul, and N. Muensit, "Design and performance testing of an ultrasonic linear motor with dual piezoelectric actuators", 2012; IEEE transactions on ultrasonics, ferroelectrics and frequency control, vol 59, No.5, pp.1033-1042.
- 15) C. Putson, D.J Jaoh, N. Meauma, and N. Muensit, "Effect of Micro- and Nano-Particle Fillers at Low Percolation Threshold on the Dielectric and Mechanical Properties of Polyurethane/Copper Composites", 2012; Journal of Inorganic and Organometallic Polymers and Materials 22(6), pp.1300-1307.
- 16) C. Sirisathitkul, P. Jantaratana and N. Muensit, "Dielectric and magnetic properties of polyvinylidene fluoride polymer composites highly loaded with nickel", 2012; Science and engineering of composite materials 19(3), pp.255-258.
- 17) V. Yordsri, S. Kijamnajsuk, N. Binhayeeniyi and N. Muensit, "Microstructural investigation of sol-gel BZTpowders", 2012; Materials Letters 82, pp.205-207.
- 18) B. Jaleh, P. Fakhri, M. Noroozi, and N. Muensit, "Influence of Copper Nanoparticles Concentration on the Properties of Poly(vinylidene fluoride)/Cu Nanoparticles Nanocomposite Films", 2012; Journal of inorganic and organometallic polymers and materials 22(4), pp.878-885.
- 19) M. Lallart, C. Richard, P. Sukwisut, L. Petit, D. Guyomar, and N. Muensit, "Electrostrictive bending actuators: Modeling and experimental investigation", 2012; Sensors and actuators a-physical 179, pp.169-177.
- 20) P. Bomlai, N. Muensit and S.J. Miline, "Structural and electrical properties of Na_{0.47}K_{0.47}Li_{0.06}NbO₃ lead-free piezoelectric ceramics modified by AgSbO₃", 2012; Ceramics International, 32:814-20.

10. Asst. Prof. Dr. CHATCHAI PUTSON

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ผลงานทางวิชาการ

- 1) C. Putson, D. Jaoh and N. Muensit, "Large electromechanical strain at low electric field of modified polyurethane composites for flexible acutators", 2016; Materials Letters, vol 172, pp.27-31.
- 2) D. Jaoh, C. Putson and N. Muensit, "Enhanced strain response and energy harvesting capabilities of electrostrictive polyurethane composites filled with conducting polyaniline", 2016; Composites Science and Technology, vol 122, pp.97-103.
- 3) D. Jaoh, C. Putson and N. Muensit, "Deformation on segment-structure of electrostrictive polyurethane/polyaniline blends", 2015; Polymer, vol 61, pp.123-130.
- 4) D. Jaoh, C. Putson and N. Muensit, "Electrostriction of natural rubber latex/carbon black Nanocomposites", 2014; Advanced Materials Research, vol 844, pp.259-262.
- 5) C. Putson, D. Jaoh and N. Muensit, "Compliant natural rubber latex electrodes for electrostrictive polyurethane actuation", 2014; Advanced Materials Research, vol 844, pp.433-436.
- 6) D. Jaoh, C. Putson and N. Muensit, "Contribution of electrostriction in polyurethane/polyaniline blends", 2014; Advanced Materials Research, vol 1025-1026, pp. 697-702.

- 7) P. Sukwisute, K. Koyvanitch, C. Putson and N. Muensit, "Electrostrictive energy conversion of polyurethane with different hard segment aggregations", 2013; Advances in Materials Science and Engineering, vol 2013, article number 318185.
- 8) C. Putson, D. Jaah and N. Muensit, "Interface polarization effect on dielectric and electrical properties of polyurethane (PU)/polyaniline (PANI) polymer composites", 2013; Advanced Materials Research, vol 170, pp.275-278.
- 9) C. Putson, D. Jaah, N. Meauma and N. Muensit, "Effect of Micro- and Nano-Particle Fillers at Low Percolation Threshold on the Dielectric and Mechanical Properties of Polyurethane/Copper Composites", 2013; Journal of Inorganic and Organometallic Polymers and Materials, vol 22, Issue 6, pp.1300-1307.
- 10) D. Guyomar, L. Lebrun, P.-J. Cottinet, C. Putson, K. Yuse, M. Kanda and Y.Nishi, "The compressive electrical field electrostrictive coefficient M_{33} of electroactive polymer composites and its saturation versus electrical field, polymer thickness, frequency, and fillers", 2012; Polymers for Advanced Technologies, vol 23, Issue 6, pp.946-950.

11. Asst. Prof. Dr. PAPHAVEE VAN DOMMELEN

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ผลงานทางวิชาการ

- 1) P. van Dommelen "Drift velocity and the rate of carrier scattering energy in Sb-containing heterostructure lasers" 2016; Superlattices and Microstructures 98, pp.140-147.
- 2) P. van Dommelen and N. Muensit, "Modulation Intersubband Absorption and the Hot Electron Mechanism in the Heterostructure of $Al_{1-y}In_yN/Ga_{1-x}In_xN$.", 2014; Chinese Journal of Physics 52, pp.1825-1833.
- 3) P. van Dommelen and N. Muensit, "Charge Carrier Heating Mechanism in a Wide Optical Waveguide structure of Tunnel-Coupled Quantum Wells of $GaAs/Al_xGa_{1-x}As$.", , 2014; International Conference on Mathematics and Physics (ICMP 2014). Chennai, India, March 17-18, 2014.
- 4) P. Thumrongsilapa, L.E.Vorobjev, V.Yu.Panevin, et.al. "Hot Charge Carriers Phenomena in Doped and Undoped Nanostructures with Quantum Wells", 2012; RSU Research Conference 2012. Bangkok Thailand, April 2012.

12. Dr. CHALONGRAT DAENGGAM

Ph.D. (Physics), Virginia Polytechnic Institute and state University, U.S.A., 2555

ผลงานทางวิชาการ

- 1) A. Ritboon, C. Daengngam and T. Pengpan, "Photon wave function formalism for analysis of Mach-Zehnder interferometer and sum-frequency generation", 2016; Annals of Physics 371, pp.53-66.
- 2) I. Kandas, N. Shehata, C. Daengngam, and I. Ashry, Xu, Y, "Measurement of chromophores density using high Q -factor silica microspheres", 2016; Journal of Nanophotonics 10(1), Article number 016012.

- 3) C. Daengngam, I. Kandas, I. Ashry, A. Wang, J.R. Heflin and colleagues, “Fabrication and characterization of periodically patterned silica fiber structures for enhanced second-order nonlinearity”, 2015; Optics Express, vol 23, Issue 6, pp.8113-8127.
- 4) I. Kandas, B. Zhang, C. Daengngam, I. Ashry, C.-Y. Jao and colleagues, “High quality factor silica microspheres functionalized with self-assembled nanomaterials”, 2013; Optics Express, vol 21, Issue 18, pp.20601-20610.
- 5) C. Daengngam, S.B. Thorpe, X. Guo, S.V. Stoianov, W.L. Santos and colleagues, “High photoreactivity of o-nitrobenzyl ligands on gold”, 2013; Journal of Physical Chemistry C, pp.14165-14175.
- 6) I. Ashry, C. Daengngam, I. Kandas, J. Heflin, H. Robinson and colleagues, “Self-assembled nanomaterials for nonlinear fiber optics and tunable plasmonics”, 2013; Proceedings of SPIE - The International Society for Optical Engineering
- 7) I. Ashry, B. Zhang, S.V. Stoianov, C. Daengngam, J.R. Heflin and colleagues, “Probing the photonic density of states using layer-by-layer self-assembly”, 2012; Optics Letters, vol 37, Issue 11, pp.1835-1837.
- 8) S.V. Stoianov, C. Daengngam, M. Borhani, Y. Zhang, J.R. Morris and colleagues, “Amine-rich polyelectrolyte multilayers for patterned surface fixation of nanostructures”, 2012; ACS Applied Materials and Interfaces, pp.2348-2357.
- 9) H.D. Robinson, R. Montazami, C. Daengngam, Z. Zuo, W. Dong and colleagues, “Optoelectronic Materials and Devices Incorporating Polyelectrolyte Multilayers”, 2012; Multilayer Thin Films: Sequential Assembly of Nanocomposite Materials: Second Edition

กลุ่มวิชาเทคโนโลยีพลาสมาและพลังงาน

13. Assoc. Prof. Dr. YUTTHANA TIRAWANICHAKUL

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ผลงานทางวิชาการ

- 1) T. Chittrakarn, Y. Tirawanichakul and S. Sirijarukul, “Plasma induced graft polymerization of hydrophilic monomer on polysulfone gas separation membrane surfaces”, 2016; Surface & Coatings Technology, pp.157-163.
- 2) C. Yuenyao, Y. Tirawanichakul, T. Chittrakarn, “Asymmetric polysulfone gas separation membranes treated by low pressure DC glow discharge plasmas”, 2015; Journal of Applied Polymer Science, 132 (24), paper no. 42116.
- 3) P. Tekasakul, Y. Tirawanichakul, S. Tirawanichakul and R. Dechchanchaiwong, “Three-Dimensional Numerical Modeling of Heat and Moisture Transfer in Natural Rubber Sheet Drying Process”, 2015; Drying Tech.,pp.1124-1137.
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