

Curriculum Vitae

Name: PiyananThanomchat, M.Sc
Position: Researcher Professional Level
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EDUCATION

2004	M.Sc (Botany), Kasetsart University, Thailand
1999	B.Sc (Biology) Srinakharinwirot University, Thailand

PROFESSIONAL EXPERIENCE

2011 - present	Scientific Equipment and Research Division, Kasetsart University, Thailand
2004 - 2011	Faculty of Agro-Industry, Kasetsart University, Thailand

AREA OF EXPERTISE

- Plant Physiology
- Transmission Electron Microscope

TRAINING

2013	Training in Operation of SU8020 Scanning Electron Microscope from April 22-26, 2013, Global Application Center, Hitachi High-Technologies Corporation, Japan
2013	Training in Operation of HT7700 Transmission Electron Microscope from January 15-18, 2013, Global Application Center, Hitachi High-Technologies Corporation, Japan

RESEARCH GRANT

As Head of Project:

2017	Technique of Ultra Thin Film Preparation for Transmission Electron
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Microscope, Research and Development Institute, Kasetsart University Grant

2011 Techniques of Chemical Preparation for Scanning Electron Microscope of Plant, Research and Development Institute, Kasetsart University Grant

As Co-Researcher

2017-2018 Anatomy, Properties and Utilized Evaluation of Woods, Research and Development Institute, Kasetsart University Grant

2017 Potential of leaf waste from lemongrass (*Cymbopogon citratus* Stapf.), citronella (*C. nardus* Rendle.), and tamarind (*Tamarind indica* L.) husk as weed control agent, Research and Development Institute, Kasetsart University Grant

2016 Product Development of Thai Herb Seasoned Tree Nuts and Utilization of Nonthermal Plasma Technology for Seasoning Powder Coating), Agricultural Research Development Agency (Public Organization) Grant

2015 Reducing Osmium Tetroxide Usage in Preparing Plant Samples for Scanning Electron Microscope Analysis, Research and Development Institute, Kasetsart University Grant

2012-2013 Induction and selection of salt tolerant polyploidy vetiver (*Chrysopogon* spp.) and cryopreservation, Office of the Royal Development Projects Boards

2011 Anatomy and Ultrastructural Changes in Cell Wall of Mangosteen Fruit with The Incidence of Translucent/Gamboges disorders, Center for Agricultural Biotechnology, Kasetsart University

2010-2011 The Study on Pollens Morphology of Vetiver Grass to Support the preparation of Vetiver Grass Species Database, Office of the Royal Development Projects Boards

2010 Comparative Study on Pollen and Anatomy of *Amomum* some species for Thai Herbs Commercial interests, Research and Development Institute, Kasetsart University Grant

PUBLICATIONS

1. **PiyananThanomchat**, Yupadee Paopun and ChimongkolKongpakdee. 2011. Structural Investigation of Trichomes and Stomata of *Plectranthus amboinicus* (Lour.) Spreng. Journal of Microscopy Society of Thailand .Vol. 4 (2): 65-69.
2. Yupadee Paopun, Patcharee Umrung, **PiyananThanomchat** and Chaimongkol Kongpakdee. 2011. Epidermal Surface and Leaf Anatomy of *Thunbergia laurifolia*Lindl. Journal of Microscopy Society of Thailand.Vol. 4 (2): 61-64.
3. **Piyanan Thanomchat** and Yupadee Paopun. 2013. The Structure of Leaf Trichomes and Stomata of *Ocimum basilicum* Linn. Journal of Microscopy Society of Thailand Vol. 27 (1): 46-49.
4. Yupadee Paopun, Patcharee Umrung and **Piyanan Thanomchat**. 2013. Cell Wall Structure of Translucent Cells of Mangosteen Fruit. In Proceedings of The 7th International Symposium on Mineral Nutrition of Fruit Crops. Acta Hort. No.984. pp.421-425.
5. **Piyanan Thanomchat** and Yupadee Paopun. 2014. Wood Anatomy of *Bauhinia purpuria* L. Journal of Microscopy Society of Thailand. Vol. 28. pp.40-42.
6. Yupadee Paopun and **Piyanan Thanomchat**. 2014. Pollen and Trichome of a Medicinal Plant *Physalis angulate* L. Journal of Microscopy Society of Thailand. Vol. 28. pp.36-39.
7. **Piyanan Thanomchat** and Yupadee Paopun. 2015. Plant Samples using Chemical Preparation Techniques for the Scanning Electron Microscope. In Proceeding of the 8th Asean Microscopy Conference and the 32th Annual Conference and General Meeting of the Microscopy Society of Thailand. pp. 286-289.
8. Yupadee Paopun and **Piyanan Thanomchat**. 2015. Nanocrystals of Calcium Oxalate in Sweet Basil Leaves. In Proceeding of the 8th Asean Microscopy Conference and the 32th Annual Conference and General Meeting of the Microscopy Society of Thailand. pp.271-276.
9. Y. Paopun **P. Thanomchat** and S. Seraphin. 2016. Prismatic and Needle-like Crystals of Calcium Oxalate in Thai Herbs . In Siriraj Medical Journal. Vol. 68 Num. 3 (Supplement 1). pp. s34-35.

10. Yupadee Paopun and **Piyanan Thanomchat**. 2017. Comparison of Freeze Drying versus Chemical Fixation Technique for Scanning Electron Microscope of Succulent and Aquatic Plant Leaves. *Microsc. In Microanal. Res.*, 1(1): 28-32.
11. Yupadee Paopun and **Piyanan Thanomchat**. 2018. Pollen Characteristic of Some Species in the Genus *Bacopa*. In *Microsc.Microanal.Res* 31(1):24-28.
12. **Piyanan Thanomchat** and Yupadee Paopun. 2018. Preparation of Suitable Ultrathin Formvar Film for Transmission Electron Microscopic Technique. In *Microsc.Microanal.Res* 31(1):34-38.
13. **Piyanan Thanomchat** and Yupadee Paopun. Reducing osmium tetroxide usage in preparing *Ocimum gratissimum* L. leaf surfaces for scanning electron microscope analysis. 2019. Life Sciences, Medicine and Biomedicine, Vol 3 No 7 (2019) 53 Special Issue for the 5th International Anatomical Sciences & Cell Biology Conference, 24-26 July 2018 pp. 47
14. Yupadee Paopun and **Piyanan Thanomchat**. 2019 Leaf surface and pollen morphology of a medicinal herb *Limnophila heterophylla* (Roxb.) Benth. Life Sciences, Medicine and Biomedicine, Vol 3 No 7 (2019) 53 Special Issue for the 5th International Anatomical Sciences & Cell Biology Conference, 24-26 July 2018 pp. 50
15. **Piyanan Thanomchat**, Yupadee Paopun and Prasart Kermanee. Character and Property Evaluation of Sacred Figure Tree (*Ficus religiosa* L.: Moraceae) Wood. 2019. *Microsc. Microanal. Res.* 32(1): 30-33.
16. Yupadee Paopun, **Piyanan Thanomchat**, Dararat Changjan and Rommanee Charoensub . Techniques for Preparing Fragile Pollen of *Curcuma supraneeana* W.J. Kress & K.Larsen Škornick. for Morphological Observation. 2019. *Microsc. Microanal. Res.* 32(1): 41-44.

CONFERENCE PRESENTATIONS

1. Yupadee Paopun, Patcharee Umrung, **PiyananThanomchat** and Sumitra Poovarodom. 2012. Cell Wall Structure of Translucent Cells of Mangosteen Fruit. In Proceedings of The 7th International Symposium on Mineral Nutrition of Fruit Crops. 19-25 May, Chanthaburi, Thailand.
2. **Piyanan Thanomchat**, Yupadee Paopun and Arucha Sardsee. 2012. Structural Investigation of Trichomes and Stomata of *Ocimum gratissimum* L. In Conference Proceedings APMC10-ICONN2012-ACMM22. 6-9 February, Perth, Western Australia.
3. Yupadee Paopun and **Piyanan Thanomchat**. 2012. Morphological Identification of *Peltrophorum* Pollen Using SEM Technique. In Conference Proceedings APMC10-ICONN2012-ACMM22. 6-9 February, Perth, Western Australia.
4. **Piyanan Thanomchat** and Yupadee Paopun. 2012. Inveatigations Stomata and Trichomes on Surface Leaves of *Asystasia gangetica* (L.)T. Anderson. In Proceedings of the 29th Annual conference Microscopy Society of Thailand. 30 January-1 February, Cha-am, Phetchaburi, Thailand.
5. Yupadee Paopun, **Piyanan Thanomchat** and Patcharee Umrung. 2012. Anatomical Studies of *Amomum villosum* Lour. In Proceedings of the 29th Annual conference Microscopy Society of Thailand. 30 January-1 February, Cha-am, Phetchaburi, Thailand.
6. **Piyanan Thanomchat** and Yupadee Paopun. 2013. Leaf Trichomes and Stomata of *Ocimum basilicum* Linn. In Proceedings of the 30th Annual conference Microscopy Society of Thailand. 23-25 January, Chanthaburi, Thailand. pp.69.
7. Yupadee Paopun and **Piyanan Thanomchat**. 2013. Pollen Morphology of the Genus *Ocimum* in Thailand. In Proceedings of the 30th Annual conference Microscopy Society of Thailand. 23-25 January, Maneechan resort, Chanthaburi, Thailand. pp.68.
8. **Piyanan Thanomchat** and Yupadee Paopun. 2014. Wood Anatomy of *Bauhinia purpurea* L. In Proceedings of the 31st Annual conference Microscopy Society of Thailand. 29-31 January, Khao Yai, Nakhonratchasima, Thailand.
9. Yupadee Paopun and **Piyanan Thanomchat**. 2014. Pollen and Trichome of a Medicinal Plant *Physalis angulate* L. In Proceedings of the 31st Annual conference Microscopy Society of Thailand. 29-31 January, Khao Yai, Nakhonratchasima, Thailand.

10. **Piyanan Thanomchat** and Yupadee Paopun. 2015. Plant Samples using Chemical Preparation Techniques for the Scanning Electron Microscope. In Proceeding of the 8th Asean Microscopy Conference and the 32th Annual Conference and General Meeting of the Microscopy Society of Thailand. 28-30 January, Nakhon Pathom, Thailand. pp.286-289.
11. Yupadee Paopun and **Piyanan Thanomchat**. 2015. Nanocrystals of Calcium Oxalate in Sweet Basil Leaves. In Proceeding of the 8th Asean Microscopy Conference and the 32th Annual Conference and General Meeting of the Microscopy Society of Thailand. 28-30 January, Nakhon Pathom, Thailand. pp.271-276.
12. **P. Thanomchat** and Y. Paopun. 2016. A Comparison between the Two Techniques for Preparing Lemon Grass leaf for Scanning Electron Microscope. In APMC11/MST33/AAT39 Conference. 23-27 May, Phuket, Thailand. pp. 310.
13. Y. Paopun **P. Thanomchat** and S. Seraphin. 2016. Prismatic and Needle-like Crystals of Calcium Oxalate in Thai Herbs In APMC11/MST33/AAT39 Conference. 23-27 May, Phuket, Thailand.
14. Winai Somprasong Yupadee Paopun and **Piyanan Thanomchat**. 2016. Pollen Types of the Subtribe Andrographinae, Tribe Ruellieae, Family Acanthaceae in Thailand. In 11th Asia-Pacific Microscopy Conference 33rd Microscopy Society 39th Anatomy Association-of Thailand Annual Conference. 23-27 May, Phuket, Thailand. pp. 302.
15. Yupadee Paopun and **Piyanan Thanomchat**. 2017. Comparison of Freeze Drying versus Chemical Fixation Technique for Scanning Electron Microscope of Succulent and Aquatic Plant Leaves. In Proceedings of the 34th Annual conference of the Microscopy Society of Thailand, Bangkok, Thailand. pp.127-128.
16. **Piyanan Thanomchat** and Yupadee Paopun. 2017. Comparison of Freeze Dry and Chemical Fixation of Leaf Tissues using Scanning Electron Microscope. In Proceedings of the 34th Annual conference of the Microscopy Society of Thailand, Bangkok, Thailand. pp.129.

17. **Piyanan Thanomchat** and Yupadee Paopun. 2018. Preparation of Suitable Ultrathin Formvar Film for Transmission Electron Microscopic Technique. In The 35th International Conference of the Microscopy Society of Thailand. ChiangMai, Thailand. pp.116.
18. Yupadee Paopun and **Piyanan Thanomchat**. 2018. Pollen Characteristic of Some Species in the Genus *Bacopa*. The 35th International Conference of the Microscopy Society of Thailand. ChiangMai, Thailand. pp.171-172.
19. **Piyanan Thanomchat** and Yupadee Paopun. 2018. Reducing Osmium Tetroxide Usage in Preparing *Ocimum gratissimum* L. Leaf Surface for Scanning Electron Microscope Analysis. The 5th International Anatomical Sciences and Cell Biology Conference. 24th-26th July, Berjaya University College, Kuala Lumpur, Malaysia. pp.31.
20. Yupadee Paopun and **Piyanan Thanomchat**. 2018. Leaf Surface and Pollen Morphology of a Medicinal Herb *Limnophila heterophylla* (Roxb.) Benth. The 5th International Anatomical Sciences and Cell Biology Conference. 24th-26th July, Berjaya University College, Kuala Lumpur, Malaysia. pp.28.
21. Yupadee Paopun, **Piyanan Thanomchat**, Dararat Changjan and Rommanee Chaoensub. 2019. Preparation Techniques of *Smithatris supraneanae* W.J. Kress & K.Larsen Fragile Pollens for Morphology Analysis, The 36th International Conference of the Microscopy Society of Thailand, 26th- 29th March, Bangkok, Thailand. pp. 167-168.
22. **Piyanan Thanomchat** Yupadee Paopun and Prasart Kemanee. 2019. Character and Property Evaluation of Sacred Fig Tree (*Ficus religiosa* L. : Moraceae) Wood, ในการประชุมวิชาการ the 36th International Conference of the Microscopy Society of Thailand, 26th- 29th March, Bangkok, Thailand. pp. 169-170
23. **Piyanan Thanomchat**, Yupadee Paopun and Prasart Kermanee. 2019. Developmental Anatomy of Flower and Seed of Sacred Lotus (*Nelumbo nucifera* Gaertn.) The 13th

Botanical Conference of Thailand, 14-15 June, Faculty of Science Srinakarinwirot University, Bangkok, Thailand. pp.226-227

24. Yupadee Paopun, **Piyanan Thanomchat** and Prasart Kermanee. 2019. Developmental Anatomy of Flower, Fruit and Fiber of Kapok (*Ceiba pentandra* (L.) Gaertn.) (Malvaceae) The 13th Botanical Conference of Thailand, 14-15 June, Faculty of Science Srinakarinwirot University, Bangkok, Thailand. pp.228-229.
25. **Piyanan Thanomchat**, Yupadee Paopun and Prasart Kermanee. 2019. **Anatomical** Character of (*Schumannianthus dichotomus* (Roxb.) Gagnep.) (Maranthaceae) Grown in Drought Condition. The 13th Botanical Conference of Thailand, 14-15 June, Faculty of Science Srinakarinwirot University, Bangkok, Thailand. pp.230-231.

AWARD

- 1.Third Prize Poster Presentation Award: Bioscience

YupadeePaopun, PatchareeUmrung and **PiyananThanomchat**. 2011. Morphological Identification of *Thunbergia* Pollen Using SEM Technique.The 28 th Annual Conference on Microscopy. 5-7 January, 2011.Chiang Rai, Thailand.

2. Second Prize OM Micrograph-Biological Science.

Piyanan Thanomchat. 2013. The miracle of leaf. The 30th Annual conference Microscopy Society of Thailand. 23-25 January, Maneechan resort, Chanthaburi, Thailand.

3. First Prize Poster Presentation : Biological Science.

Piyanan Thanomchat and Yupadee Paopun. 2014. Wood Anatomy of *Bauhinia purpurea* L. The 31st Annual conference Microscopy Society of Thailand. 29-31 January, Khao Yai, Nakhonratchasima, Thailand.

4.Third Prize Poster Presentation

Yupadee Paopun, **Piyanan Thanomchat** and Prasart Kermanee. 2019. Developmental Anatomy of Flower, Fruit and Fiber of Kapok (*Ceiba pentandra* (L.) Gaertn.) (Malvaceae)
The 13th Botanical Conference of Thailand, 14-15 June, Faculty of Science Srinakarinwirot University, Bangkok, Thailand.