

## Curriculum Vitae

**Name:** Siriwan Soiklom  
**Position:** Researcher, Senior Professional Level  
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### EDUCATION

1997 M.Sc (Biochemistry), Chulalongkorn University, Thailand  
1994 B.Sc (Biochemistry and biochemical technology) Chiang Mai University,  
Thailand

### TRAINING

2009 Workshop on Preparative column chromatography, Faculty of Science,  
Chulalongkorn University  
2008 Workshop on Biosynthesis of Natural Product, Department of Plant Pathology,  
Faculty of Agriculture, Kasetsart University

### PROFESSIONAL EXPERIENCE

2000 - present Scientific Equipment and Research Division, Kasetsart University, Thailand

### AREA OF EXPERTISE

- Research and analysis for the extraction of active ingredients in herbs, chemistry and plant hormone analysis, chromatography

### RESEARCH GRANT

#### *As Head of Group Project:*

2023 The improvement of utilization from pigmented rice for health food: Risk  
assessment and stable bioactive compounds production, Kasetsart University  
Grant

***As Head of Project:***

- 2024 Innovative of biopolymers from *Spirogyra* spp. and its bioactive compounds for food and environmental industry applications, Kasetsart University Grant
- 2024 Innovative extraction of high active ingredients from *Andrographis paniculate*, *Centella asiatica*, *Curcuma longa* and removal of heavy metals by novel low cost bio-adsorbent materials, Agricultural Research Development Agency Grant
- 2023 Innovative of stable bioactive compounds production from pigmented rice, Kasetsart University Grant
- 2013 Utilization of biomass waste materials after the ark of Tung oil tree, Kasetsart University Grant
- 2010 Incidence of Mycotoxins Contamination in Shrimp Feed and Raw Materials, Kasetsart University Grant
- 2005 Development of the Laboratory for Analysis of Chemical Constituents in Herbs, Kasetsart University Grant

***As Co-Researcher***

- 2024 A novel adsorbent from edible freshwater algae waste from the active compounds extraction process and its application to agricultural products, Kasetsart University Grant
- 2024 Prebiotic Potential of Freshwater Algae (*Spirogyra* spp.) Polysaccharides for Synbiotic Beads, Kasetsart University Grant
- 2022 Development of prediction methods from color parameter for active components and antioxidant activity in Thai medicinal herb, Kasetsart University Grant
- 2021 Development of Laboratories Management System to Laboratory Safety based on TIS 2677-2558 for Support Agriculture and Food Standard, Kasetsart University Grant
- 2019 Production of solid fuel briquette from coffee bean waste
- 2018 Extraction of collagen-like protein from straw mushroom, Kasetsart University Grant

- 2017 Phytochemicals and antioxidant properties of rice are colored in the northeastern part of Thailand, Kasetsart University Grant
- 2017 Evaluation of plant growth promoting potential of Organochlorine Pesticide resistant endophytic and soil fungi, Kasetsart University Grant
- 2017 The relationship between phenolic compounds, polyphenols, color and antioxidant activity of wood vinegar, Kasetsart University Grant
- 2015-2016 The efficiency of wood vinegar on plant growth in tissue culture
- 2015 The factors in the production process and storage conditions affecting the quantity and chemical composition of wood vinegar, Kasetsart University Grant
- 2014-2015 Phytoextraction of heavy metal from dithiocarbamate fungicides contaminated soil., Kasetsart University Grant
- 2014-2015 Bioremediation of Some Organochlorine Pesticide Contaminated in Environment by Soil Fungi: Isolation and Optimization, Kasetsart University Grant
- 2014-2015 Potential for phytoremediation of organochlorine in environment with *Aeschynomene spp*, Kasetsart University Grant
- 2014 Potential assessment of haloalkaliphilic bacteria isolated from alkaline soil in Kanchanaburi research station in plant growth promoting bacteria, Kasetsart University Grant
- 2012-2013 Cassava breeding for low cyanogen content and high productivity used as food industrial supply, National Research Council of Thailand Grant.
- 2012 Performance in light of the Calathea under management and under different light intensity to produce the raw wood is fixed, Kasetsart University Grant
- 2012 Residue analysis Uniconazole P in Mango with a substance continuously for 3 years Kasetsart University Grant
- 2011 Responses of oxidative stress caused by salinity in various varieties of Thai rice, Research and Development Institute, Kasetsart University Grant
- 2010 Toxicological Effects of Zearalenone to Immunological and Histological Changes of Vannamei Shrimp, Research and Development Institute, Kasetsart University Grant

- 2010 Chemical Composition of Wood Vinegar from Different Trees, Research and Development Institute, Kasetsart University Grant
- 2010 Survey of potential of selective energy tree on the high land of Thailand for community biodiesel production, National Research Council of Thailand Grant.
- 2007 Quality control lab network analysis between soil and plant samples, Kasetsart University Grant
- 2008 Phytochemical screening and Antibacterial activity of *Euphorbiaceae*, Rajamangala University of Technology Krungthep Grant
- 2008 Analysis of heavy metals in medicinal plant, Kasetsart University Grant
- 2007-2008 The risk of nitrate accumulation in vegetables, Kasetsart University Grant
- 2002 The establishment of a network laboratory analysis of soil and plants, The Thailand Research Fund Grant

## PUBLICATIONS

- Soiklom, S., Siri-anusornsak, W., Petchpoung, K. and Kansandee, W. 2024. Development of anthocyanin-rich gel beads from colored rice for encapsulation and in vitro gastrointestinal digestion. *Molecules*, 29, 270. <https://doi.org/10.3390/molecules29010270>.
- Soiklom, S., Siri-anusornsak, W. and Petchpoung, K. 2024. Effects of drying conditions on physical properties, bioactive compounds and antioxidant activity of *Andrographis paniculata* leaves. *Food Research*, 8 (5), 334 – 340.
- Siri-anusornsak, W., Kolawole, O., Soiklom, S., Petchpoung, K., Keawkim, K., Chuaysrinule, C. and Maneeboon, T. 2024. Innovative use of *Spirogyra* sp. biomass for the sustainable adsorption of Aflatoxin B<sub>1</sub> and Ochratoxin A in aqueous solutions. *Molecules*, 29, 5038. <https://doi.org/10.3390/molecules29215038>
- Petchpoung, K., Soiklom, S. and Siri-anusornsak, W. 2024. Estimation of andrographolide and antioxidant activities in *Andrographis paniculata* commercial products by color parameters. *Trends in Sciences*, 21(3): 7393. <https://doi.org/10.48048/tis.2024.7393>.
- Sawanon, S., Leungprasert, S., Sillapacharoenkul, B., Khunanake, R., Soiklom S. and Sinbuathong, N. 2022. Grass as a high potential by-product: Buffalo grass to biogas and the increase of

system performance and stability. *International Journal of Hydrogen Energy*. 47 (74), 31941-31948.

Soiklom, S., Petchpoung, K. and Siri-Anusornsak, W. 2021. Comparison of sample pretreatment and analytical method for nitrate determination in vegetables. *Trends in Sciences*, 18(19), 19. <https://doi.org/10.48048/tis.2021.19>

Petchpoung, K., S. Soiklom, W. Siri-Anusornsak, N. Khlangsap, A. Tara and T. Maneeboon. 2020. Predicting antioxidant activity of wood vinegar using color and spectrophotometric parameters. *MethodsX*. 7:100783.

## CONFERENCE PRESENTATIONS

Phumarin Wanichananan, Acharapun Chaichareon, Krittaya Petchpoung, Siriwan Soiklom, S. 2024. The effect of LED on Increasing the Active substances Moscatin in *Dendrobium Sonia*. In the 21<sup>th</sup> National Horticultural Congress, 13-15 Nov 2024. Kasetsart University.

Acharapun Chaichareon, Phumarin Wanichananan, Krittaya Petchpoung, Siriwan Soiklom, S. 2024. Selection of DNA aptamers for detection of Moscatin in Thai orchid *Dendrobium* species using electrochemical aptasensor. In the 21<sup>th</sup> National Horticultural Congress, 13-15 Nov 2024. Kasetsart University.

Krittaya Petchpoung, Siriwan Soiklom, Wipada Siri-anusornsak, Thanapoom Maneeboon, Adcharapun Chaichareon and Phumarin Wanichananan. 2023. Color characteristic, active compounds and antioxidant activity of java tea (Abstract), p.216. In Plant Science and Agriculture (Online), 11-13 September 2023, Valencia, Spain.

Siriwan Soiklom, Krittaya Petchpoung and Wipada Siri-anusornsak. 2019. Quantitative Determination of Indole-3-Acetic Acid in Bacterial Culture Media Extract using HPLC. In the Proceedings of the 57<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering section). 29 January-2 February 2019. Kasetsart University, Bangkok, Thailand.

Wipada Siri-anusornsak, Krittaya Petchpoung, Siriwan Soiklom and Chanram Roopkham. 2019. Relationship between Color Parameters, Total Phenolic Content and Protein Content of Local Thai Rice Varieties. In the Proceedings of the 57<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering). 29 January - 2 February 2019. Kasetsart University, Bangkok, Thailand.

Chanram Roopkham, Thanapoom Maneeboon and Siriwan Soiklom. 2018. Evaluation of plant growth promoting potential of organochlorine pesticide resistant endophytic and soil fungi. *In* the Proceedings of the 56<sup>th</sup> Kasetsart University Annual Conference: (Science and Genetic Engineering section). 30 January-2 February 2018. Kasetsart University, Bangkok, Thailand.

Siriwan Soiklom, Wipada Siri-anusornsak and Krittaya Petchpoung. 2018. Nitrate, cadmium and lead content in some fresh vegetables. *In* the Proceedings of the 56<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering). 30 January - 2 February 2018. Kasetsart University, Bangkok, Thailand.

Chanram Roopkham, Savitr Trakuleamsai, Thanapoom Maneeboon and Siriwan Soiklom. 2017. Optimize of Indole 3-acetic acid (IAA) production by *Bacillus spp.* Isolate from alkali soil. *In* the Proceedings of the 55<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering section). 31 January - 3 February 2017. Kasetsart University, Bangkok, Thailand.

Wipada Siri-anusornsak, Siriwan Soiklom and Ratthipha Thanaruksa. 2016. Determination of Heavy metal (Cd, Cr and Pb) in Thai rice. 2016. *In* the Proceedings of the 54<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering section). 2-5 February 2016. Kasetsart University, Bangkok, Thailand.

Chanram Roopkham, Savitr Trakuleamsai, Thanapoom Maneeboon Siriwan Soiklom and Nampeung Anukul. 2016. A study of plant growth promoting activity of the haloalkaliphilic bacteria isolate from alkali soil in Kanchanaburi Research Station. *In* the Proceedings of the 54<sup>th</sup> Kasetsart University Annual Conference (Science section) , 2-5 February 2016. Kasetsart University, Bangkok, Thailand.

Wipada Siri-anusornsak and Siriwan Soiklom. 2015. The study of appropriate extraction method of Dithiocarbamate residues: Mancozeb. *In* the Proceedings of the 53<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic Engineering). 3-8 February 2015. Kasetsart University, Bangkok, Thailand.

Chananya Chuaysrinule, Siriwan Soiklom, Krittaya Petchpoung, Warapa Mahakarnchanakul, Khamjut Ruenreungdee, Thanapoom Maneeboon. 2014. Detection of aflatoxins producing *Aspergillus spp.* from fish meal, soybean meal and shrimp feed in Thailand. *In* The 10<sup>th</sup> International Mycological Congress, 3-8 August 2014 at Queen Sirikit National Convention Centre, Bangkok, Thailand

- Siriwan Soiklom, Krittaya Petchpoung, Yupadee Powpan, Juthamanee Sangsawang, Sumpun Soiklom. 2014. Production of activated carbon from Tung Oil Tree (*Vernicia Montana* Lour) –waste for manganese removal. *In* the Proceedings of the 52<sup>th</sup> Kasetsart University Annual Conference (Science section). 4-7 February 2014. Kasetsart University, Bangkok, Thailand.
- Siriwan Soiklom, Krittaya Petchpoung, Thanapoom Maneeboon, Suwanna Kladpan, Khamjut Ruenreungdee and Warapa Mahakarnchanakul. 2013. A Study of aflatoxin and deoxynivalenol contamination in shrimp feedstuff and shrimp Feed. *In* the Proceedings of the 51<sup>th</sup> Kasetsart University Annual Conference (Fisheries section). 5-7 February 2013. Kasetsart University, Bangkok, Thailand.
- Krittaya Petchpoung, Khamjut Ruenreungdee, Siriwan Soiklom, Thanapoom Maneeboon, Patcharee Umrung, Win Surachetpong and Warapa Mahakarnchanakul. 2013. Toxicological Effects of zearalenone to immunological and histological change of vannamei shrimp. *In* the Proceedings of the 51<sup>th</sup> Kasetsart University Annual Conference (Fisheries section). 5-7 February 2013. Kasetsart University, Bangkok, Thailand.
- Nampeung Anukul, Siriwan Soiklom, Krittaya Petchpoung, Thanapoom Maneeboon and Warapa Mahakarnchanakul. 2012. Risk incidence of mycotoxins and development of rapid detection methods in shrimp feed. Poster presentation delivered at Seminar and workshop in Establishment of an Asian Research Center of Excellence in Healthy and Safe Marine Food Resource, 2<sup>nd</sup> Symposium of TUMSAT Healthy and Safe Marine Food Resources Project, 5-7 September 2012 at Kasetsart University, Bangkok, Thailand.
- Pacharaporn Phupaiboon, Siriwan Soiklom and Wasana Buangam. 2010. Study of methods to lessen the nitrate concentration in fresh vegetables. *In* the Proceedings of the 48<sup>th</sup> Kasetsart University Annual Conference (Plants section). 3-6 February 2010. Kasetsart University, Bangkok, Thailand.
- Pacharaporn Phupaiboon Siriwan Soiklom and Pinit Paison. 2010. Contamination of heavy metal in Thai traditional medicine. *In* the Proceedings of the 48<sup>th</sup> Kasetsart University Annual Conference (Plants section). 3-6 February 2010. Kasetsart University, Bangkok, Thailand.
- Pacharaporn Phupaiboon Siriwan Soiklom and Wasana Buangam. 2010. Analysis of nitrate accumulation in fresh vegetables. *In* the Proceedings of the 47<sup>th</sup> Kasetsart University Annual Conference: Plants, 17-20 March 2009. Kasetsart University, Bangkok, Thailand.

Siriwan Soiklom Nanthana Cheun-im Pacharaporn Phupaiboon and Pinit Paison. 2007. Optimum time for the extraction of total lactones in Fahtalaichone. *In* the Proceedings of the 45<sup>th</sup> Kasetsart University Annual Conference: Plants, 30 January-2 February 2007. Kasetsart University, Bangkok, Thailand.

Nanthana Cheun-im Siriwan Soiklom and Pacharaporn Phupaiboon. 2006. Determination of total lactone contents in andrographis herb from various locations. *In* the Proceedings of the 44<sup>th</sup> Kasetsart University Annual Conference: Plants, 30 January-2 February 2006. Kasetsart University, Bangkok, Thailand.

Siriwan Soiklom Nanthana Cheun-im Pacharaporn Phupaiboon and Pinit Paison. Improve extraction method for evaluate an Andrographolide in Fahtalaijone using sonication. *In* the 6<sup>th</sup> National Horticulture Congress, 7-10 November 2006 Lotus Pang Suan Kawe. Chiang Mai, Thailand.

Siriwan Boonsook Nongluck Puranapong Nopmanee Suwannang Nanthana Cheun-im Patcharee Sanchang Pailin Lekkong Varakana Sabua Suwannee Bhuthorndtharaj and Somsak Maneepong. 2005. Establishment of reference materials for soil testing. *In* the Proceedings of the 43<sup>th</sup> Kasetsart University Annual Conference (Plants section). 1-2 February 2005. Kasetsart University, Bangkok, Thailand.

Nongluck Puranapong Nanthana Cheun-im Nopmanee Suwannang Patcharee Sanchang Pailin Lekkong Varakana Sabua Siriwan Boonsook Somsak Maneepong and Suwannee Bhuthorndtharaj . 2005. The test samples for laboratory analysis of the soil and plants. *In* the 5<sup>th</sup> National Horticulture Congress, 26-29 April 2005. Welcome Jomtien Beach, Chon buri, Thailand.

Nanthana Cheun-im Nongluck Puranapong Nopmanee Suwannang Patcharee Sanchang Pailin Lekkong Varakana Sabua Siriwan Boonsook Somsak Maneepong and Suwannee Bhuthorndtharaj .2005. The test samples for laboratory analysis of the soil and plants. *In* the 5<sup>th</sup> National Horticulture Congress, 26-29 April 2005. Welcome Jomtien Beach, Chon buri, Thailand.

Somsak Maneepong Nongluck Puranapong Nanthana Cheun-im Nopmanee Suwannang Patcharee Sanchang Pailin Lekkong Varakana Sabua Siriwan Boonsook and Suwannee Bhuthorndtharaj . 2005. Performance Test for Soil and Plant Analysis of Laboratories in



Thailand. *In* the 5<sup>th</sup> National Horticulture Congress, 26-29 April 2005. Welcome Jomtien Beach, Chon buri, Thailand.

Siriwan Boonsook Jariya Boonyawat Wanpen Suwansang Chagjra Thonsom Suwiyakorn Opaswong and Yasuyuki Tanaka. 2001. Effect of saponification on development of natural rubber and allergenic response. *In* the Proceedings of the 39<sup>th</sup> Kasetsart University Annual Conference: Plants, 3-7 February 2001. Kasetsart University, Bangkok, Thailand.

## **AWARD**

1. **Conference Award** in the Proceedings of the 55<sup>th</sup> Kasetsart University Annual Conference (Science and Genetic engineering section) in the topic of Optimize of Indole 3-acetic acid (IAA) production by *Bacillus spp.* Isolate from alkali soil.
2. **Conference Award** in the Proceedings of the 48<sup>th</sup> Kasetsart University Annual Conference (Plants section) in the topic of Contamination of heavy metal in Thai traditional medicine.
3. **Conference Award** in the Proceedings of the 47<sup>th</sup> Kasetsart University Annual Conference (Plants section) in the topic of Analysis of nitrate accumulation in fresh vegetables.
4. **Conference Award** in the Proceedings of the 39<sup>th</sup> Kasetsart University Annual Conference (Science section) in the topic of Effect of saponification on development of natural rubber and allergenic response.