



Curriculum Vitae

Institute of Nutrition, Mahidol University (INMU)

999 Phutthamonthon 4 Rd., Salaya, Phutthamonthon

Name: Worakrit Saiyasombat
E-mail address: worakrit.sai@mahidol.ac.th
Current position: Researcher, Institute of Nutrition, Mahidol University

Education

2016 – 2022 Ph.D. (Chemistry), Faculty of Science,
Mahidol University, Thailand
2012 – 2016 B.Sc. (Chemistry), Faculty of Science,
Khon Kaen University, Thailand

Research Interest and Expertise

- Metabolomics and ionomics profiling
- Development of organic dyes for fluorescent chemosensors, molecular imaging, and phototherapy application

Research Experiences

- Postdoctoral Researcher, Molecular Imaging and Photodynamic Therapy, Supervisor: Assoc. Prof. Dr. Anyanee Kamkaew (School of Chemistry, Suranaree University of Technology, Thailand)
- Visiting Researcher, Fluorescent probes for the recognition of rare earth elements, Supervisor: Prof. Jan J. Weigand (Technische Universität Dresden, Dresden, Germany)

Training

- 16th Foodcomp Course: the Production and Use of Food Composition Data in Nutrition by Wageningen University
- Professional Researcher Empowerment Program by Mahidol University
- UPLC-qTOF-MS/MS Training Course, Agilent Technologies
- HPLC-ICPMS Training Course, Agilent Technologies
- Total Reflection X-ray Fluorescence (TXRF) Training Course, Synchrotron Light Research Institute
- NMR Spectroscopy for Metabolomics Profiling, Bruker biospin
- Mastering qNMR Techniques & Quantitative Insights, Bruker biospin



Websites & social links

[ORCID](#)

[Google Scholar](#)

[Scopus](#)

[LinkedIn](#)

Publications

1. **Saiyasombat, W.**; Kesorn, W.; Thukhammi, S.; Naweephattana, P.; Ouengwanarat, B.; Rungrotmongkol, T.; Kamkaew, A.; Kuhakarn, C.; Khaikate, O. Development of D-π-A hemicyanine based NIR fluorescent probes for sensitive detection of intracellular viscosity variations. *J. Mol. Struct.* **2026**, 1355, 145027.
2. **Saiyasombat, W.**; Chathiran, W.; Chimasangkanan, J.; Bromage, S.; Borelli, T.; Hunter, D.; Srichamnong, W. Filling the Gaps: Advancing Neglected and Underutilised Species and Knowledge Systems in Thailand for Food Security and Environmental Sustainability. *Journal of Sustainability* **2025**, 1 (2).
3. Sangiamkittikul, P.; Nuchpun, S.; Katewongsa, K. P.; Cheiwchanchamnangij, T.; Khamphaijun, K.; Bunchuay, T.; Panupinthu, N.; **Saiyasombat, W.**; Charoensutthivarakul, S.; Kiatisevi, S. A potent mannose-modified pillararene-BODIPY system for photodynamic therapy. *Journal of Materials Chemistry B* **2025**, 13 (28), 8348-8357
4. Chathiran, W.; Varatojo, L.; Chimasangkanan, J.; **Saiyasombat, W.**; Srichamnong, W. Effect of Heat Processing on Major Psychoactive Compounds and Total Phenolic Content in Psychotropic Plants: Cannabis (*Cannabis Sativa*) and Kratom (*Mitragyna Speciosa*) Leaves. *Cannabis and Cannabinoid Research* **2025**, 10 (5), 598-608.
5. **Saiyasombat, W.**; Yimpetch, C.; Chathiran, W.; Chimasangkanan, J.; Srichamnong, W. Effect of microencapsulation using β-cyclodextrin and β-glucan as coating agents on physicochemical properties and phytocannabinoids retention of cannabis flower oil extract. *NFS Journal* **2025**, 38, 100209.
6. **Saiyasombat, W.**; Sripattanakul, S.; Kampaengsri, S.; Chansaenpak, K.; Lai, R.-Y.; Kamkaew, A. NIR-induced antimicrobial efficacy of TPA-BOIMPY conjugate through photothermal and photodynamic synergy. *J. Photochem. Photobiol. A: Chem.* **2025**, 460, 116136.



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7. Krongyut, C. ; Wiriya, N. ; **Saiyasombat, W.** ; Chansaenpak, K. ; Sripattanakul, S. ; Kamkaew, A. ; Lai, R.-Y. Chemoenzymatic Cyclization by Vanadium Chloroperoxidase for Synthesis of 4-Hydroxyisochroman-1-ones. *ChemBioChem*. **2024**, e202400697.
8. **Saiyasombat, W.** ; Muangsopa, P. ; Khrootkaew, T. ; Chansaenpak, K. ; Pinyou, P. ; Sapermsap, N. ; Sangtawesin, S. ; Kamkaew, A. Halogenated BOIMPYs and Their Efficiency in Photodynamic Therapy. *ChemPhotoChem*. **2024**, 8, e202400109.
9. Pewklang, T. ; **Saiyasombat, W.** ; Chueakwon, P. ; Ouengwanarat, B. ; Chansaenpak, K. ; Kampaengsri, S. ; Lai, R.-Y. ; Kamkaew, A. Revolutionary Pyrazole-based Aza-BODIPY: Harnessing Photothermal Power Against Cancer Cells and Bacteria. *ChemBioChem*. **2024**, 25, e202300653.
10. **Saiyasombat, W.** ; Eiamprasert, U. ; Chantarojsiri, T. ; Chainok, K. ; Kiatisevi, S. Bis-BODIPY-Based Fluoride and Cyanide Sensor Mediated by Unconventional Deprotonation of C-H Proton. *Dyes Pigm.* **2022**, 206, 110643.
11. **Saiyasombat, W.** ; Nuchpun, S. ; Katewongsa, K. P. ; Pornsuwan, S. ; Weigand, J. J. ; Kiatisevi, S. A Turn-on Bis-BODIPY Chemosensor for Copper Recognition Based on the in-Situ Generation of a Benzimidazole-Triazole Receptor and Its Applications in Bioimaging. *New J. Chem.* **2022**, 46, 22525–22532.
12. **Saiyasombat, W.** ; Kiatisevi, S. Bis-BODIPY Linked-Triazole Based on Catechol Core for Selective Dual Detection of Ag⁺ and Hg²⁺. *RSC Adv.* **2021**, 11, 3703–3712.