

Curriculum Vitae

ดร.สุทธิพงษ์ วรณไพบุลย์



Name Suttipong Wannapaiboon
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Date of birth March 20, 1987
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Affiliation Synchrotron Light Research Institute (Public Organization),
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Educational background

- 2018 Doctor of Natural Science (Dr. rer. nat.), *Summa cum laude* (passed with highest distinction), Department of Chemistry, Technical University of Munich, Germany
- 2013 Master of Science (Chemistry), Ruhr University Bochum, Bochum, Germany (GPA 1.0, ECTS grade: excellent)
- 2008 Bachelor of Science (Chemistry), Chiang Mai University, Chiang Mai, Thailand (GPA 4.00, First Class Honors, The first ranking of the Faculty of Science, Chiang Mai University)

Positions and Professional Activities

- March 2020 – present Acting Chief, User Service Division, Synchrotron Light Research Institute (Public Organization), Nakhon Ratchasima, Thailand
- 2018 – present Beamline Scientist, Synchrotron Light Research Institute (Public Organization), Nakhon Ratchasima, Thailand
- 2009 – 2017 Research Assistant, Synchrotron Light Research Institute (Public Organization), Nakhon Ratchasima, Thailand (holding the position during Master and Doctoral study granted by the Royal Thai Government Scholarship under the Office of the Civil Service Commission (OCSC) from November 2010 to December 2017)

Scholarships

- 2010-2017 The Royal Thai Government Scholarship under the Office of the Civil Service Commission (OCSC), Thailand
- 2005-2008 Development and Promotion of Science and Technology Talent Project (DPST) of the Institute for the Promotion of Teaching Science and Technology (IPST), Ministry of Science and Technology, Thailand

Research Grants and Academic Awards

- 2020-2021 10/2020 – 10/2021, Project: “Study and development of metal-organic frameworks for electrocatalytic applications” (Grant B05F630120), Role: Co-researcher, Budget: 1.221 MB, Status: Active
Funding agency: Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU B)
- 2018 “Emil Erlenmeyer Medal 2018”, awarded by the Faculty of Graduate Center for Chemistry, Technical University of Munich, Germany
- 2016 First Prize, Outstanding Poster Award, The 5th International Conference on Metal-Organic Frameworks & Open Framework Compounds (MOF2016)
- 2014-2017 International Realization Budget (IRB), Research School Plus, Ruhr University Bochum, Germany
- 2014 “RUB Award 2014”, awarded by the Faculty of Chemistry and Biochemistry, Ruhr-University Bochum

- 2009 Thai student representatives participating in “DESY Summer Student Program 2009”, Deutsches Elektronen Synchrotron (DESY), Germany
- 2005-2008 Excellent Academic Awards for school year 2005, 2006, 2007 and 2008 from the Faculty of Science, Chiang Mai University, Thailand
- 2005-2008 Junior Science Talent Project (JSTP) of the National Science and Technology Development Agency (NSTDA), Thailand

Research Fields of Interest

Metal-Organic Frameworks, Inorganic Materials, Materials Chemistry, Thin Films, Porous Materials, Gas Adsorption, X-ray Diffraction, X-ray Absorption Spectroscopy, X-ray Fluorescence Spectroscopy

Research Publications

(Total citation: 807, H-index = 15, i10-index = 18, 25.05.2021, Google Scholar)

2021

- 1) J. Nootem, R. Daengngern, C. Sattayanon, W. Wattanathana, S. Wannapaiboon, P. Rashatasakhon, K. Chansaenpak, *The synergy of CHEF and ICT toward fluorescence ‘turn-on’ probes based on push-pull benzothiazoles for selective detection of Cu²⁺ in acetonitrile/water mixture*, *Journal of Photochemistry and Photobiology A: Chemistry* (2021) 415, 113318.
- 2) W. Wattanathana, Y. Hanlumyuang, S. Wannapaiboon, K. Chansaenpak, P. Pinyou, T. Nanok, P. Kanjanaboos, *Novel Dihydro-1, 3, 2H-benzoxazine Derived from Furfurylamine: Crystal Structure, Hirshfeld Surface Analysis, Photophysical Property, and Computational Study*, *Crystals* (2021) 11, 568.
- 3) N. Senamart, S. Loiha, Y. Poo-arporn, P. Tawachkultanadilok, S. Tonlublao, W. Limphirat, S. Duangmanee, P. Kamonpha, J. Wittayakun, N. Osakoo, S. Wannapaiboon, R. Poo-arporn, *In-situ investigation of ethanol steam reforming on Ni and Cr doped ferrites using combined X-ray absorption spectroscopy, mass spectrometry, and gas chromatography*, *Radiation Physics and Chemistry* (2021) 185, 109492.
- 4) K. Wantala, T. Suwannaruang, J. Palalerd, P. Chirawatkul, N. Chanlek, S. Wannapaiboon, C. Saiyasombat, R. Khunphonoi, *Influence of in-situ and ex-situ Cu-Fe doping in K-OMS-2 catalysts on dye degradation via Fenton-like reaction with focus on catalytic properties and performances*, *Surfaces and Interfaces* (2021) 23, 101230.
- 5) P. Jansukra, W. Wattanathana, T. Duangthongyou, S. Wannapaiboon, A. Songsasean, S. Suramitr, T. Tuntulani, C. S. Browning, B. Wannalarse, *Synthesis, X-Ray Crystallography, Theoretical Investigation and Optical Properties of 2-Chloro-N-(2, 4-dinitrophenyl) Acetamide*, *Journal of Chemical Crystallography* (2021) <https://doi.org/10.1007/s10870-020-00875-w>.

2020

- 6) A. L. Semrau, S. P. Pujari, P. M. Stanley, S. Wannapaiboon, B. Albada, H. Zuilhof, R. A. Fischer, *Selective Positioning of Nanosized Metal–Organic Framework Particles at Patterned Substrate Surfaces*, *Chemistry of Materials* (2020) 32, 9954-9963.
- 7) S. Suwannatrai, D. Yan, J. Phanthasri, P. Khamdahsag, S. Wannapaiboon, V. Tanboonchuy, *Oxidation-adsorption of arsenite contaminated water over ceria nanorods*, *Desalination and Water Treatment* (2020) 200, 252-261.
- 8) J. Suebphanpho, S. Wannapaiboon, S. Youngme, J. Boonmak, *Bifunctional dinuclear complexes based on iminodiacetate and 1, 2-di (4-pyridyl) ethylene: Crystal structures, vapochromism, and iodine adsorption*, *Crystal Growth & Design* (2020) 20, 7439-7449.

- 9) W. Deeloed, W. Wattanathana, P. Jantaratana, P. Prompinit, S. Wannapaiboon, S. Singkammo, S. Sattayaporn, A. Laobuthee, S. Suramitr, Y. Hanlumyuang, *A systematic variation in cationic distribution and its influence on the magnetization of mixed-metal (nickel and zinc) cobaltite spinels*, *Materials Research Express* (2020) 7, 096104.
- 10) S. Yaemphuchong, W. Wattanathana, W. Deeloed, P. Panith, R. Wuttisarn, B. Ketruam, S. Singkammo, A. Laobuthee, S. Wannapaiboon, Y. Hanlumyuang, *Characterization, luminescence and dye adsorption study of manganese and samarium doped and co-doped zinc sulfide phosphors*, *Optical Materials* (2020), 107, 109965.
- 11) Z. Zhou, S. Mukherjee, J. Warnan, W. Li, S. Wannapaiboon, S. Hou, K. Rodewald, B. Rieger, P. G. Weidler, C. Wöll, R. A. Fischer, *Porphyrin based metal-organic framework films: nucleation and growth*, *Journal of Materials Chemistry A* (2020), 8, 25941-25950.
- 12) M. Tu, S. Wannapaiboon, R. A. Fischer, *Inter-conversion between zeolitic imidazolate frameworks: a dissolution-recrystallization process*, *Journal of Materials Chemistry A* (2020), 8, 13710-13717.
- 13) P. Ponchai, K. Adpakpang, S. Thongratkaew, K. Chaipojjana, S. Wannapaiboon, S. Siwairam, K. Faungnawakij, S. Bureekaew, *Engineering zirconium-based UiO-66 for effective chemical conversion of d-xylose to lactic acid in aqueous condition*, *Chemical Communications* (2020), 56, 8019-8022.
- 14) Z. Wang, S. Wannapaiboon, S. Henke, M. Paulus, K. Rodewald, B. Rieger, R. A. Fischer, *Synergistic effect of heterostructured dissimilar metal-organic framework thin films on adsorption properties*, *Journal of Materials Chemistry A* (2020), 8, 12990-12995.
- 15) A. Waehayee, P. Watthaisong, S. Wannapaiboon, N. Chanlek, H. Nakajima, J. Wittayakun, S. Suthirakun, T. Siritanon, *Effects of different exchanging ions on the band structure and photocatalytic activity of defect pyrochlore oxide: A case study in KNbTeO₆*, *Catalysis Science & Technology* (2020), 10, 978-992.
- 16) S. Wannapaiboon, Y. Hanlumyuang, K. Chansaenpak, P. Pinyou, C. Veranitisagul, A. Laobuthee, W. Wattanathana, *Crystal structure and Hirshfeld surface analysis of the product of the ring-opening reaction of a di-hydro-benzoxazine: 6,6'-[(cyclo-hexyl-aza-nedi-yl)bis-(methyl-ene)]bis-(2,4-di-methyl-phenol)*, *Acta Cryst.* (2020). E76, 1239-1244.
- 17) W. Deeload, S. Wannapaiboon, P. Pansiri, P. Kumpeerakij, K. Phomphrai, A. Laobuthee, Y. Hanlumyuang, S. Suramitr, P. Pinyou, W. Wattanathana, *Crystal Structure and Hirshfeld Surface Analysis of Bis(Triethanolamine)Nickel(II) Dinitrate Complex and a Revelation of Its Characteristics via Spectroscopic, Electrochemical and DFT Studies Towards a Promising Precursor for Metal Oxides Synthesis*, *Crystals* 2020, 10(6), 474.
- 18) J. Phanthasri, N. Grisdanurak, P. Khamdahsag, K. Wantala, R. Khunphonoi, S. Wannapaiboon, V. Tanboonchuy, *Role of zeolite-supported nanoscale zero-valent iron in selenate removal*, *Water, Air, & Soil Pollution* (2020), 231, 1-12.
- 19) H. Husain, M. Sulthonul, B. Hariyanto, Y. Taryana, W. Klysubun, S. Wannapaiboon, D. Darminto, S. Pratapa, *The structural and magnetic characterization of ironstone-derived magnetite ceramic nanopowders*, *Journal of Materials Science: Materials in Electronics* (2020), 31, 12398-12408.

2019

- 20) S. Wannapaiboon, A. Schneemann, I. Hante, M. Tu, K. Epp, A.L. Semrau, C. Sternemann, M. Paulus, S.J. Baxter, G. Kieslich, R.A. Fischer, *Control of structural flexibility of layered-pillared metal-organic frameworks anchored at surfaces*, *Nature Communications* (2019), 10, Article Number 346. (IF = 11.878)
- 21) S. Bhattacharya, W.W. Ayass, D.H. Taffa, A. Schneemann, A.L. Semrau, S. Wannapaiboon, P.J. Altmann, A. Pöthig, T. Nisar, T. Balster, N.C. Burtch, V. Wagner, R.A. Fischer, M. Wark, U. Körtz, *Discovery of polyoxo-noble-metalate-based metal-organic frameworks*, *Journal of the American Chemical Society* (2019), 141(8), 3385-3389. (IF = 14.695)

- 22) L. Pukdeejorhor, K. Adpakpang, P. Ponchai, [S. Wannapaiboon](#), S. Ittisanronnachai, M. Ogawa, S. Horike, S. Bureekaew, *Polymorphism of mixed metal Cr/Fe terephthalate metal-organic frameworks utilizing a microwave synthetic method*, *Crystal Growth & Design* (2019), 19, 5581-5591.
- 23) T. Numpilai, N. Chanlek, Y. Poo-Arporn, [S. Wannapaiboon](#), C.K. Cheng, N. Siri-Nguan, T. Sornchamni, P. Kongkachuichay, M. Chareonpanich, G. Rupprechter, J. Limtrakul, T. Witoon, *Pore size effects on physicochemical properties of Fe-Co/K-Al₂O₃ catalysts and their catalytic activity in CO₂ hydrogenation to light olefins*, *Applied Surface Science* (2019), 483, 581-592.
- 24) C. Veranitisagul, W. Wattanathana, [S. Wannapaiboon](#), Y. Hanlumyuang, K. Sukthavorn, N. Nootsuwan, S. Chotiwan, W. Phuthong, S. Jongrungruangchok, A. Laobuthee, *Antimicrobial, Conductive, and Mechanical Properties of AgCB/PBS Composite System*, *Journal of Chemistry* (2019), Article ID 3487529.
- 25) P. Panith, W. Wattanathana, W. Deeloed, R. Wuttisarn, [S. Wannapaiboon](#), Y. Hanlumyuang, *Synthesis of magnesium silicate hydrate as an adsorbent for different dyes*, *Oriental Journal of Chemistry* (2019), 35, 1407-1413.

2018

- 26) A.L. Semrau, [S. Wannapaiboon](#), S.P. Pujari, P. Vervoorts, B. Albada, H. Zuilhof, R.A. Fischer, *Highly Porous Nanocrystalline UiO-66 Thin Films via Coordination Modulation Controlled Step-by-Step Liquid-Phase Growth*, *Crystal Growth & Design* (2018), 19(3), 1738-1747. (IF = 4.153)
- 27) A. Schneemann, P. Vervoorts, I. Hante, M. Tu, [S. Wannapaiboon](#), C. Sternemann, M. Paulus, D.C.F. Wieland, S. Henke, R.A. Fischer, *Different breathing mechanisms in flexible pillared-layered metal-organic frameworks: Impact of the metal center*, *Chemistry of Materials* (2018), 30(5), 1667-1676. (IF = 10.159)
- 28) Z. Wang, [S. Wannapaiboon](#), K. Rodewald, M. Tu, B. Rieger, R.A. Fischer, *Directing the hetero-growth of lattice-mismatched surface-mounted metal-organic frameworks by functionalizing the interface*, *Journal of Materials Chemistry A* (2018), 6(43), 21295-21303. (IF = 10.733)
- 29) W. Wattanathana, W. Nantharak, [S. Wannapaiboon](#), P. Jantaratana, C. Veranitisagul, N. Koonsaeng, A. Laobuthee, *Barium ferrite prepared by modified Pechini method: effects of chloride and nitrate counter ions on microstructures and magnetic properties*, *Journal of Materials Science: Materials in Electronics* (2018), 29(2), 1542-1553.
- 30) T. Tanasaro, K. Adpakpang, S. Ittisanronnachai, K. Faungnawakij, T. Butburee, [S. Wannapaiboon](#), M. Ogawa, S. Bureekaew, *Control of Polymorphism of Metal-Organic Frameworks Using Mixed-Metal Approach*, *Crystal Growth & Design* (2018), 18(1), 16-21. (IF = 4.153)

2017

- 31) W. Wattanathana, [S. Wannapaiboon](#), C. Veranitisagul, N. Laosiripojana, N. Koonsaeng and A. Laobuthee, *Preparation of palladium-impregnated ceria by metal complex decomposition for methane steam reforming catalysis*, *Advances in Materials Science and Engineering* (2017), 2017, Article ID 5828067.
- 32) W. Wattanathana, C. Veranitisagul, [S. Wannapaiboon](#), W. Klysubun, N. Koonsaeng, A. Laobuthee, *Samarium doped ceria (SDC) synthesized by a metal triethanolamine complex decomposition method: Characterization and an ionic conductivity study*, *Ceramics International* (2017), 43(13), 9823-9830.
- 33) [S. Wannapaiboon](#), K. Sumida, K. Dilchert, M. Tu, S. Kitagawa, S. Furukawa, R.A. Fischer, *Enhanced properties of metal-organic framework thin films fabricated via a coordination modulation-controlled layer-by-layer process*, *Journal of Materials Chemistry A* (2017), 5(26), 13665-13673. (IF = 10.733)

2016

- 34) W. Zhang, K. Freitag, [S. Wannapaiboon](#), C. Schneider, K. Epp, G. Kieslich, R.A. Fischer, *Elaboration of a highly porous Ru^{II} analogue of HKUST-1*, *Inorganic Chemistry* (2016), 55(24), 12492-12495. (IF = 4.850)

2015

- 35) L. Heinke, M. Tu, S. Wannapaiboon, R.A. Fischer, C. Wöll, *Surface-mounted metal–organic frameworks for applications in sensing and separation*, *Microporous and Mesoporous Materials* (2015), 216, 200-215. (IF = 4.182)
- 36) M. Tu, S. Wannapaiboon, K. Khaletskaia, R.A. Fischer, *Engineering zeolitic-imidazolate framework (ZIF) thin film devices for selective detection of volatile organic compounds*, *Advanced Functional Materials* (2015), 25(29), 4470-4479. (IF = 15.621)
- 37) S. Wannapaiboon, M. Tu, K. Sumida, K. Khaletskaia, S. Furukawa, S. Kitagawa, R.A. Fischer, *Hierarchical structuring of metal–organic framework thin-films on quartz crystal microbalance (QCM) substrates for selective adsorption applications*, *Journal of Materials Chemistry A* (2015), 3(46), 23385-23394. (IF = 10.733)

2014

- 38) K. Khaletskaia, S. Turner, M. Tu, S. Wannapaiboon, A. Schneemann, R. Meyer, A. Ludwig, G. Van Tendeloo, R.A. Fischer, *Self-directed localization of ZIF-8 thin film formation by conversion of ZnO nanolayers*, *Advanced Functional Materials* (2014), 24(30), 4804-4811. (IF = 15.621)
- 39) S. Wannapaiboon, M. Tu, R.A. Fischer, *Liquid phase heteroepitaxial growth of moisture-tolerant MOF-5 isotype thin films and assessment of the sorption properties by quartz crystal microbalance*, *Advanced Functional Materials* (2014), 24(18), 2696–2705. (IF = 15.621)
- 40) M. Tu, S. Wannapaiboon, R.A. Fischer, *Liquid phase stepwise growth of surface mounted metal–organic frameworks for exploratory research and development of applications*, *Inorganic Chemistry Frontiers* (2014), 1(6), 442–463. (IF = 5.106)

2013

- 41) M. Tu, S. Wannapaiboon, R.A. Fischer, *Programmed functionalization of SURMOFs via liquid phase heteroepitaxial growth and post-synthetic modification*, *Dalton Transactions* (2013), 42(45), 16029–16035. (IF = 4.052)

2012

- 42) A. Bétard, S. Wannapaiboon, R.A. Fischer, *Assessing the adsorption selectivity of linker functionalized, moisture-stable metal-organic framework thin films by means of an environment-controlled quartz crystal microbalance*, *Chemical Communications* (2012), 48(85), 10493–10495. (IF = 6.164)

2008

- 43) S. Wannapaiboon, A. Rujiwatra, *Ammonothermal preparation of barium zirconate fine powders*, *Advanced Materials Research* (2008), 55, 85–88.

Selected extracurricular activities and achievement.

2014-2015	Advisory committee of Thai Student Association in Germany
2013-2014	Vice president of Thai Student Association in Germany
2012-2013	Executive committee of Thai Student Association in Germany
2008	Certificate of Excellent Student Activities among students in the Faculty of Science, Chiang Mai University, Thailand
2007	Certificate of members of “Science Student Union of Chiang Mai University”
2005-2008	Chairman of the “Representatives of Science Students”
2004	Chairman of the Bunyawat Wittayalai Student Council

Suttipong Wannapaiboon

(Dr. Suttipong Wannapaiboon)

Date of record: 25.05.2021, Thailand