

# Kittipong Chainok

*Ph.D., Assistant Professor in Chemistry  
Faculty of Science and Technology  
Thammasat University  
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## Education

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- 2005 – 2008      Ph.D. (Chemistry)      *Suranaree University of Technology, Thailand*  
*Thesis: Synthesis and structural studies of hybrid inorganic-organic nanocomposites*  
*Advisor: Prof. Kenneth J. Haller*  
*Co-advisors: Prof. Keith S. Murray, Prof. Stuart R. Batten, Prof. Alan David Rae, Prof. Ian D. Williams*
- 2002 – 2004      M.Sc. (Chemistry)      *Suranaree University of Technology, Thailand*  
*Thesis: Hydrothermal synthesis and structural studies of cobalt and vanadium oxides compounds*  
*Advisor: Prof. Kenneth J. Haller*
- 1996 – 2000      B.Sc. (Chemistry)      *Ramkhamheang University, Thailand*

## Research Interests

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- *Crystal engineering and supramolecular chemistry*
- *Coordination polymers and metal-organic frameworks*
- *Molecular based magnets*
- *X-ray crystallography*
- *Polymorphism in pharmaceutical compounds*

## Research Experience

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- Feb – Jul 2012      Postdoctoral Research Association, ICMCB, University of Bordeaux I*  
*Title: Thermal- and light-induced iron(II) spin crossover*  
*Supervisor: Prof. Jean-Francois Letard*
- Jun – Dec 2011      Postdoctoral Research Association, Hong Kong University of Sci. and Tech.*  
*Title: Luminescent lanthanide coordination polymers*  
*Supervisor: Prof. Ian D. Williams*

- 2007 – 2008     Australian Endeavour Visiting Scholar, **Monash University**  
 Title: Crystal engineering and magnetic properties of cyanide-bridged coordination polymers  
 Supervisors: Prof. Keith S. Murray, Prof. Stuart R. Batten
- Apr – Oct 2006   Australian Endeavour Visiting Scholar, **RSC, Australian National University**  
 Title: X-ray crystallography of non-routine structures  
 Supervisor: Prof. Alan David Rae
- Sep – Nov 2005   Visiting Research Student, **Hong Kong University of Sci. and Tech.**  
 Title: Hydrothermal synthesis of organically modified metal vanadate frameworks  
 Supervisor: Prof. Ian D. Williams

## Teaching Experience

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- 2015 – present    Lecturer                      Materials Science Program, Department of Physics,  
 Faculty of Science and Technology  
**Thammasat University**  
 Pathum Thani, Thailand
- 2011 – 2014       Lecturer                      Department of Chemistry, Faculty of Science  
**Naresuan University**  
 Phitsanulok, Thailand
- 2009 – 2010       Lecturer                      Department of Chemistry, Faculty of Science  
**Rangsit University**  
 Bangkok, Thailand
- 2002 – 2003       Teaching assistant    School of Chemistry, Faculty of Science  
**Suranaree University of Technology**  
 Nakhon Ratchasima, Thailand

## Special Skills

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- Instrumental Skills**                      Expert knowledge of single crystal and powder X-ray diffraction and experienced with FTIR, UV-Vis, TGA, NMR, SQUID magnetometer, Mössbauer spectroscopy
- Computer Skills**                      Expert knowledge of crystallographic programs: SHELXL, OLEX2, X-Seed, Platon, CrystalMaker, CrystalExploere Diamond, ORTEP-III, MSViewer, Mercury, enCIFer  
 Skillful in chemistry programs and databases: ChemDraw, Cambridge Structure Database, Inorganic Cambridge Structure Database, SciFinder Scholar, Microsoft office, Origin  
 Strong graphic design skills useful in presentations and publications: Photoshop etc.
- Language Skills**                      Thai: excellent (native speaker)  
 English: very good (spoken and written)

## Awards and Honors

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- 2016 สร้างนวัตกรรมจากงานวิจัย คณะวิทยาศาสตร์และเทคโนโลยี มหาวิทยาลัยธรรมศาสตร์
- 2014 TRF Research Scholar (Methivijai) from the Thailand Research Fund
- 2011 Junior Research Fellowship from the Government of the French Republic
- 2011 IUCr President Award from the International Union of Crystallography
- 2010 TRF-CHE Research Grant for New Scholar from the Thailand Research Fund
- 2009 PACCON Outstanding Presentation Award from the Chemical Society of Thailand
- 2007 Australian Endeavour Research Fellowship from the Australian Government
- 2006 Australian Endeavour Asia Award from the Australian Government
- 2006 Summer School on Nanoporous Materials from the International Center for Materials Research, UCSB
- 2005 Outstanding Research Award from Suranaree University of Technology
- 2004 IUCr Presentation Award, AsCA'04 Hong Kong from the International Union of Crystallography

## Professional Affiliations

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- The Science Society of Thailand
- The Chemical Society of Thailand
- The Society of Crystallographers in Australia and New Zealand (SCANZ)
- The American Crystallographic Association (ACA)
- The Materials Research Society of Singapore (MRS-S)

## Representative Publications (5 years back)

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1. Chainok, K., Ponjan, N., Thappitak, C., Khemthong, P., Kielar, F., Dungkaew, W., Zhou, Y., Batten, S. R. Temperature-dependent 3D structures of lanthanide coordination polymers based on dicarboxylate mixed ligands. *CrystEngComm*. 2018, 20, 7446–7457. (black cover)
2. Suktanarak, P., Watchasit, S., Chitchak, K., Plainpan, N., Chainok, K., Vanalabhpatana, P., Pienpinijtham, P., Suksai, C., Tuntulani, T., Ruangpornvisuti, V., Leeladee. Tuning the reactivity of copper complexes supported by tridentate ligands leading to two-electron reduction of dioxygen. *Dalton Trans.*, 2018, 47, 16337-16349.
3. Boonkitpatarakul, K., Smata, A., Kongnukool, K., Srisurichan, S. Chainok, K., Sukwattanasinitt, M. An 8-aminoquinoline derivative as a molecular platform for fluorescent sensors for Zn(II) and Cd(II) ions. *J. Lumin.* 2018, 198, 59-67.
4. Chooset, S., Kantacha, A., Chainok, K., Wongnawa, S. Synthesis, crystal structure, luminescent properties and antibacterial activities of zinc complexes with bipyridyl and salicylate ligands. *Inorg. Chim. Acta*. 2018, 471, 493–501.
5. Chuklin, P., Chalermpanaphan, V., Nhukeaw, T., Saithong, S., Chainok, K., Phongpaichit, S., Ratanaphan, A., Leesakul, N. Synthesis, X-ray structure of organometallic ruthenium (II) *p*-cymene complexes based on P- and N- donor ligands and their in vitro antibacterial and anticancer studies. *J. Org. Chem.* 2017, 846, 242-250.

6. Kongchoo, S., **Chainok, K.**, Kantacha, A., Wongnawa, S. Syntheses, crystal structures, spectroscopy, and catalytic properties of two nickel-based hexaazamacrocyclic complexes with carboxylate ligands. *Inorg. Chem. Commun.* **2017**, 83, 97-102.
7. Kongchoo, S., **Chainok, K.**, Kantacha, A., Wongnawa, S. Copper(II) complex as a precursor for formation of cyano-bridged pentanuclear  $\text{Fe}^{\text{III}}\text{-Cu}^{\text{II}}$  bimetallic assembly: Synthesis, characterization, crystal structure and antibacterial activity. *J. Chem. Sci.* **2017**, 129, 431-440.
8. Kongchoo, S., **Chainok, K.**, Kantacha, A., Wongnawa, S. Copper(II) complex as a precursor for formation of cyano-bridged pentanuclear  $\text{Fe}^{\text{III}}\text{-Cu}^{\text{II}}$  bimetallic assembly: Synthesis, chracterization, crystal structure and antibacterial activity. *J. Chem. Sci.* **2017**, 129, 431-440.
9. Chuasaard, T., Panyarat, K., Rodlamul, P., **Chainok, K.**, Yimklan, S., Rujiwatra, A. Structural variation and preference in lanthanide-pyridine-2,6-dicarboxylate coordination polymers. *Cryst. Growth & Des.* **2017**, 17, 1045-1054.
10. Krinchampa, P., **Chainok, K.**, Phengthaisong, S., Youngme, S., Kielar, F., Wannarit, N. A novel one-dimensional double-chain-like  $\text{Zn}^{\text{II}}$  coordination polymer: poly[bis(1-benzyl-1H-imidazole- $\kappa\text{N}^3$ )tris( $\mu$ -cyanido- $\kappa^2\text{C:N}$ )(cyanido- $\kappa\text{C}$ )disilver(I)zinc(II)]. *Acta Cryst.* **2016**, C72, 960-965.
11. Sansee, A., Meksawangwong, S., **Chainok, K.**, Franz, K. J., Gál, M., Pålsson, L.-O., Puniyan, W., Traiphol, R., Pal. R., Kielar, F. Novel aminoalkyl tris-cyclometalated iridium complexes as cellular stains. *Dalton Trans.* **2016**, 45, 17420-17430.
12. Insiti, P., Jitthiang, P., Harding, P., **Chainok, K.**, Chotima, R., Sirirak, J., Blackwood, S., Alkaş, A., Telfer, S. G., Harding, D. J. Substituent modulated packing in octahedral Ni(II) complexes. *Polyhedron*, **2016**, 114, 242-248.
13. Chanthee, S., Punyain, W., Namuangrak, S., **Chainok, K.** Chainok. Crystal structures of tetramethylammonium (2,2'-bipyridine)tetracyanidoferrate(III) trihydrate and poly[[ (2,2'-bi-pyridine- $\kappa^2\text{N,N'}$ )- $\mu_2$ -cyanidodicyanido( $\mu$ -ethylenediamine)(ethylenediamine $\kappa^2\text{N,N'}$ )cadmium(II)iron(II)]monohydrate. *Acta Cryst.* **2016**, E72, 741-746.
14. **Chainok, K.**, Khemthong, P., Kielar, F., Zhou, Y. Crystal structure of a mixed-ligand terbium(III) coordination polymer containing oxalate and formate ligands, having a three-dimensional fcu topology. *Acta Cryst.* **2016**, E72, 87-91.
15. Piromchom, J., Boonmak, J., **Chainok, K.**, Youngme, S. Water-induced dynamic crystal-to-amorphous transformation of cobalt(II) coordination and supramolecular frameworks containing benzene-1,2,4,5-tetracarboxylic acid and trans-1-(2-pyridyl)-2-(4-pyridyl)ethylene ligands. *Polyhedron*, **2015**, 102, 593-599.
16. Piromchom, J., Wanarit, N., Boonmak, J., **Chainok, K.**, Pakawatchai, C., Youngme, S. Flexible metal supramolecular framework of 2D cobalt(II) coordination polymer with water-induced reversible crystal-to-amorphous transformation. *Inorg. Chem. Commun.* **2014**, 44, 111-113.