Cirriculum Vitae

Associate Professor Supree Pinitsoontorn

Department of Physics, Faculty of Science, Khon Kaen University,
Khon Kaen 40002 THAILAND

Personal Details
Date of Birth:14 August 1980
Nationality: Thai

Contact Details
Telephone: +66 87 373 1122
Email: psupree@kku.ac.th

Education and Work Experience

- BSc Physics (1st class honour) 1998-2002 Khon Kaen University, Thailand
- MMet Advanced Metallurgy (Distinction) 2002-2003 University of Sheffield, UK
- Dphil Materials 2003-2008 University of Oxford, UK
- Lecturer in Physics, Khon Kaen University 2008-2012
- Assistant Professor in Physics, Khon Kaen University 2012-2016
- Associate Professor in Physics, Khon Kaen University 2016-present

Achievements/Awards

- Outstanding Research Award from National Research Council of Thailand, Feb 2022.
- Diamond Medal Award from Khon Kaen University for Outstanding Researcher, Sept 2021.
- FAMELab Winner Thailand 2020.
- Gold Medal Award from Khon Kaen University for Outstanding Researcher, Sept 2020.
- Outstanding Research Award from National Research Council of Thailand, Jan 2017.
- Newton Advanced Fellowship from the Royal Society, UK, Oct 2016.
- Silver Medal Award from Khon Kaen University for Outstanding Researcher, Feb 2016.
- Award from Princess Chulabhorn of Thailand for benefitting the Development and Promotion of Science and Technology talents project, March 2011.

Research Theme: Synthesis and Characterisation of Advanced Functional Materials
Keywords: Thermoelectric, Magnetic, Bacterial cellulose, Nanocomposite

Selected Publications:

Total 140 publications, H-index: 24, Citation: 1,829 (Scopus).

	Publications
1	S. Pinitsoontorn, N. Lerssongkram, A. Harnwunggmoung, K. Kurosaki, S. Yamanaka, Synthesis, mechanical and magnetic properties of transition metals-doped Ca3Co3.8M0.2O9, Journal of Alloys and Compounds, 503 (2010) 431-435.
2	S. Pinitsoontorn, N. Lerssongkram, N. Keawprak, V. Amornkitbamrung, Thermoelectric properties of transition metals-doped Ca 3Co 3.8M 0.2O9δd (M 5 Co, Cr, Fe, Ni, Cu and Zn), Journal of Materials Science: Materials in Electronics, 23 (2012) 1050-1056.
3	N. Prasoetsopha, S. Pinitsoontorn, V. Amornkitbamrung, Synthesis and thermoelectric properties of Ca 3Co 4O 9 prepared by a simple thermal hydro-decomposition method, Electronic Materials Letters, 8 (2012) 305-308.
4	N. Prasoetsopha, S. Pinitsoontorn, A. Bootchanont, P. Kidkhunthod, P. Srepusharawoot, T. Kamwanna, V. Amornkitbamrung, K. Kurosaki, S. Yamanaka, Local structure of Fe in Fe-doped misfit-layered calcium cobaltite: An X-ray absorption spectroscopy study, Journal of Solid State Chemistry, 204 (2013) 257-265.
5	N. Prasoetsopha, S. Pinitsoontorn, P. Thongbai, T. Yamwong, Giant dielectric behavior observed in Ca3Co4O9 ceramic, Electronic Materials Letters, 9 (2013) 347-351.
6	S. Jantrasee, S. Pinitsoontorn, P. Moontragoon, First-principles study of the electronic structure and thermoelectric properties of al-doped ZnO, Journal of Electronic Materials, 43 (2014) 1689-1696.
7	Y. Khemjeen, S. Pinitsoontorn, A. Chompoosor, S. Maensiri, Reducing the ordering temperature of CoPt nanoparticles by B additive, Journal of Applied Physics, 116 (2014) 053910.
8	S. Pinitsoontorn, N. Prasoetsopha, P. Srepusharawoot, A. Bootchanont, P. Kidkhunthod, T. Kamwanna, V. Amornkitbamrung, K. Kurosaki, S. Yamanaka, Local structure determination of substitutional elements in Ca 3Co4-xMxO9 (M = Fe, Cr, Ga) using X-ray absorption spectroscopy, Physica Status Solidi (A) Applications and Materials Science, 211 (2014) 1732-1739.
9	N. Prasoetsopha, S. Pinitsoontorn, T. Kamwanna, V. Amornkitbamrung, K. Kurosaki, Y. Ohishi, H. Muta, S. Yamanaka, The effect of Cr substitution on the structure and properties of misfit-layered Ca3Co4-xCrxO 9+δ thermoelectric oxides, Journal of Alloys and Compounds, 588 (2014) 199-205.
10	N. Prasoetsopha, S. Pinitsoontorn, T. Kamwanna, K. Kurosaki, Y. Ohishi, H. Muta, S. Yamanaka, Thermoelectric properties of Ca3Co4-x Ga x O9+δ prepared by thermal hydro-decomposition, Journal of Electronic Materials, 43 (2014) 2064-2071.
11	Y. Khemjeen, S. Pinitsoontorn, A. Chompoosor, Effect of boron addition on the structure and magnetic properties of CoPt nanoparticles, Journal of Applied Physics, 117 (2015) 17D513.

12	N. Prasoetsopha, S. Pinitsoontorn, T. Kamwanna, N. Meethong, S. Fan, L.P. Tan, T. Sun, H.H. Hng, Improvement of electrochemical properties of Ca3Co4O9 as anode materials for lithium-ion batteries by Cr doping, Journal of Solid State Electrochemistry, 19 (2015) 1197-1202.
13	P. Srepusharawoot, S. Pinitsoontorn, S. Maensiri, Electronic structure of iron-doped misfit-layered calcium cobaltite, Computational Materials Science, 114 (2016) 64-71.
14	P. Payakaniti, S. Pinitsoontorn, P. Thongbai, V. Amornkitbamrung, P. Chindaprasirt, Electrical conductivity and compressive strength of carbon fiber reinforced fly ash geopolymeric composites, Construction and Building Materials, 135 (2017) 164-176.
15	S. Wongprakarn, S. Pinitsoontorn, S.A. Tanusilp, K. Kurosaki, The effect of YSi2 nanoinclusion on the thermoelectric properties of p-type SiGe alloy, Physica Status Solidi (A) Applications and Materials Science, 214 (2017) 1700235.
16	N. Sriplai, S. Koowattanasuchat, P. Kidkhunthod, N. Chanlek, S.J. Eichhorn, S. Pinitsoontorn, Magnetic behavior of novel alloyed L10-phase Co1-xFexPt nanoparticles, Journal of Alloys and Compounds, 739 (2018) 19-29.
17	N. Sriplai, W. Mongkolthanaruk, S.J. Eichhorn, S. Pinitsoontorn, Magnetically responsive and flexible bacterial cellulose membranes, Carbohydrate Polymers, 192 (2018) 251-262.
18	N. Sriplai, P. Sirima, D. Palaporn, W. Mongkolthanaruk, S.J. Eichhorn, S. Pinitsoontorn, White magnetic paper based on a bacterial cellulose nanocomposite, Journal of Materials Chemistry C, 6 (2018) 11427-11435.
19	S. Wongprakarn, S. Pinitsoontorn, S.A. Tanusilp, K. Kurosaki, Enhancing thermoelectric properties of p-type SiGe alloy through optimization of carrier concentration and processing parameters, Materials Science in Semiconductor Processing, 88 (2018) 239-249.
20	N. Chuewangkam, S. Pinitsoontorn, P. Chindaprasirt, Properties of NdFeB magnetic cement, Cement and Concrete Composites, 103 (2019) 204-212.
21	P. Piyasin, R. Yensano, S. Pinitsoontorn, Size-controllable melt-electrospun polycaprolactone (PCL) fibers with a sodium chloride additive, Polymers, 11 (2019) 1768.
22	P. Wongjom, R. Ramos, S. Pinitsoontorn, K. Uchida, E. Saitoh, Thickness dependence of transverse thermoelectric voltage in Co40Fe60/YIG magnetic junctions, Journal of Magnetism and Magnetic Materials, 471 (2019) 439-443.
23	M. Chanthiwong, W. Mongkolthanaruk, S.J. Eichhorn, S. Pinitsoontorn, Controlling the processing of co-precipitated magnetic bacterial cellulose/iron oxide nanocomposites, Materials and Design, 196 (2020) 109148.
24	P. Ieamviteevanich, D. Palaporn, N. Chanlek, Y. Poo-Arporn, W. Mongkolthanaruk, S.J. Eichhorn, S. Pinitsoontorn, Carbon Nanofiber Aerogel/Magnetic Core-Shell Nanoparticle Composites as Recyclable Oil Sorbents, ACS Applied Nano Materials, 3 (2020) 3939-3950.
25	S. Jakmuangpak, T. Prada, W. Mongkolthanaruk, V. Harnchana, S. Pinitsoontorn, Engineering Bacterial Cellulose Films by Nanocomposite Approach and Surface Modification for Biocompatible Triboelectric Nanogenerator, ACS Applied Electronic Materials, 2 (2020) 2498-2506.
26	D. Palaporn, N. Parse, S.A. Tanusilp, W. Silpawilawan, K. Kurosaki, S. Pinitsoontorn, Synthesis of Silicon and Higher Manganese Silicide Bulk Nano-composites and Their Thermoelectric Properties, Journal of Electronic Materials, 49 (2020) 2920-2927.
27	N. Parse, S.A. Tanusilp, W. Silpawilawan, K. Kurosaki, S. Pinitsoontorn, Enhancing Thermoelectric Properties of Higher Manganese Silicide (HMS) by Partial Ta Substitution, Journal of Electronic Materials, 49 (2020) 2726-2733.
28	N. Sriplai, R. Mangayil, A. Pammo, V. Santala, S. Tuukkanen, S. Pinitsoontorn, Enhancing piezoelectric properties of bacterial cellulose films by incorporation of MnFe2O4 nanoparticles, Carbohydrate Polymers, 231 (2020) 115730.
29	N. Sriplai, W. Mongkolthanaruk, S.J. Eichhorn, S. Pinitsoontorn, Magnetic bacterial cellulose and carbon nanofiber aerogel by simple immersion and pyrolysis, Journal of Materials Science, 55 (2020) 4113-4126.
30	N. Salidkul, W. Mongkolthanaruk, K. Faungnawakij, S. Pinitsoontorn, Hard magnetic membrane based on bacterial cellulose – Barium ferrite nanocomposites, Carbohydrate Polymers, 264 (2021) 118016.
31	N. Sriplai, S. Pinitsoontorn, Bacterial cellulose-based magnetic nanocomposites: A review, Carbohydrate Polymers, 254 (2021) 117228.
32	L. Wannasen, E. Swatsitang, S. Pinitsoontorn, Flexible supercapacitors based on mesoporous nanocrystalline cobalt ammonium phosphates and bacterial cellulose composite electrode, International Journal of Energy Research, 45 (2021) 3075-3088.
33	L. Wannasen, W. Mongkolthanaruk, E. Swatsitang, P. Pavasant, S. Pinitsoontorn, $Co_2P_2O_7$ Microplate/Bacterial Cellulose–Derived Carbon Nanofiber Composites with Enhanced Electrochemical Performance, Nanomaterials, 11 (2021) 2015.
34	Palaporn, D., Mongkolthanaruk, W., Faungnawakij, K., Kurosaki, K., Pinitsoontorn, S., Flexible Thermoelectric Paper and Its Thermoelectric Generator from Bacterial Cellulose/Ag_2Se Nanocomposites, ACS Applied Energy Materials (2021) *in-press*.
35	Parse, N., Pongkitivanichkul, C., Pinitsoontorn, S., Machine Learning Approach for Maximizing Thermoelectric Properties of BiCuSeO and Discovering New Doping Element, Energies, 15 (2022) 779.
36	Palaporn, D., Mongkolthanaruk, W., Tanusilp, S.-A., Kurosaki, K., Pinitsoontorn, S., A simple method for fabricating flexible thermoelectric nanocomposites based on bacterial cellulose nanofiber and Ag_2Se, Applied Physics Letters, 120 (2022) 073901.
37	Ieamviteevanich, P., Mongkolthanaruk, W., Faungnawakij, K., Daneshvar, E., Bhatnagar, A., Pinitsoontorn, S., Nanoporous Magnetic Carbon Nanofiber Aerogels with Embedded α-Fe/γ-Fe Core-Shell Nanoparticles for Oil Sorption and Recovery, ACS Applied Nano Materials, 5 (2022) 2885-2896.
38	Chuewangkam, N., Nachaithong, T., Chanlek, N., Thongbai, P., Pinitsoontorn, S., Mechanical and Dielectric Properties of Fly Ash Geopolymer/Sugarcane Bagasse Ash Composites, Polymers, 14 (2022) 1140.
39	Chuewangkam, N., Payakaniti, P., Chindaprasirt, P., Pinitsoontorn, S., Ohmic heating as an effective path to rapidly cure and strengthen alkali activated material, Construction and Building Materials, 322 (2022) 126425.

40	Ieamviteevanich, P., Daneshvar, E., Eshaq, G., Puro, L., Mongkolthanaruk, W., Pinitsoontorn, S., Bhatnagar, A., Synthesis and Characterization of a Magnetic Carbon Nanofiber Derived from Bacterial Cellulose for the Removal of Diclofenac from Water, ACS Omega, 7 (2022) 7572-7584.

Selected Research Funding

Principal Investigator	Title of Proposal	Funder	Value	Duration
Pinitsoontorn	Synthesis and Thermoelectric Properties of $Ca_3(Co_{1-x}M_x)_4O_9$ Prepared by Hydrothermal Methods	TRF	THB 480k	2010-2012
Pinitsoontorn	Synthesis and thermoelectric properties of Zn_4sb_3 prepared by hydrothermal method	NRU	THB 2.61M	2011-2014
Pinitsoontorn	Spin Seebeck Effect in highly spin polarized half metallic compounds	TRF	THB 480k	2013-2015
Pinitsoontorn	Advanced Functional Properties of Magnetic Bacterial Cellulose Composites	TRF	THB 1.5M	2016-2019
Pinitsoontorn Eichhorn	Fabrication, Characteristics and Properties of Magneto-Responsive Hybrid Materials Based on Bacterial Cellulose	Newton Fund	£74k	2016-2018
Pinitsoontorn	Enhancement of thermoelectric properties in silicon and silicide based nanocomposite materials	NRCT	THB 800k	2018-2020
Pinitsoontorn	Flexible Thermoelectric Power Generator based on Bacterial Cellulose Nanocomposites	TRF	THB 1.5M	2019-2022
Pinitsoontorn	Flexible supercapacitor electrode from bacterial cellulose-derived carbon nanofiber	FF	THB 800k	2021-2022
Pinitsoontorn	Maximizing Thermoelectric Materials Performance through Controlling Densification and Nanostructured Grains via Cold Sintering Process	NRCT	THB 3.0M	2022-2025

TRF - Thailand Research Fund, NRU - National Research University, NRCT – National Research Council of Thailand, FF – Fundamental Fund

สิทธิบัตร (Patent)

- อนุสิทธิบัตร (ประเทศไทย), “อุปกรณ์วัดสัญญาณสปินซีเบค”, วันยื่นคำขอ 3 พ.ค. 2559, เลขที่คำขอ 1603000746.
- สิทธิบัตรการประดิษฐ์ (ประเทศไทย), “กรรมวิธีการเตรียมโฟมเทอร์โมอิเล็กทริก”, วันยื่นคำขอ 16 ก.ย. 2559, เลขที่คำขอ 1601005372.
- อนุสิทธิบัตร (ประเทศไทย), “อุปกรณ์เทอร์โมอิเล็กทริก สำหรับแปลงผันพลังงานความร้อนไปเป็นไฟฟ้า”, วันยื่นคำขอ 16 ก.ย. 2559, เลขที่คำขอ 1603001813.
- สิทธิบัตรการประดิษฐ์ (ประเทศไทย), “ซีเมนต์แม่เหล็กนีโอดีเมียมเหล็กโบรอน”, วันยื่นคำขอ 25 พ.ค. 2564, เลขที่คำขอ 2101003015.

งานเขียนตำรา/หนังสือ

- สุปรีดิ์ พินิจสุนทร, “วัสดุแม่เหล็ก”, 2558, โรงพิมพ์มหาวิทยาลัยขอนแก่น, 257 หน้า.
- Pinitsoontorn, Supree. "6. Thermoelectric oxides". Thermoelectric Materials, edited by Ken Kurosaki, Yoshiki Takagiwa and Xun Shi, Berlin, Boston: De Gruyter, 2020, pp. 117-144. https://doi.org/10.1515/9783110596526-006.