



Curriculum Vitae of Chiraphat Kumpidet

Energy Technology Department,
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Personal Information:

Full Name:	Chiraphat Kumpidet
Address:	Memelstraße 64, Erlangen 91052 Germany
Date of Birth:	11/11/1982
Languages:	Thai and English, basic in German and Japanese
Nationality:	Thai
Marital Status:	Single
Gender:	Female

Academic Background:

2016 -Present	Ph.D. in Chemical Engineering, Department of Chemical Engineering and Bioengineering, Faculty of Engineering, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany Member: The Graduate School Advanced Materials and Processes (GS AMP) Research: Optimization of biomass conversion to green formic acid Supervisor: Prof. Dr. Peter Wasserscheid
2007-2009	M.Sc. in Fuel Technology, Department of Chemical Technology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand Thesis: Production of bio-oils by liquefaction of palm oil shell in supercritical ethanol Supervisor: Prof. Dr. Pattarapan Prasassarakich
2004-2007	B.Sc. in Chemical Technology, Department of Chemical Technology, Faculty of Science, Chulalongkorn University, Bangkok, Thailand Research: Dehydration of 95% ethanol by pressure swing adsorption (PSA) Supervisor: Prof. Dr. Tharapong Vitidsant
2001-2004	Diploma Analytical Chemistry, The Institute of Analytical Chemistry Training, Department of Science Service, Ministry of Science and Technology, Bangkok, Thailand

1998-2001 **High School** at Benjamamaharaj School, Ubonratchatani, Thailand

Fellowships:

- Fellowship of the Office of the Civil Service Commission (OCSC) in 2016-present.
- Fellowship of the Fuels Research Center, Department of Chemical Technology, Chulalongkorn University in 2007-2009.
- Fellowship of the Chulalongkorn University Scholarships in 2004-2007.
- Fellowship of the Department of Science Service, Ministry of Science and Technology in 2001-2004

Research Experience

2011-present Researcher at Energy Technology Department, Thailand Institute of Scientific and Technological Research (TISTR)

Research projects:

- Research funding from Japan International Cooperation Agency (JICA) in the following research project:
 - 2012-2015: Innovation on Production and Automotive Utilization of Biofuels from Non-food Biomass
- Research funding from National Research Council of Thailand (NRCT) in the following research project:
 - 2015-2017: Bio-oil production of oil palm waste with hydrothermal process
 - 2015-2017: Reforming of Methanol from Glycerol for reuse in Biodiesel Production
 - 2015-2017: Co-pyrolysis of biodiesel-derived glycerol with palm oil industry residues
 - 2014-2016: Bio-methanol development from biogas by Autothermal Reforming (ATR) process
 - 2014-2016: Novel biofuel synthesis process from bio-methanol
 - 2014-2016: Development of biofuel for use with generator-class community
 - 2013-2015: The Produced Methanol Reactor by Auto-Thermal Reforming Process
 - 2013-2015: Bio-jet Synthesis by Chain Auto-Thermal Reforming (CATR)
 - 2013-2015: Research and Development of Biodiesel Fuel Quality by Partial Hydrogenation Process
- Research funding from The Siam Cement Public Company Limited in the following research project:
 - 2014-2015: Hydrothermal experiment CPI Palm-oil industrial waste

2009-2011 Research assistant working under Dr.Pienpak's supervision on two projects, one for the National Economics and Social Development Board and the other for the National Research Council of Thailand.

Workshops training course:

2018 Training in Research Management Training Workshop (ReMaT) by TUTECH, Hamburg, Germany (16-17 April)

2015 Training in the 3rd China-ASEAN Biomass Energy Utilizing Technology Training Workshop at Kunming, Yunnan, China
Department of International Cooperation of the Ministry of Science and Technology (MOST) was host. (07-27 Jul.)

2014 Training in Innovation on Production and Automotive Utilization of Biofuels from Non-food Biomass project at AIST, Japan
Topic: Research on catalysts for improving the stability of bio- fuels (03 Nov.-26 Dec.)

2013 Training in Innovation on Production and Automotive Utilization of Biofuels from Non-food Biomass project at AIST, Japan
Topic: Hydrotreating technology for upgrading BDF (01Sep.-27 Oct.)

2013 Training funding from the ASEAN Science Fund (ASF) in Shah Alam, Malaysia
Topic: Life Cycle Assessment (LCA) and Greenhouse Gas Profiling (26 - 28 Nov.)

2006 During my bachelor program, apprenticed for four and half months in **The 2006 Cleaner Technology Internship Program at Pan Innovation Limited**, Rayong, Thailand (14 Jan.-30 May).

2004 During my diploma program, apprenticed for one and half months at **Chemistry Program, Department of science service, Ministry of Science and Technology**, Bangkok, Thailand (01 Apr.-15 May).

Conferences attended and publications:

- Poster presentation in the 51. Jahrestreffen Deutscher Katalytiker, DECHEMA, Weimar, Germany entitled "Selective Hydrogenation of Glycerol to Propanediols over Transition Metal-Substituted Wells-Dawson Polyoxometalates". **C. Kumpidet***, J. Albert, A. Modvig, A. Riisager, **2018**.
- Poster presentation in the International Congress Engineering of Advanced Materials (ICEAM2017), Erlangen, Germany entitled "Screening and selection of various solvents for selective oxidation of glucose to formic acid". **C. Kumpidet***, J. Albert, P. Wasserscheid, **2017**.

- “Upgrading of palm biodiesel fuel over supported palladium catalysts”. S.Y. Chen*, L. Attanatho, T. Mochizuki, Y. Abe, M. Toba, Y. Yoshimura, **C. Kumpidet**, P. Somwonhsa, S. Lao-ubolc, **2016**, *C. R. Chimie*, 19, 1166-1173.
- “Catalytic methanol conversion to hydrocarbons in batch reaction using solid acid catalysts”. R. Jitrwung*, **C. Kumpidet**, N. Sudsong, K. Krekkeitsakul, A. Wannajampa, K. Leeheng, **2017**, *PACCON2017*, 1596-1600 (proceeding full paper).
- “Methanol synthesis from synthesis gas and CO₂ hydrogenation over Cu/ZnO/Al₂O₃ catalyst”. R. Jitrwung*, N. Sudsong, K. Krekkeitsakul, A. Wannajampa, **C. Kumpidet**, S. Temboonsak, P. Woranitiyaowapha, K. Leeheng, **2016**, *SEE2016* ([full paper](#)).
- Oral presentation (English) in The Seminar on Bio-oil Research of Innovation on Production and Automotive Utilization of Biofuels from Non-Food Biomass, Bangkok, Thailand entitled “Development of database on biomass pyrolysis” on the 11th February **2016**.
- Oral presentation (English) in The 4rd Annual All Researchers Meeting on Innovation on Production and Automotive Utilization of Biofuels from Non-Food Biomass, Bangkok, Thailand entitled “Improved Pd-Based Hydrogenation Catalysts for upgrading biodiesel” on the 10th February **2015**.
- Oral presentation (English) in The 3rd Annual All Researchers Meeting on Innovation on Production and Automotive Utilization of Biofuels from Non-Food Biomass, Bangkok, Thailand entitled “Hydrotreating technology for upgrading BDF” on the 5th February **2014**.
- Poster presentation in the 10th Biomass Asia workshop-Biomass Refinery to Community and Industrial Application, Bangkok, Thailand entitled “Improvement of oxidation stability of Jatropha oil biodiesel”. L. Attanatho*, **C. Kumpidet**, P. Sreesiri, **2013**, 40-51 (proceeding full paper).
- Oral presentation (English) in Pure and Applied Chemistry International Conference (PACCON2009), Phitsanulok, Thailand entitled “Production of bio-oils by liquefaction of biomass in sub-/supercritical fluid”. **C. Kumpidet***, P. Prasassarakich, **2009**, 733-736 (proceeding full paper).

During my research work, I have exposure to spectroscopic techniques such as Nuclear Magnetic Resonance (NMR), Infrared Spectroscopy (IR), Mass Spectroscopy (MS), Gas Chromatography (GC), and inductively coupled plasma optical emission spectrometry (ICP-OES). Moreover, I identify biofuel product by using gas chromatograph equipped with a mass selective detector for structural characterization.

Language skills:

Thai: Mother tongue
English: Good
German: Basic
- 2011 (05 Apr.-07 Jul.): Grundstufe I (A1) 2 in VHS Köln
- 2009 (06 -31 Jul.): DaF Grundstufe I-1 (A1) in VHS Köln
- 2008 (23 Apr.-07 Jul.): Grundstufe 1 und 2 von 12 (A1) at Goethe-Institute, Bangkok, Thailand
Japanese: Basic
- 1998-2000: at Benjamamaharaj School, Ubonratchatani, Thailand

References:

1. Prof. Dr. Peter Wasserscheid (Chair of Reaction Engineering)
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2. Prof. Dr. Pattarapan Prasassarakich
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