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Education

Degree: Ph.D. (Chemical and Process Engineering)	University of Surrey, UK
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Field of interest : Bioprocess Engineering, Downstream process

Current research:

1. Bioreactor design for composting
2. Bioreactor design for biodiesel production
3. Application of gas-liquid compound drops for biodiesel production, oil separation

Publication:

พิกุล วณิชากิชาติ และ วิริยะ ดวงสุวรรณ .2546. การพัฒนาอุปกรณ์ต้นแบบสำหรับการกรองน้ำกร่อยโดยใช้เมมเบรน. รายงานการวิจัย มหาวิทยาลัยสงขลานครินทร์.

วิริยะ ดวงสุวรรณ ,เกริกชัย ทองหนู ,สมาน เสนงาม และ วรุช วิสุทธิเมธางกูร .2543. ต้นแบบเครื่องอัดเชื้อเพลิงแข็งจากฝุ่นไม้. การสัมมนาทางวิชาการเครือข่ายวิศวกรรมเครื่องกลแห่งประเทศไทย ครั้งที่ 14. ณ โรงแรมโนโวเทล ,เชียงใหม่. 2-3 พฤศจิกายน 2543. หน้า 593-597.

Bangrak, P., **Duangsuwan, W.**, Ukita, M. and Prasertsan, P. 2005. Production of compost from palm oil mill wastes. In Proceedings of BioThailand 2005. The Queen Sirikit National Convention Center, Bangkok, Thailand. 2-5 November 2005.

Duangsuwan, W., Tuzun, U. and Sermon, P. A. 2009. Configurations and dynamics of single air/alcohol gas-liquid compound drops in vegetable oil. Chem. Eng. Sci. 64 : 3147-3158.

Duangsuwan, W., Tuzun, U. and Sermon, P.A. 2010. Feasibility of N₂/sunflower oil compound drop formation in methanol induced by bubble trains. AIChE. 56 : 3274-3278.

Duangsuwan, W., Tuzun, U., Sermon, P.A. and Garrity, D. J. 2010. Visualisation and modelling of the dissolution from air-alcohol compound drops dispersed in sunflower oil. In Proceedings of World Congress on Particle Technology (WCPT6). Nuremberg, Germany. 26-29 April 2010.

- Duangsuwan, W.**, Tuzun, U. and Sermon, P.A. 2011. The dynamics of single air bubbles and alcohol drops in sunflower oil at various temperatures. *AIChE*. 57 : 897-910.
- Nutongkaew, T., **Duangsuwan, W.**, Prasertsan, S. and Prasertsan, P. 2011. Production of compost from palm oil mill biogas sludge mixed with palm oil mill wastes and biogas effluent. In Proceedings of *The Thai Institute of Chemical Engineering and Applied Chemistry International Conference*(TICChE 2011). The 60th Anniversary of His Majesty the King's Accession to the Throne International Convention Center, Songkhla, Thailand. 10-11 November 2011.
- Nutongkaew, T., **Duangsuwan, W.**, Prasertsan, S. and Prasertsan, P. 2014. Effect of inoculum size on production of compost and enzymes from palm oil mill biogas sludge mixed with shredded palm empty fruit bunches and decanter cake. *Songklanakarin J. Sci. Technol.* 36 (3), 275-281.
- Nutongkaew, T., **Duangsuwan, W.**, Prasertsan, S. and Prasertsan, P. 2014. Physicochemical and biochemical changes during composting of different mixing ratios of biogas sludge with palm oil mill wastes and biogas effluent. *Journal of Material Cycles and Waste Management*. 16, 131-140.
- Wanichapichart, P., **Duangsuwan, W.**, Bhongsuwan, D., Mohamad, P. and Sridang, P. 2006. Membrane filtration removing salts and arsenic in drinking water for rural areas. In Proceedings of International Symposium on Managing Water Supply for Growing Demand. Bangkok, Thailand. 16-20 October 2006.
- Wanichapichart, P., Sridang, P. and **Duangsuwan, W.** 2007. Drinking water production system for arsenic removal: Case study in moo 2, Ronpiboon sub-district, Ronpiboon district, Nakhon Sri Thammarat. *TEEJ*. 21 : 131-139.
- Wiriya Duangsuwan**, Poonsuk Prasertsan and Annop Chawalitsittikul. 2014. Design and testing of long throat venturi- and jet-type bubble generators for using in palm oil industry. In Proceeding of The International Bioscience Conference (IBSC 2014). Phuket, Thailand. 29-30 September 2014, pp. 230-233.
- Wiyada Khangkhachit, **Wiriya Duangsuwan** and Poonsuk Prasertsan. 2014. Effect of sludge pretreatment methods to improve methane production from palm oil mill effluent. In Proceeding of The International Bioscience Conference (IBSC 2014). Phuket, Thailand. 29-30 September 2014, pp. 95-98.