# **MUHAMMAD NAZIZ BIN SAAT**

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### RESEARCH INTEREST

Enzymatic reactions, Functionalisation, Fungal Fermentation, Experimental Design, Response Surface Optimization, Factorial Design, Kinetic Modelling.

# **ACADEMIC QUALIFICATIONS**

# PhD. (Biotechnology)

UNIVERSITI MALAYA

Thesis tittle, "Kinetics of lipase-catalysed functionalization of epsilon-caprolactone monomer and oligomer with methyl-D-glucopyranoside".

# MSc. (Industrial Biotechnology)

UNIVERSITI MALAYA

Thesis tittle, "Fermentation and kinetic studies on laccase production by *Pycnoporus sanguineus*".

## BSc. (Biotechnology) UNIVERSITI MALAYA

**CGPA 3.46** 

# **TEACHING EXPERIENCE**

#### Universiti Malaya

SHET3101/SIO3001 Bioprocess Technology, BSc (Biotechnology), Tutor/Lab demonstrator, (2010 - 2019).

#### **Universiti Malaya**

SIO3102 Enzyme Technology,

BSc (Biotechnology), Lab demonstrator, (2019).

#### **Universiti Malaya**

SXEX1101 Biostatistics,

BSc (Biotechnology), Tutor, (2013 – 2014).

2019

2013

2006

#### **International Universiti Malaya Wales**

BTC634 Enzyme Technology,

BSc (Biotechnology), Lab Demonstrator, (2018 - 2019).

### **International Universiti Malaya Wales**

BTC663 Bioreactor Design,

BSc (Biotechnology), Lecturer, (Feb-Jun 2018).

## RESEARCH EXPERIENCE

September 2019	Research assistant in microbial farming for polyhydroxyalkanoates (PHA) production (Professor Dr M. Suffian M. Annuar)
December 2014 - November 2017	PhD research on "Integrated enzymatic reactor for high throughput functionalized polymer production (Professor Dr. M. Suffian M. Annuar)
January 2013 – July 2013	Research assistant in production and Recovery of sugar esters (Professor Dr. M. Suffian M. Annuar)
April 2009 – January 2010	Research assistant in plant cell bioreactor (Professor Dr. M. Suffian M. Annuar)
August 2006 – February 2007	Research assistant in polyhydroxyalkanoates (PHA) production (Professor Dr. M. Suffian M. Annuar)

## **PUBLICATIONS**

#### <u>Journals</u>

Saat, M. N., & Annuar, M. S. M. (2019). Statistical analysis of one-pot lipase-catalyzed esterification of  $\varepsilon$ -caprolactone with methyl-D-glucopyranoside and its extension. Biocatalysis and Agricultural Biotechnology, 101464.

Saat, M. N., & Annuar, M. S. M. (2019). One-pot lipase-catalyzed esterification of  $\varepsilon$ -caprolactone with methyl-D-glucopyranoside and its elongation with free 6-hydroxyhexanoate monomer units. Biotechnology and Applied Biochemistry, https://doi.org/10.1002/bab.1859

Simarani, K., Saat, M. N., & Mohamad Annuar, M. S. (2016). Efficient removal of azo dye by grated copra biomass. Desalination and Water Treatment, 57(1), 230-237.

Saat, M. N., Annuar, M. S. M., Alias, Z., Chuan, L. T., & Chisti, Y. (2014). Modeling of growth and laccase production by *Pycnoporus sanguineus*. Bioprocess and Biosystems Engineering, 37(5), 765-775.

Saat, M. N., Annuar, M. S. M., Alias, Z., & Bakar, B. (2012). Effects and optimization of selected operating variables on laccase production from *Pycnoporus sanguineus* in stirred tank reactor. International Journal of Chemical Reactor Engineering, 10(1).

# SCHOLARSHP AWARD

2014 – 2017, Awarded Skim Tenaga Pengajar Muda (TPM) from Universiti Teknologi Mara (UiTM).

2007 – 2009, Awarded National Science Fellowship (NSF) from Ministry of Science, Technology and Innovation (MOSTI).

### **FUNDED RESEARCH GRANTS**

Enzymatic reactor studies for high throughput functionalized biopolymer production, Co-researcher, 2015 - 2018, Postgraduate Research Grant (PPP), (National).

Production, purification and characterization of laccase enzyme from white rot fungi for biotechnological applications, Co-researcher, 2007 - 2008, Postgraduate Research Grant (PPP), (National).

#### CONFERENCES

#### Oral

Saat, M. N., Annuar, M. S. M., & Alias, Z. (2010). Fungal laccase production in a stirred tank reactor. 15th Biological Sciences Graduate Congress (BSGC), Kuala Lumpur, 2010. (International).

#### <u>Poster</u>

Saat, M. N., Annuar, M. S. M., & Alias, Z. (2009). Laccase production by *Pycnoporus sanguineus* in shake-flasks: locating the optimization domain using statistical design. 2009 International Congress of Malaysian Society for Microbiology (ICMSM), Penang, 2009. (International).

# **REFERENCES**

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