Prof. Ir. Maya Sarah, S.T., M.T., Ph.D., IPM.

Lecturer of Undergraduate Program in Chemical Engineering Study Program
Faculty of Engineering
Universitas Sumatera Utara

Maya3@usu.ac.id

Chemical Engineering Study Program, USU Faculty of Engineering Building Level 1

ft.usu.ac.id/en/lecturer/maya-sarah

Prof. Ir. Maya Sarah, S.T., M.T., Ph.D. was born in Surabaya on May 1, 1970, and is a lecturer in Chemical Engineering at Universitas Sumatera Utara. She completed a Doctoral Program in Chemistry at UTM in 2015.

Education:

Bachelor's Degree – Chemical Engineering, Universitas Sumatera Utara, 1995

Master's Degree – Chemical Engineering, Institut Teknologi Bandung, 2000

Doctoral Degree – Kejuruteraan Kimia, Universiti Teknologi Malaysia, 2015

Publications

2026
Jurnal internasional bereputasi

Kinetic Modeling of Biomethane Production from Cassava Peel Waste: Impact of Silica Gel as an Adsorbent

MAYA SARAH

2026
Jurnal internasional bereputasi

Upcycling eggshell waste into CaO-enhanced PVDF mixed matrix membranes for optimized CO2/CH4 separation

MAYA SARAH , Ellora Priscille Ndia Ntone , Sunarti Abdul Rahman

2025
Jurnal internasional bereputasi

Sustainable and functionalized nanofillers to improve CO2 capture and methane purification in mixed matrix membranes

MAYA SARAH , Ellora Priscille Ndia Ntone , Sunarti Abdul Rahman , Mohd Hafiz Dzarfan Othman , Azam Taufik Mohd Din , Afifi Zainal

2025
Jurnal internasional bereputasi

Sustainable and functionalized nanofillers to improve CO2 capture and methane purification in mixed matrix membranes

Ellora Priscille Ndia Ntone , Sunarti Abdul Rahman , Mohd Hafiz Dzarfan Othman , Azam Taufik Mohd Din , Afifi Zainal , MAYA SARAH

2025
Jurnal internasional bereputasi

Process optimization of microwave-assisted hydrodistillation for Andaliman (Zanthoxylum acanthopodium DC.) extraction: Investigating solvent volume, power, and time effects on yield

MUHAMMAD ALKAUSAR , SITI SALAMAH NASUTION , ISTI MADINAH HASIBUAN , MAYA SARAH

2025
Jurnal internasional bereputasi

Process optimization of microwave-assisted hydrodistillation for Andaliman (Zanthoxylum acanthopodium DC.) extraction: Investigating solvent volume, power, and time effects on yield

MUHAMMAD ALKAUSAR , SITI SALAMAH NASUTION , ISTI MADINAH HASIBUAN , MAYA SARAH

2025
Prosiding seminar internasional

Swelling kinetics of CNC-g-poly (acrylamide-co-graphene oxide) hydrogels at various GO mass

MAYA SARAH , HAMIDAH HARAHAP , ANDIKA STEVEN SITORUS

2024
Jurnal internasional bereputasi

Reusability of amberlyst CM-4 catalyst through continuous methanol washing with nitrogen gas in biodiesel production using lauric acid as feedstock

RONDANG TAMBUN , BODE HARYANTO , VIKRAM ALEXANDER , ANGGARA DWITA BURMANA , MAYA SARAH

2024
Jurnal internasional bereputasi

An investigation shell and tube heat exchanger for cooling system: A case study of biodiesel plants using lauric acid

BODE HARYANTO , VIKRAM ALEXANDER , ANGGARA DWITA BURMANA , RONDANG TAMBUN , MAYA SARAH

2024
Prosiding seminar internasional

Effect of methanol purity on biodiesel production from lauric acid using esterification reaction

ANGGARA DWITA BURMANA , VIKRAM ALEXANDER , MAYA SARAH , RONDANG TAMBUN , BODE HARYANTO

2024
Jurnal nasional

Development of Biogas Plant and Mushrooms Grumpy in a Biomass Waste Utilization Facility at Tadukan Raga Village, STM Hilir District, Deli Serdang Regency

MAYA SARAH

2024
Jurnal nasional terakreditasi

Studi Pengaruh Variasi Konsentrasi Garam Dapur (NaCl) sebagai Larutan Elektrolit dan pH Bahan Baku dalam Pembuatan Biobaterai Kering Berbasis Limbah Kulit Pisang

MAYA SARAH

2023
Jurnal internasional bereputasi

Recycling heterogeneous catalyst waste in biodiesel production using methanol and hydrochloric acid: A case study on the washing effect with lauric acid as raw material

RONDANG TAMBUN , BODE HARYANTO , MAYA SARAH

2023
Prosiding seminar internasional

Bioelectric production of palm oil mill effluent with double chamber microbial fuel cell method and Lactobacillus bulgaricus

MAYA SARAH

2023
Prosiding seminar internasional

Biogas Production from Cassava Peels Utilizing Fixed Bed Bioreactor with Silica Gel Media

AMIR HUSIN , MAYA SARAH

2023
Jurnal internasional bereputasi

Extraction of citronella oil from lemongrass (Cymbopogon winterianus) by sequential ultrasonic and microwave-assisted hydro-distillation

MAYA SARAH

2023

Jurnal internasional bereputasi

Extraction of citronella oil from lemongrass (Cymbopogon winterianus) by sequential ultrasonic and microwave-assisted hydro-distillation

MAYA SARAH

2023
Prosiding seminar internasional

Biogas Production from Cassava Peels Utilizing Fixed Bed Bioreactor with Silica Gel Media

MAYA SARAH

2022
Artikel ilmiah

Analisis Produksi Biogas Terhadap Penambahan Kulit Singkong pada Variasi Campuran Limbah Cair Domestk dan Aquadest

AMIR HUSIN , MAYA SARAH

2022
Jurnal internasional

Research Activities From Home During Coronavirus Disease (Covid) 19: Drying Kinetic Study Of Ginger (Zingiber Officinale Rosc.) Naturally (Natural Drying)

BODE HARYANTO , MAYA SARAH

2020
Prosiding seminar internasional

Hydrolysis of oil palm empty fruit bunch using rotating microwave reactor

MAYA SARAH

2020
Jurnal internasional bereputasi

Effect of Power and Time in Pectin Production from Cocoa Pod Husk Using Microwave-Assisted Extraction Technique

MAYA SARAH

2020
Jurnal internasional

Hydro distillation of java citronella using microwaves technique: Effect of mass ratio and irradiati

MAYA SARAH

2019
Prosiding seminar internasional

Calorific Value of Oil Palm Frond Through Bio-Charcoal Briquette as Renewable Energy

MAYA SARAH

2019
Prosiding seminar internasional

Microwave Assisted Hydrolysis of Oil Palm Empty Fruit Bunch: Effect of Wave Distance Sources, Power, Time and Acid Concentration

MAYA SARAH

2019
Prosiding seminar internasional

Heat Transfer Evaluation on Microwave Sterilization: Case Study of Oil Palm Fruit

MAYA SARAH

2018
Prosiding seminar internasional

Effect of sterilization time and temperature on fatty acids, carotenoids and vitamin e of oil extracted from palm fruit irradiated by microwave energy

MAYA SARAH

2018

Jurnal internasional

Production of biogas from co-digestion of empty fruit bunches (EFB) with palm oil mill effluent (POME): effect of mixing ratio.

MAYA SARAH

2018
Prosiding seminar internasional

Study on potency of municipal solid waste conversion into renewable energy by thermal incineration and bioconversion: Case study of Medan city

MAYA SARAH

2018
Prosiding seminar internasional

Optimization of palm fruit sterilization by microwave irradiation using response surface methodology

MAYA SARAH

2018
Jurnal internasional bereputasi

CAROTENOIDS PRESERVATION DURING STERILIZATION OF PALM FRUIT USING MICROWAVE IRRADIATION

MAYA SARAH

2017
Prosiding seminar internasional

Critical parameters for sterilization of oil palm fruit by microwave irradiation

MAYA SARAH

2017
Jurnal internasional bereputasi

Study on hydrolysis of Oil Palm's Empty Fruit Bunch using microwave irradiation

MAYA SARAH

2013
Jurnal internasional bereputasi

Enzymatic destruction kinetics of oil palm fruits by microwave sterilization

MAYA SARAH

2005
Jurnal nasional

Performance Of Abr: Case Study Using Glycerin Pitch As Substrate

MAYA SARAH

2026
Artikel ilmiah

Pra Rancangan Pabrik Pembuatan Lithopone Dari Seng Sulfat Dan Barium Sulfida Dengan Kapasitas Produksi 4000 Ton/Tahun

MAYA SARAH

2026
Prosiding seminar nasional

Estimasi Teoretis Perolehan Bioetanol dari Hidrolisis Tandan Kosong Kelapa Sawit (TKS) Menggunakan Asam Encer

MAYA SARAH

2026
Prosiding seminar internasional

Microwave Sterilization of Oil Palm Fruits: Temperature Profile During Enzymatic Destruction Process

MAYA SARAH

2026
Tulisan ilmiah

Pra Rancangan Unit Sterilizer Pada Pabrik Kelapa Sawit Untuk Kapsitas Pengolahaan 30 Ton/Jam

MAYA SARAH

2026
Makalah ilmiah
Study on Hydrolysis of Oil Palm's Empty Fruit Bunch using
MAYA SARAH

2026
Makalah ilmiah
Kinerja Penghilangan Tinta dari Kertas Koran
MAYA SARAH

2026
Prosiding seminar internasional
Effect of methanol purity on biodiesel production from lauric acid using esterification reaction
MAYA SARAH

2026
Jurnal internasional
Study on Hydrolysis of Oil Palm’s Empty Fruit Bunch Using Microwave Irradiation
MAYA SARAH

2026
Prosiding seminar nasional
BIOETANOL DARI LIGNOSELULOSA: POTENSI PEMANFAATAN LIMBAH PADAT DARI INDUSTRI MINYAK KELAPA SAWIT
MAYA SARAH

2026
Prosiding seminar nasional
ESTIMASI TEORETIS PEROLEHAN BIOETANOL DARI HIDROLISIS TANDAN KOSONG KELAPA SAWIT (TKS) MENGGUNAKAN ASAM ENCER1
MAYA SARAH

2026
Prosiding seminar internasional
Pra-Rancangan Pabrik Isopropil Miristat Berbasis Kombinasi Teknologi Distilsi Reaftif dan Ekstraktif dengan Kapasitas 14.000 Ton per Tahun
MAYA SARAH

2026
Jurnal nasional terakreditasi
Pengaruh Jenis Dan Konsentrasi Pelarut Dalam Reduksi Ekses Lumpur Aktif
MAYA SARAH

2026
Prosiding seminar internasional
Bio-Oil Production From Pyrolysis Of Coconut Fronds As Alternative Fuels
MAYA SARAH

2026
Jurnal internasional bereputasi
Bukti Sebagai Reviewer Journal Radiation Physics and Chemistry
MAYA SARAH

2026
Prosiding seminar internasional
Microwave-assisted extraction of pectin from cocoa peel. IOP Conf
MAYA SARAH

2026
Jurnal nasional
Proses Penghilangan Tinta pada Kertas Bekas
MAYA SARAH

Community Services

2025

Asesor LAM Teknik

HENKY MULJANA , MAYA SARAH

Intellectual Property Rights

2026
Hak cipta nasional

Teknologi Pengolahan Limbah Cair Pabrik Kelapa Sawit

IRVAN , MAYA SARAH

2025
Paten nasional

Formulasi Biopesisida diri minyak Puli Pala

MAYA SARAH

2024
Paten nasional

PROSES EKSTRAKSI HIDRO-DISTILASI BERBANTUKAN GELOMBANG MIKRO UNTUK MINYAK ATSIRI FULI Myristica Fragrans Houtt

MAYA SARAH

2024
Paten nasional

PROSES EKSTRAKSI HIDRO-DISTILASI BERBANTUKAN GELOMBANG MIKRO UNTUK MINYAK ATSIRI FULI Myristica Fragrans Houtt

MAYA SARAH

2022
Paten nasional

Metode pembuatan glukosa dari tandan kosong kelapa sawit

MAYA SARAH