Mersi Suriani Sinaga, S.T., M.T.

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

mersisinaga68@yahoo.com

ft.usu.ac.id/en/lecturer/mersi-suriani-sinaga

Mersi Suriani Sinaga, S.T., M.T. was born in Medan on August 6, 1968, and is a lecturer in Chemical Engineering at Universitas Sumatera Utara. She completed a Master's Program in Chemical Engineering at USU in 2005.

Publications

2026
Jurnal internasional bereputasi

Synthesis and catalytic activity of plantain peel waste (Musa paradisiaca L.) derived K2O as a sustainable heterogeneous catalyst

MERSI SURIANI SINAGA , ARAVI ZALSA RAMADHAN , VIRGINIA HALIM

2026
Jurnal internasional bereputasi

Application of activated carbon from durian peel activated with potassium hydroxide and microwave as an adsorbent for the purification of used cooking oil

RONDANG TAMBUN , MERSI SURIANI SINAGA , FITRI ROWIYAH RAMBE , VIKRAM ALEXANDER , WILSON SILALAHI , SAULINA KRISDAYANTI MANALU

2025
Jurnal internasional

Quality Analysis of Biobriquettes Combination Ratio of Oil palm Frond and Water Hyacinth Waste with Durian Seed Flour Adhesive

MERSI SURIANI SINAGA , RONDANG TAMBUN

2024
Jurnal internasional bereputasi

The Impact Of Hydrogen Peroxide Oxirane Oxygen Number Conversion In Epoxy Compounds Derived From Purple Passion Fruit Seeds

MERSI SURIANI SINAGA , RONDANG TAMBUN , EDUAR EFRODO NDRAHA , ARAVI ZALSA RAMADHAN

2023
Jurnal internasional bereputasi

The Effect Of Reaction Time On Kinematic Viscosity and Conversion In The Manufacturing of Bio-Lubricant Alternatives From Oleic Acid With Palm Kernel Shell Catalyst As An Approach to Renewable Energy

RONDANG TAMBUN , MERSI SURIANI SINAGA , MAULIDA

2021
Jurnal internasional bereputasi

Utilization of Unsaturated Fatty Acid from Papaya Seed Oil Waste (Carica Papaya L) as Raw Materials in the Making of Epoxy Compounds

MERSI SURIANI SINAGA

2019
Prosiding seminar internasional

Effect of Reaction Time and Catalyst Concentration on Making of Epoxy Compounds Using Sulphuric Acid Catalyst Based on Crystallized Palm Fatty Acid Distillate

MERSI SURIANI SINAGA

2019
Prosiding seminar internasional

Effect of Acidification Mole Ratio And Solvent Volume Ratio of Glycerol Purification

MERSI SURIANI SINAGA

2018
Prosiding seminar internasional

Effect of solvent volume ratio and time extraction of glycerol purification

MERSI SURIANI SINAGA

2018
Prosiding seminar internasional

Utilization of cacao peel waste to K2 O heterogeneous catalyst in biodiesel synthesis by waste cooking oil: effect of catalyst calcination temperature

MERSI SURIANI SINAGA

2018
Prosiding seminar internasional

Production of epoxy compounds from unsaturated fatty acids derived from crystallization of used cooking oil

MERSI SURIANI SINAGA

2018
Prosiding seminar internasional

The utilization of Sambung Nyawa (Gynura procumbent [Lour]. Merr) leaves extracts as an antioxidant for coconut oil by using ethanol solvent

MERSI SURIANI SINAGA

Researches

2025

Pembuatan Karbon Aktif dari Kulit Durian (Durio Zibethinus) Menggunakan Aktivator KOH dan Gelombang Mikro Sebagai Adsorben pada Pemurnian Minyak Jelantah

FITRI ROWIYAH RAMBE , RONDANG TAMBUN , MERSI SURIANI SINAGA , Azizul Helmi Sofian

2025

Pembuatan Pengawet Ikan Dari Asap Cair Dengan Variasi Konsentrasi Asap Cair Dan Waktu Perendaman

RONDANG TAMBUN , OKTA BANI , MERSI SURIANI SINAGA , OKTAFIANA LESTARI , SALSABILLA NASUTION

2022
Penelitian Strategis Nasional

Pembuatan Biolubricant dari Epoksidasi Asam Oleat Minyak Kelapa Sawit dengan Katalis Heterogen Cangkang Kela[pa Sawit untuk Pendekatan Energi Baru Terbarukan : Pengaruh Konsentrasi Katalis dan Waktu Reaksi

MERSI SURIANI SINAGA

2020
Penelitian Unggulan Perguruan Tinggi

Pemanfaatan Biji Pepaya sebagai Bahan Baku dalam Pembuatan Senyawa Epoksi dengan Metode In-SItu

RONDANG TAMBUN , MERSI SURIANI SINAGA

Community Services

2024

Pemberdayaan Masyarakat Lokal disekitar Pabrik Sawit melalui Integrasi Pengolahan Limbah Cair Sawit dan Tandang Kosong pada produksi Biogas Skala Rumah Tangga dan Budidaya Jamur Merang di Desa Tadukan Raga Kecamatan STM Hilir Kabupaten Deli Serdang

FATIMAH , IRVAN , INDRA SURYA , MERSI SURIANI SINAGA

2023

PENGEMBANGAN BIOGAS PLANT DAN KUMBUNG JAMUR PADA FASILITAS PEMANFAATAN LIMBAH NON B3 BIOMASSA DI DESA TADUKAN RAGA, KECAMATAN SINEMBAH TANJUNG MUDA HILIR, KABUPATEN DELI SERDANG

BAMBANG TRISAKTI , FARIDA HANUM , MAYA SARAH , MERSI SURIANI SINAGA

Intellectual Property Rights

2026
Paten nasional

FORMULASI PASTA GIGI ANTIBAKTERI MENGANDUNG KOMBINASI EKSTRAK DAUN SIRIH, EKSTRAK BIJI KOPI ROBUSTA, DAN CANGKANG TELUR AYAM

MERSI SURIANI SINAGA

2025
Paten nasional

PROSES PEMBUATAN BIOLUBRICANT DARI ASAM OLEAT MENGGUNAKAN KATALIS HETEROGEN CANGKANG KELAPA SAWIT

MERSI SURIANI SINAGA