Dr. Indra Masmur, S.Si, M.Si

Lecturer of Undergraduate Program in Chemistry Study Program
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Dr. Indra Masmur, S.Si., M.Si was born in Sikeben on November 05, 1976. He is a Chemistry lecturer at the Universitas Sumatera Utara. He completed his doctoral degree in Chemistry at the Universitas Sumatera Utara in 2017.

Publications

2026
Jurnal internasional bereputasi

The Development of Green Schiff Base-Coated Papers Using Empty Palm Fruit Bunch Biomass for Enhanced Wet Strength

Leo Frengki Sihaloho, ST , Immanuel Siahaan , Fadhila Natania Damanik , Rahel Argana Doloksaribu , Septriasi Sarah Ardela , Andira Sapitri , Verianto Pakpahan , Rahel Gabriel Sionita Hutapea , INDRA MASMUR DR SSI MSI , ELVRI MELLIATY SITINJAK , HARDY SHUWANTO , POLTAK EVENCUS HUTAJULU , GIMELLIYA SARAGIH , SARI FARAH DINA

2025
Jurnal internasional bereputasi

The Utilization of Chitosan from Maggot (Hermetia illucens) Exuvia as Edible Coating for Tomatoes (Lycopersicon esculentum) and Edible Film with the Addition of Honey as an Antibacterial Agent

EVA MARLIANA , DANIEL , SAIBUN SITORUS , SUBUR P. PASARIBU , RITA HAIRANI , RITBEY RUGA , CHAIRUL SALEH , DJIHAN RYN PRATIWI , AGUSTINA RAHAYU MAGDALENI , INDRA MASMUR DR SSI MSI , DRA.HESTINA, m.sI

2025
Jurnal nasional terakreditasi

Optimasi dan Sintesis Selulosa Dialdehid Berbasis Limbah Tandan Kosong Kelapa Sawit

ELVRI MELLIATY SITINJAK , SARI FARAH DINA , GIMELLIYA SARAGIH , POLTAK EVENCUS HUTAJULU , HARDY SHUWANTO , INDRA MASMUR DR SSI MSI , IMMANUEL SIAHAAN , FADHILA NATANIA DAMANIK , RAHEL ARGANA DOLOKSARIBU

2025
Jurnal internasional bereputasi

The Utilization of Chitosan from Maggot (Hermetia illucens) Exuvia as Edible Coating for Tomatoes (Lycopersicon esculentum) and Edible Film with the Addition of Honey as an Antibacterial Agent

CHAIRUL SALEH , DANIEL , SAIBUN SITORUS , SUBUR P. PASARIBU , RITBEY RUGA , RITSON PURBA , AGUSTINA RAHAYU MAGDALENI , DRA.HESTINA, m.sI , EVA MARLIANA , RITA HAIRANI , INDRA MASMUR DR SSI MSI , DJIHAN RYN PRATIWI

2025
Jurnal internasional bereputasi

SUSTAINABLE ANTIBACTERIAL NANOFIBRES:ELECTROSPUN CELLULOSE ACETATE FROM OIL PALMWASTE REINFORCED WITH SILVER NANOPARTICLES

DRA.HESTINA, m.sI , INDRA MASMUR DR SSI MSI , DANIEL

2025
Jurnal internasional bereputasi

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2025
Jurnal internasional bereputasi

SUSTAINABLE ANTIBACTERIAL NANOFIBRES: ELECTROSPUN CELLULOSE ACETATE FROM OIL PALM WASTE REINFORCED WITH SILVER NANOPARTICLES

INDRA MASMUR DR SSI MSI , DRA.HESTINA, m.sI , DANIEL

2025
Jurnal internasional bereputasi

SUSTAINABLE ANTIBACTERIAL NANOFIBRES:ELECTROSPUN CELLULOSE ACETATE FROM OIL PALMWASTE REINFORCED WITH SILVER NANOPARTICLES

DRA.HESTINA, m.sI , INDRA MASMUR DR SSI MSI , DANIEL

2025
Jurnal nasional terakreditasi

Community Empowerment Through Improving Weaving Skills to Support the Achievement of Sustainable Development Goals (SDGs)

GUSTANTO , INDRA MASMUR DR SSI MSI , TUA RAJA SIMBOLON , DIANA ALEMIN BARUS

2025
Jurnal internasional bereputasi

Seaweed-Like Structure of a NiCo<inf>2</inf>O<inf>4</inf>/NiFe<inf>2</inf>O<inf>4</inf>/C Nanoelectrocatalyst: An Effective Strategy for Boosting Overall Water Splitting

HARDY SHUWANTO , JENNI LIE , HAIRUS ABDULLAH , INDRA MASMUR DR SSI MSI , TIFFANY , Nana Septiana Nur , KAS TA RIO , SUBUR P. PASARIBU

2025
Jurnal internasional bereputasi

Seaweed-Like Structure of a NiCo2O4/NiFe2O4/C Nanoelectrocatalyst: An Effective Strategy for Boosting Overall Water Splitting

SUBUR P. PASARIBU , HARDY SHUWANTO , JENNI LIE , HAIRUS ABDULLAH , INDRA MASMUR DR SSI MSI , TIFFANY , Nana Septiana Nur

2025
Jurnal internasional bereputasi

Boosting photocatalytic hydrogen generation and Photo-Destruction of Tetracycline by In-Situ oxygen vacancies ZnIn2S4

SUBUR P. PASARIBU , HARDY SHUWANTO , JENNI LIE , HAIRUS ABDULLAH , INDRA MASMUR DR SSI MSI

2024
Jurnal internasional bereputasi

Boosting photocatalytic hydrogen generation and Photo-Destruction of Tetracycline by In-Situ oxygen vacancies ZnIn2S4

JENNI LIE , HARDY SHUWANTO , HAIRUS ABDULLAH , SUBUR P. PASARIBU , INDRA MASMUR DR SSI MSI

2023
Jurnal internasional bereputasi

Medical waste utilization as a carbon source assisting nanothorn ZnIn2S4 for photocatalytic hydrogen evolution and hydrogenation reaction

SUBUR P. PASARIBU , KAS TA RIO , INDRA MASMUR DR SSI MSI , HARDY SHUWANTO , JENNI LIE , HAIRUS ABDULLAH

2023
Jurnal internasional bereputasi

Electrospun Nanofiber Mats with Embedded Zinc Oxysulfide for Photoreduction of Nitrobenzene to Aniline under Mild Condition

ELVRI MELLIATY SITINJAK , NEW VITA MEY DESTTY MARBUN , GOLFRID GULTOM , INDRA MASMUR DR SSI MSI , POLTAK EVENCUS HUTAJULU

2023
Jurnal internasional bereputasi

Facile synthesis of self-healing poly-acrylic acid/TiO2 hybrid hydrogel for

photocatalytic hydrogenation of 4-nitrophenol to 4-aminophenol

INDRA MASMUR DR SSI MSI

2023
Jurnal nasional terakreditasi

Synthesis of Sodium Myristyl Sulfate with Myristyl Alcohol Sulfation using SO3-DMF

INDRA MASMUR DR SSI MSI

2023
Jurnal nasional terakreditasi

Effect of Chain Length on Fatty Alcohol Sulfation using SO3-DMF

INDRA MASMUR DR SSI MSI

2023
Jurnal internasional bereputasi

Material Design of Bimetallic Catalysts on Nanofibers for Highly Efficient Catalytic Reduction of 4-Nitrophenol.

DANIEL , INDRA MASMUR DR SSI MSI , AGUSTINA RAHAYU MAGDALENI

2023
Jurnal internasional bereputasi

A STUDY ON CELLULOSE FROM OIL PALM BIOMASS AS A SOURCE OF BIOETHANOL PRODUCTION

ELVRI MELLIATY SITINJAK , INDRA MASMUR DR SSI MSI , YENNY SITANGGANG , NEW VITA MEY DESTTY MARBUN , POLTAK EVENCUS HUTAJULU

2023
Jurnal internasional bereputasi

A STUDY ON CELLULOSE FROM OIL PALM BIOMASS AS A SOURCE OF BIOETHANOL PRODUCTION

POLTAK EVENCUS HUTAJULU , ELVRI MELLIATY SITINJAK , INDRA MASMUR DR SSI MSI , YENNY SITANGGANG , RYCCE SYLVIANA PRATIKHA , FERNANDO NAINGGOLAN , FAUZATU ARABICA YATASYA HASIBUAN , TRISNO AFANDI , KRISSANDARTA TARIGAN , NEW VITA MEY DESTTY MARBUN , GOLFRID GULTOM

2023
Jurnal internasional bereputasi

A STUDY ON CELLULOSE FROM OIL PALM BIOMASS AS A SOURCE OF BIOETHANOL PRODUCTION

INDRA MASMUR DR SSI MSI , ELVRI MELLIATY SITINJAK

2022
Jurnal internasional bereputasi

Preparation of Mg, Ca, Sr and Ba-based silicate as adsorbent of free fatty acid from crude palm oil

GOLFRID GULTOM , ELVRI MELLIATY SITINJAK , YENNY SITANGGANG , MUSTAKIM , NEW VITA MEY DESTTY MARBUN , INDRA MASMUR DR SSI MSI

2022
Jurnal internasional bereputasi

Direct Z-scheme of n-type CuS/p-type ZnS@ electrospun PVP nanofiber for the highly efficient catalytic reduction of 4-nitrophenol and mixed dyes

ELVRI MELLIATY SITINJAK , NEW VITA MEY DESTTY MARBUN , POLTAK EVENCUS HUTAJULU , YENNY SITANGGANG , INDRA MASMUR DR SSI MSI , GOLFRID GULTOM

2022
Jurnal nasional terakreditasi

Ethanol Production Comparison from Agricultural Waste of Cellulose Source Within Hydrolysis Hcl and Cellulose Enzyme

INDRA MASMUR DR SSI MSI

2022
Jurnal nasional terakreditasi

Bioethanol Manufacturing from Î±-Cellulose Waste of Empty Palm Oil Frugs (Elaeis guineensis jack) with Hydrolysis Concetration Variations HCl and Cellulase Enzyme

INDRA MASMUR DR SSI MSI

2022
Jurnal internasional bereputasi

Preparation of Mg, Ca, Sr and Ba-based silicate as adsorbent of free fatty acid from crude palm oil

INDRA MASMUR DR SSI MSI

2022
Jurnal internasional bereputasi

Effect of Different Composition of Polyethylene OxidePolypyrrole (PEO-PPy) Nanofiber Mats on Antibacterial and Biocompatibility Properties

INDRA MASMUR DR SSI MSI , SABARMIN PERANGINANGIN , HELMINA BR SEMBIRING

2022
Jurnal internasional bereputasi

Direct Z-scheme of n-type CuS/p-type ZnS@electrospun PVP nanofiber for the highly efficient catalytic reduction of 4-nitrophenol and mixed dyes

INDRA MASMUR DR SSI MSI

2022
Jurnal internasional bereputasi

Direct Z-scheme of n-type CuS/p-type ZnS@electrospun PVP nanofiber for the highly efficient catalytic reduction of 4-nitrophenol and mixed dyes

POLTAK EVENCUS HUTAJULU , ELVRI MELLIATY SITINJAK , INDRA MASMUR DR SSI MSI , NEW VITA MEY DESTTY MARBUN , GOLFRID GULTOM , YENNY SITANGGANG

2022
Jurnal internasional bereputasi

Direct Z-scheme of n-type CuS/p-type ZnS@electrospun PVP nanofiber for the highly efficient catalytic reduction of 4-nitrophenol and mixed dyes

YENNY SITANGGANG , INDRA MASMUR DR SSI MSI , NEW VITA MEY DESTTY MARBUN , POLTAK EVENCUS HUTAJULU , ELVRI MELLIATY SITINJAK , GOLFRID GULTOM

2021
Artikel ilmiah

Empowerment of Food Traders Regarding Hazardous Additives for Food Towards Healthy Natural Food Products in Tanjung Morawa District

ADIL GINTING , LINA TARIGAN , MIMPIN GINTING , SABARMIN PERANGINANGIN , INDRA MASMUR DR SSI MSI

2021
Jurnal nasional terakreditasi

POLIURETAN MINYAK AMPAS KOPI ARABIKA (Coffea arabica L.)

INDRA MASMUR DR SSI MSI , MIMPIN GINTING

2020
Jurnal internasional bereputasi

Silver chloride nanoparticles embedded in self-healing hydrogels with biocompatible and antibacterial properties

MIMPIN GINTING , SUBUR P. PASARIBU , DRA.HESTINA, m.sI , INDRA MASMUR DR SSI MSI

2020
Jurnal internasional bereputasi

Self-healing composite hydrogel with antibacterial and reversible restorability conductive properties

INDRA MASMUR DR SSI MSI , JAMARAN KABAN , MIMPIN GINTING

2019
Jurnal nasional

Empowerment of Haranggaol Subdistrict community, Haranggaol Horison District, Simalungun Regency, North Sumatra in efforts to improve local wisdom

INDRA MASMUR DR SSI MSI , FAJAR UTAMA RITONGA

2019
Jurnal internasional bereputasi

A simple one-pot fabrication of silver loaded semiinterpenetrating polymer network (IPN) hydrogels with self-healing and bactericidal abilities

INDRA MASMUR DR SSI MSI , SUBUR P. PASARIBU , DRA.HESTINA, m.sI , MIMPIN GINTING

2019
Prosiding seminar internasional

Corrosion Inhibitors Activity of Schiff Base from Condensation of Ethylenediamine with Furfural from Sugarcane Bagasse

MIMPIN GINTING , HERLINCE SIHOTANG , INDRA MASMUR DR SSI MSI

2019
Hasil kerjasama industri yang tidak dipublikasikan

Analisa Kadar Asam Lemak Bebas (ALB) dari Crude Palm Oil (CPO) di Laboratorium PT. Perkebunan Nusantara IV Medan

INDRA MASMUR DR SSI MSI

2019
Prosiding seminar internasional

Synthesis 2-(3-Phenylallylidenamino) Pentanedioic Acid by Condensation of Cinnamaldehyde with Glutamic Acid and the Activity Test as Antibacterial

INDRA MASMUR DR SSI MSI , ANDY CANDRA , MIMPIN GINTING

2017
Hasil penelitian/pemikiran yang tidak dipublikasikan

Garam-Garam Logam Alkali Tanah Silikat Nano Pori Sebagai Adsorben Asam Lemak Bebas dari Minyak Kelapa Sawit Kasar

INDRA MASMUR DR SSI MSI

2017
Prosiding seminar internasional

Nano porous alkaline earth metal silicates as free fatty acid adsorbents from Crude Palm Oil (CPO)

NIMPAN BANGUN , SERI BIMA SEMBIRING , JAMARAN KABAN , INDRA MASMUR DR SSI MSI

2014
Jurnal nasional

Pemanfaatan dan Pengolahan Pupuk Organik Dari Limbah Tanaman Jagung Dan Kulit Coklat

INDRA MASMUR DR SSI MSI , USWATUN HASANAH

2013
Prosiding seminar nasional

EKSTRAKSI, UJI FITOKIMIA KOMPONEN METABOLIT SEKUNDER KULIT BATANG MBACANG BERGANG (Genus mangifera)

SERI BIMA SEMBIRING , TONEL BARUS , INDRA MASMUR DR SSI MSI

2012
Prosiding seminar nasional

SINTESIS 2-FENIL-5-LAUROSIL-1,3-DIOKSAN MELALUI ASETILASI GLISEROL

INDRA MASMUR DR SSI MSI , MIMPIN GINTING

2010
Jurnal nasional

SINTESIS SENYAWA 3-KLORO-1,2-PROPANADIOL DENGAN CARA DEKETALISASI 2-METIL-2-FENIL-4-METIL KLORO-1,3-DIOKSOLAN DALAM PELARUT TETRAHIDROFURAN

INDRA MASMUR DR SSI MSI

2009
Jurnal nasional

Sintesis senyawa 2-metil-2-fenil-4-metil kloro-1,3-dioksolan melalui ketalisasi gliserol dengan asetofenon dan diikuti klorinasi

INDRA MASMUR DR SSI MSI

2007
Jurnal nasional

Pembuatan Senyawa Alkanolamida Tetrahidroksi Oktadekanoat Dari Minyak

Kemiri Yang Berfungsi Sebagai Surfaktan

INDRA MASMUR DR SSI MSI

2002
Hasil penelitian/pemikiran yang tidak dipublikasikan

Sintesis 1, 9-Digliseril Nonanadiamina Melalui Reaksi Klorinasi Terhadap Gliserol Diikuti Reaksi Aminasi Dengan 1, 9-Nonanadiamina Yang Diturunkan Dari Asam Oleat

INDRA MASMUR DR SSI MSI

2000
Hasil penelitian/pemikiran yang tidak dipublikasikan

Sintesis 1,9-Digliseril Nonanadioat dari Asam 1.9-Nonanadioat

INDRA MASMUR DR SSI MSI

Researches

2025
Penelitian Strategis Nasional

SELULOSA TERMODIFIKASI DARI TANDAN KOSONG KELAPA SAWIT SEBAGAI PENGGANTI WET STRENGTH AGENT SINTETIK

ELVRI MELLIATY SITINJAK , SARI FARAH DINA , GIMELLIYA SARAGIH , INDRA MASMUR DR SSI MSI , HARDY SHUWANTO , POLTAK EVENCUS HUTAJULU , Leo Frengki Sihaloho, ST

2024

SELULOSA TERMODIFIKASI DARI TANDAN KOSONG KELAPA SAWIT SEBAGAI PENGGANTI WET STRENGTH AGENT SINTETIK

ELVRI MELLIATY SITINJAK , SARI FARAH DINA , GIMELLIYA SARAGIH , INDRA MASMUR DR SSI MSI , HARDY SHUWANTO , POLTAK EVENCUS HUTAJULU

2024
Penelitian Fundamental

Modifikasi Sifat Hidrofobisitas Pati Sukun (Artocarpus altilis) Sebagai Pembawa Dalam Pestisida Terkontrol

CUT FATIMAH ZUHRA , INDRA MASMUR DR SSI MSI , MUHAMMAD ZULHAM EFENDI SINAGA

2024

FROM INDUSTRY TO INDUSTRY: PEMANFAATAN LIMBAH BAHAN BERBAHAYA DAN BERACUN (B3) SEBAGAI MATERIAL KATALIS UNTUK APLIKASI PRODUKSI ENERGI TERBARUKAN DAN PENGOLAHAN LIMBAH INDUSTRI

HAIRUS ABDULLAH , SUBUR P. PASARIBU , INDRA MASMUR DR SSI MSI , HARDY SHUWANTO , Nana Septiana Nur , TIFFANY , KAS TA RIO

2023
Penelitian Kerjasama Antar Perguruan Tinggi

Studi Karakterisasi Grafena/MXene Hidrogel dan Lignin dari Batang Kelapa Sawit sebagai elektroda Solid-State Superkapasitor

ERMAN TAER , INDRA MASMUR DR SSI MSI , DIANA ALEMIN BARUS

2023
Penelitian Kompetensi

Pembuatan Paperbag dari Tandan Kosong Kelapa Sawit (TKKS) sebagai Biodegradable Polybag untuk Pembibitan

ELVRI MELLIATY SITINJAK , SARI FARAH DINA , RYCCE SYLVIANA PRATIKHA , INDRA MASMUR , JUSTAMAN ARIFIN KARO KARO , FAUZATU ARABICA YATASYA HASIBUAN , POLTAK EVENCUS HUTAJULU , FERNANDO NAINGGOLAN

2023
Penelitian Kompetensi

Pembuatan Paperbag Dari Tandan Kosong Kelapa Sawit (TKKS) Sebagai Biodegradable Polybag Untuk Pembibitan

ELVRI MELLIATY SITINJAK , SARI FARAH DINA , RYCCE SYLVIANA PRATIKHA , INDRA MASMUR DR SSI MSI , JUSTAMAN ARIFIN KARO KARO , FAUZATU ARABICA YATASYA HASIBUAN , POLTAK EVENCUS HUTAJULU , FERNANDO NAINGGOLAN

2023
Penelitian Kompetensi

FROM INDUSTRY TO INDUSTRY: PEMANFAATAN LIMBAH BAHAN BERBAHAYA DAN BERACUN (B3) SEBAGAI MATERIAL KATALIS UNTUK APLIKASI PRODUKSI ENERGI TERBARUKAN DAN PENGOLAHAN LIMBAH INDUSTRI

HAIRUS ABDULLAH , SUBUR P. PASARIBU , INDRA MASMUR DR SSI MSI , HARDY SHUWANTO , KAS TA RIO

2021
Penelitian Dana Lokal Perguruan Tinggi

PENGARUH KOMPOSISI DARI POLIETILEN OKSIDA-POLIPIROL (PEO-PPy) NANOFIBER PADA UJI ANTIBAKTERI TERHADAP E.coli DAN BIOKOMPATIBILITAS SEL FIBROBLAS L929

HELMINA BR SEMBIRING , INDRA MASMUR DR SSI MSI , SABARMIN PERANGINANGIN , AFRI HAGANTA TARIGAN

Community Services

2025
Ipteks Bagi Masyarakat

Pembelajaran Aktif Melalui Perakitan Alat Peraga Miniatur Tubuh Manusia untuk Meningkatkan Pemahaman IPA Siswa Kelas V SD Negeri 064973

ANDY CANDRA , HELMINA BR SEMBIRING , INDRA MASMUR DR SSI MSI , SABARMIN PERANGINANGIN

2024
Ipteks

PELATIHAN PEMBUATAN PELEMBUT DAN PEWANGI PAKAIAN AROMA TERAPI BAGI MORIA TERPUK PARANG II INPRES GBKP KM 8 MEDAN

JULIATI BR TARIGAN , HELMINA BR SEMBIRING , INDRA MASMUR DR SSI MSI , SABARMIN PERANGINANGIN , EKO K SITEPU

2024

Pemberdayaan Masyarakat melalui Peningkatan Keterampilan Menenun untuk Mendukung Pencapaian Sustainable Development Goals (SDGs

GUSTANTO , INDRA MASMUR DR SSI MSI , TUA RAJA SIMBOLON , DIANA ALEMIN BARUS , EVA PURWANTI , MUHAMMAD ABDUH AKRAM AGUS , DHEA NATALIA BR GINTING , LESTARI OSHINA TAMPUBOLON , ADITIA TAMPUBOLON

2020
Ipteks Bagi Masyarakat

SISTEM KALIBRASI TIMBANGAN BERDASARKAN SNI (STANDAR NASIONAL INDONESIA) MENUJU TERTIB UKUR TIMBANGAN DI DESA KIDUPEN KECAMATAN JUHAR KABUPATEN KARO

ADITIA WARMAN , INDRA MASMUR DR SSI MSI

2020
KKN Pembelajaran Pemberdayaan Masyarakat

Edukasi Masyarakat Kampung Badur, Kelurahan Hamdan, Medan Maimun, Sumatera Utara Memasuki Fase Kenormalan Baru

NISKARTO ZENDRATO , INDRA MASMUR DR SSI MSI , MUHAMMAD TAUFIK

2020
Ipteks

Empowerment of Food Traders Regarding Hazardous Additives for Food Towards Healthy Natural Food Products in Tanjung Morawa District

LINA TARIGAN , INDRA MASMUR DR SSI MSI , SABARMIN PERANGINANGIN , ADIL GINTING

2012
Ipteks Bagi Masyarakat

IbM Kelompok Tani Jagung dan Coklat

Intellectual Property Rights

2025
Hak cipta nasional

Modifikasi Proses Pemurnian Minyak Kelapa Sawit

INDRA MASMUR DR SSI MSI , ELVRI MELLIATY SITINJAK

2025
Hak cipta nasional

Modifikasi Proses Pemurnian Minyak Kelapa Sawit

GOLFRID GULTOM , ELVRI MELLIATY SITINJAK , INDRA MASMUR DR SSI MSI , NEW VITA MEY DESTTY MARBUN

2020
Paten nasional

PIPA ADSORBER

INDRA MASMUR DR SSI MSI

2020
Paten nasional

PRODUK RED PALM OLEIN DAN RED PALM STEARIN HASIL PROSES PEMURNIAN MINYAK KELAPA SAWIT

INDRA MASMUR DR SSI MSI , ELVRI MELLIATY SITINJAK , NEW VITA MEY DESTTY MARBUN

2020
Paten nasional

PROSES PEMURNIAN MINYAK KELAPA SAWIT UNTUK MENGHASILKAN RED PALM OLEIN DAN RED PALM STEARIN

INDRA MASMUR DR SSI MSI