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Dr. Andriayani, S.Pd., M.Si. dilahirkan di Takengon pada tanggal 05 Maret 1969 dan merupakan seorang dosen Kimia di Universitas Sumatera Utara. Beliau menyelesaikan pendidikan terakhirnya, yakni S3 Kimia, di USU pada tahun 2012.

Publications

2025
Prosiding seminar internasional

Characterization of black and white rice husk ash as silica sources

RIZKY KURNIAWAN , Hadi Kurniawan , ANDRIAYANI

2025
Jurnal internasional bereputasi

Sustainable synthesis of TiO2 nanoparticles from gambier leaf extract for enhanced DSSC photocurrent response

ANDRIAYANI , Nofrijon Bin Imam Sofyan , YETRIA RILDA , AKHMAD HERMAN YUWONO , DONANTA DHANESWARA , Fiona Angellinnov , Mouna M’rad , Aga Ridhova

2025
Book chapter internasional

A synthesis of graphene oxide/bacterial cellulose nanocomposites

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2025
Jurnal internasional bereputasi

Peat Water Purification using Pahae Natural Zeolite and Activated Carbon Derived from Candlenut Shell (Aleurites moluccana)

SUSILAWATI , ERNA FRIDA , PERDINAN SINUHAJI , ANDRIAYANI

2025
Jurnal internasional bereputasi

Facile synthesis and electrochemical performance of bacterial cellulose/reduced graphene oxide/NiCo-layered double hydroxide composite film for self-standing supercapacitor electrode

ANDRIAYANI

2024
Prosiding seminar internasional

Characterization of Adsorbents Based on Pahae Natural Zeolite and Candlenut Shell Activated Carbon for Peat Water Purification

SUSILAWATI , ERNA FRIDA , ANDRIAYANI , PERDINAN SINUHAJI

2024
Jurnal nasional terakreditasi

Karakterisasi Silikon dari Sekam Padi Terdoping dengan Kobalt: Analisis Struktur dan Sifat Magnetoelektrik

ANDRIAYANI

2024

Jurnal nasional terakreditasi

Functionalization Mesoporous Silica using Aminopropyltriethoxysilane (APTES) as Adsorbent for Removal Ni (II) from Aqueous Solution

ANDRIAYANI

2024
Jurnal internasional bereputasi

Synthesis and application of nano-silicon prepared from rice husk with the hydrothermal method and its use for anode lithium-ion batteries

AMIR HAMZAH SIREGAR , SAUR LUMBANRAJA , Amru Daulay , SUSILO SUDARMAN , ANDRIAYANI

2023
Jurnal internasional bereputasi

Synthesis of silicon nanoparticles with various additions of inert salt as scavenger agent during reduction by the magnesiothermic method as anode lithium-ion batteries

AMIR HAMZAH SIREGAR , SAUR LUMBANRAJA , Amru Daulay , SUSILO SUDARMAN , ANDRIAYANI

2023
Prosiding seminar internasional

Calcium Impregnation in Mesoporous Silica Made using Methyl Ricinoleate as Template and Its Application as Transesterification Catalyst

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2023
Prosiding seminar nasional

Analisis Kualitatif Nanosilikon dari Pasir Kuarsa

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2023
Buku referensi

Mesoporisilika: Sintesis, Karakterisasi Dan Aplikasi

AMRU DAULAY , ANDRIAYANI

2023
Jurnal internasional bereputasi

Synthesis of mesoporous silica with ricinoleic methyl ester (Ricinus communis) as a template for adsorption copper (II) with optimizing Box-Behnken design

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2023
Jurnal internasional bereputasi

Photocatalytic Degradation of Methylene Blue Using N-Doped ZnO/Carbon Dot (N-ZnO/CD) Nanocomposites Derived from Organic Soybean

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2023
Jurnal internasional bereputasi

Stability of mesoporous silica using ricinoleic methyl ester as a template with the addition of HCl and application of Cd2+ adsorption optimized by Boxâ€“Behnken design

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2023
Jurnal internasional bereputasi

Evaluation to possibility of cellulose fibers isolated from kapok randu (Ceiba Pentandra) as a precursor growth of carbon micro structures with the assist of metal catalysts

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2022
Jurnal internasional bereputasi

SYNTHESIS OF SILICON NANOPARTICLES MODIFIED POLYESTER AS MATERIAL ACTIVE ELECTRODE ON A SECONDARY CELL BATTERY

DARWIN YUNUS NASUTION , YUGIA MUIS , ANDRIAYANI

2022
Prosiding seminar internasional

Optical Study of Graphene Quantum Dots from Sawahlunto Coal Graphite

SAHARMAN GEA , ANDRIAYANI , MAHYUNI HARAHAP , DELLYANSYAH

2022
Prosiding seminar internasional

Effect of Variation HCl Concentration on Natural Zeolite Dealumination to The Content of Liquid Smoke Compounds by Hydrodeoxygenation Process

SAHARMAN GEA , ANDRIAYANI , JUNIFA LAYLA SIHOMBING , AHMAD NASIR PULUNGAN , REKA MUSTIKA SARI , ABDUL MALIK , RACHMAD FAUZI , BOY ATTAURRAZAQ

2021
Jurnal internasional bereputasi

Extraction silica from rice husk with naoh leaching agent with temperature variation burning rice husk

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2021
Jurnal internasional bereputasi

Chemical reduction of silica into silicon from extracted quartz sand using sodium hydroxide and hydrochloric acid solutions

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2021
Jurnal internasional bereputasi

Effect of variation temperature at burning rice husk to obtain silica

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2020
Jurnal nasional terakreditasi

Comparative Optimization of Cellulase and Laccase Enzymes in Deinking Process of Used Newspapers

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2020
Jurnal internasional bereputasi

The stabilization of liquid smoke through hydrodeoxygenation over nickel catalyst loaded on sarulla natural zeolite

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2020
Jurnal nasional terakreditasi

The Effect of Chemical Activation Using Base Solution With Various Concentrations Towards Sarulla Natural Zeolite

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2020
Jurnal nasional terakreditasi

Mechanical and morphological characteristic investigations of deinked used newsprint paper via ultra-sonochemistry method

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2020
Jurnal internasional bereputasi

The effects of mass variation potassium chloride (KCl) on characteristics of nanosilicone from natural sand through the magnesiothermic method

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2020
Jurnal nasional terakreditasi

Teacher Upgrading Skill in Preparing Materials and Examination Based on Images in Sibolga City

ANDRIAYANI

2019
Jurnal nasional terakreditasi

The Construction of oven designed by heat exchanger in drying porang at SME Coco Prima

ANDRIAYANI , KERISTA SEBAYANG , HERLI GINTING

2018
Artikel ilmiah

Synthesis of Carbon Nanodots from Cellulose Nanocrystals Oil Palm Empty Fruit by Pyrolysis Method

ANDRIAYANI , SAHARMAN GEA , MARPONGAHTUN

2018
Jurnal internasional bereputasi

The Isolation of Nanofibre Cellulose from Oil Palm Empty Fruit Bunch Via Steam Explosion and Hydrolysis with HCl 10%

SAHARMAN GEA , ANDRIAYANI , DARWIN YUNUS NASUTION

2015
Jurnal internasional bereputasi

optimization of silicon extraction from Tanjung Tiram Asahan natural sand through magnesiothermic reduction

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2014
Jurnal internasional

Increased of Purity Silicon from Natural Sand with Variation of Heating Time through Magnesiotermal

ANDRIAYANI , HERLINCE SIHOTANG , SAUR LUMBANRAJA

2013
Jurnal internasional

Synthesis of mesoporous silica from tetraethylorthosilicate by using sodium ricinoleic as a template and 3-aminopropyltrimethoxysilane as co-structure directing agent with volume variation of hydrochloric acid 0.1 M

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2026
Prosiding seminar internasional

Preface: 2nd International Conference on Chemical Science and Technology Innovation (ICOCSTI)

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2026
Prosiding seminar internasional

Editorial Board and Editor Name: 2nd International Conference on Chemical Science and Technology Innovation (ICOCSTI)

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2026
Prosiding seminar internasional

The effect concentration of tetraethylorthosilicate and variation HCl 0.1 M for synthesis mesoporous silica using oleic acid as template and 3-aminopropyltrimethoxysilane as coÂ …

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2026
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Synthesis of Mesoporous Silica from Tetraethylorthosilicate by Using Sodium Ricinoleic as a Template and 3-Aminopropyltrimethoxysilane as Co-Structure Directing Agent withÂ …

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Researches

2025
Penelitian Kompetensi

Pengembangan Energi Storage Baterai Ion Litium Nanosilikon Sekam Padi Hidrotermal Melalui Aminasi Permukaan dan Bimetalik Sistem Zeolitic Imidazolate Frameworks (ZIF)

MINTO SUPENO , ANDRIAYANI , AMIR HAMZAH SIREGAR , Nofrijon Bin Imam Sofyan , ANDRE ADITYA GINTING

2023

FILTER AIR GAMBUT BERBASIS ZEOLIT ALAM PAHAE DAN KARBON AKTIF CANGKANG KEMIRI UNTUK PENGOLAHAN AIR GAMBUT MENJADI AIR BERSIH

SUSILAWATI , ANDRIAYANI , ERNA FRIDA , PERDINAN SINUHAJI

2020
Penelitian Unggulan Perguruan Tinggi

Modifikasi Carbon-dots dari Selulosa Nanokristal Tandan Kosong Sawit sebagai Prekursor dengan Metode Pirolisis

ANDRIAYANI

2014
Penelitian Fundamental

Optimalisasi Isolasi Silikon Dari Pasir alam (quartz sand)Secara Magnesiotermal

HERLINCE SIHOTANG , ANDRIAYANI , Nofrijon Bin Imam Sofyan

Community Services

2021

Peningkatan kemampuan guru-guru di Kota Sibolga dalam membuat bahan ajar dan soal ujian berbasis gambar

ANDRIAYANI

2014
Penelitian Unggulan Perguruan Tinggi

PANEL PEMBANGKIT LISTRIK TENAGA UAP AIR BERBASIS KITOSAN

SUSILAWATI , ANDRIAYANI , TULUS IKHSAN NASUTION

Intellectual Property Rights

2023
Hasil penelitian/pemikiran yang tidak dipublikasikan

Skema Penelitian Terapan Unggulan Perguruan Tinggi Nomor: 186/UN5. 2.3. 1/PPM/KP-DRPM/2021 dengan Judul Penelitian: Optimasi Grafting dan Impregnasi Material Mesopori silikaÃ‚Â …

ANDRIAYANI

2020
Paten nasional

Proses ekstraksi pasir alam untuk mendapatkan silikon secara magnesiothermal

SAUR LUMBANRAJA , ANDRIAYANI , HERLINCE SIHOTANG