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## Publications

2026

Jurnal internasional bereputasi

### **Microstructure and property evolution of pyrolysed epoxy-derived CFRP/SiC composites for non-structural thermal protection applications**

RIKSON A F SIBURIAN , YUDAN WHULANZA

2024

Jurnal internasional bereputasi

### **Ratio design of bimetallic Pd-Rh nanoparticles on MoS<sub>2</sub> nanosheets: Excellent electrocatalysts for hydrogen evolution reaction**

RIKSON A F SIBURIAN

2025

Artikel ilmiah

### **Effect of Electrochemical Enhancement on Antibacterial Activity of Silver/Graphene Nano Sheets from Candlenut Shell Biomass against Staphylococcus aureus**

RIKSON A F SIBURIAN

2024

Jurnal nasional

### **PENINGKATAN KAPASITAS DAN KUALITAS PRODUK ARANG TEMPURUNG KELAPA MELALUI PELATIHAN SDM UMKM USAHA ARANG BATOK DI DESA PATUMBAK**

LISNAWATY SIMATUPANG , RIKSON A F SIBURIAN

2021

Prosiding seminar internasional

### **Preliminary activity test of pirdot (Saurauia Vulcani, Korth) leaves collected from Aek Nauli forest, North Sumatera (Indonesia)**

TAMRIN , RIKSON A F SIBURIAN , LAMEK MARPAUNG

2024

Jurnal internasional bereputasi

### **Enhanced uric acid detection using functionalized multi-walled carbon nanotube/AgNi nanocomposites: A comparative study on screen-printed carbon electrode (SPCE) and fabric-based biosensors**

RIKSON A F SIBURIAN , Murni Handayani , SAMUEL PRIYANTORO KUSUMOCAHYO , YENI WAHYUNI HARTATI , ISA ANSHORI , BENI RIO HERMANTO , NUNI WIDIARTI , Uperianti , CEPI KURNIAWAN , RIZKY INDAH SARI , YUAN ALFINSYAH SIHOMBING , MOKHAMAD FAKHRUL ULUM

2023

Jurnal internasional bereputasi

## **Performance of primary battery prototype: Nickel/graphene nano sheets (GNS)//electrolyte//graphite and GNS**

MINTO SUPENO , RIKSON A F SIBURIAN

2023

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## **Time-series analysis of satellite imagery for detecting vegetation cover changes in Indonesia**

RIKSON A F SIBURIAN

2023

Jurnal nasional terakreditasi

## **Kinerja Ratio Silika-Cat Dengan Metode Dipcoating Pada Permukaan Logam Untuk Penghambat Laju Korosi**

RIKSON A F SIBURIAN

2024

Jurnal internasional bereputasi

## **Synthesis of Graphene Nano Sheets from Coconut and Candlenut Shells: Large-Scale Production and Application in Fe Ion Adsorption and Electrochemical Properties**

RIKSON A F SIBURIAN , YOSIA GOPAS OETAMA M , GOH BOON TONG , Prof. Dr. Yatimah binti Alias, Ph.D

2025

Jurnal internasional bereputasi

## **Structure guided design and molecular modelling of a novel peptide-SWCNT biosensor targeting NS1 dengue virus**

RIKSON A F SIBURIAN

2024

Buku referensi

## **Hewan Invertebrata**

FAISAL IRSAN PASARIBU , RIKSON A F SIBURIAN , RISNAWATI , LITA NASUTION

2025

Jurnal internasional bereputasi

## **LOW-COST SYNTHESIS OF BIOCHAR-LIKE GRAPHENE FROM COCONUT SHELLS: ENHANCING CONDUCTIVITY FOR ELECTROCHEMICAL APPLICATIONS**

RIKSON A F SIBURIAN

2025

Jurnal internasional bereputasi

## **Effectiveness Evaluation of Pyrometallurgy and Hydrometallurgy Methods in The Recycling Process of Neodymium-Iron-Boron Permanent Magnet and Rare Earth Metals Recovery: A Review**

RIKSON A F SIBURIAN

2022

Jurnal internasional bereputasi

## **Performance of primary battery prototype: Cu/graphene nano sheets//electrolyte// C-Ĥ (graphite, graphene nano sheets, nĤ“ graphene nano sheets)**

RIKSON A F SIBURIAN

2024

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## **Sustainable Porous Silica Material Extracted from Volcanic Ash of Mount Sinabung Indonesia as Corrosion Inhibitor**

BINSAR MARULI TUA PAKPAHAN , LISNAWATY SIMATUPANG , RIKSON A F SIBURIAN , ELFRIDA GINTING

2025

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## **Comprehensive Review of Graphene Synthesis Techniques: Advancements,**

## Challenges, and Future Directions

RIKSON A F SIBURIAN

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### **OPTIMIZED HYDROLYSIS IMPROVES sn-2 FATTY ACID PROFILE AND NUTRITIONAL QUALITY OF *Thunnus sp.***

MASFRIA , SITI MORIN SINAGA , RIKSON A F SIBURIAN , YOSY CINTHYA ERIWATY SILALAHI

2024

Jurnal internasional bereputasi

### **Investigation of Far Infrared Emission and UV Protection Properties of Polypropylene Composites Embedded with Candlenut-Derived Biochar for Health Textiles**

RIKSON A F SIBURIAN , YOSIA GOPAS OETAMA M

2024

Buku referensi

### **KINERJA ELEKTRODA BATERAI PRIMER BERBAHAN BAKU KELAPA DAN KEMIRI**

Dr. KERISTA TARIGAN, M.Eng.Sc. , RIKSON A F SIBURIAN

2023

Jurnal internasional bereputasi

### **Distribution model of Iron (Fe) on Fe/Graphene Nano Sheets**

RIKSON A F SIBURIAN

2017

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### **Analysis Of Harmful Ingredients In Studentsnacks At Lubuk Pakam, Deli Serdang District,Indonesia**

ZULHAIDA LUBIS , JANSEN SILALAHI , RIKSON A F SIBURIAN , HERU SANTOSA

2020

Jurnal internasional

### **Aplikasi Limbah Padat Kelapa Menjadi Grafena Sebagai Elektroda Alternatif Pada Sel Baterai Primer**

RIKSON A F SIBURIAN

2023

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### **Synthesis and Characterization of Fe on Graphene Nanosheets**

RIKSON A F SIBURIAN , TAMRIN

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### **PENINGKATAN KAPASITAS DAN KUALITAS PRODUK ARANG TEMPURUNG KELAPA MELALUI PELATIHAN SDM UMKM USAHA ARANG BATOK DI DESA PATUMBAK**

LISNAWATY SIMATUPANG , RIKSON A F SIBURIAN

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### **Evaluation of electrodeposition synthesis of gold nanodendrite on screen-printed carbon electrode for nonenzymatic ascorbic acid sensor**

IRKHAM , YENI WAHYUNI HARTATI , ISA ANSHORI , NUNI WIDIARTI , CEPI KURNIAWAN , RIKSON A F SIBURIAN , Murni Handayani , Eduardus Ariasena , Aldyla Nisa Raditya , Nadia Salsabila , Geolita Ihsantia Ning Asih , Uperianti

2025

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### **New Route Producing Large-Scale Graphene Nanosheets from Corn Waste for Electrochemical Material**

Dr. KERISTA TARIGAN, M.Eng.Sc. , RIKSON A F SIBURIAN , FRIKSON JONY PURBA , LEWITA PASARIBU , YOSIA GOPAS OETAMA M , Liang Wei Tang , Ronn Goei , Fathan Bahfie , MAYKEL MANAWAN , GOH BOON TONG , FAJAR YAN SAHAT T. HUTAGALUNG

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## **Converting Candlenut Shell Waste into Graphene for Electrode Applications**

LISNAWATY SIMATUPANG , RIKSON A F SIBURIAN

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## **Hewan Invertebrata**

RIKSON A F SIBURIAN , LITA NASUTION

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## **Visible-Light Driven Ni-Incorporated CdS Photocatalytic Activities for Azo-Bond Cleavages with Hydrogenation Reaction**

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## **Evaluation of electrodeposition synthesis of gold nanodendrite on screen-printed carbon electrode for nonenzymatic ascorbic acid sensor**

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## **Electrochemical and capacitive behavior of reduced graphene oxide from green reduction of graphene oxide by urea for supercapacitor electrodes**

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Jurnal internasional bereputasi

## **Envisioning the Future of Sustainable Transportation in Jakarta: A Study on Perceptions and Influential Factors in Electric Vehicle Adoption**

RIKSON A F SIBURIAN , CHARLI SITINJAK

2023  
Jurnal internasional bereputasi

## **Application of Fe 30% mass on graphene as potential electrode on cell battery**

RIKSON A F SIBURIAN , TAMRIN

2016  
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## **Sintesis Silika Gel Terimobilisasi EDTA-Ag Sebagai Bahan Antibakteri Eschericia coli**

HERMANIA EM WOGO , RIKSON A F SIBURIAN

2023  
Jurnal internasional

## **PRODUCTION OF GRAPHENE BY COCONUT SHELL AS AN ELECTRODE PRIMARY BATTERY CELL**

RIKSON A F SIBURIAN

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Jurnal internasional bereputasi

## **CHEMICAL COMPOUNDS CONTAINED Saurauia vulcani (Korth.) AND ITS ANTIBACTERIAL ACTIVITY AGAINST Staphylococcus aureus AND Escherichia coli**

RIKSON A F SIBURIAN , TAMRIN , LAMEK MARPAUNG

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## **SYNTHESIS OF ENVIRONMENTALLY FRIENDLY, RENEWABLE, AND SUSTAINABLE NATURAL FIBER COMPOSITE BASED ON POLYLACTIC ACID/COIR WITH BENTONITE ADDITION**

RIKSON A F SIBURIAN , RIDWAN , TEUKU RIHAYAT , IRWAN

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## **Coconut waste to green nanomaterial: Large scale synthesis of N-doped graphene nano sheets**

RIKSON A F SIBURIAN , Prof. Dr. Yatimah binti Alias, Ph.D

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## **Converting Candlenut Shell Waste into Graphene for Electrode Applications**

YOSIA GOPAS OETAMA M , RIKSON A F SIBURIAN , Yatimah Alias

2024

## **New Route Producing Large-Scale Graphene Nanosheets from Corn Waste for Electrochemical Material**

Liang Wei Tang , GOH BOON TONG , RIKSON A F SIBURIAN , Dr. KERISTA TARIGAN, M.Eng.Sc.

2026

## **Exploring the antibacterial and antibiofilm potential of graphene nanosheets synthesized from candlenut shell waste**

RIKSON A F SIBURIAN , FRISCILLA ROMIDUK SAMOSIR , Mohd Fakharul Zaman Raja Yahya

2024

## **CONDUCTIVITY ANALYSIS OF CU/N-GRAPHENE AND NI/N GRAPHENE AS ELECTRODES ON PRIMARY BATTERY ANODES**

RIKSON A F SIBURIAN

2017

## **Effect of N-doped Graphene for Properties of Pt/N-doped Graphene Catalyst**

KERISTA SEBAYANG , MINTO SUPENO , HARLEM MARPAUNG , RIKSON A F SIBURIAN

2022

## **Facile synthesis of graphene oxide/Fe<sub>3</sub>O<sub>4</sub> nanocomposite for electrochemical sensing on determination of dopamine**

RIKSON A F SIBURIAN

2023

## **Controlled Growth of Semiconducting ZnO Nanorods for Piezoelectric Energy Harvesting-Based Nanogenerators**

RIKSON A F SIBURIAN

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## **An ONNO Schiff Base-palladium(II) complex as an efficient non-enzymatic electrochemical sensor for hydrogen peroxide**

RIKSON A F SIBURIAN , Prof. Yatimah binti Alias, Ph.D

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## **Coconut waste to green nanomaterial: Large scale synthesis of N-doped graphene nano sheets**

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## **Synthesis and Characterization of Coconut-Derived Graphene Nano Sheet (GNS) and Its Properties in Nickel/GNS and Zinc/GNS Hybrid Electrodes**

RIKSON A F SIBURIAN , ISA ANSHORI , YOSIA GOPAS OETAMA M , Prof. Dr. Yatimah binti Alias, Ph.D , GOH BOON TONG , NUNI WIDIARTI , Dr. KERISTA TARIGAN, M.Eng.Sc.

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## **THE PHYSICAL PROPERTIES OF RED MUD AS ABSORBANCE**

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## **Edible coating, food-contact surface coating, and nanosensor for biofilm mitigation plans in food industry**

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## **Review of Recovery and Purification Processes of Rare Earth Elements from Nickel-Metal Hydride Spent Batteries**

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## **Biofilms and multidrug resistance: an emerging crisis and the need for multidisciplinary interventions**

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## **Optimising Pyrolysis Synthesis of Biochar-Like Graphene Nano Sheets (BLG) from Coconut Shell: Morphological, Crystallinity, and Yield Analysis**

RIKSON A F SIBURIAN

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Buku referensi

## **Kinerja Anoda Baterai Sekunder Berbahan Grafitik Karbon**

RIKSON A F SIBURIAN , SRI PRATIWI ARITONANG , EBSAN MARIHOT SIANIPAR

2021

Buku referensi

## **BUKU PENUNTUN PRAKTIKUM KIMIA ANALITIK I (ANALISA KUALITATIF)**

RIKSON A F SIBURIAN

2019

Jurnal internasional

## **Production of graphene by coconut shell as an electrode primary battery cell**

RIKSON A F SIBURIAN

2019

Jurnal internasional bereputasi

## **Properties of Mg/graphite and Mg/graphene as cathode electrode on primary cell battery**

RIKSON A F SIBURIAN , HARLEM MARPAUNG , TAMRIN , CRYSTINA SIMANJUNTAK

2025

Jurnal internasional bereputasi

## **Facile synthesis of neodymium-doped biomass-derived graphene nanosheets and electrochemical properties**

RIKSON A F SIBURIAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , ISA ANSHORI , YUDAN WHULANZA , YOSIA GOPAS OETAMA M , JOYS ALISA ANGELINA HUTAPEA , Prof. Dr. Yatimah binti Alias, Ph.D , Alfred Tok Iing Yoong , Ronn Goei

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## **Manufacture of Bagasse Activated Carbon Using H<sub>2</sub>SO<sub>4</sub> Activator**

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## **The New Material Battery Based on Mg/C- $\text{I}\ddot{\text{e}}$**

CRYSTINA SIMANJUNTAK , RIKSON A F SIBURIAN

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## **New Route Producing Large-Scale Graphene Nanosheets from Corn Waste for Electrochemical Material**

RIKSON A F SIBURIAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , LEWITA PASARIBU , YOSIA GOPAS OETAMA M , Liang Wei Tang , Ronn Goei , Fathan Bahfie , GOH BOON TONG , MAYKEL MANAWAN , FAJAR YAN SAHAT T. HUTAGALUNG

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Jurnal internasional bereputasi

## **Evaluation of herbicide use by farmers' groups in Langkat regency, Indonesia: Efforts for sustainable agriculture**

LITA NASUTION , DESI SRI PASCA SARI SEMBIRING , RIKSON A F SIBURIAN

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Jurnal internasional bereputasi

## **SYNTHESIS OF ENVIRONMENTALLY FRIENDLY, RENEWABLE, AND SUSTAINABLE NATURAL FIBER COMPOSITE BASED ON POLYLACTIC ACID/COIR WITH BENTONITE ADDITION**

TEUKU RIHAYAT , RIDWAN , RIKSON A F SIBURIAN , IRWAN

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Jurnal internasional bereputasi

## **The effect of nitrogen doped graphene-like carbon synthesized from coconut shell on conductivity property**

RIKSON A F SIBURIAN

## **Researches**

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Ipteks

## **Pemanfaatan Karbon Nanomaterial dan Turunannya untuk Energi, Medis, dan Lingkungan**

RIKSON A F SIBURIAN , NUNI WIDIARTI , ISA ANSHORI , Prof. Dr. Yatimah binti Alias, Ph.D

2024

Penelitian Unggulan Perguruan Tinggi

## **Standarisasi Produk Grafena Berlapis Nano**

RIKSON A F SIBURIAN

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Ipteks

## **FABRIKASI DAN OPTIMASI ELEKTRODA BERBASIS BIONANOKARBON UNTUK APLIKASI ENERGI DAN KESEHATAN**

RIKSON A F SIBURIAN

2023

Penelitian Kerjasama Antar Perguruan Tinggi

## **Aplikasi Grafena Dan N-Grafena Untuk Nanomaterial Baterai, Biosensor Dan Katalis**

RIKSON A F SIBURIAN

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Penelitian Kerjasama Antar Perguruan Tinggi

## **Pemanfaatan Karbon Nanomaterial dan Turunannya untuk Energi, Medis, dan Lingkungan**

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Kerjasama Luar Negeri dan Publikasi Internasional

## **Aplikasi Grafena dan N-Grafena dari Kemiri sebagai Material Penghantar Panas**

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Penelitian Dana Lokal Perguruan Tinggi

## PROGRAM RISET KOLABORASI INDONESIA

RIKSON A F SIBURIAN , Suriati Paiman , Ab Malik Marwan Ali

2023

Penelitian Kerjasama Antar Perguruan Tinggi

### **Pabrikasi Grafena/N-Grafena dengan Metode Chemical Vapor Deposition dari Cangkang Kemiri (Aleurites moluccana (L.) Wild.) pada Nikel foam dan Aplikasinya sebagai Material Penyimpan Energi-**

RIKSON A F SIBURIAN

2020

Penelitian Tim Pasca Sarjana

### **Kinerja Paduan Grafitik Karbon (Grafena, N-Grafena) Berbahan Dasar Grafit dan Arang Tempurung Kelapa dengan Logam Besi, Natrium dan Mangan sebagai Anoda Baterai Sekunder**

RIKSON A F SIBURIAN

2022

### **Kinerja Grafitik Karbon (Grafena Berlapis Nano dan N-Grafena Berlapis Nano) dari Kelapa (Cocos nucifera L.) sebagai Elektroda Baterai Primer**

RIKSON A F SIBURIAN , ISA ANSHORI , YUDAN WHULANZA

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Penelitian Kerjasama Antar Perguruan Tinggi

### **Pengembangan Bionanokarbon untuk Bioelektroda, Sensor dan Absorben**

FAJAR YAN SAHAT T. HUTAGALUNG , RIKSON A F SIBURIAN , Dr. KERISTA TARIGAN, M.Eng.Sc. , Prof. Yatimah binti Alias, Ph.D , Isa Anshori

2024

Kerjasama Luar Negeri dan Publikasi Internasional

### **PUI Energi Terbaru**

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## Community Services

2024

MP3EI

### **Ketua Bidang Internasional iMAJELIS PENDIDIKAN KRISTEN WILAYAH SUMATERA UTARA DAN ACEH MASA LAYANAN 2024-2029**

RIKSON A F SIBURIAN

2025

Ipteks Bagi Inovasi Kreativitas Kampus

### **“Peningkatan Kapasitas Dan Kualitas Produksi Pupuk Pelengkap Cair Melalui Pelatihan SDM dan Pembuatan Reaktor CV Tabita Jaya di Medan”**

RIKSON A F SIBURIAN

2023

Penelitian Dana Lokal Perguruan Tinggi

### **PENINGKATAN KAPASITAS DAN KUALITAS PRODUK ARANG TEMPURUNG KELAPA MELALUI PELATIHAN SDM UMKM USAHA ARANG BATOK DI DESA PATUMBAK**

RIKSON A F SIBURIAN

2020

KKN Pembelajaran Pemberdayaan Masyarakat

### **Pelatihan Pembuatan Masker Kain dan Handsanitizer**

MINTO SUPENO , RIKSON A F SIBURIAN

2020

KKN Pembelajaran Pemberdayaan Masyarakat

### **Pemberdayaan Kearifan Lokal dan Potensi Masyarakat Desa Durian Lingga Pekan Namu Tating Menuju Masyarakat yang Sehat, Cerdas, Kreatif dan**

## **Mandiri di Era Pandemi Covid-19**

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## **Buku Grafena untuk Teknologi Energi: Aplikasi Katalis dan Sistem Sel Bahan Bakar Masa Depan**

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Buku lainnya

## **Grafena untuk Teknologi Energi: Aplikasi Katalis dan Sistem Sel Bahan Bakar Masa Depan**

RIKSON A F SIBURIAN , Dr. KERISTA TARIGAN, M.Eng.Sc.

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## **PEMBUATAN GRAFENA BERLAPIS NANO DARI KELAPA**

RIKSON A F SIBURIAN , MINTO SUPENO

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## **METODE PEMBUATAN GRAFIT DARI TEMPURUNG KELAPA MELALUI TAHAP NUKLEASI KELAPA**

MINTO SUPENO , RIKSON A F SIBURIAN

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2025

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## **REFERENCE BOOK GENDER AND DIGITALENTREPRENEURSHIP: DIGITAL SKILL ANDEMPOWERMENT OF FARMERS IN INDONESIA**

RIKSON A F SIBURIAN , LITA NASUTION

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## **Grafena untuk Teknologi Energi: Aplikasi Katalis dan Sistem Sel Bahan Bakar Masa Depan**

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## **PROSES PEMBUATAN NIKEL/GRAFENA BERLAPIS NANO (GBN) SEBAGAI ANODA BATERAI PRIMER**

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## **Kinerja Anoda Baterai Sekunder Berbahan Grafitik Karbon**

SRI PRATIWI ARITONANG , EBSAN MARIHOT SIANIPAR , RIKSON A F SIBURIAN

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## **HKI-Hewan Invertebrata**

LITA NASUTION , RIKSON A F SIBURIAN

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