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Prof. Dr. Timbangan Sembiring, M.Sc. was born in Bintang Meriah/Deli Serdang on December 23, 1962. He is a Lecturer in Physics at Universitas Sumatera Utara. He completed a Doctoral Program in Physics at the University of Tsukuba in 2002.

Publications

2021

Prosiding seminar internasional

Effect of variations in Composition and Sintering Temperature on Mechanical Properties Ceramic Membrane with Bentonite, Sinabung Volcanic Ash and Carbon Active

FYNNISA. Z , MORAIDA HASANAH , TIMBANGEN SEMBIRING , SYAHRUL HUMAIDI , RAHMADSYAH , MORAIDA HASANAH

2022

Jurnal internasional bereputasi

The Optimization of Silica-Based Composite Membrane from Volcanic Ash of Mount Sinabung, Titanium Dioxide, and Polyvinyl Alcohol for River Water Treatment through Photocatalyst Process

SYAHRUL HUMAIDI , TIMBANGEN SEMBIRING , ZURIAH SITORUS

2004

Jurnal internasional bereputasi

Magnetic structures and spin-glass-like behavior in ordered and disordered Pt-rich Pt-Mn alloys

TIMBANGEN SEMBIRING

2020

Jurnal internasional bereputasi

Effects of the calcination atmosphere and pre-heating treatment on the characteristics of sodium titanate nanorods synthesized from titanium tetraisopropoxide-sodium chloride precursors assisted by organic templates

NASRUDDIN MN , KERISTA SEBAYANG , ZIKRI NOER , TIMBANGEN SEMBIRING

2002

Jurnal internasional bereputasi

ABC⁶ Type Ordered Structure in Pt-rich Pt-Mn Alloys

TIMBANGEN SEMBIRING

2020

Prosiding seminar internasional

Analysis of crystal structure and magnetic character strontium ferrite (SrFe₁₂O₁₉) powder made of stoichiometry and non-stoichiometry compositions

TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

Fabrication and characterization of palm sugar tree (Arenga pinnata) fiber

composites reinforced by polyester resin

TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

The effect of tetraethyl orthosilicate (TEOS) additions as silica precursors on the magnetite nano-particles (Fe_3O_4) properties for the application of ferro-lubricant

TIMBANGEN SEMBIRING

2021

Jurnal internasional bereputasi

Application of silica-coated magnetite on a steel plate and its frictional and thermal effect

TIMBANGEN SEMBIRING

2024

Prosiding seminar internasional

Analysis and Efficiency of Dye Cabbage On TiO_2 Semiconductors With a Method of Spin Coating as a Material Solar Cell

ABDUL RAIS , TIMBANGEN SEMBIRING

2021

Prosiding seminar internasional

Extraction Of Silica Dioxide (SiO_2) From Mount Sinabung Volcanic Ash with Coprecipitation Method

TIMBANGEN SEMBIRING , SYAHRUL HUMAIDI , KERISTA SEBAYANG

2020

Prosiding seminar internasional

Time Frequency Signal Classification Using Continuous Wavelet Transformation

TIMBANGEN SEMBIRING

2018

Prosiding seminar internasional

Analysis of Composition; Topography of Volcanic Materials Erupted from Mount Sinabung, Karo Regency, Indonesia

TIMBANGEN SEMBIRING

2006

Jurnal internasional bereputasi

Secondary ordering in Pt-rich Pt-Mn binary alloys and CuMnPt_6 ternary alloy

TIMBANGEN SEMBIRING

2018

Jurnal internasional bereputasi

The analysis of palm fiber and palm fiber-b4c potential as a shielding for thermal neutron radiation

TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

Study and characterization of composite based on sugar palm stem powder reinforced by matrix polyester resin, epoxy resin and polyurethane resin

TIMBANGEN SEMBIRING

2019

Prosiding seminar internasional

Characterization of membrane PVA-enzyme coated PVC-KTpCLPB as urea sensor with potentiometric method

TIMBANGEN SEMBIRING

2020

Jurnal internasional bereputasi

The effect of Mg, Na, and Ce addition on the superconducting properties of Bi_{1.6}Pb_{0.4}Sr₂Ca_{2-x}M_xCu₃O_y prepared sol-gel method

TIMBANGEN SEMBIRING

2020

Prosiding seminar internasional

The Effect of The Calcination Atmosphere in The Formation of Mineral Sodium Titanate

ZIKRI NOER , TIMBANGEN SEMBIRING

2024

Prosiding seminar internasional

Synthesis and characterization of Magnetic Fe₃O₄/SiO₂ composite for Environmental Sanitation

Budhy Kurniawan R. , TIMBANGEN SEMBIRING , RIDWAN YUSUF LUBIS , ZIKRI NOER , HARIYATI LUBIS

2019

Prosiding seminar internasional

Synthesis and characterization of Ba-Ferrite with variation of Nd₂O₃ additive by powder metallurgy method

TIMBANGEN SEMBIRING

2022

Jurnal internasional bereputasi

Extraction and Characterization of Silicon Dioxide from Volcanic Ash of Mount Sinabung, Indonesia: A Preliminary Study

FYNNISA. Z , MORAIDA HASANAH , TIMBANGEN SEMBIRING , ZURIAH SITORUS , SYAHRUL HUMAIDI , RAHMADSYAH , MORAIDA HASANAH

2024

Jurnal internasional bereputasi

Synthesis and Characterization of Magnetic Fe₃O₄/TEOS/TiO₂ Composites for Methylene Blue Photodegradation

RIDWAN YUSUF LUBIS , KERISTA SEBAYANG , EDDY MARLIANTO , RENALDO SIMANJUNTAK , MONIKA KLARIZCA SARAGIH , TIMBANGEN SEMBIRING , HARIYATI LUBIS , MORAIDA HASANAH

2015

Jurnal internasional

Geophysical Study for Discovering The Missing of Lau Ketuken from The Surface at Sulkam Village

RITA JULIANI , TIMBANGEN SEMBIRING , MOTLAN

2021

Jurnal internasional bereputasi

Review - A Pollutant Gas Sensor Based on Fe₃O₄Nanostructures: A Review

TIMBANGEN SEMBIRING

2015

Jurnal nasional terakreditasi

APPLICATION OF GEOELECTRICAL RESISTIVITY TO IDENTIFY SUBSURFACE STRUCTURE BETWEEN LAU KETUKEN AND LAU BEKERAH IN SULKAM LANGKAT REGENCY

RITA JULIANI , MOTLAN , TIMBANGEN SEMBIRING

2021

Prosiding seminar internasional

Characterization of indicator electrodes using the potentiometric biosensor method as urea sensor with XRD, SEM-EDS, UV-Vis and FTIR

SATRIA MIHARDI , ABD HAKIM S , TIMBANGEN SEMBIRING , MANIHAR SITUMORANG

2022

Jurnal internasional bereputasi

Extraction and Characterization of Silicon Dioxide from Volcanic Ash of Mount Sinabung, Indonesia: A Preliminary Study

2017

Jurnal internasional

Microstructure and magnetic properties of $\text{BaFe}_{12-2x}\text{Mg}_x\text{Al}_x\text{O}_{19}$ for microwave absorbing materials

TIMBANGEN SEMBIRING

2017

Jurnal internasional

Using alumina and volcanic ash in producing catalytic converter ceramics

TIMBANGEN SEMBIRING

2024

Prosiding seminar internasional

Characterization of morphological structures of $\text{Fe}_3\text{O}_4/\text{SiO}_2/\text{ZnO}$ composite

Budhy Kurniawan R. , SUSILAWATI , TIMBANGEN SEMBIRING , HARIYATI LUBIS

2020

Jurnal internasional bereputasi

The effect of the calcination atmosphere in the formation of mineral sodium titanate

TIMBANGEN SEMBIRING

1995

Jurnal internasional bereputasi

Anisotropy and dimensional crossover of the vortex state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ crystals

TIMBANGEN SEMBIRING

2018

Jurnal internasional bereputasi

Synthesis of Urea Sensors using Potentiometric Methods with Modification of Electrode Membranes Indicators of ISE from PVA-Enzymes Coating PVC-KT ClPB

TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

A study of the use of palm fiber and palm shell as a thermal neutron radiation shielding material

TIMBANGEN SEMBIRING

2020

Prosiding seminar internasional

Study of physical and magnetic properties of barium hexaferrite substituted by Nd_2O_3

TIMBANGEN SEMBIRING

2018

Jurnal internasional bereputasi

Characterization of Physical and Electrical Properties of $\text{Bi}_{1.8}\text{Pb}_{0.4}\text{Sr}_2\text{Ca}_{2-x}\text{M}_x\text{Cu}_3\text{O}_y$ (M = Na, Mg, Ce) Superconductor

TIMBANGEN SEMBIRING

2017

Jurnal internasional bereputasi

Microstructure and magnetic properties of $\text{BaFe}_{12-2x}\text{Mg}_x\text{Al}_x\text{O}_{19}$ for microwave absorbing materials

TIMBANGEN SEMBIRING

2018

Jurnal internasional bereputasi

Characterization of Biocomposite Materials based on the Durian Fiber (Durio

Zibethinus Murr) Reinforced using Polyester Resin

TIMBANGEN SEMBIRING

2022

Prosiding seminar internasional

Synthesis and characterization of Fe₃O₄/SiO₂/TiO₂ using coprecipitation method

HARIYATI LUBIS , TIMBANGEN SEMBIRING , RIDWAN YUSUF LUBIS , KERISTA SEBAYANG , EDDY MARLIANTO

2018

Jurnal internasional bereputasi

Determination of Half Value Layer (HVL) Value on X-Rays Radiography with using Aluminum, Copper and Lead (Al, Cu, and Sn) Attenuators

TIMBANGEN SEMBIRING

2024

Jurnal internasional bereputasi

Fe₃O₄/SiO₂ composite derived from rice husk ash to enhance methylene blue removal efficiency in wastewater treatment

JEDDAH YANTI , HARIYATI LUBIS , SUSILAWATI , TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

Effect of calcination temperature on Microstructures, magnetic properties, and microwave absorption on BaFe_{11.6} Mg_{0.2} Al_{0.2} O₁₉ synthesized from natural iron sand

TIMBANGEN SEMBIRING

2002

Jurnal internasional bereputasi

A Partial Phase Diagram of Pt-Rich Pt-Mn Alloys

TIMBANGEN SEMBIRING

2026

Jurnal internasional bereputasi

Evaluation of Co_{0.7}Ni_{0.3}Fe₂O₄ nano-particle on structural, morphological, and magnetic properties as a heavy metal adsorbent in Cu, Cr

TIMBANGEN SEMBIRING

2019

Jurnal internasional bereputasi

Characterization Membrane Composition of PVA-Enzyme Coating PVC-KTpCIPB As Urea Sensor with UV-VIS, SEM-EDX and XRD

TIMBANGEN SEMBIRING

Researches

2021

Penelitian Fundamental

Pembuatan dan karakterisasi nanokomposit rGO/Fe₃O₄ menggunakan metode co-presipitasi untuk degradasi air limbah

TIMBANGEN SEMBIRING , ADITIA WARMAN , DASTI ULI FLORIDA DAMANIK

2022

Penelitian Disertasi Doktor

Karakterisasi Photoanoda ZnO - TiO₂ Dye Kopi Dan Photokatoda Cu₂O/CuO Dengan Metode Sel Poto Elektrokimia Untuk Memperoleh Energi Terbarukan Dari Sel Surya

TIMBANGEN SEMBIRING

2021

Penelitian Unggulan Perguruan Tinggi

Sintesis dan Karakterisasi F₃O₄/SiO₂ terhadap TiO₂ Anatase sebagai

Fotokatalis Ion Logam Methylene Blue pada Penanganan Air Limbah

KERISTA SEBAYANG , EDDY MARLIANTO , TIMBANGEN SEMBIRING

2023

Penelitian Fundamental

Sintesis dan Modifikasi Material Komposit Fe₃O₄/ZnO menggunakan Abu Sekam Padi (Rice Husk Ash) sebagai Pengganti SiO₂ pada Aplikasi Absorpsi Air Limbah Ion Logam Berat

SUSILAWATI , TIMBANGEN SEMBIRING , Budhy Kurniawan R. , NIKOLAUS RABBUNI LARSSON SITINJAK

2023

Penelitian Dana Lokal Perguruan Tinggi

KARAKTERISASI SIFAT MORFOLOGI DAN ANALISA FASA NANOKOMPOSIT Fe₃O₄/SiO₂ METODE KOPRESIPITASI SEBAGAI DEGRADASI AIR LIMBAH

ZIKRI NOER , TIMBANGEN SEMBIRING , Budhy Kurniawan R.

2022

Penelitian Unggulan Perguruan Tinggi

Sintesis dan Karakterisasi F₃O₄/SiO₂ terhadap TiO₂ Anatase sebagai Fotokatalis Ion Logam Methylene Blue pada Penanganan Air Limbah

KERISTA SEBAYANG , EDDY MARLIANTO , TIMBANGEN SEMBIRING
