Prof. Dr. Timbangen Sembiring, M.Sc.

Dosen Program Studi S1 Fisika
Fakultas Matematika Dan Ilmu Pengetahuan Alam
Universitas Sumatera Utara

timbangen@usu.ac.id

Fakultas Matematika dan Ilmu Pengetahuan Alam

fmipa.usu.ac.id/id/dosen/timbangen-sembiring

Prof. Dr. Timbangen Sembiring, M.Sc. dilahirkan di Bintang Meriah/Deli Serdang pada tanggal 23 Desember 1962. Beliau merupakan seorang dosen Fisika di Universitas Sumatera Utara. Beliau menyelesaikan pendidikan terakhirnya pada jenjang S3, program studi Physics, di University of Tsukuba pada tahun 2002.

Publications

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

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

2024
Prosiding seminar internasional

Characterization of morphological structures of Fe3O4/SiO2/ZnO composite

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

2024
Prosiding seminar internasional

Analysis and Efficiency of Dye Cabbage On Tio2 Semiconductors With a Method of Spin Coating as a Material Solar Cell

ABDUL RAIS , TIMBANGEN SEMBIRING

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

2022
Jurnal internasional bereputasi

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

ZURIAH SITORUS , TIMBANGEN SEMBIRING , SYAHRUL HUMAIDI

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

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

2021
Prosiding seminar internasional

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

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

2021
Prosiding seminar internasional

Extraction Of Silica Dioxide (SiO2) From Mount Sinabung Volcanic Ash with Coprecipitation Method

TIMBANGEN SEMBIRING , SYAHRUL HUMAIDI , KERISTA SEBAYANG

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

2021
Jurnal internasional bereputasi

Review - A Pollutant Gas Sensor Based on Fe<inf>3</inf>O<inf>4</inf>Nanostructures: A Review

TIMBANGEN SEMBIRING

2021
Jurnal internasional bereputasi

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

TIMBANGEN SEMBIRING

2020
Prosiding seminar internasional

Time Frequency Signal Classification Using Continuous Wavelet Transformation

TIMBANGEN SEMBIRING

2020
Prosiding seminar internasional

Study of physical and magnetic properties of barium hexaferrite substituted by Nd<inf>2</inf>O<inf>3</inf>

TIMBANGEN SEMBIRING

2020
Jurnal internasional bereputasi

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

TIMBANGEN SEMBIRING

2020
Prosiding seminar internasional

Analysis of crystal structure and magnetic character strontium ferrite (SrFe<inf>12</inf>O<inf>19</inf>) powder made of stoichiometry and non-stoichiometry compositions

TIMBANGEN SEMBIRING

2020
Jurnal internasional bereputasi

The effect of Mg, Na, and Ce addition on the superconducting properties of

Bi<inf>1.6</inf>Pb<inf>0.4</inf>Sr<inf>2</inf>Ca<inf>2-x</inf>M<inf>x</inf>Cu<inf>3</inf>O<inf>y</inf> prepared sol-gel method

TIMBANGEN SEMBIRING

2019
Jurnal internasional bereputasi

The effect of tetraethyl orthosilicate (TEOS) additions as silica precursors on the magnetite nano-particles (Fe<inf>3</inf>O<inf>4</inf>) properties for the application of ferro-lubricant

TIMBANGEN SEMBIRING

2019
Jurnal internasional bereputasi

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

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

2019
Prosiding seminar internasional

Synthesis and characterization of Ba-Ferrite with variation of Nd<inf>2</inf>O<inf>3</inf> additive by powder metallurgy method

TIMBANGEN SEMBIRING

2019
Prosiding seminar internasional

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

TIMBANGEN SEMBIRING

2019
Jurnal internasional bereputasi

Effect of calcination temperature on Microstructures, magnetic properties, and microwave absorption on BaFe <inf>11.6</inf> Mg <inf>0.2</inf> Al <inf>0.2</inf> O <inf>19</inf> synthesized from natural iron sand

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

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

TIMBANGEN SEMBIRING

2018
Prosiding seminar internasional

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

TIMBANGEN SEMBIRING

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

2018
Jurnal internasional bereputasi

Characterization of Biocomposite Materials based on the Durian Fiber (Durio Zibethinus Murr) Reinforced using Polyester Resin

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 <inf>p</inf> ClPB

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

2018
Jurnal internasional bereputasi

Characterization of Physical and Electrical Properties of Bi <inf>1.8</inf> Pb <inf>0.4</inf> Sr <inf>2</inf> Ca <inf>2-x</inf> M <inf>x</inf> Cu <inf>3</inf> O <inf>y</inf> (M = Na, Mg, Ce) Superconductor

TIMBANGEN SEMBIRING

2017
Jurnal internasional bereputasi

Microstructure and magnetic properties of BaFe12-2xMgxAlxO19 for microwave absorbing materials

TIMBANGEN SEMBIRING

2017
Jurnal internasional

Using alumina and volcanic ash in producing catalytic converter ceramics

TIMBANGEN SEMBIRING

2017
Jurnal internasional

Microstructure and magnetic properties of BaFe<inf>12-2x</inf>Mg<inf>x</inf>Al<inf>x</inf>O<inf>19</inf> for microwave absorbing materials

TIMBANGEN SEMBIRING

2015
Jurnal internasional

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

RITA JULIANI , TIMBANGEN SEMBIRING , MOTLAN

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

2006
Jurnal internasional bereputasi

Secondary ordering in Pt-rich Pt-Mn binary alloys and CuMnPt<inf>6</inf> ternary alloy

TIMBANGEN SEMBIRING

2004
Jurnal internasional bereputasi

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

TIMBANGEN SEMBIRING

2002
Jurnal internasional bereputasi

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

TIMBANGEN SEMBIRING

2002
Jurnal internasional bereputasi

ABC<inf>6</inf> Type Ordered Structure in Pt-rich Pt-Mn Alloys

TIMBANGEN SEMBIRING

1995
Jurnal internasional bereputasi

Anisotropy and dimensional crossover of the vortex state in Bi2Sr2CaCu2O8 crystals

TIMBANGEN SEMBIRING

2026
Jurnal internasional bereputasi

Evaluation of Co0. 7Ni0. 3Fe2O4 nano-particle on structural, morphological, and magnetic properties as a heavy metal adsorbent in Cu, Cr

TIMBANGEN SEMBIRING

Researches

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

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

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

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

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