Scientific CV of Prof. Hendry Izaac Elim, Ph.D



About Prof. H.I. Elim (St. Elim Heaven, New Name since 2013 (Not registered on earth), URL: https://stelimheaven.website3.me/visiting-professor-journey

TAKE An Incredible ACTION to Future Hope based on Your Marvelous FAITH:

"PHYSICS IS A GENIUS SCIENCE based on all CONSERVATION LAWS IN UNIVERSE":

==> MARVELOUS WORLD OF NANOTECHNOLOGY: Is the earth made by H2O ? (Holy Bible, 2 Pet. 3:5)

==> Trinity Intelligence (TI) with Trinity God Stick method

A Brief Biography of Prof. HENDRY IZAAC ELIM, Ph.D

(*URL*: https://fisika.fst.unpatti.ac.id/profhendryelim/)

[1]. HEAD / Founder of Nanotechnology Research Center and Innovative Creation (PPNRI since 24 April 2015 - present or PSNN (2024-present: URL)

[2]. Elim Advanced Technology Laboratory (EAT Lab), Center for Archipelago Physics (CAP), Pattimura university

URL: https://profhendryielim1.website3.me

[3]. Center for Archipelago Physics (CAP) with Trinity Intelligence (TI) URL: https://hendryelim7.wixsite.com/prof

WHY?: PHYSICS IS A GENIUS SCIENCE (url).

Ref.: [i]. My Professorship Speech (URL)

A Thought: "Can Higher Education, Science and Technology Indonesia be successful? (URL)

[A]. LIFE and EDUCATION Foundation:

< <u>A Genius Equation and Its Control System: Omniscience Wise Heart (Article URL) ></u>

Prof. ELIM (from LIEM to be born as ELIM, Holy BIBLE, Exod. 15:27) is, the 1st pure Physicist in the eastern part of INDONESIA, a creative and innovative as well as disruptive simple Indonesia physicist with the theoretical B.Sc and M.Sc physics background from 2 best Indonesia university of:

- [1]. <u>Gadjah Mada (UGM)</u> and
- [2]. Bandung Institute of Technology (ITB), respectively.

[B]. OVERSEAS POSTGRADUATE EDUCATION Journey & COLLABORATIONS:

He has also conducted <u>a series of multitasking scientific development of</u>

<u>nanoscience, nanotechnology and herbal nanomedicine</u> under the world wide

<u>collaborations</u> with many different international scholars in the last ~34 years

<u>consisted of a distinguished 6 years nonlinear optics research background in his</u>

<u>Ph.D and postdoctoral works at</u>

- [1]. NUS, Singapore in PHYSICS Department (2001-2007) and [2]. 4.5 years position as a research professor in a mega-project of superhybrid materials (2007-2012) at Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Tohoku university, Japan.
- [C]. PIONEERING MOBILE Research LAB at PATTIMURA University
 & Research Student EDUCATION (i-LAB, URL link):

Prof. H.I. Elim, the founder of the first Nanotechnology Research Center and Innovative Creation (*Pusat Penelitian Nanoteknologi dan Rekayasa Inovasi, PPNRI*, [1]. URL: https://lppm.unpatti.ac.id/profil-ppnri-2020/) in the eastern part of Indonesia has https://lppm.unpatti.ac.id/profil-ppnri-2020/) as soon as his opening of

[0]. <u>Laboratory of Nanomaterials for Photonics Nanotechnology (Lab. N4PN) in 2014</u> and *PPNRI* at <u>Pattimura university</u> on 24th April 2015, respectively. Powered by ELIM Lab: <u>https://elimlaboratory.website2.me/</u>

[2]. ELIM Advanced Technology Lab (Since April 2024)

Prof. Elim has ORCID ID: https://orcid.org/0000-0002-4272-7115

[D]. ==> DETAILS of PUBLICATIONS & Significant DISCOVERY

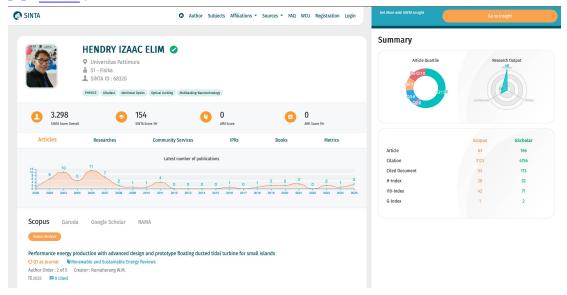
Integrated Science and Math: BEYOND PHYSICAL BREAKTHROUGH (URL)

Prof. Elim has achieved an incredible output of over 101 high quality works, text books and few chapter books published in **over 34 Q1 journals according to:**

[1]. Web of Science (WOS)/

(Weighted h index ~ 12 or $\frac{h \text{ index} \sim 28 \& Citations of} \sim 2994}{\text{(Prof. Elim's CV (url, WOS)}}$);

- [2]. **SCOPUS** (> 3126 citations/ h idex ~28)
- [3]. SINTA / score ~ 3298



- [4]. Google Scholar (citations > 4753) /
- [5]. Aminer profile (Al generated scholar) /
- [6]. **LOOP**
- [7]. ResearchGate (h index ~34/ citations ~4222)
- [8]. PROFILE based on Fields (GPS)
- [9]. Profile < Hendry Izaac Elim (URL); Hendry I. Elim (URL); H.I. Elim (URL) > Search based on OpenAIRE
- [10]. Popular Articles (Prof. Elim's blogs): "Simple is a Genius"

with h index of ~28 and citation of OVER 4755 in Google scholar (in December 2023). Due to his incredible achievements in a small island of Ambon, Indonesia, Dr. Elim had received at least 2 main important awards of 2017 best Indonesia scientist from Pattimura university rector and silver medal of XX Satya Lancana Karya Satya from President of Indonesia, respectively. In November 2021, Dr. Elim has been ranked as the ~3th best Indonesia pure physicist and ~30th best natural Indonesia scientist based on AD Scientific index.

EXAMPLE OF INVENTIONS:

"The Weakness of Al" (URL in Indonesia language):

Understanding information interaction is very different from the super-ability to mention all recorded information in big data of supercomputer

- [1]. Z Scan Imaging Technique, Elim, AIP Adv. (2021) (its comparison to Z Scan (Sheik-Bahae, et al. 1990, and Dark field Z Scam (H. Wang, et al, 2016)
 [2]. Superior Optical Limiting Response of Derivative Fullerene (C60). (Publications summary URL)
- [3]. Ultrasfast optical nonlinearity and optical limiting of carbon superchips. (Publications Summary URL)
- [4]. Superhybrid TiO2-polymers. (Publication summary URL)
- [5]. Multitasking Healing system of Herbal medicine based Galoba Maluku (Zingiberaceae sp.)) (Publications summary URL)
- [6]. Thin flexible Battery and mobile electrical generator for small islands (Publication summary URL)
- [7]. etc. (Publication Summary URL)
- [8]. Mobile energy Storage in Small Islands (URL)

[E]. SCIENTIFIC SERVICES:

Prof. Elim, Ph.D (St. Elim Heaven, His New Name since 2013) has served many different scientific communities as Editor-in-Chief of 2 international journals of SCIENCE NATURE & Pattimura Excellence Journal of Language and Culture (PEJLaC) and associate editor in Analytical chemistry Letters as well as international meetings of symposium, webinar (daring system of talks) and

conference as well as expo/ exhibition as contributed speaker, keynote speaker, and plenary speaker in many different countries such as Indonesia, Singapore, Japan, Germany, USA, India, and Africa, respectively.

[F]. POPULAR PUBLICATIONS & IMPACTS (URL Link):

Since 2023, Prof. Elim has already been a popular writer in a very big NEWS

PAPER Blog of Kompasiana with his OVER 172 interesting articles and videos among ~ 4.2 active writers in Indonesia.

[*]. List of Contributed Publications with NUS

[**]. List of publications based on Top Specialties.

- [G]. Selected INVITED Talks/ QUEST LECTURES:
- [0]. Background of invited talks/ Quest Lectures (URL)
- [1]. "Recent Breakthrough in Frontier Physics: Beyond Nanotechnology" on 12nd January 2024 in Faculty of Science and Technology (FST) at Airlangga University

DOI: 10.13140/RG.2.2.14249.16487

Conference: Invited Quest Lecture of Prominent Physicist in Indonesia, 2024

[2]. "Multitasking Healing System with Herbal Medicine: Frontier in Medical Physics", by Prof. Hendry Izaac Elim, Ph.D as a Quest Lecture at Bakrie University, Jakarta held on 13rd March 2024 on Room 5B.

DOI: 10.13140/RG.2.2.27632.47366

- [3]. QS World university Ranking (link]. The 1st Pattimura university Best scientist (physicist) to have 3 months Visiting Professor program at NUS, Asia Best university & world best 8th university 2024.
- [4]. Beyond Nanoworld (Invited Seminar via Zoom at UGM: "my favorite TALK" (Youtube URL)
- [5]. Physics of Everything: Innovative Creation in Universe from the view of Nanotechnology Implemented in New Age Technologies in Therapeutics(DOI: 10.13140/RG.2.2.31303.71846

Conference: International Conference of New Age Technology in Therapeutics 2024At: at Andhra Pradesh Akademi in India (July, 2024))

[6]. The Beauty of Ultrafast and Nonlinear Optical Physics: Marvelous journey in The Nanoworld (VIDEO Url)

[H]. Collaborative COMPANY:

[1]. JJ Organik / Energi Samudra Elim (ESE, url):

"The Marvelous World of Nanotechnology"

[2]. etc.

Motto: "Physics is a Genius Science: Excellent Wisdom is our Spirit & Excellent Knowledge in our soul"

[I]. EDUCATED RESEARCH STUDENTS from ELIM Laboratory & Prof. Elim's International THESIS (Ph.D)'s REVIEWS

"Intelligent of Daily Life, Multitasking Behavior (URL)"

[1]. Graduated Students (> 94 research students, URL)

"Searching the Heart & Investigating the mand of man to find Life" (Email: prof.hendry.izaac.elim@gmail.com or hendry.elim@lecturer.unpatti.ac.id)

[J]. Our Scientific Journey & Its Multitasking Impacts

URL: https://profhendryielim1.website3.me/services
We Contribute, NOT ask <H.I. Elim>

In a journey, what we did was to provide both the excellent wisdom embedded in our spirit and the excellent knowledge in our soul



Our Selected PUBLICATIONS with over 3001 citations and h index > 28 (Scopus/ Web of Science) divided in to Physics of Multitasking in Nanoscience and Nanotechnology as well as Herbal Medicines:

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Our works in Multitasking Physics & Its Control System

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Physics of universe is simple

The mystery of gigantic universe is very challenging in this sophisticated century of nanotechnology and its beyond (Prof. H.I. Elim, Ph.D; Prof. Guizheng Zhai, SiT, Japan).

Selected Publications:

[1]. Scientific Breakthrough Based on Natural Creation: "1 Diamond with 7 Eyes", HI Elim

COJ Reviews and Research 1 (1), 1–3 (2018).

- [2]. Nonlinear Optics and The Frontier of Nanoscience and Nanotechnology, HI Elim Pattimura University Press, ISBN: 978–602–61906–9–7 (2019)
- [3]. Theory, Implementation and the Nature of Truth (TIN) in Nanoscience, Nanotechnology, and Nanomedicine (NNN): From the Beginning of Universe to nm Scale Behavior, HI Elim, **Kenkyu Journal of Nanotechnology & Nanoscience 5: 33–36 (2019).**
- [4]. Physics of Multitasking Nanomedicine, HI Elim, International Journal of Health Medicine and Current Research 2 (03), 509–519 (2017).
- [5]. Heavenly small islands simple technology & its cultural economy impacts in Maluku, Indonesia: a new proposed Multitasking Philosophy in Diversity (MPD), HI Elim, E Kembauw, RH Siahainenia, JSA Lamerkabel, ..., **Science Nature 2 (4), 192–207 (2019).**
- [6]. Control System of Multitasking Interactions between Society 5.0 and Industry 5.0: A Conceptual Introduction & Its Applications
- H.I. Elim, G.S. Zhai, Journal of Physics: Conference series 1463, 012035 (2020).
- [7]. A Novel Quality Evaluation Using a Smart Unique Language of Interaction Data Between Industry 5.0 and Society 5.0, HI Elim, **Pattimura Excellence Journal of Language and Culture 3 (1), 45–56 (2023).**

<u>Fullerene-derivatives nm-chips with Prof. Long Y. Chiang, Boston, USA</u> <>><><>>>>

Unique nonlinear optics of buckyball-derivative nm-chips Sophisticated technology was started by the development of superhybrid-materials.

Selected Publications (with Prof. Long Y. Chiang, USA):

- [1]. Nonlinear optical properties of mono-functional 1, 2-dihydro-1, 2-methanofullerene [60]-61-carboxylic acid/polymer composites
 HI Elim, J Ouyang, J He, SH Goh, SH Tang, W Ji, **Chemical physics letters 369 (3-4)**, 281-286 (2003).
- [2]. Large concentration-dependent nonlinear optical responses of starburst diphenylaminofluorenocarbonyl methano [60] fullerene pentads
 HI Elim, R Anandakathir, R Jakubiak, LY Chiang, W Ji, LS Tan, **Journal of Materials**Chemistry 17 (18), 1826–1838 (2007).
- [3]. Nonlinear Optical Transmission Properties of C60 Dyads Consisting of a Light-Harvesting Diphenylaminofluorene Antenna
- HI Elim, SH Jeon, S Verma, W Ji, LS Tan, A Urbas, LY Chiang, **The Journal of Physical Chemistry B 112 (32), 9561–9564 (2008).**
- [4]. Optical-limiting-based materials of mono-functional, multi-functional and supramolecular C60-containing polymers
- HI Elim, J Ouyang, SH Goh, W Ji, Thin Solid Films 477 (1-2), 63-72 (2005).
- [5]. Nanochip medicine: physical chemistry engineering, HI Elim, LY Chiang, **Science** Nature 2 (1), 86–89 (2019).

Carbon Super Nanochips with Prof. Ji Wei (NUS):

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Unique Physics of Its Allotropes Physics of Super carbon nanochips The superiority behaviors of super carbon nanochips and its allotropes beyond

Selected Publications (with Prof. Ji Wei, NUS):

[1]. Ultrafast absorptive and refractive nonlinearities in multiwalled carbon nanotube films, HI Elim, W Ji, GH Ma, KY Lim, CH Sow, CHA Huan

Applied Physics Letters 85 (10), 1799-1801 (2004).

[2]. Electronic and optical properties of nitrogen-doped multiwalled carbon nanotubes, SH Lim, HI Elim, XY Gao, ATS Wee, W Ji, JY Lee, J Lin Physical Review B 73 (4), 045402 (2006).

Optical Limiting and Nonlinear Optics of Carbon Super nm-chips with Prof. A.T.S Wee (NUS)

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Applied physics characters of Super carbon nm-chips

The high quality devices protecting system (with Prof. A.T.S. Wee, NUS)

and its beyond behaviors

Selected publications:

- [1]. Gold and silver coated carbon nanotubes: an improved broad-band optical limiter, KC Chin, A Gohel, WZ Chen, HI Elim, W Ji, GL Chong, CH Sow, ATS Wee, Chemical Physics Letters 409 (1–3), 85–88 (2005).
- [2]. Carbon nanoparticles based nonlinear optical liquid, GX Chen, MH Hong, TS Ong, HM Lam, WZ Chen, HI Elim, W Ji, TC Chong Carbon 42 (12–13), 2735–2737 (2004).
- [3]. Study of the optical limiting properties of carbon–encapsulated magnetic nanoparticles, M Bystrzejewski, H Lange, A Huczko, HI Elim, W Ji Chemical Physics Letters 444 (1–3), 113–117 (2007).
- [4]. Modified carbon nanotubes as broadband optical limiting nanomaterials, KC Chin, A Gohel, HI Elim, W Chen, W Ji, GL Chong, CH Sow, ATS Wee Journal of materials research 21, 2758–2766 (2006).
- [5]. OPTICAL LIMITING STUDIES OF NEW CARBON NANOCOMPOSITES AND AMORPHOUS SixNy OR AMORPHOUS SIC COATED MULTI-WALLED CARBON ..., HI Elim, W Chen, W Ji, Z Zhong, J Lin, GC Meng, KC Chin, A Gohel, ..., Journal of Nonlinear Optical Physics & Materials 13 (02), 275–289 (2004).

New Knowledge of Length Dependence Nonlinear Optics (NLO) of Vertically Aligned-CNT with Prof. C.H. Sow (2D Materials Lab, NUS)

Ultrafast and NLO characters of Super Aligned-MWCNT.

The Optimized nm-devices requires new knowledge to enhance the multitasking impacts.

Selected Publications (with Prof. C.H. Sow, 2D Materials Lab.):

[1]. Length dependence of ultrafast optical nonlinearities in vertically aligned multiwalled carbon nanotube films, HI Elim, Y Zhu, CH Sow

The Journal of Physical Chemistry C 120 (31), 17733-17738 (2016).

[2]. Ultrafast absorptive and refractive nonlinearities in multiwalled carbon nanotube films, HI Elim, W Ji, GH Ma, KY Lim, CH Sow, CHA Huan Applied Physics Letters 85 (10), 1799–1801 (2004).

Ultrafast Nonlinear Optics of Superhybrid nm-chips of MWCNT-ZnO with Prof. Y.W. Zhu (China top physicist)

<><><><><>

Interplay among two to three super-nanomaterials makes an incredible character.

Physicists (Prof. Yanwu Zhu, Prof. Ji Wei, Prof. C.H. Sow, etc) with the instrumentations, optical and materials's background are needed to advance the studies.

Selected Publications:

[1]. Multiwalled carbon nanotubes beaded with ZnO nanoparticles for ultrafast nonlinear optical switching, Y Zhu, HI Elim, YL Foo, T Yu, Y Liu, W Ji, JY Lee, Z Shen, ATS Wee, ..., **Advanced Materials 18 (5), 587–592 (2006).**[2]. **et cetera...**

Physics of universe is unsearchable completely by man. <>><><>>>>

The more you search something marvelous in universe, the more questions you have to find out the answers.

Selected Publications in Metallic Nanostructures (With Prof. Lee Jim Yang, NUS):

- [1]. Observation of saturable and reverse-saturable absorption at longitudinal surface plasmon resonance in gold nanorods, HI Elim, J Yang, JY Lee, J Mi, W Ji, **Applied physics letters 88 (8) (2006).**
- [2]. New insights mechanism in the citrate reduction of gole (III) salt; formation of the Au nano wire intermediate and its non-linear optical properties BK Pong, Hendry I. Elim, JX Chong, W Ji, L Bernhart Tront, JY Lee, **J. Phys. Chem.** C 111, 6281–6287 (2007).
- [3]. Aspect–ratio Dependence of Optical Nonlinearities on Resonance with Longitudinal Surface Plasmon in Au Nanorods: Unique Character versus Common Behavior, Hendry I. Elim, Wei Ji, Mohan Singh Dhoni, N. Venkatram, Jian Yang, **Science Nature 1 (1), 1–7 (2018).**

[4]. Large nonlinear absorption in single aggregate of silver nanoparticles observed with z-scan imaging technique

HI Elim, AIP Advances 11 (11), 115015 (2021).

Bible in Sciences: <><><>>>>

Knowledge of Eternal Life powered by St. Elim Heaven

He is a simple scholar from a small beautiful island on earth called as Ambon "manise" island.

Selected Publications:

[1]. THE FIRST 1000 ATOMS IN HEALING PROCESS: FROM NANOTECHNOLOGY TO NANOMEDICINE, HI Elim

International Journal of Health Medicine and Current Research 3 (4), 1044–1046 (2018).

- [2]. Multitasking Herbal Nanomedicine: A Frontier Report, HI Elim, **Nanoscale Reports 2 (1), 22–30 (2019).**
- [3]. Is Your Brain Strong Enough to Solve Hard Problems?: Brain Vitamins as a Simple Example for Multitasking Nanotechnology Scientist HI Elim, **Science Nature 3 (1), 244–256 (2020).**
- [4]. The Attractive Differences Of Two Types Of Herbal Medicine From Zingiberaceae Fruit (Golobe Halmahera), HI Elim, and Arend L. Mapanawang International Journal of Health Medicine and Current Research 3 (01), 826–834 (2018).
- [5]. Unique Physical Behavior with Two Main Integrated Types of Chemical Substances of Herbal Medicine based Insulin Leaf (Tithonia diversifolia (Hemsley) A. Gray (Asteraceae)): A ..., HI Elim Nur Arafah Mahubessy, Hanoch J. Sohilait, **Science Nature 4 (1), 304–317 (2021).**

Discovery of Elim Alliacea, a new galoba fruit

The journey and trip to study physics of herbal medicines
Powered by Nanomedicine garden, Nanotechnology Research Center
and Innovative Creation (PPNRI), Pattimura university

Selected Publications:

- [1]. The Discovery of new golobe and its amazing healing system, HI Elim, **Science** Nature 2 (1), 66–70 (2019).
- [2]. The observation of fast, long term, and stable performance of toxic absorption in herbal blessing product based on galoba maluku (Zingiberaceae Fruits), IF Seay, HI Elim, **Science Nature 2 (2), 122–127 (2019).**

The Invited Talk of Prof. Bruce Alberts as the author of "Bible of Cell"

(Molecular Biology of the Cell)

powered by Pattimura university

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From few basic atoms of H, C, N, and O, the smallest living cell in human body was created to be Deoxyribonucleic Acid (DNA) of Guanine (G), Cytosine (C), Adenine (A) and Thymine (T).

Selected Publications:

- [1]. Nanomedicine with Its Multitasking Applications: A View for Better Health, HI Elim, **IJHMCR 2, 353–357 (2017).**
- [2]. "Physics Of Multitasking Nanomedicine", HI Elim, International Journal of Health Medicine and Current Research 2 (03), 509–519 (2017).
- [3]. Unique Chemical Bonding Behavior of Love Herbal Medicine and Its Ability as a Chemotherapy Drug, H.I. Elim, A.L. Mapanawang

Journal of Nanomedicine and Nanotechnology 9 (3), 1000503 (2018).

- [4]. Unique Physical and Chemical Properties of Kian Sand Worm (Siphonosoma urpulau) Traditional Medicine: Electrical, Optical and Chemical Response of Edible Powder with Different ..., A Masrikat, HI Elim, **Biochemistry and Modern Applications 2 (1), 51–54 (2019).**
- [5]. Image Processing and Optical–Electricity Property of Traditional Medicine Products from Kian Sand Worm, A Masrikat, Y Noya, HI Elim, Science Nature 2 (3), 148–156 (2019).

Learning from Brief History of Overseas Respects:

"Optical Behaviors, Nonlinear Optics (NLO), Ultrafast of Superhybrid Materials & Nanotechnology"

When the Indonesia flag was respected for the whole day during our visitation and quest lectures at Prof. St. Martin Luther's city of Nordhausen in Major office of Mr. Kay Buchmann as well as the Nordhausen University of applied Sciences, Germany

The 1st Indonesia team to visit the 1st Protestant city on earth in October 2017 just few days before the celebration of 500 years of Prof. St. Martin Luther.

Selected Publications on Novel Nanomaterials (Prof. John Wang, Prof. T. Adschiri, Prof. O. Sugihara and Prof. T. Kaino):

- [1]. Ultrafast optical nonlinearity in nanocomposites, HI Elim, W Ji, AH Yuwono, JM Xue, J Wang, **Applied physics letters 82 (16), 2691–2693 (2003).**
- [2]. Refractive Index Control and Rayleigh Scattering Properties of Transparent TiO2 Nanohybrid Polymer, HI Elim, B Cai, Y Kurata, O Sugihara, T Kaino, T Adschiri, AL Chu, ..., The Journal of Physical Chemistry B 113 (30), 10143–10148 (2009).
- [3]. Rayleigh scattering study and particle density determination of a high refractive index TiO 2 nanohybrid polymer, HI Elim, B Cai, O Sugihara, T Kaino, T Adschiri, Physical Chemistry Chemical Physics (PCCP) 13 (10), 4470–4475 (2011).
- [4]. AgInSe2 nanorods: A semiconducting material for saturable absorber, HI Elim, W Ji, MT Ng, JJ Vittal, **Applied physics letters 90 (3) (2007).**
- [5]. One-pot synthesis and third-order nonlinear optical properties of AgInS2 nanocrystalsusing electrodeposition, T Lu, HI Elim, W Ji, JJ Vittal

Chemical Communications, 4276-4278 (2006).

- [6]. Rational synthesis, self-assembly, and optical properties of PbS— Au heterogeneous nanostructures via preferential deposition, J Yang, HI Elim, QB Zhang, JY Lee, W Ji, **Journal of the American Chemical Society (JACS) 128 (36), 11921–11926 (2006).**
- [7]. Intensity-dependent enhancement of saturable absorption in PbS—Au4 nanohybrid composites: Evidence for resonant energy transfer by Auger recombination, HI Elim, W Ji, J Yang, JY Lee, **Applied Physics Letters 92 (25) (2008).**

[8]. Carrier concentration dependence of optical Kerr nonlinearity in indium tin oxide films, HI Elim, W Ji, F Zhu, **Applied Physics B 82, 439–442 (2006).**

Selected Publications on Nanolasers (Lasing characters):

- [1]. Gain narrowing and random lasing from dye-doped polymer-dispersed liquid crystals with nanoscale liquid crystal droplets, YJ Liu, XW Sun, HI Elim, W Ji, Applied physics letters 89 (1) (2006).
- [2]. Effect of liquid crystal concentration on the lasing properties of dye-doped holographic polymer-dispersed liquid crystal transmission gratings YJ Liu, XW Sun, HI Elim, W Ji, **Applied physics letters 90 (1) (2007).**

Selected Publications on Nanobattery & Supercapacitors (With Prof. M.V. Reddy, & Prof. Rajan Jose):

- [1]. A frontier 2D Nanobattery: "improving challenges (Hotumese) and development", HI Elim, MV Reddy, R Jose, **Science Nature 2 (2), 114–121 (2019).**
- [2]. Correlation study on temperature dependent conductivity and line profile along the LLTO/LFP-C cross section for all solid-state Lithium-ion batteries, KP Abhilash, PC Selvin, B Nalini, R Jose, X Hui, HI Elim, MV Reddy, **Solid State Ionics 341, 115032** (2019).
- [3]. Studies on spinel cobaltites, MCo2O4 (M= Mn, Zn, Fe, Ni and Co) and their functional properties, D Darbar, MR Anilkumar, V Rajagopalan, I Bhattacharya, HI Elim, ..., Ceramics International 44 (5), 4630–4639 (2018).
- [4]. Perpetual Voltage Control with Flexible Thin Battery from Green Garbage Materials, HI Elim, MV Reddy, M Rahman, RR Latuconsina, AA Pattipeilohy **Encyclopedia of Green Materials, 1–9 (2022).**
- [5]. Pseudocapacitive charge storage in thin nanobelts, R Kunwar, M Harilal, SG Krishnan, B Pal, II Misnon, CR Mariappan, H.I. Elim...

Advanced Fiber Materials 1, 205-213 (2019).

Frontier Oceanography Engineering at Pattimura univ. powered by St. Elim Heaven

The roadmap shows ~15 years plan further. <><><>>>>

Collaborators: Prof. Dieter Genske (Nordhausen); Prof. Weidong Yu, Prof. Yuting Liang, & Prof. Feng Liu (Sun Yat-Sen); Prof. Augy Sahilatua (BRIN Oceanography)

Selected Publications on Oceanography Physics:

- [1]. Typical Character in the South of Banda Sea Based on Thickness and Variability in the Upper Limit Thermocline Area and Its Relationship with Sound Velocity, HI Elim, P Nanlohy, R Lalita, N Sahartira, H Silawane, AS Atmadipoera INTERNATIONAL JOURNAL OF HEALTH MEDICINE AND CURRENT RESEARCH—IJHMCR 2 (4 ... (2020).
- [2]. A unique cyclonic and anti-cyclonic eddies current character in Banda sea, P Nanlohy, NS Hehanussa, AS Atmadipoera, IW Nurjaya, HI Elim, INTERNATIONAL JOURNAL OF HEALTH MEDICINE AND CURRENT RESEARCH-IJHMCR 2 (4 ... (2020).
- [3]. Sound Velocity Properties due to Salinity, Temperature and Depth of The Whole Banda Sea: A Marvelous Thing of The ~318 Meter Surface of Deep Sea, H.I. Elim, P. Nanlohy, Nasrin Silawane, IWNASA, **Advances in Theoretical and Computational Physics 1 (1), 1–5 (2018).**
- [4]. Smart Innovative Technology for the NOVEL Superfibers Development of Ocean Wastes, Memuliakan Laut, Pattimura University Press, pp.250–263 (2017), HI Elim, Memuliakan Laut. Buah Pikiran Akademisi Universitas Pattimura, Publisher of Pattimura University Press (2017).

VOYANT < words analysis>