



## CURRICULUM VITAE

**Rahmat Hidayat, S.Pd., M.Si.**

**Faculty:** Fakultas Matematika dan IPA

**Study Programs:** Fisika

**Email: , Phone:**

### Biography

#### Scopus of the Last 5 Years

Tiny (ZnO)<sub>n</sub> clusters supported on graphene for solar energy trapping: A density functional theory study. Journal of the Taiwan Institute of Chemical Engineers, Jonuarti R., 2023

Factor Analysis Affecting the Implementation of the Generative Learning Model with a Cognitive Conflict Strategy in the Computational Physics Course during the COVID-19 Pandemic Era. Educational Administration: Theory and Practice, Akmam A., 2022

Green synthesis of silver nanoparticles from anthocyanin extracts of purple cabbage ( brassica oleracea var capitata) and its characteristics for dye-sensitized solar cells (DSSC) application. Journal of Physics: Conference Series, Arsyad W.S., 2022

The Effect of Molecular Orientation in Disperse Red-1 Film on Its Refractive Index. Journal of Physics: Conference Series, Herman H., 2022

Need analysis to develop a generative learning model with a cognitive conflict strategy oriented to creative thinking in the Computational Physics course. Journal of Physics: Conference Series, Akmam A., 2022

Verdet constant of various types of honey and sugar solution analyzed at different concentration. Journal of Physics: Conference Series, Purwandari E., 2021

IR emission of Er<sup>3+</sup> ion-doped fluoroborotellurite glass for communication application. Journal of Non-Crystalline Solids, Yuliantini L., 2021

Problems of students in following the online learning process in the covid-19 pandemic. Journal of Physics: Conference Series, Akmam A., 2021

Preliminary study of graphene like material fabrication from coconut shell using conventional furnace. Journal of Physics: Conference Series, Hidayat R., 2021

Photostabilization of phycocyanin from Spirulina platensis modified by formaldehyde. Process Biochemistry, Munawaroh H.S.H., 2020

Design of a simple and low cost electrical property tester for graphene material : a preliminary study. Journal of Physics: Conference Series, Hidayat R., 2020

Effects of interface state density on the carrier transport and performance of metal-insulator-semiconductor (MIS) type thin film solar cells. Journal of Physics: Conference Series, Oktasendra F., 2020

Spectroscopic study of Nd<sup>3+</sup> ion-doped Zn-Al-Ba borate glasses for NIR emitting device applications. Optical Materials, Djamal M., 2020

Simple synthesis of rGO (reduced graphene oxide) by thermal reduction of GO (graphene oxide). IOP Conference Series: Materials Science and Engineering, Hidayat R., 2020

Facile deposition of reduced graphene oxide-based transparent conductive film with microwave assisted method. Thin Solid Films, Aimon A.H., 2019

A control of TiO<sub>2</sub> nanostructures by hydrothermal condition and their application: A short review. IOP Conference Series: Materials Science and Engineering, Hidayat R., 2019

Preparation of Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub>/graphene oxide composite as visible light-driven photocatalytic in degradation of rhodamine B dyes. Materials Research Express, Putra Y.P., 2019

### Web of Science (WoS) of the Last 5 Years

Eco-friendly direct-current pulsed electropolymerization of polyaniline nanofibers on synthetic graphite substrate for counter electrode in dye-sensitized solar cells. POLYMER-PLASTICS TECHNOLOGY AND MATERIALS, Fauziah, N; Khasannah, WL; Andari, GA; Fatya, AI; Benu, DP; Steky, FV; Milana, P; Hidayat, R; Suendo, V., 2023

Photostabilization of phycocyanin from *Spirulina platensis* modified by formaldehyde. PROCESS BIOCHEMISTRY, Munawaroh, HSH; Gumilar, GG; Alifia, CR; Marthania, M; Stellasary, B; Yuliani, G; Wulandari, AP; Kurniawan, I; Hidayat, R; Ningrum, A; Koyande, AK; Show, PL., 2020

Facile deposition of reduced graphene oxide-based transparent conductive film with microwave assisted method. THIN SOLID FILMS, Aimon, AH; Hidayat, R; Rahmawati, D; Sutarto, R; Permatasari, FA; Iskandar, F., 2019

Performance of *Pterocarpus Indicus* Willd Leaf Extract as Natural Dye TiO<sub>2</sub>-Dye/ITO DSSC. MATERIALS TODAY-PROCEEDINGS, Diantoro, M; Maftuha, D; Suprayogi, T; Iqbal, MR; Solehudin; Mufti, N; Taufiq, A; Hidayat, A; Suryana, R; Hidayat, R., 2019

### Google Scholar of the Last 5 Years

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Analysis of Students' Attitudes and Difficulties in Studying Computational Physics. Berkala Ilmiah Pendidikan Fisika 10 (1), 34-43, 2022, R Indriani, A Akmam, F Mufit, R Hidayat, SY Sari, 2022

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Analysis of student's creative thinking ability in computation physics course. Gravity: Jurnal Ilmiah Penelitian dan Pembelajaran Fisika 8 (2), 2022, RM Putri, A Akmam, F Mufit, SY Sari, R Hidayat, 2022

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Problems of students in following the online learning process in the covid-19 pandemic. Journal of Physics: Conference Series 1876 (1), 012083, 2021, A Akmam, R Hidayat, F Mufit, N Jalinus, A Amran, 2021

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Kepraktisan Video Pembelajaran Kalkulus untuk Fisika dalam Proses Belajar Daring pada Masa Pandemi Covid-19. Jurnal Eksakta Pendidikan (Jep) 5 (1), 110-117, 2021, R Hidayat, PD Sundari, FU Jhora, H Hidayati, 2021

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The Improvement of Physics Teachers' Competence in Developing an Interactive Recitation Programs to Remediate Students' Misconception. Indonesian Journal of Science and Mathematics Education 4 (3), 242-252, 2021, PD Sundari, WS Dewi, D Saputra, R Hidayat, 2021

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Primary and Secondary Education During COVID-19 (Disruptions to Educational Opportunity During a Pandemic. Education 3-13, 2-2, 2021, N Irawan, R Hidayat, 2021

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Effects of interface state density on the carrier transport and performance of metal-insulator-semiconductor (MIS) type thin film solar cells. Journal of Physics: Conference Series 1481 (1), 012005, 2020, F Oktasendra, R Hidayat, RI Utama, 2020

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PERAN HUKUM ADAT DALAM PELAKSANAAN SYARIAT ISLAM DI ACEH. AL-ILMU 5 (2), 124-146, 2020, R Hidayat, AM Afni, R Ananda, B Ningsih, 2020

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Nonlinear Finite Element Method Analysis of After Fire Reinforced Concrete Beam Strengthened with Carbon Fiber Strip. Journal of Physics: Conference Series 1175 (1), 2019, BSRH Eka Juliafad, R Ananda, D Sulisty, 2019

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### Research of the Last 5 Years

Pengembangan Learning Physics Game Bermuatan Literasi Saintifik Dalam Rangka Meningkatkan Pemahaman Konsep Fisika Siswa Sma. Pd-penelitian Dasar, Leader: Renol Afrizon, Implementation Year: 2022

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Pengembangan Model Pembelajaran Generatif Berstrategi Konflik Kognitif Berorientasi Berpikir Kreatif Mahasiswa Pada Mata Kuliah Komputasi Fisika. Pd-penelitian Dasar, Leader: Akmam Akmam, Implementation Year: 2022

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Studi Pengaruh Suhu Annealing Terhadap Sifat Grafena Hasil Sintesis Limbah Tempurung Kelapa. Penelitian Pemula, Leader: Rahmat Hidayat, Implementation Year: 2020

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Pemodelan Transport Pembawa Muatan Pada Divais Sel Surya Berbasis Material Perovskite. Penelitian Pemula, Leader: Fandi Oktasendra, Implementation Year: 2019

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Sintesis Grafena Berbiaya Rendah Dengan Memanfaatkan Limbah Tempurung Kelapa. Penelitian Pemula, Leader: Rahmat Hidayat, Implementation Year: 2019

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### Community Service of the Last 5 Years

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### IPR's of the Last 5 Years

Asthma Control: Sistem Pemantauan Pernafasan Untuk Pasien Asma Berbasis IoT Guna Mewujudkan SDGS 2030. Inventor: TEGAR PUTRA SOCRATES; TEFA PUTRI SOCRATES; MUHAMMAD AZKI; Rahmat Hidayat, S.Pd., M.Si., Publication Date: 2022-06-20

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ATHYNOS: Media Pembelajaran Berbasis Augmented Reality Dan Serious Game Untuk Meningkatkan Kemampuan Matematika Anak Diskalkulia Pada Siswa SD Di Era New Normal. Inventor: TEGAR PUTRA SOCRATES; AFDHAL AZRIANTO; M. FAIZ JIHADI A; Rahmat Hidayat, S.Pd., M.Si., Publication Date: 2022-06-20

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Smart Detector: Pendeteksi Ujian Anti Nyontek Berbasis IoT Dan Biosecurity Management Guna Mewujudkan Indonesia Berbudaya Menuju Era Society 5.0. Inventor: TEGAR PUTRA SOCRATES; RIO FAHLEVI; RIZIQUL IKRAM; Muhammad Irvan Wahyudhie; Rahmat Hidayat, S.Pd., M.Si., Publication Date: 2022-06-20

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### Book of the Last 5 Years

Fisika Komputasi. ISBN: 9786233729567, Publisher: PT. RajaGrafindo Persada Depok, Year: 2023

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