Physics Department

Zulfalina, S.Si, M.Si

Position	Fundamental Physics, Thermodynamics, Material Physics (Bachelor Degree of Physics Study Programme)

Academic Career	**Magister Course**: Universitas Indonesia (UI), Indonesia -Physics Department (2001-2003); **Bachelor Course**: Institut Teknologi Sepuluh November Surabaya (ITS), Indonesia-Physics Department (1993-1999)
Employment	Assistant Professor of Physics Dept., FMIPA, USK (2024 – present), Head of thermodynamic laboratory at Physics Dept., FMIPA, USK (2018- 2021)
Research and development projects (last 5 years)	
Collaborations (last 5 years)	Analisis Perbandingan Nilai Dosis Tipikal Pada Pemeriksaan CT Scan 128-Slice di RSUDZA dengan I-DRL, Kerjasama dengan RSUD dr. Zainoel Abidin Banda Aceh
Patents and proprietary rights	Ismail, Asmaul Husna, Zulfalina, Adi Rahwanto (2025), Paten Sederhana : IDS000009483/Proses Pembuatan *High-Loaded* Biokomposit Tandan Kosong Kelasa Sawit (TKKS) – Resin Epoksi dengan Perlakuan NaOH. Kementerian Hukum Republik Indonesia, Tanggal Pemberian 10 Januari 2025
Selective Publications (last 5 years)	1. **Zulfalina Zulfalina**, Irhamni Irhamni, Ulvia Ulvia, Zuhra Amalia (2025), The Potential of Clamshell (Anadara granosa) as a Source of Calcium Oxide (CaO) in Hydroxyapatite Synthesis, *Indonesian Journal of Applied Physics* (IJAP), 14 (2), 08-14, 2477-6416 April 2025 2. Ismail, I., Ikram, M., & **Zulfalina, Z**. (2024). Physical and Mechanical Properties of Sugarcane Bagasse Epoxy Bio-Composite: Effect of Composition and Particle Size. *J. Mater. Environ. Sci., 15* 3. I Irhamni, E Juliana, **Z Zulfalina**, F Fauzi, Z Jalil (2024). *Utilization of oyster shell waste (crassostrea gigas) as a source of calcium in hydroxyapatite synthesis*. Jurnal Geuthèë: 7 (2), 96-104, 2024 4. Gunawati; U. Mahera; Zakaria; E. Yufita; **Zulfalina**; Adi Setiawan (2024) Thermal conductivity measurement of NaCl produced traditionally in Aceh as raw material for energy storage application, *Journal of Physics*, 3082, 040032-1 sd 040032-8 , 1551-7616 5. Evi Yufita, **Zulfalina**, Muhammad Ilham Nur, Fatriah, Zulkarnain Jalil (2022) Pengaruh Ekstrak Kulit Buah Naga Merah dan Daun Trembesi sebagai Penghambat Korosi pada Baja A36 dalam Larutan HCl 3%, *Indonesian Journal of Applied Physics* (IJAP), 12, 99-107, 2477-6416. **6.** **Zulfalina,** Heti Nurindahsari, Rini Safitri, Irhamni, Fauzi, (2022), The Effect on Sintering Temperature to The Characteristics of Whitefish (Chanos-Chanos Forsk) Bone-Based Hydroxyapatite. *Hadron Jurnal Fisika dan Terapan,* Vol. 4 (2), 53-57, 2715-9469 **7.** Irhamni, Ireka SALSABILA, Fauzi FAUZI, **Zulfalina ZULFALINA**, Zulkarnain JALIL, (2021) Study of hydroxyapatite based on Aceh's bovine bone coating on 314L stainless steel as a candidate for coating dental implant materials, *Jurnal of Syiah Kuala Dentistry Society*, Vol 6 , 6-11, p-ISSN e-ISSN 2502-0412. 8. Ismail Ismail, Resi Muliani, **Zulfalina**, Siti Hajar Sheikh MD Fadzullah, (2020), Determination of the crystallite size and crystal structure of magnesium powder by x-ray diffraction, *Jurnal Natural*, 20, 61-65, 1411-8513. 9. Fauzi, **Zulfalina** (2020) The Enhancement and Study of Sintering Time Effect Toward Content of Fe and Ti Compounds in Mineral Sand, *Journal of Aceh Physics Society,* Vol 8 (2), 55-58, 2355-8229. 10. **Z Zulfalina**, N Nazaria, I Irhamni (2016) Optimalisasi Variasi Komposisi Batu Kapur Lhoknga Aceh Besar sebagai Bahan Baku Material Dental Gipsum, *Jurnal Teori dan Aplikasi Fisika*, Vol 4,, 49-56, ISSN 2303-016X, E-ISSN 2549-1156
Membership	Physical Society of Indonesia (PSI) (2020/2025)
External Link	https://fisika.usk.ac.id/zulfalina-s-si-m-si/