

Paper Submission Form - SAIP2025 Proceedings

Sections A, C, D, and E must be completed by all authors (including students) who submit papers. Section B is compulsory for students who submit manuscript(s).

Section A: Paper Submission Information

Paper/Abstract ID	200
Paper title	Investigation of X-rays and Gamma-ray Shielding Properties of Heavy Metal Oxide Glass Materials
Corresponding Author Name & Surname:	Nosihle Msabala
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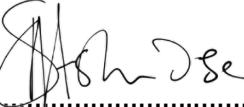
Section B: For Students & Supervisors

Supervisor Name & Surname:	Sifiso Senzo Ntshangase
Supervisor Email Address:	ntshangases@unizulu.ac.za

For this paper, the supervisor must agree/disagree with the following statements.

	Yes	No
1. I am aware that the above-mentioned paper is being submitted for possible publication in the Proceedings of the SAIP Conference. I am satisfied that the presented work is that of the listed authors. I hereby give consent to the submission	Yes	
2. I have proof-read the manuscript	Yes	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	Yes	
4. I am familiar with the required manuscript format ("House Style"), and I am satisfied that this manuscript meets the criteria. I am aware that manuscripts not conforming with House Style may be desk rejected	Yes	
5. I am satisfied that the scientific content of this manuscript is of sufficient standard for it to be considered for publication in the Proceedings of the South African Institute of Physics Conference Proceedings	Yes	

Student Name & Surname: Nosihle Msabala Signature:  Date: 30/07/2025

Supervisor Name & Surname: Prof S.S. Ntshangase Signature:  Date: 30/07/2025

Section C: Suggested Reviewers

Obtaining the two referee reports necessary for DHET subsidy is an onerous task.

Please provide the names and contact details of three qualified South African and/or international referees. Referees should have a PhD and expertise in the relevant area of Physics. Do not recommend referees who have co-authored a work with any of the authors on the manuscript within the past five (5) years. Manuscripts without three recommended referees may be subject to desk rejection.

Suggested Reviewers in your Research Field (Both local & international)

	Reviewer Names & Surname	Reviewer's Email Address(es)
Suggested reviewer #1	Dr Maluba Vernon Chisapi	maluba.chisap@unza.zm
Suggested reviewer #2	Dr Thuthukile Khumalo	thuthukile.khumalo@nithecs.ac.za
Suggested reviewer #3	Dr Oscar Kureba	kureba@biust.ac.za

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

This submitted manuscript is scientifically novel because it presents a newly developed glass composition designed entirely from scratch as a potential alternative radiation shielding material. Current shielding materials like lead is toxic and harmful to both health and the while concrete is heavy, bulky, and inflexible. As a result, researchers are actively seeking safer, lightweight, and lead-free alternatives for radiation shielding. The glass system I investigated has not been previously studied for radiation shielding applications. It is a new chemical compound that I formulated specifically to explore its potential in this field. This originality both in terms of composition and intended function positions my work as a unique contribution to the growing body of research on sustainable and effective radiation shielding solutions.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

I used AI tools to improve grammar, structure, clarity in my writing and the flow.

Section E: Plagiarism

	Yes
I am aware that plagiarism detection software may be used on my manuscript.	Yes