

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	167
Paper title	Study on the impact of Pr ³⁺ , Ce ³⁺ , and Pb ²⁺ ions on luminescence properties of BaB ₈ O ₁₃ :Gd ³⁺ for potential applications in phototherapy
Corresponding Author Name & Surname:	Dr Machaba Leanyatsa Abraham Letswalo
Corresponding Author Email Address:	letswalom@uj.ac.za

Section B: For Students & Supervisors

Supervisor Name & Surname:	letswalom@uj.ac.za
Supervisor Email Address:	letswalom@uj.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	✓	
2. I have proof-read the manuscript	✓	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	✓	
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	✓	
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	✓	

Student Name & Surname: Dr.MLA Letswalo..... Signature: Date: 31/07/2025

Supervisor Name & Surname: Dr.MLA Letswalo..... Signature: Date: 31/07/2025

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 Kamohelo Shabalala	TshabalalaKG@ufs.ac.za
Suggested reviewer #2	Prof TE Mosuang	thuto.mosuang@ul.ac.za
Suggested reviewer #3	Dr PS Ntoahae	petros.ntoahae@ul.ac.za

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

Investigating the effects of Pr³⁺, Ce³⁺ and Pr²⁺ ions on luminescence of BaB₈O₁₃:2%Gd³⁺ synthesized via combustion method. the results showed that co-doping sensitizers could enhance narrow-band UVB emission at 311 nm by suppressing broadband emission due to the most material defects. Energy transfer from sensitizers to Gd³⁺ ions is explained in the study. this is a novel understanding of how Gd³⁺ is influenced as the results shows that Ce³⁺ improved the Gd³⁺ emission peak. This indicates that prepared materials are potentially for Phototherapy applications, a novel and promising direction.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

None

✓

Section E: Plagiarism

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