

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	142
Paper title	The photothermal effects of green-synthesized gold nanoparticles on human breast cancer cells
Corresponding Author Name & Surname:	Heidi Abrahamse
Corresponding Author Email Address:	habrahamse@uj.ac.za

Section B: For Students & Supervisors

Supervisor Name & Surname:	Heidi Abrahamse
Supervisor Email Address:	habrahamse@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: Mpho Mohlongo

Signature: 

Date: 28/7/2025

Supervisor Name & Surname: Heidi Abrahamse

Signature: 

Date: 28/7/2025

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	Prof Anine Crous	acrous@uj.ac.za
Suggested reviewer #2	Prof Nicolette Houreld	nhoureld@uj.ac.za
Suggested reviewer #3	Dr Sathish Dhilip Kumar	sathishd@uj.ac.za

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

This study is the first to report the use of *K. poprtharantha*, an underexplored South African plant, for the green synthesis of cytotoxic gold nanoparticles. This introduces a new, eco-friendly approach in nanomedicine. These nanoparticles were then combined with photothermal therapy (using a 525 nm laser), to create a dual-action treatment modality for hormone responsive MCF7 breast cancer cells.

Please see the [Author Guidelines for the AI use policy](#).

How was AI used in the generation of this manuscript?

Yes. AI assisted tools (Google search AI, Grammarly) were used for language refinement, including synonyms, rephrasing, clarity, and for searching of published work of interest.

Section E: Plagiarism

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