

# 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	#24
Paper title	Structural and electrical transformations in Ag-implanted polyethylene terephthalate (PET) induced by swift heavy ion irradiation
Corresponding Author Name & Surname:	Dr Jean Jules Mboukam
Corresponding Author Email Address:	

## Section B: For Students & Supervisors

Supervisor Name & Surname:	
Supervisor Email Address:	

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	X	
2. I have proof-read the manuscript	X	
3. I am satisfied that the manuscript is written in appropriate English and is sufficiently free of grammatical and spelling errors	X	
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	X	
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	X	

Student Name & Surname: ..... Signature: ..... Date: .....

Supervisor Name & Surname: Dr Jean Jules Mboukam ..... Signature:  ..... Date: 22/07/2025

## 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 Mamogo Masenya	mamogo@tlabs.ac.za
Suggested reviewer #2	Dr Ernest Ejeh	eo.ejeh@ilabs.nrf.ac.za
Suggested reviewer #3	Dr Djoumessi Fobasso Redrisse	redrisse.djoumessi@gmail.com

## Section D: Declaration of Novelty and Use of AI

### How is this submitted manuscript scientifically novel?

This study is scientifically innovative because it is the first to propose a dual ionization treatment strategy on PET, demonstrating how silver implantation followed by swift heavy ion irradiation causes blistering on the surface, partial graphitisation, and a significant increase in electrical conductivity.

These results open up new possibilities for adapting the functional properties of polymer materials using a controlled ion beam.

Please see the Author Guidelines for the AI use policy.

### How was AI used in the generation of this manuscript?

During the writing of this work, the authors used Microsoft Bing to improve the readability of the content. After utilising this tool, the authors examined and edited the content as needed, accepting full responsibility for the publication's content.

## Section E: Plagiarism

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