

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	146
Paper title	Electronic and elastic properties of hexagonal molybdenum disulphide
Corresponding Author Name & Surname:	Magopa Kekana
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Section B: For Students & Supervisors

Supervisor Name & Surname:	Thuto Mosuang
Supervisor Email Address:	thuto.mosuang@ul.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	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: Magopa Kekana

Signature:



Date: 29/07/2025

Supervisor Name & Surname: Thuto Mosuang

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	Mahlaga Molepo	mahlaga.molepo@wits.ac.za
Suggested reviewer #2	Edwin Mapasha	edwin.mapasha@up.ac.za
Suggested reviewer #3	Eric Maluta	eric.maluta@univen.ac.za

Section D: Declaration of Novelty and Use of AI

How is this submitted manuscript scientifically novel?

The novelty of the study is crucial in a sense that, recently, with increased computational power and much improved methodologies, density functional theory (DFT) calculations on electronic and mechanical properties of MoS₂ has reached a level of accuracy such that the calculated parameters are adequately close to measured values. Where the internal analysis of such properties, and their agreement with various studies conveniently convoy the growing interest in atomically thin layers of transition-metal dichalcogenides as well as their potential advantages and challenges. Furthermore, such knowledge, conveniently helps the academics and industrialists to precisely asses both experimental and theoretical findings in a viable way to conceive more suitable and sustainable materials for high-tech applications. The present study precisely shares a fragment of such knowledge.

Please see the Author Guidelines for the AI use policy.

How was AI used in the generation of this manuscript?

AI tools were not used in the generation of this manuscript

Section E: Plagiarism

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