



Review Report for

Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments

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Round 1 Review

Comments by reviewer 1 (anonymous)

Completed: 2025-02-19 02:16 AM

Recommendation: Minor revisions

Reviewer Comments

For author and editor

Article Review: "Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments"

The article is interesting, innovative, and of great relevance to the current scientific community. The study addresses a significant issue in experimental geomorphology, providing a novel solution through the development of the MAT-V material.

The paper is well-organized, clear, and easy to follow. The structure includes a precise title and abstract, a well-motivated introduction, a detailed methodology, and results supported by coherent conclusions. Additionally, the methods and tools are appropriate and described with sufficient detail to allow for study replication.

The title and abstract adequately reflect the content of the paper. The motivation and hypothesis of the study are clearly explained, and the results satisfactorily demonstrate the validity of the proposed hypothesis. The text is well-written, with no numerical errors detected.

The methods and tools used are suitable for the research and are described in sufficient detail. The addition of complementary material, such as figures and tables, enhances the understanding of the results.

The conclusions are well-founded on the obtained results and accurately reflect the proposed objectives. The development of a new and improved method compared to MAT-IV represents a significant contribution.

The bibliographic references are correctly cited and relevant to the topic of the article.

The included tables and figures are pertinent and improve the understanding of the study. However, the following minor corrections are suggested:

- Add explanations for items a, b, and c in the caption of Figure 1.
- In Figure 6, where it says "e," it should say "d."
- In Figure 7, add the explanation for item d in the caption.
- In sentence 371, where "Table 1" is mentioned, it should say "Table SM1."
- In sentence 579, "Fig. 14d" is mentioned, but this item is not shown in Figure 14.
- In Figure 16, where it says "e," it should say "d."





The article is high-quality, innovative, and well-supported by experimental data. The proposed corrections are minor and do not affect the robustness of the work. Once these modifications are implemented, its publication is recommended without further objections.

I appreciate the opportunity to review this article and remain available for any additional questions.





Comments by reviewer 2 (anonymous)

Completed: 2025-03-17 12:48 PM

Recommendation: Major revisions

Reviewer Comments

For author and editor

The manuscript presents an interesting study on the development of experimental sediment for e.g. flume experiments in order to replicate behavior in natural systems. The study seems sound and fits well to the scope of Geomorphica. Nevertheless, I see several minor issues to make the study suitable for publication. In particular, I suggest to make the manuscript more concise as the current structure makes it hard to follow what exactly has been done.

1) I miss the presentation of a clear aim at the end of the introduction. While this becomes generally clear when reading the manuscript, I still suggest to explicitly state this at the end of the introduction to make the aim more clear for readers early on.

2) I think, the manuscript could significantly benefit from implementing a more clear structure. In particular, I suggest to have a clear, dedicated methods, results and discussion section with the respective sub-sections. This would make it significantly easier for the reader to orient himself in the manuscript and have some guidance throughout the text. Therefore, I suggest to re-structure the manuscript by introducing the common structure with introduction, methods, results, discussion and conclusion as main sections and putting the respective content in sub-sections under these main sections.

2) In the description of the methods section, I miss a brief overview of what has been done and how the different pieces of analysis fit into each other. As the methodology is comparatively complex with the experimental assessments and the Landlab modeling, I think readers would significantly benefit from getting an overview first and then guide them step by step through the different sub-sections of the methods.

3) I like your detailed discussion of the different aspects invoked in your study. Yet, while providing details, I think that the discussion could benefit from focusing more on the "big picture". As a reader, I would be really curious to learn what your study and the methods/tools you suggest contribute to better understanding landscape evolution. I suggest, to make the discussion more concise focusing on the key learnings. I think, the first discussion part focusing on scaling could benefit from putting the new analog material more into the focus when discussing the scaling issues (potentially modifying section headings could already help). In addition, I suggest to re-structure the second part where you focus on the specific strength and weaknesses of your approach. Here, I suggest to put your original contribution (combining analog and numerical modeling) in the focus and elaborate how this original approach contributes to overcome existing challenges.





4) From my perspective, the conclusion could be improved by better aligning it with the discussion section. The original conclusion focuses almost entirely on the properties of the newly developed experimental material. Of course, this is a main focus of the study, still I suggest to modify the conclusion by better integrating the scaling issue and the combined analog/numerical modeling approach.





Comments by reviewer 3 (anonymous)

Completed: 2025-03-21 10:07 AM

Recommendation: Minor revisions

Reviewer Comments

For author and editor

Dear Authors,

The study improves MAT-IV by introducing MAT-V, which makes geomorphic simulations more accurate. The methods are clearly explained, covering material properties, scaling, and erosion rates, with thorough experimental validation. Adding numerical simulations using Landlab makes the study more reliable and supports the findings. High-resolution DEMs, image correlation techniques, and morphometric analysis provide precise measurements of the model results. The paper also details multiple iterations of experiments to refine the material properties. Also, the authors presented neat sketches with accurate information. However, with a few minor corrections, this paper will significantly reach researchers in the tectonic geomorphology scientific community.

Limit Keywords to Five: Reduce the number of keywords to a maximum of five for conciseness and relevance.

Plural Form Correction: In line 59, change "PhD thesis and post-doc" to "PhD theses and postdoctoral studies" to maintain grammatical accuracy.

Spelling Correction: Correct the spelling of "steeper slope" at line 547.

Reference Required: In lines 557-558, provide an appropriate reference to support the statement about that 'In nature, drainage basins in mountain forelands display similar sub-parallel drainage networks, channel patterns (width vs length ratio), and landforms (crests)'.

Figure 1 Caption Clarification: Add brief explanations for Figures 1, 2, and 3 in the caption of Figure 1 to enhance clarity and understanding for the reader.

Figure 6 Reference Correction: Correct any inconsistencies between the figure numbers and the caption references in Figure 6.

Figure 16 Clarification: Ensure that the references to Figure 16 in the text align with the correct captions to avoid confusion.

Material Composition Sensitivity: The impact of minor variations in material composition on experimental results should be investigated in greater detail. Additionally, comparing these results with real-world examples, such as case studies of natural landscapes, would strengthen the validation and applicability of the findings.

This research article can be accepted for publication by addressing these minor questions.





Recommendation by Associate Editor 2 (anonymous)

Completed: 2025-04-03 02:50 PM

Recommendation: Minor revisions

Reviewer Comments

For author and editor

Dear Authors,

I have read your manuscript entitled “Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments” with great interest, along with the reviews provided by two anonymous reviewers. Based on my evaluation of your manuscript and their feedback, I am pleased to recommend that the manuscript be accepted after minor revisions.

Both reviewers concurred that your work presents innovative and valuable results in experimental geomorphology. Their suggestions primarily address language and organizational inconsistencies. Additionally, they recommend rephrasing parts of the text to enhance conciseness and improve the overall flow. Specifically, you should reduce the number of Keywords.

Best regards,
Anonymous Associate Editor





Decision by Editor-in-Chief (Alice Lefebvre)

2025-04-09. Decision Minor Revision

Sorry again about the delay in getting reviews. I'm happy to share that I have now received three reviews and an Associate Editor assessment. Based on these, I would like you to undertake a minor revision of your manuscript.





Authors' responses to review comments

2025-09-05

Dear Editor Agnes Lefebvre,

Please find enclosed the revised version of our manuscript, which was accepted with minor revisions for publication in GeoMorphica. We apologize for the delay, which was due to an overbooked schedule. We have carefully addressed all the comments, suggestions, and questions raised by the reviewers and the associate editor, which we have summarized below. We also made a particular effort to improve the English throughout the manuscript. We believe this revised version is now in good shape for publication, and we would like to thank all the reviewers for their valuable feedback, which has helped us improve the presentation of our work.

Please do not hesitate to contact us if you require any further information.

On behalf of all co-authors,

Sincerely yours,

Dr. Stéphane Dominguez

Researcher, CNRS

Analogue Modeling Laboratory (LMA)

Geosciences Montpellier

Place Eugène Bataillon, 34095 Montpellier, France

Anonymous Associate Reviewer: Dear Authors. I have read your manuscript entitled “Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments” with great interest, along with the reviews provided by two anonymous reviewers. Based on my evaluation of your manuscript and their feedback, I am pleased to recommend that the manuscript be accepted after minor revisions. Both reviewers concurred that your work presents innovative and valuable results in experimental geomorphology. Their suggestions primarily address language and organizational inconsistencies. Additionally, they recommend rephrasing parts of the text to enhance conciseness and improve the overall flow. Specifically, you should reduce the number of Keywords.

We thank the anonymous associate reviewer for her/his overall positive evaluation of our manuscript and for summarizing the main required corrections. We have addressed the highlighted points and now present a revised version that responds to most, if not all, of the reviewer's comments.

In the PDF file named MAT_V_Libre_Office_ANONYM_REV_TrackChanges.pdf, our corrections and additions directly related to the reviewer's comments appear in Red. Figures and their associated captions have also been revised where necessary. References have been updated accordingly to reflect the changes made in the text.

We also took the opportunity to improve the English, rephrase certain passages, and clarify points using grammar checker tools such as DeepL and Grammarly. These corrections, which do not alter the meaning or calculations of the original manuscript, appear in Green.

We believe that this revised version represents a significant improvement over our original





manuscript.

Reviewer 1: The article is interesting, innovative, and of great relevance to the current scientific community. The study addresses a significant issue in experimental geomorphology, providing a novel solution through the development of the MAT-V material. The paper is well-organized, clear, and easy to follow. The structure includes a precise title and abstract, a well-motivated introduction, a detailed methodology, and results supported by coherent conclusions. Additionally, the methods and tools are appropriate and described with sufficient detail to allow for study replication. The title and abstract adequately reflect the content of the paper. The motivation and hypothesis of the study are clearly explained, and the results satisfactorily demonstrate the validity of the proposed hypothesis. The text is well-written, with no numerical errors detected. The methods and tools used are suitable for the research and are described in sufficient detail. The addition of complementary material, such as figures and tables, enhances the understanding of the results. The conclusions are well-founded on the obtained results and accurately reflect the proposed objectives. The development of a new and improved method compared to MAT-IV represents a significant contribution. The bibliographic references are correctly cited and relevant to the topic of the article. The included tables and figures are pertinent and improve the understanding of the study. The article is high-quality, innovative, and well-supported by experimental data. The proposed corrections are minor and do not affect the robustness of the work.

However, the following minor corrections are suggested:

We thank Reviewer 1 for her/his thorough review, constructive comments, and positive evaluation of our work. We have implemented all the recommended revisions and addressed all of her/his questions.

- Add explanations for items a, b, and c in the caption of Figure 1.

We added (L77) the following additional informations in Figure 1 caption:

« a) References to PhD theses that used the MAT-IV analog material, b) Microscopic photographs of the MAT-IV components and their relative proportions in the standard composition, c) Typical particle size distribution of MAT-IV ».

- In Figure 6, where it says “e,” it should say “d.”

Corrected (L314).

- In Figure 7, add the explanation for item d in the caption.

We added the following brief description (L346):

« d) Estimation of MAT-V mechanical properties vs water content ».

- In sentence 371, where “Table 1” is mentioned, it should say “Table SM1.”

Corrected (L39).

- In sentence 579, “Fig. 14d” is mentioned, but this item is not shown in Figure 14.

Corrected (L643).

- In Figure 16, where it says “e,” it should say “d.”

Corrected. We updated Figure 16, its caption (L868-872) and associated references in the main text (L861-862, L889, L900).

Reviewer 2: The manuscript presents an interesting study on the development of experimental sediment for e.g. flume experiments in order to replicate behavior in natural systems. The study seems sound and fits well to the scope of Geomorphica. Nevertheless, I see several minor issues to make the study suitable for publication. In particular, I suggest to make the manuscript more





concise as the current structure makes it hard to follow what exactly has been done.

We express our sincere gratitude to Reviewer 2 for her/his positive assessment of our manuscript and for their valuable comments. We believe that we have implemented all suggested revisions and have provided comprehensive responses to their queries.

1) I miss the presentation of a clear aim at the end of the introduction. While this becomes generally clear when reading the manuscript, I still suggest to explicitly state this at the end of the introduction to make the aim more clear for readers early on.

We agree and have moved the following sentences, which previously appeared at the beginning of the former Section 2 (MAT IV to MAT V: Properties Evolution), into a dedicated subsection (1.3 Objectives) at the end of the section: 1 Introduction (L116).

« In recent years, we started modifying the MAT-IV analog material composition to overcome some of its identified weaknesses through improvements in its physical and mechanical properties. The present study reports on the work carried out to this end and the results obtained. Our main objectives were to increase analog material erodibility while decreasing water runoff on the model surface to:

- Densify the drainage network by enhancing channel incision and limiting mass wasting.
- Improve the fine details of the modeled morphologies, including geomorphic and tectonic features (fluvial terraces, nick-points, fault scarps, etc.).
- Limit the impact of inertial forces of water flows on model morphology to avoid sapping processes.

These enhancements also intended to expand its fields of application to smaller spatial and temporal scales up to 1 cm ~100-200m and 1 s ~ a few years, respectively.

2) I think, the manuscript could significantly benefit from implementing a more clear structure. In particular, I suggest to have a clear, dedicated methods, results and discussion section with the respective sub-sections. This would make it significantly easier for the reader to orient himself in the manuscript and have some guidance throughout the text. Therefore, I suggest to re-structure the manuscript by introducing the common structure with introduction, methods, results, discussion and conclusion as main sections and putting the respective content in sub-sections under these main sections.

We followed Reviewer 2's recommendations and revised the structure (section and sub-section names and numerations) of our manuscript accordingly. It is now organized as follows: 1. Introduction, 2. Methods, 3. Results, 4. Discussion, 5. Conclusion, each with dedicated subsections (see below). Please note that these changes do not affect the content of the original text.

1 Introduction

1.1 Scientific issue

1.2 State-of-the Art

1.3 Objectives

2 Methodology

2.1 Analog modeling : MAT-IV to MAT-V properties evolution

2.1.1 Experimental set-up

2.1.2 Exploring new material compositions

2.1.3 MAT-V best formula and key achievements

2.2 Characterization of MAT-V physical and mechanical properties

2.2.1 Physical properties

2.2.2 Mechanical properties





2.3 Characterization of MAT-V geomorphic properties

2.3.1 Experimental protocol

2.3.2 Erosional properties

2.4 Combined experimental-numerical approach

2.4.1 Numerical modeling procedure

2.4.2 Hillslope diffusion and river incision properties

3 Results

3.1 MAT-V model geomorphology

3.1.1 Catchments

3.1.2 Drainage network

3.1.3 Alluvial fans

3.1.4 Alluvial surfaces

3.1.5 Knickpoint

3.1.6 Fluvial terraces

3.1.7 Lake

3.2 Mat-V Deformation mechanisms and tectonic styles

3.2.1 Fault zone deformation

3.2.2 Internal model structure

3.2.3 Morphological expression of the fault trace

4 Discussion

4.1 Scaling

4.1.1 Spatial, mechanical and temporal scaling

4.1.2 Flows dynamics

4.2 Strengths and limitations of the experimental approach

4.2.1 Simulate long-term evolution

4.2.2 Diffusion/incision competition

4.2.3 Transport distance

4.2.4 Time of response

4.2.5 Material stratification

4.3 Strengths and limitations of the numerical modeling approach

4.4 Joint analog/numerical modeling approach

5 Conclusions

3) In the description of the methods section, I miss a brief overview of what has been done and how the different pieces of analysis fit into each other. As the methodology is comparatively complex with the experimental assessments and the Landlab modeling, I think readers would significantly benefit from getting an overview first and then guide them step by step through the different sub-sections of the methods.

We agree. Following the reorganization of the manuscript, we added a brief overview at the beginning of Section 2 (Methods) outlining its contents (L130-134):

« To achieve our objectives, we implemented a multidisciplinary approach combining geomorphic analog modeling (Section 2.1) to test new analog material compositions, measurements of the physical and mechanical properties of MAT-V (Section 2.2), and joint analog/numerical modeling to constrain its key geomorphological parameters (Sections 2.3 and 2.4). »

4) I like your detailed discussion of the different aspects invoked in your study. Yet, while providing details, I think that the discussion could benefit from focusing more on the "big picture". As a reader, I would be really curious to learn what your study and the methods/tools you suggest





contribute to better understanding landscape evolution. I suggest, to make the discussion more concise focusing on the key learnings. I think, the first discussion part focusing on scaling could benefit from putting the new analog material more into the focus when discussing the scaling issues (potentially modifying section headings could already help). In addition, I suggest to restructure the second part where you focus on the specific strength and weaknesses of your approach. Here, I suggest to put your original contribution (combining analog and numerical modeling) in the focus and elaborate how this original approach contributes to overcome existing challenges.

We agree with the reviewer that we should emphasize more on how our original approach helps overcome existing challenges in the study of landscape dynamics. We decided to take the reviewer's recommendation into account at the outset of the discussion section (L744-752). We did not significantly modify the structure of the discussion, as that would have required substantial rewriting, but we have complemented the text in all subsections to clarify and better highlight certain points as suggested by the reviewer (see for instance section 4.1, L761, section 4.4, L1036).

5) From my perspective, the conclusion could be improved by better aligning it with the discussion section. The original conclusion focuses almost entirely on the properties of the newly developed experimental material. Of course, this is a main focus of the study, still I suggest to modify the conclusion by better integrating the scaling issue and the combined analog/numerical modeling approach.

We agree with these recommendations and have strengthened the conclusion emphasizing both the scaling issue and the advantages of integrating analog and numerical modeling techniques. To do so, we added supporting sentences (L1090-1095 and L1103-1112, respectively):

« Spatial and temporal scaling are strongly influenced by the physical and mechanical properties of the analog material, as well as by the applied boundary conditions, such as imposed deformation kinematics and rainfall rate. Due to the variable particle densities and cohesions of wet granular mixtures like MAT, typically ranging from 1.2 to 2.7 g/cm³ and 500 to 5000 Pa, respectively, such analog materials are best suited for simulating natural systems at kilometeric scales over timescales of a few million years. »

« Using this approach, the MAT-V geomorphic parameters related to river incision and hillslope processes were constrained with good confidence, thereby providing key parameters for further adapting the MAT-V scaling to specific tectono-climatic settings. Concurrently, some issues related to the numerical simulation of morphotectonic processes, such as lateral river erosion and the surface expression of faulting, have been identified and are currently being addressed. This winwin approach is certainly expected to develop further in the coming years, supported by continuous improvements in computational performance and advances in our understanding of geomorphic process dynamics.

Reviewer 3: Dear Authors. The study improves MAT-IV by introducing MAT-V, which makes geomorphic simulations more accurate. The methods are clearly explained, covering material properties, scaling, and erosion rates, with thorough experimental validation. Adding numerical simulations using Landlab makes the study more reliable and supports the findings. Highresolution DEMs, image correlation techniques, and morphometric analysis provide precise measurements of the model results. The paper also details multiple iterations of experiments to refine the material properties. Also, the authors presented neat sketches with accurate





information. However, with a few minor corrections, this paper will significantly reach researchers in the tectonic geomorphology scientific community.

We thank Reviewer 3 for her/his positive evaluation of our work and her/his relevant comments. We believe we have made all the suggested corrections and have addressed the reviewer's questions.

- Limit Keywords to Five: Reduce the number of keywords to a maximum of five for conciseness and relevance.

Corrected (L29). We have decided to keep the following five keywords: Geomorphology, tectonics and surface process interactions, geomorphic experiments, analog modeling, relief dynamics.

- Plural Form Correction: In line 59, change "PhD thesis and post-doc" to "PhD theses and postdoctoral studies" to maintain grammatical accuracy.

Corrected (L65).

- Spelling Correction: Correct the spelling of "steeper slope" at line 547.

Corrected (L610).

- Reference Required: In lines 557-558, provide an appropriate reference to support the statement about that 'In nature, drainage basins in mountain forelands display similar sub-parallel drainage networks, channel patterns (width vs length ratio), and landforms (crests)'.

We missed it. We added the following reference: Hovius (1996) in the main text (L620) and in the References section (L1238).

Hovius, N. Regular spacing of drainage outlets from linear mountain belts. *Basin Research*, 8(1), 29–44, 1996. doi.org/10.1046/j.1365-2117.1996.01491.x

- Figure 1 Caption Clarification: Add brief explanations for Figures 1, 2, and 3 in the caption of Figure 1 to enhance clarity and understanding for the reader.

Corrected. We have completed the caption of Figure 1 by adding explanations for Figures 1a, 1b, and 1c (L77-79).

- Figure 6 Reference Correction: Correct any inconsistencies between the figure numbers and the caption references in Figure 6.

Corrected (L314).

- Figure 16 Clarification: Ensure that the references to Figure 16 in the text align with the correct captions to avoid confusion.

Corrected (L868-872). We also added, in the main text, references for Figure 16 a) and b) (L861-862), c) (L889), d) (L900):

« Moreover, the morphometric characterization of the channels in our experiments (Fig. 16d) closely resembles that of natural rivers in comparable tectonic and climatic settings (e.g. Guerit et al., 2018) ».

- Material Composition Sensitivity: The impact of minor variations in material composition on experimental results should be investigated in greater detail.

We acknowledge the relevance of the reviewer's suggestion. However, we believe that this addition is not strictly necessary. As mentioned in lines 247–253, the proposed standard MAT-V formulation is intended primarily as general guidance. Providing more details on the impact of minor variations in material composition on model morphology would likely be of limited practical value, as future modelers will need to adapt the MAT-V composition themselves according to their scientific objectives and specific experimental setups. We added a few sentences to underscore this point in the same portion of text (L250-256):

« Further experiments might have refined this standard composition by a few percent, but with limited practical significance. Indeed, natural landscapes develop on a wide range of lithologies





and climatic conditions that cannot be accurately simulated using a single analog material composition. Future modelers will need to adapt the MAT-V composition to suit their scientific objectives and experimental setups ».

We also added the following sentence L175-L178 to explain why we did not explore a wider range of MAT-V compositions when identifying the most suitable formulations for our intended geomorphic experiments:

material properties and compound proportions that yield realistic landscapes, deliberately excluding those known to produce out-of-scale morphologies (e.g., Graveleau et al., 2011). »

- Material Composition Sensitivity: Additionally, comparing these results with real-world examples, such as case studies of natural landscapes, would strengthen the validation and applicability of the findings.

We agree that such comparisons would be of interest; however, addressing it would require substantial additional text and figures, further lengthening an already quite long manuscript. We refer the reviewer to our previous response to a related comment. Additionally, we have added a reference at Line 178 to help readers compare MAT-V-derived morphologies with the diversity of Earth's landscapes.

Huggett, R. (2016). Fundamentals of Geomorphology (4th ed.). Routledge. doi.org/10.4324/9781315674179

Figures minor corrections and improvements:

Figure 1: Converted to black and white. Minor reorganization (e.g., repositioning of author references). Corrected reference: Chatton et al., 2012.

Figure 2: Minor drawing improvements (e.g., experimental device supports, water color).

Figure 3: Converted to black and white

Figure 4: Readability improved (e.g., annotation sizes and text adjustments).

Figure 5: Scales added.

Figure 6: Readability improved (e.g., complemented title of panel a)).

Figure 7: Added colored domains to highlight uncertainties along the regression lines.

Figure 8: —

Figure 9: —

Figure 10: Added color bars to highlight slope domains that mark changes in the mode of erosion.

Figure 11: —

Figure 12: —

Figure 13: —

Figure 14: Text readability improved. Pictures showing natural counterparts have been enlarged.

Figure 15: —

Figure 16: Panel references have been reorganized, and figure captions updated accordingly.

Figure 17: —

(— unchanged)

Reference section corrections:

Chaudry, 2008: Corrected (this citation was missing in the references).

Crosby and Whipple, 2006: Added to complement section 3.1.5 Knickpoint (L656).

Garcia-Estève et al., 2025: Deleted.

Grieve et al., 2016: Deleted.

Guerit et al., 2018: Added to complement reference to figure 16d (L900).





Henriquet et al., 2019: Added to complement references (L142).
Hovius, 1996: added to complement section 3.1.1 Catchments.
Roering et al., 1999: A duplicated reference was removed.
Richardson et al., 2019: Deleted (already referenced in the Supplementary Section).
Stock and Montgomery, 1999: Deleted (already referenced in the Supplementary Section).
Whittaker and Boulton, 2012: Added to complement section 3.1.5 Knickpoint (L657).





Round 2 Review

Comments by reviewer 2 (anonymous)

Completed: 2025-10-13 08:31 AM

Recommendation: Accept

Reviewer Comments

For author and editor

The responses to the reviewer comments adress very well the raised issues. The manuscript significantly improved through the revision and the improved structure makes it more approachable by readers. Therefore, I do not see any further issues and recommend to accept the revised manuscript. Congratulations to the authors for this great contribution to the analog modeling community!





Recommendation by Associate Editor 2 (anonymous)

Completed: 2025-10-17 11:59 AM

Recommendation: Accept

Reviewer Comments

For author and editor

Dear authors,

I read with interest your manuscript entitled "Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments", as well as the reviews from three anonymous reviewers. Based on my reading of your manuscript and the reviews, I recommend that the manuscript be accepted.

The authors have addressed all reviewers' comments, which have significantly improved the manuscript's quality and readability.

Best wishes

Anonymous Associate Editor (AE2)





Decision by Editor-in-Chief (Alice Lefebvre)

2025-10-24 Decision - Accept

Congratulations! I am pleased to inform you that your manuscript entitled "Physical and Mechanical Properties of a New Analog Material (MAT-V) for Geomorphic Experiments" has been accepted for publication in Geomorphica.

