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A. Author1,2,[[1]](#footnote-1),\*\*, B. Author 2,\*\*, and C. Author1,3 [Authors' full first and last names must be provided. The initials of any middle names can be added. Please do not include ORCIDs next to author names. Only ORCIDs authenticated by individual authors in EDP Sciences editorial/production system will be taken into account. ORCIDs included in the source files rather than authenticated by the authors themselves will be removed.]

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**Abstract** – [The abstract should be a total of about 300 words maximum, describe the main objective(s) of the study, explain how the study was done, including any model organisms used, without methodological detail, summarize the most important results and their significance. Abstracts should not include citations and abbreviations.]

**Keywords**: [Four to six pertinent keywords need to be added after the abstract]

1. **Introduction**

[The introduction should briefly place the study in a broad context and highlight why it is important. It should define the purpose of the work and its significance, including specific hypotheses being tested. The current state of the research field should be reviewed carefully and key publications cited. Please highlight controversial and diverging hypotheses when necessary. Finally, briefly mention the main aim of the work and highlight the main conclusions. Example:

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1. **Material and Methods**

[They should be described with sufficient detail to allow others to replicate and build on published results. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited, but the submission should include sufficient information to be understood independent of these references.]

1. **Results**

[Provide a concise and precise description of the experimental results, their interpretation as well as the experimental conclusions that can be drawn. Authors should explain how the results relate to the hypothesis presented as the basis of the study and provide a succinct explanation of the implications of the findings, particularly in relation to previous related studies and potential future directions for research.]



**Fig. 1.** Caption of Figure one

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**Table 1.** Caption of Table one. This is text here. This is text here. This is text here. This is text here. This is text here. This is text here. This is text here. This is text here.

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1. **Discussion**

[Authors should discuss the results and how they can be interpreted in perspective of previous studies and of the working hypotheses. The findings and their implications should be discussed in the broadest context possible and limitations of the work highlighted. Future research directions may also be mentioned. This section may be combined with Results.]

1. **Conclusion**

[This section is not mandatory but can be added to the manuscript if the discussion is unusually long or complex.]

**Acknowledgments**

[In this section you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).]

**Funding**

[All sources of funding of the study should be disclosed. Clearly indicate grants that you have received in support of your research work and if you received funds to cover publication costs. Please add: “This research received no external funding” or “This research was funded by [name of funder] grant number [xxx]” and/or “The APC was funded by [XXX]” in this section. Check carefully that the details given are accurate and use the standard spelling of funding agency names at https://search.crossref.org/funding, any errors may affect your future funding.]

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[This section, which is mandatory, shall describe whether yes or no, each individual author has to disclose any kind of conflict of interest (Disclosure Statement).

Depending on the type of conflict, the following sentences are recommended to be added for each author (please use the authors’ initials here):

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**Data availability statement**

[In this section, please provide, if your study reports data, details regarding where data supporting reported results can be found. If legally and ethically possible, authors should indicate whether or not their manuscript has associated data and where positive (and appropriate), if the data has been deposited in a data repository [whose location should be disclosed here]. Alternatively authors could write: This article has no associated data generated and/or analyzed / Data associated with this article cannot be disclosed due to legal/ethical/other reason.]

**Author contribution statement**

[If only one author as this article, delete this part.

We expect that all authors will have reviewed, discussed, and agreed to their individual contributions ahead of this time. Contributions will be published before the references section, and they should accurately reflect contributions to the work. The following statements should be used "Conceptualization, X.X. and Y.Y.; Methodology, X.X.; Software, X.X.; Validation, X.X., Y.Y. and Z.Z.; Formal Analysis, X.X.; Investigation, X.X.; Resources, X.X.; Data Curation, X.X.; Writing – Original Draft Preparation, X.X.; Writing – Review & Editing, X.X.; Visualization, X.X.; Supervision, X.X.; Project Administration, X.X.; Funding Acquisition, Y.Y.”.]

**Glossary**

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**Supplementary material**

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**References**

1. G. Kartal, S. Timur, M. Urgen, A. Erdemir, Electrochemical boriding of titanium for improved mechanical properties, Surf. Coatings Technol. **204**, 3935 (2010). <https://doi.org/10.1016/j.surfcoat.2010.05.021>
2. J. Li, C. Chen, T. Squartini, Q. He, A study on wear resistance and microcrack of the Ti3Al/TiAl + TiC ceramic layer deposited by laser cladding on Ti-6Al-4V alloy, Appl. Surf. Sci. 257, 1550 (2010). [https://doi.org/ 10.1016/j.apsusc.2010.08.094](https://doi.org/%2010.1016/j.apsusc.2010.08.094)
3. S.H. Mok, G. Bi, J. Folkes, I. Pashby, Deposition of Ti − 6Al − 4V using a high power diode laser and wire, Part I: investigation on the process characteristics, 2015. <https://doi.org/10.1016/j.surfcoat.2008.02.008>
4. M.H.F.J. Humphreys, Recrystallisation and related annealing phenomena, 2nd ed. (Elsevier Ltd, 2021)
5. J.X. Wu Cyberspace Endogenous Safety and Security, Engineering 2021, in press, <https://doi.org/10.1016/j.eng.2021.05.015>

**Appendix**

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1. ⋆ Footnote link to the article title.

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∗∗ These authors contributed equally to this work. [↑](#footnote-ref-1)