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| Book Name: | [**Chemical and Materials Sciences: Research Findings**](https://www.bookpi.org/bookstore/product/chemical-and-materials-sciences-research-findings-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_6099** |
| Title of the Manuscript:  | **Post-Processing Heat Treatment of LPBF 316L Steel: Influence on Mi-crostructure-Properties Evolution** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journals.**

**Materials, 18(5), 1102, 2025.**

**Available:** [**https://doi.org/10.3390/ma18051102**](https://doi.org/10.3390/ma18051102)

**Materials, 15(6), 684, 2025.**

**Available:** [**https://doi.org/10.3390/met15060684**](https://doi.org/10.3390/met15060684)

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| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **This manuscript presents an extended study on the effects of post-processing heat treatment on LPBF-fabricated 316L steel, focusing on microstructure evolution and its influence on mechanical properties. The topic is relevant to both additive manufacturing and materials science communities, especially given the growing adoption of LPBF techniques in industry. It contributes significantly by comparing different heat treatment conditions and their effects on phase formation and mechanical responses. The scientific approach appears rigorous, and the results are of interest to researchers working on metal additive manufacturing and component optimization.** |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **Yes.** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **Yes. It is upto the mark.** |  |
| **Is the manuscript scientifically, correct? Please write here.**  | **Definetly in the field of LPBF techniques. The manuscript demonstrates a sound experimental design, appropriate characterization techniques (SEM, XRD, hardness, etc.), and well-supported conclusions.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | **Yes.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes. |  |
| Optional/General comments |  |  |

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| **PART 2:**  |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  | *(If yes, Kindly please write down the ethical issues here in details)* |  |

**Reviewer details:**

**Sharath P C, India**