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Recent Advances in Multi-Material Metal Additive Manufacturing

Guest Editor:

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Deadline for manuscript submissions: **31 January 2025**



Message from the Guest Editor

Dear Colleagues,

Over the past 30 years, metal AM has evolved rapidly in various aspects. Many industrial sectors have started to adopt AM due to the unique capabilities. But the application space of the metal AM technologies has been limited to single-material components. On the one hand, it is the technical difficulties that have slowed down the advancement of multi-material AM; on the other hand, the lack of known applications resulted in less investments. This problem will be solved as multi-material AM becomes more accessible and the meso-scale design starts to be incorporated into the design philosophy.

For this Special Issue, researchers are encouraged to submit their novel studies which address the challenges specifically in multi-material metal AM, including but not limited to:

- 1. Design optimization;
- 2. Feedstock delivery methods;
- 3. Machine and laser control;
- 4. Scan strategy optimization;
- 5. Printing parameter optimization;
- 6. Process monitoring;
- 7. Characteristics of the multi-material interface;
- 8. Post-processing treatments;
- 9. Microstructural characteristics;
- 10. Mechanical performance;
- 11. Novel multi-material testing methods.







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Message from the Editor-in-Chief

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