Special Issue

Additive Manufacturing of Aluminum Alloys and Aluminum Matrix Composites (Second Edition)

Message from the Guest Editor

With significant advantages in specific strength and stiffness, aluminum alloys and aluminum matrix composites have been widely used in transportation, aerospace, and other applications. Additive manufacturing (AM) has great potential for the rapid customization and repairment of parts. At present, various additive manufacturing methods have been developed that could be generally categorized into fusion, solid-state, and binder jetting AM. The heat source in fusion AM includes laser, electron beam, and electric arc. The style of providing the supplementary material in fusion AM includes powder bed, deposited powder, and deposited wire. Solid-state AM generally includes cold spray, ultrasonic AM, and friction AM. Because of the diversity of the manufacturing methods and the unique properties of materials, it is important to perform comprehensive and comparative studies on the AM of aluminum alloys and aluminum matrix composites, which could provide a guide for selecting the most suitable AM method for industrial application.

Guest Editor

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Deadline for manuscript submissions

20 August 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/188024

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