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Lightweight Structural Materials for Automotive and Aerospace

Guest Editor:

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Deadline for manuscript submissions:
closed (31 August 2021)

Message from the Guest Editor

Although modern transport represents a vital part of the global economy, it is also a significant source of pollutants, contributing 13% of overall greenhouse gas and 25% of CO2 emissions coming from the combustion of fossil fuels. The application of materials with high strength-to-weight ratios in transportation vehicles, also known as lightweighting, is an important strategy for improving fuel economy and reducing harmful pollution. Thus, to withstand growing requirements of next-generation vehicles, there is a need for stronger and lighter innovative structural materials.

It is my pleasure to invite you to submit a manuscript to this Special Issue, which will focus on current and emerging structural metallic materials for automotive and aerospace applications. In addition to traditional Al-, Ti-, and Mg-based alloys, this SI will include novel lightweight high-entropy alloys that are also becoming candidates for substantial weight reduction. The scope will cover fundamental research, all aspects of alloy development, synthesis, heat treatment, component manufacturing, the structure–property relationship, testing, computer simulation, and application-related topics.

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Message from the Editor-in-Chief

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