



High Performance Copper Alloy

Guest Editor:

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Deadline for manuscript submissions:

closed (31 December 2023)

Message from the Guest Editor

Dear Colleagues,

High-performance copper alloys have attracted much attention because of their high mechanical strength, excellent electrical conductivity, and good fatigue properties as well as thermal stability, and include Cu-Cr-Zr alloys, Cu-Ni-Si alloys, Cu-Ag alloys, Cu-Mg alloys, Cu-Al₂O₃ composites, and Cu-W composites. High-performance copper alloys have been widely used in the fields of integrated circuit lead frames, resistance welding electrodes, vacuum contact switches, casting molds, high-speed rail transit, and thrust chambers of rocket engines.

It is important to improve existing copper alloys and develop novel copper alloys, including enhancing mechanical properties with comparable thermal or electrical properties in addition to improving high-temperature creep properties and high-temperature softening resistance. For oxide dispersion copper composites, it is necessary to explore production processes with a large size, high efficiency, and low costs.

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Message from the Editorial Board

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