

Experience in HIP Diffusion Welding of Dissimilar Metals and Alloys

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HIP solid-state diffusion welding is a controlled process during all stages of technological process. Unlike other known solid-state welding techniques the HIP allows to provide strong and dense welded joint with stability properties irrespective of the sizes and a configuration of welded materials contact surfaces.

Here we present some special pilot examples of HIP diffusion welding of dissimilar metals and alloys: steel XM19 to steel 316L, bronze Cu-Cr-Zr to steel 316L, copper M1 to steel Fe-18Cr-10Ni-Ti-C, titanium alloy Ti-6Al-4V to steel Fe-18Cr-10Ni-Ti-C, single-crystal molybdenum to polycrystal molybdenum.

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Materials

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