

2016

Effect Of Precipitation Processes In Aluminum Alloy 6101 T1 Used In The Electric Transmission Lines

M.D. Hadid, M. Zidani, T. Djimaoui, S. Messaoudi, L. Bessais, D. Miroud, M. H. Mathon, and T. Baudin

Abstract : Many experiments are performed on aluminum alloy 6101 T1 to characterize the processes of precipitate overcoming by the dislocations. It has been well known that the nuclei of metastable phases and composition fluctuation are found in an Al-Mg-Si alloy during the early stage of aging. The combined effects of high temperature and the cold drawing of this alloy caused a highest microhardness of the material accompanied by a development of a fibrous texture. The electrical resistivity of the alloy decreases with the increasing aging time.

Keywords : aging, dislocations, Aluminum alloy, Microhardness, Electrical resistivity