

Structure and crystallographic texture in the Cu-Cr-Ag alloy subjected to severe plastic deformation

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Abstract

© 2014 Advanced Study Center Co. Ltd. In this paper the effect of severe plastic deformation (SPD) on the structure and crystallographic texture in the Cu-Cr-Ag copper alloy have been investigated. In ultrafine-grained (UFG) samples processed by high pressure torsion (HPT), equal channel angular pressing (ECAP) and ECAP-Conform (ECAP-C) the average size of grains and precipitates was determined. Experimental pole figures (PF) have been obtained and the relevant crystallographic texture was evaluated. The effect of dynamic aging in the Cu-Cr-Ag alloy leading to improvement of strength and electrical conductivity was observed.
