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Microstructure, indentation and work hardening of Cu/Ag multilayers

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Abstract

Instrumented indentation and tensile tests were performed on free standing Cu/Ag multilayer thin films with layer thicknesses in the range 0.85–900 nm. The effect of layer thickness can be described by a Hall–Petch relationship. The work-hardening rate in the tensile test depends on layer thickness, which indicates that the interfaces create storage sites for dislocations and follows an inverse power law.

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