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Microstructure, indentation and work hardening of Cu/Ag multilayers

M. Verdier[§] , H. Huang[¶] , F. Spaepen, J. D. Embury & H. Kung

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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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Notes

§Present address: LTPCM (CNRS UMR 29), Domaine Universitaire, BP75 38402, St. Martin d'Hères Cedex, France.

¶Present address: General Atomic, Internal Fusion Technology Division, San Diego, CA, USA.

Additional information

Notes on contributors

M. Verdier§
§Present address: LTPCM (CNRS UMR 29), Domaine Universitaire, BP75 38402, St. Martin d'Hères Cedex, France.

H. Huang¶
¶Present address: General Atomic, Internal Fusion Technology Division, San Diego, CA, USA.

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