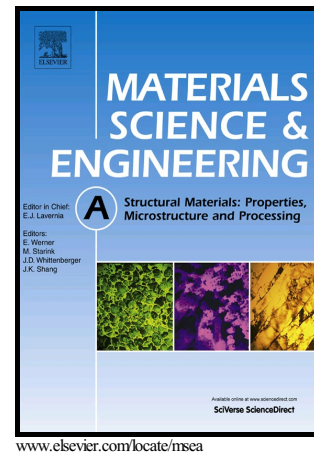


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Dislocation configuration and solute redistribution of low angle kink boundaries in an extruded Mg–Zn–Y–Zr alloy

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Abstract

The microstructural and chemical features of deformation-induced interfaces are one of key issues in engineering materials because they determine plastic deformation behavior and thus affect mechanical properties of the materials. Using atomic-resolution high-angle annular dark-field scanning transmission electron microscopy, we characterized deformation-induced low angle kink boundaries (LAKBs) in long period stacking ordered (LPSO) structures in an extruded Mg–2.3Zn–6.6Y–0.56Zr (wt.%) alloy. We clarified that the LAKB in LPSO phase consists

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