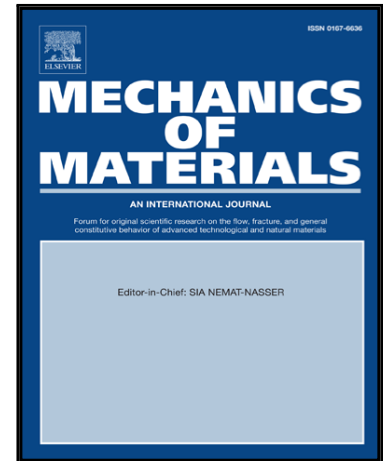


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A dislocation climb/glide coupled crystal plasticity constitutive model and its finite element implementation

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**Highlights**

- A dislocation climb/glide coupled crystal plasticity model was present
- Three contributions of dislocation climb to plastic deformation were considered
- The plastic and power law creep behavior of aluminum single crystal were well captured.

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