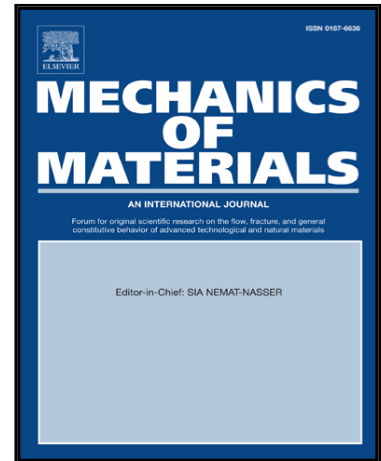


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Modeling of strain rate effect on the pseudoelastic behavior of NiTi SMA using a simple thermomechanical coupling model

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Highlights:

- The pseudoelastic behavior of NiTi wires, dedicated to the application of damping devices, under various stress/strain rates is numerically simulated;
- a thermomechanical coupling is introduced in the mechanical formulation and the thermomechanical behavior of NiTi under strain control is simulated;
- material parameters are identified via SiDoLo.
- numerical results achieved using FORTRAN code are presented and compared with experimental data.

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