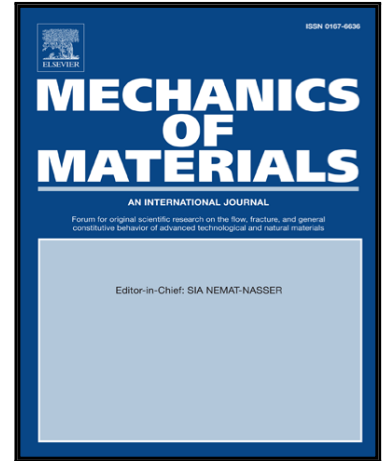


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Stress-state and Strain-Rate Dependent Ductile Fracture of Dual and Complex Phase Steel

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Highlights

- Performed 100+ ductile fracture experiments at low, intermediate and high strain rates on three Advanced High Strength Steels (AHSS)
- Carried out detailed finite element simulations of all experiments using a modified Johnson-Cook plasticity model with Swift-Voce hardening
- Validated hypothesis of positive strain rate effect on the ductility for biaxial tension
- Validated Hosford-Coulomb assumptions with regards to the Lode parameter and stress triaxiality dependency

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