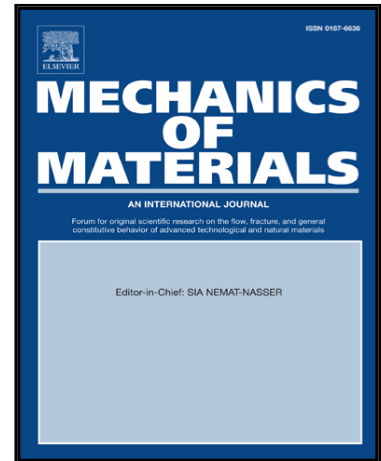


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Hardening prediction of diverse materials using the Digital Image Correlation technique

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HIGHLIGHTS

- Flow curves of diverse metallic sheet materials are extended beyond the necking limit to high deformation grades
- Digital Image Correlation techniques are utilized to extend flow curves from conventional tensile tests
- Several commonly used hardening models are fitted to extended experimental values
- Hardening model variables are provided for each analysed material
- Analysed sheet materials are classified in material families and optimum hardening model is selected for each family

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