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- Two micromechanically based composite models to study plastic deformation and texture evolution in initially isotropic polyethylene have been proposed.
- The models have been tested in uniaxial tension and simple shear.
- The predicted results agree with the experimental observations of macroscopic stress-strain behaviour and texture evolution in nearly all aspects.
- **The models can also be applied to study plastic deformation and texture evolution in other semicrystalline polymers.**



# Micromodelling of polyethylene materials

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